A FRAMEWORK FOR CAPACITY DEVELOPMENT:
CLOSING THE GAP
BETWEEN THEORY AND PRACTICE

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This thesis is presented for the degree of Doctor of Philosophy, Murdoch University

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I declare that this thesis is my own account of my research and contains as its main content work which has not previously been submitted for a degree at any tertiary education institution.

Davina Lee Boyd
Abstract

Capacity development has long been considered a cornerstone of development. While the development industry’s commitment to capacity development has been fraught with debate about its ambiguous nature and lack of associated success, after more than thirty years of experience, there is now widespread agreement that capacity development is a priority for development. There is also renewed understanding that an alternative development paradigm is at the core of capacity development and core principles and good practice guidelines are emerging. However, while there has been a transformation in thinking, much of the development industry is entrenched in existing practices and there remains a gap between the theory that is espoused and capacity development in practice.

Currently, the development industry is in transition. This transition is necessary and unavoidable if the development challenges faced by billions of people are to be addressed. This research sought to identify ways to facilitate this transition and close the gap between theory and practice. The research was underpinned by a pragmatic philosophical perspective. As such, a central aim of the research was to make a practical contribution to improving practice.

A design-based research methodology was used to carry out research into the practice of delivering two capacity development interventions: 1) the Public Sector Linkages Program (PSLP) Project; and, 2) the Sustainable Sanitation and Wetlands Technology (SSWT) Project. These interventions were designed to develop Indonesian capacity in water and sanitation. In design-based research, practice and research are carried out concurrently. This methodology provided an opportunity to advance understanding of the relationship between capacity development theory based on the alternative paradigm and improved practice.

A Framework for Capacity Development is the main outcome of this research. The Framework provides specific guidance regarding the design of capacity development interventions based on the alternative paradigm. The Framework was found to facilitate the design of interventions with improved processes and outcomes. Further application of the Framework in different contexts is recommended.
Publication List

Aspects of this thesis have been accepted for publication:


This paper won the 2008 *International Award for Excellence* in the area of environmental, cultural, economic and social sustainability.
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<th>Description</th>
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<tr>
<td>A</td>
<td>Stakeholder from Academia</td>
</tr>
<tr>
<td>AUS$</td>
<td>Australian Dollar</td>
</tr>
<tr>
<td>AusAID</td>
<td>Australian Agency for International Development</td>
</tr>
<tr>
<td>C</td>
<td>Stakeholder from the Community</td>
</tr>
<tr>
<td>CDRA</td>
<td>Community Development Resource Association</td>
</tr>
<tr>
<td>D</td>
<td>Documentation</td>
</tr>
<tr>
<td>DBR</td>
<td>Design-Based Research</td>
</tr>
<tr>
<td>DE</td>
<td>Documentation – Email</td>
</tr>
<tr>
<td>DI</td>
<td>Documentation – Image</td>
</tr>
<tr>
<td>DF</td>
<td>Documentation – Film</td>
</tr>
<tr>
<td>DFID</td>
<td>UK Department for International Development</td>
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<tr>
<td>DP</td>
<td>Design Principle</td>
</tr>
<tr>
<td>E</td>
<td>ETC team member</td>
</tr>
<tr>
<td>ECDPM</td>
<td>European Centre for Development Policy Management</td>
</tr>
<tr>
<td>ETC</td>
<td>Environmental Technology Centre</td>
</tr>
<tr>
<td>G</td>
<td>Stakeholder from Government</td>
</tr>
<tr>
<td>GC</td>
<td>Stakeholder from a Government Corporation</td>
</tr>
<tr>
<td>GSDRC</td>
<td>Governance and Social Development Resource Centre</td>
</tr>
<tr>
<td>H</td>
<td>Stakeholder from a Hospital</td>
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<tr>
<td>IG</td>
<td>Indonesian Guideline</td>
</tr>
<tr>
<td>I</td>
<td>IEMT team member</td>
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<tr>
<td>IDR</td>
<td>Indonesian Rupiah</td>
</tr>
<tr>
<td>IE</td>
<td>Indonesian Expert</td>
</tr>
<tr>
<td>IEMT</td>
<td>Institute for Environmental Management and Technology</td>
</tr>
<tr>
<td>IN</td>
<td>Stakeholder from Industry</td>
</tr>
<tr>
<td>INTRAC</td>
<td>International NGO Training and Research Centre</td>
</tr>
<tr>
<td>IWA</td>
<td>International Water Association</td>
</tr>
<tr>
<td>IWASA</td>
<td>Indonesian Water and Sanitation Association</td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium Development Goal</td>
</tr>
<tr>
<td>N</td>
<td>Stakeholder from Non Governmental Organisation</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organisation</td>
</tr>
<tr>
<td>O</td>
<td>Observation</td>
</tr>
<tr>
<td>OECD DAC</td>
<td>Organisation for Economic Cooperation and Development – Development Assistance Committee</td>
</tr>
<tr>
<td>P</td>
<td>PSLP Primary Stakeholder</td>
</tr>
<tr>
<td>PS</td>
<td>Primary stakeholder who participated in the PSLP and SSWT Projects</td>
</tr>
<tr>
<td>PSLP</td>
<td>Public Sector Linkages Program</td>
</tr>
<tr>
<td>Q</td>
<td>Questionnaire</td>
</tr>
<tr>
<td>R</td>
<td>Reviewer</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>RQ</td>
<td>Research Question</td>
</tr>
<tr>
<td>RWH</td>
<td>Rainwater Harvesting</td>
</tr>
<tr>
<td>S</td>
<td>SSWT Primary Stakeholders</td>
</tr>
<tr>
<td>SI</td>
<td>Structured Interview</td>
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<tr>
<td>SSI</td>
<td>Semi-structured Interview</td>
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<tr>
<td>SSWT</td>
<td>Sustainable Sanitation and Wetland Technology</td>
</tr>
<tr>
<td>SuSAN</td>
<td>Sustainable Sanitation</td>
</tr>
<tr>
<td>SWOT</td>
<td>Strengths, Weaknesses, Opportunities and Threats</td>
</tr>
<tr>
<td>T</td>
<td>Stakeholder who is a Teacher</td>
</tr>
<tr>
<td>TDA</td>
<td>Training Demand Assessment</td>
</tr>
<tr>
<td>TM</td>
<td>Team Member</td>
</tr>
<tr>
<td>TOT</td>
<td>Training-of-Trainers</td>
</tr>
<tr>
<td>UI</td>
<td>Unstructured Interview</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Program</td>
</tr>
<tr>
<td>UNEP-IETC</td>
<td>United Nations Environment Program – International Environmental Technology Centre</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children Fund</td>
</tr>
<tr>
<td>UNMER</td>
<td>Merdeka University</td>
</tr>
<tr>
<td>US$</td>
<td>United States Dollar</td>
</tr>
<tr>
<td>USAID ESP</td>
<td>United States Agency for International Development – Environmental Services Program</td>
</tr>
<tr>
<td>WDM</td>
<td>Water Demand Management</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organisation</td>
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<tr>
<td>WWF</td>
<td>World Wildlife Fund</td>
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<tr>
<td>WWR</td>
<td>Wastewater Reuse</td>
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Glossary

The glossary is presented in two parts: 1) Development Glossary: this section includes terms used in this research that are specific to the vernacular of the development industry and the case studies presented in this research; and, 2) Indonesian Glossary: this includes Indonesian terms, acronyms and phrases used in this research.

DEVELOPMENT GLOSSARY

From AusAID (n.d.); Chambers (2005); Development Assistance Committee (DAC) (2002); Development Resource Centre (2005); DFID (n.d.); Femmes Africa Solidarite (n.d.); Norwegian People’s Aid (2003); OECD (2003).

Activity
Activities are carried out to achieve the outputs of a project, program or intervention.

Aid
The words “aid” and “assistance” refer to flows of money which qualify as Official Development Assistance (ODA) or Official Aid (OA).

Beneficiary
Individuals, organisations or groups that receive the benefits of a development project, program or intervention. In this research the term stakeholder is used instead of beneficiary.

Bilateral aid
Aid given from the government of one country to the government of another country.

Bilateral agency
Bilateral agencies are government agencies from a single country which provide aid to developing countries (e.g., AusAID, USAID, DFID, JICA, DANIDA, SIDA) they are also referred to as international development agencies.

Capacity building
The term capacity building precedes capacity development; the transition to capacity development began in the 1990s. Capacity building has connotations of construction, building and design which reflect the idea that capacity is built from nothing. Capacity development, on the other hand, recognises that capacity develops from an existing base and can be associated with adaptation, facilitation, improvement and growth. These terms are used interchangeably in this research. See also Chapter One (§ 1.3).
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Capacity development</td>
<td>The process of learning and change that better enables individuals, groups, organisations and societies to respond to development challenges with sustainable outcomes.</td>
</tr>
<tr>
<td>Developed country</td>
<td>High income countries. Also known as Northern countries or the North.</td>
</tr>
<tr>
<td>Developing country</td>
<td>Country in which a large proportion of the population is very poor; may refer to low GDP per capita and/or low measures in other indices such as the Human Development Index (HDI) (refer to <a href="http://hdr.undp.org/en/">http://hdr.undp.org/en/</a>).</td>
</tr>
<tr>
<td>Development practitioner</td>
<td>A person working in the international development sector.</td>
</tr>
<tr>
<td>Donor</td>
<td>Somebody who provides a financial contribution or assistance in kind to organisations such as governments and civil society (local and international). A donor may be a bilateral agency, multilateral agency or a philanthropic organisation.</td>
</tr>
<tr>
<td>Good practice</td>
<td>Implementation cases that can be role models for others.</td>
</tr>
<tr>
<td>Grassroots</td>
<td>An activity driven by the constituents of a community, as opposed to being organised by central power structures.</td>
</tr>
<tr>
<td>Impact</td>
<td>Positive and negative long term effects produced by a development intervention, directly or indirectly, intended or unintended.</td>
</tr>
<tr>
<td>Input</td>
<td>The financial, material and human resources used for a development intervention.</td>
</tr>
<tr>
<td>Intergovernmental organisations</td>
<td>Organisations whose members are sovereign states or other intergovernmental organisations (IGOs); such as the European Union, World Trade Organisation and United Nations.</td>
</tr>
<tr>
<td>Intermediary stakeholder</td>
<td>The individuals, groups or organisations that may facilitate the capacity development process (alternates team member; project member; beneficiary).</td>
</tr>
<tr>
<td>International development agencies</td>
<td>Agencies that work in the area of international development, in particular bilateral agencies such as the Australian International Agency for Aid and Development [AusAID]; Canadian International Development Agency [CIDA] Swedish International Development Agency [SIDA] and Japanese International Cooperation Agency [JICA]).</td>
</tr>
<tr>
<td>Intervention</td>
<td>Any action designed to achieve development outcomes (this includes projects and programs).</td>
</tr>
</tbody>
</table>
**Multilateral aid**
Aid that is given by several countries for the benefit of multiple countries. International organisations which coordinate this aid include World Bank, Asian Development Bank, United Nations Development Programme (UNDP), UNICEF, World Food Programme (WFP).

**Multilateral agency**
These are international institutions with governmental membership which conduct all or a significant part of their activities in favour of development and aid recipient countries. They include multilateral development banks (e.g. World Bank, regional development banks), United Nations agencies, and regional groupings (e.g. certain European Union and Arab agencies).

**Non-governmental organisations (NGO)**
A voluntary, not-for-profit community organisation, which undertakes international development cooperation and/or development education (e.g., Bangladesh Rehabilitation Assistance Committee [BRAC], Oxfam and World Vision).

**North**
High-income countries. Also known as Developed Countries (DC).

**Official Development Assistance (ODA) or Official Aid**
Flows of official financing administered with the promotion of the economic development and welfare of developing countries as the main objective, and which are concessional in character with a grant element of at least 25 percent. By convention, ODA flows comprise contributions of donor government agencies, at all levels, to developing countries ("bilateral ODA") and to multilateral institutions. ODA receipts comprise disbursements by bilateral donors and multilateral institutions.

**Outcome**
The likely or achieved short-term and medium-term effects of an intervention’s outputs

**Output**
The results that can be guaranteed by the project as a consequence of its activities

**Participant**
Individuals who are involved in the activities of an intervention and/or research (alternates stakeholder; intermediary stakeholder; primary stakeholder)

**Primary stakeholder**
The individuals, groups, organisations or societies whose capacity is developed through the capacity development process; these stakeholders are locals.
**Program**
A proposed plan with a medium to long-term horizon and possibly without a defined end, often incorporating strategic objectives, multiple projects and activities.

**Project**
Activities which have identifiable objectives, outputs, time frames and implementation plans. Projects may be funded on a single year or multi-year time basis (alternate *intervention*).

**South**
Low income countries; encompasses Developing Countries (DCs) and Least Developed Countries (LDCs).

**Stakeholder**
Agencies, groups, organisations or individuals who have a direct or indirect interest in a development intervention, includes primary and intermediary stakeholders (alternates primary stakeholder; intermediary stakeholder; participant; beneficiary; target group).

**Technical cooperation/Assistance**
Technical co-operation is the provision of advice and/or skills, in the form of specialist personnel, training and scholarship, grants for research and associated costs.

**Team member**
An individual working on the capacity development interventions (alternates intermediary stakeholder).

---

**INDONESIAN GLOSSARY**
From Ecols and Shadily (1991)

**ALTRUIS**
Local Malang based NGO

**Arisan**
A regular social gathering whose members contribute to and take turns winning an aggregate sum of money

**Batu**
City in East Java – 17km from Malang

**Bapedal Jatim**
Environmental Impact Agency

**Bappenas**
National Planning and Development Agency

**Blitar**
City in East Java – approximate 75km from Malang

**Bupati**
Regent – government officer in charge of a regency

**Camat**
Sub-district head

**Kabupaten**
Regency, similar to a district

**Kampung**
Village (urban and rural)
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>KKN (Korupsi, Kolusi, Nepotism)</td>
<td>Corruption, collusion and nepotism</td>
</tr>
<tr>
<td>Kota</td>
<td>City, town</td>
</tr>
<tr>
<td>LSM (Lembaga-lembaga Swadaya Masyarakat)</td>
<td>Non-governmental organisation</td>
</tr>
<tr>
<td>Lurah</td>
<td>Village chief</td>
</tr>
<tr>
<td>Malang</td>
<td>City in East Java – location of case studies</td>
</tr>
<tr>
<td>MCK (Mandi Cuci Kakus)</td>
<td>Public bathing, washing and toilet facilities</td>
</tr>
<tr>
<td>Microlet</td>
<td>Small motorised vehicle (usually minibus) for public transportation</td>
</tr>
<tr>
<td>Passionis</td>
<td>Catholic seminary in Malang</td>
</tr>
<tr>
<td>PDAM (Perusahaan Daerah Air Minum)</td>
<td>Government water corporation operating municipal waterworks and water supply services</td>
</tr>
<tr>
<td>PKK (Pendidikan Kesejahteraan Keluarga)</td>
<td>Program at village level to educate women on various aspects of family welfare</td>
</tr>
<tr>
<td>Propaganda</td>
<td>Publicity, to publicise</td>
</tr>
<tr>
<td>PUSKESMAS (Pusat Kesehatan Masyarakat)</td>
<td>Local government health clinic</td>
</tr>
<tr>
<td>PU Pusat</td>
<td>Local public works department</td>
</tr>
<tr>
<td>RT (Rukun Tetangga)</td>
<td>Neighbourhood association, the lowest administrative unit, responsible for managing 100 households</td>
</tr>
<tr>
<td>RW (Rukun Warga)</td>
<td>Administrative unit at the next-to-lowest level in city, consisting of several RTs</td>
</tr>
<tr>
<td>Salak</td>
<td>Edible spiny plant</td>
</tr>
<tr>
<td>Taman tanaman air</td>
<td>Constructed wetland for waste water treatment</td>
</tr>
<tr>
<td>Uang rokok</td>
<td>Cigarette money, colloquial term for a petty bribe</td>
</tr>
<tr>
<td>Walikota</td>
<td>City mayor</td>
</tr>
</tbody>
</table>
Acknowledgements

I would like to begin by thanking my supervisors, Rob Phillips and Goen Ho. Rob, thank you for your unwavering support and spirited guidance and Goen for your encouragement and astute direction. Thanks also to my third, albeit unofficial, supervisor Jeff Sturman and wife Ange, for your friendship and wisdom.

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Chapter 1. Introduction

1.1. A world wide water and sanitation crisis

Globally, 884 million people do not have access to safe drinking water and 2.5 billion people lack basic sanitation (WHO and UNICEF 2008). While some claim that “there is an impending world wide water and sanitation crisis” (IWA n.d.) those people living without access to safe drinking water or basic sanitation might argue that the crisis is already a reality. The ramifications of inadequate water supply and poor sanitation are devastating and pervasive. For example, as many as 5000 children in the world die every day from diarrhoeal diseases associated with poor sanitation and water quality (WHO and UNICEF 2005). Access to safe water and sanitation are cross-cutting development issues. The associated health improvements are considered the keys to unlocking economic growth and productivity and thereby contributing to poverty alleviation (World Vision and Water Aid 2007). Regardless of whether the crisis is impending or extant, there is international consensus that further action is required.

In 2000, world leaders from 189 countries adopted the Millennium Development Goals (MDGs). Eight MDGs are intended to respond to the world’s main development challenges thereby reducing poverty and improving lives (UNDP 2005). The seventh of these goals aims to ensure environmental sustainability; under this goal the target is to halve by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation (UN 2000). At the midpoint between the adoption of the MDGs and the target date, estimates indicate that if trends since 1990 continue the target for sanitation is likely to be missed by almost 600 million people (UN 2007 p.25). Data relating to water are as yet unavailable.

If the MDGs and related targets such as those for water and sanitation are to be achieved, it is widely agreed that capacity development is one of the highest priority areas. As reported by the Organisation for Economic Cooperation and Development (OECD) (2006 p.3) “adequate country capacity is one of the critical missing factors in current efforts to meet the MDGs”. Similarly, according to the World Health Organisation and their partner agencies, in order to meet basic sanitation demand by 2015, capacity development is one of eleven key areas,
stating that “unless national capacity grows, nothing much will change” (WHO and UNICEF 2005 p.24).

Yet, while capacity development is identified as a priority, capacity development is contentious. Capacity development is criticised for its ambiguous nature and inadequate theory (CDRA 1995; Lusthaus, Adrien, and Perstinger 1999; Kaplan 2000; Eade 2007). What is more, capacity development interventions are frequently criticised for crushing local capacity, utilising inappropriate methods, wasting resources, ignoring local wishes and fixating on results (ECDPM 2002; Fukuda-Parr, Lopes, and Malik 2002; Potter and Brough 2004; Eade 2007).

In response to these criticisms capacity development is being reconceptualised. However, while a consensus regarding capacity development core principles and good practice guidelines is emerging (e.g., Lopes and Theisohn 2003; James and Hailey 2007) the development industry is in many respects entrenched in existing practices. These well established practices provide a barrier to changing practice and create an environment where the theory about capacity development that is espoused is not the theory used in practice. However, it is argued in this research that these practices and new thinking are not necessarily incompatible. If capacity development is going to respond to development challenges such as those pertaining to water and sanitation, practical guidance regarding ways to incorporate new thinking into existing practices is needed. The present research reflects the need for capacity in water and sanitation and the need for improvements in the practice of developing that capacity based on this new thinking.

1.2. Purpose of this research

This research had two main aims:

1. To explore the processes and outcomes (practice) of developing capacity in order to further understand the complexity associated with delivering capacity development interventions.

2. To identify aspects of capacity development process that might benefit from improvement.

In achieving these aims, this research focused on identifying ways to incorporate the core principles of capacity development and good practice guidelines into existing practices. To this
end, the research sought to develop, apply and evaluate a Framework for Capacity Development. The Framework is intended to provide practical guidance regarding the way capacity development interventions are designed and implemented for improved outcomes. In the context of this research, improvement is described as delivering capacity development interventions that:

- Better meet the needs of stakeholders
- Enable stakeholders to facilitate change and learning in the area of water and sanitation, as demonstrated by their actions both during and after the intervention
- Develop capacity that leads to sustained action beyond the timeframe of the intervention.

The purpose of the research, therefore, is to develop, apply and evaluate the Framework for Capacity Development and demonstrate that capacity development practice can be improved through use of the Framework presented. At the same time, through the development of the Framework, the research aims to contribute to understanding regarding the complexity of developing capacity.

1.3. Scope of the research

Capacity development has long been used to support development agendas such as those pertaining to water and sanitation, yet, ‘capacity development’ has contested meanings. Capacity development does not have a well defined body of knowledge (World Bank 2006), nor is there a clear or commonly agreed upon definition. The concept of capacity development will be discussed further in the Chapter Two. However, given this ambiguity, capacity development is defined here for the purposes of this research and the process of developing capacity is summarised. The type of capacity development interventions for which this research is especially relevant are also described.

1.3.1. Definitions

1.3.1.1. Capacity development

Capacity development is defined in a range of ways. Two definitions that illuminate some of the distinctions are presented here.
1. Capacity development as an approach to development:

Capacity building [development] is an approach to development, not something separate from it. It is a response to the multi-dimensional processes of change, not a set of discrete or pre-packaged technical interventions intended to bring about a pre-defined outcome. (Oxfam 2004 p.4)

As an approach to development, capacity development is viewed as a course of action or “the way to do development” (Lusthaus, Adrien, and Perstinger 1999 p.9). This thinking is echoed in claims that capacity development is everything that development agencies do (Eade 1997; Lavergne and Saxby 2001).

2. Capacity development as a process:

Capacity development is a process by which individuals, groups, organisations and societies enhance their abilities to identify and meet development challenges in a sustainable manner. (Lavergne and Saxby 2001 p.4)

Capacity development as a process reflects the idea that capacity development is something that individuals, groups, organisations and societies do for themselves (Lavergne and Saxby 2001). This process can be facilitated by outside partners but it is essentially an endogenous process (ibid.).

In addition to being defined as an approach or process, a further distinction is made between whether it is a means or an end. According to Morgan (2006 p.17) capacity is not simply “a means to an end…capacity must be seen as both an end in itself and means to other development objectives”.

However, while different perspectives are apparent in the definitions proffered, Eade (1997 p.35) notes that it is “often a question of emphasis or degree” and capacity development is often simultaneously viewed as approach, process, means and end. It is not the intention of this research to contribute to the debate regarding definitions. Instead, the definition of capacity
development used in this research incorporates these different perspectives. Capacity
development is defined as:

A process of learning and change that better enables individuals, groups,
organisations and societies to respond to development challenges with
sustainable outcomes.

This definition emphasises that capacity development is a process through which capacity is
developed. This process may involve everything that the development industry does, so in that
sense capacity development is also considered an approach. Through this process specific
capacity may be developed both as an end in itself and as a means for responding to other
development challenges.

1.3.1.2. Capacity

The term ‘capacity’ is used broadly and is used interchangeably with abilities, capabilities,
capital and competencies as well as to convey all of these concepts. Morgan (2006 p.8)
describes capacity as the “overall ability” or “emergent combination of attributes” that enable an
individual or group to “perform” and “create development value”. This overall ability includes the
specific capabilities required to act and the competence to do so (Franks 1999).

A number of frameworks have been developed to characterise capacity further; these focus on
the different kinds of capacity. These frameworks highlight the broad range of capabilities
required by individuals, organisations, institutions and societies in order to respond to complex
issues of change and development. The various characterisations also illustrate that these
capabilities can be tangible or intangible (Lavergne and Saxby 2001) and have ‘hard’ (e.g.,
skills, functions, structures, systems, technology) and ‘soft’ (e.g., motivational and process)
elements (Hunt 2005).
James and Hailey (2007 p.17) distinguish between three kinds of capabilities:

1. **Human**: for example attributes that can be found in individuals, their skills, knowledge, experience, values and attitudes
2. **Relational**: for example shared values or belief systems, networks of groups or organisations with a common cause, sharing information
3. **Resource**: for example tangible resources such as money, buildings and computers and intangible resources such as time and knowledge.

In the community development literature the Five Capital Framework (Moore, Severn, and Millar 2006 p.363) differentiates between five areas of capital that can be used to describe community capacity. They are:

1. **Natural**: extractable natural resources, ecosystem services and appreciation of nature
2. **Social**: social norms (e.g., trust, reciprocity, value, attitudes) and networks and relationships
3. **Human**: knowledge, skills and experience
4. **Institutional**: governance arrangements
5. **Economic**: financial resources and harvested products

According to Eade (2007 p.633) capacities can be characterised as “intellectual, organisational, social, political, representational, material, technical, practical or financial”.

There is considerable overlap between the frameworks. James and Hailey’s (2007) Framework is the simplest, but it ignores governance arrangements, and political and organisational capacities. The Five Capital Framework is more comprehensive, but because of its emphasis on capital it may unnecessarily distinguish between economic and natural resources and does not include other kinds of resources such as physical resources. Eade’s (2007) Framework is the most elaborate and includes nine characterisations of capacity.

A simplified version of the Five Capital Framework is used in this research. This framework is comprehensive, but not overly complex. The framework used in this research distinguishes
between social, human, institutional and resource capacity. Natural and economic resources are combined into one category as this distinction is not relevant to this research. Throughout this research, ‘capacity’, ‘capital’ and ‘capabilities’ are used interchangeably.

1.3.2. The process of developing capacity

The process of developing capacity is visualised in Figure 1.1 as a concept map. The characteristics of this process are expressed by a series of boxes which can be linked together to form sentences. At the core of this conceptualisation is the definition used in this research that describes capacity development as a process of facilitating learning and change in individuals, groups, organisations and societies so they are better able to respond to development challenges with sustainable outcomes.

The figure illustrates the roles of different stakeholders involved in capacity process, highlighting the endogenous and exogenous elements of the process. Stakeholders are defined as anyone with a stake in the process of developing capacity. In this research a distinction is made between three groups of stakeholders:

1. **Donors**: the organisations or individuals that provide funding for capacity development which are often tied to specific objectives.

2. **Primary stakeholders**: the individuals, groups, organisations or societies whose capacity is developed through the process.

3. **Intermediary stakeholders**: the individuals, groups or organisations that may facilitate the capacity development process including local and external stakeholders.

The figure shows that the process of developing capacity can occur directly through the actions of primary stakeholders, or can be facilitated by intermediary stakeholders through specific interventions. The distinction between primary stakeholders and intermediary stakeholders is represented as solid versus dashed lines.
Figure 1.1 The capacity development process
The figure also highlights the recursive nature of capacity development, where intermediary and primary stakeholders are both engaged in a process of learning and change and require:

- The **motivation and commitment** to engage in the process
- Specific **abilities** that facilitate learning and change
- **Attitudes** that support learning and change
- An understanding of the **local context** in which learning and change takes place

The capacity development process is elaborated in Chapter Two.

**1.3.3. Capacity development interventions**

The capacity development process involves the delivery of interventions intended to facilitate the development of capacity. Although not exhaustive these interventions can include activities such as training, mentoring, peer networking, funding, public-private partnerships, inter-country exchanges, joint publications and seminars. These activities may be targeted at individuals, communities, organisations or societies. In addition, an intervention may be short-term or long-term, and can be a one-off intervention (project) or delivered as part of an ongoing intervention (program).

The capacity development interventions for which this research is especially relevant can be described as follows:

- **Non-formal training and awareness raising activities:** The research aims to improve capacity development interventions that include direct activities such as non-formal training and awareness raising activities. These activities take place “outside of the formal education system” (Tight 2002 p.71) and have a broad range of objectives typically associated with developing human capacity (e.g., knowledge, skills and awareness).

- **Developing individual capacity:** The focus of the research is on improving interventions that aim to develop individuals' capacity to facilitate learning or promote change in the area of water and sanitation. The primary stakeholders (or target audience) for these interventions include, but are not limited to, local government officials, community leaders,
academics and non-governmental organisation (NGO) staff. These individuals are for the most part educated and middle class and as such the interventions being studied are distinguishable from those that use a grassroots approach.

- **Fixed and short term:** The research is concerned with facilitating improvements in capacity development interventions that have a fixed and relatively short term (e.g., one month to one year) such as projects. The Framework has specifically been developed to improve the practice of delivering capacity development with these time constraints in mind.

- **Developing Indonesian capacity in water and sanitation:** This research explores the process of developing capacity in water and sanitation in Indonesia. However, the research is not intended to be an in-depth analysis of Indonesian culture, nor a comprehensive study of capacity development interventions on water and sanitation. Instead, these capacity development interventions provide the context for developing the Framework for Capacity Development and improving practice.

Given the scope of the research this study employs an interdisciplinary approach drawing on a wide range of literature. The fields of study that inform the research include development studies, leadership, management, education, risk management and cross-cultural differences.

1.4. **Overview of the research approach**

Two capacity development interventions served as case studies for the research. These interventions took place consecutively over a period of four years. They were the Public Sector Linkages Program (PSLP) Project and the Sustainable Sanitation and Wetland Technology (SSWT) Project. These interventions were carried out in Indonesia by staff from Murdoch University's Environmental Technology Centre (ETC), Perth, Western Australia and Merdeka University's Institute for Environmental Management and Technology (IEMT), Malang, East Java. The ETC and IEMT staff members are the intermediary stakeholders and are either referred to as such or referred to as team members in this research. The PSLP Project was funded by the Australian Agency for International Development (AusAID) (the donor) and the
SSWT Project was funded privately. Both interventions aimed to develop Indonesian capacity in water and sanitation.

Using a design-based research methodology (see Chapter Three), the Framework for Capacity Development was developed, applied and evaluated. The study design comprised of four stages:

1. PSLP case
2. SSWT case
3. Outcomes assessment
4. Expert review

Each stage of the research included some or all of the phases of analysis, development, testing and evaluation, and synthesis and reflection.

The main objectives and research questions for each stage of the research are presented below.

1.5. Research questions and objectives

The research described here sought to address the overarching research question:

How can the practice of developing capacity be improved?

In answering this question, the main objective of the research was to develop a Framework for Capacity development that improves the process and outcomes of capacity development practice.

Each stage of the research was guided by the central research question as well as a number of core questions and sub-questions. The objectives and core research questions for each stage of the research are presented here. The sub-questions are presented in each of the corresponding chapters.
1.5.1. Stage 1: PSLP case

The main objectives of stage one of the research were to analyse those factors that impacted on the success of the PSLP Project and identify potential areas of improvement that could inform the Framework for Capacity Development. As such, inquiry into the PSLP Project sought to answer the question:

RQ1.1 What factors impacted on the success of the PSLP Project?

The PSLP case is presented in Chapter Four.

1.5.2. Stage 2: SSWT case

The SSWT Project was implemented based on application of the preliminary Framework for Capacity Development derived from stage one. The inquiry into the SSWT Project, not only provided an additional opportunity to explore those factors that impact on the success of capacity development interventions, but also to evaluate the Framework and provide the basis for both improving and validating the Framework. The core research questions for stage two of the research were:

RQ2.1 What factors impacted on the success of the SSWT Project?
RQ2.2 Was the SSWT Project improved compared with the PSLP Project?
RQ2.3 How can the Framework be refined and improved?

The SSWT case is presented in Chapter Five.

1.5.3. Stage 3: Outcomes assessment

The longer term outcomes of the PSLP and SSWT Projects were assessed and compared in the third stage of the research in order to determine whether the Framework led to improvements in the process and outcomes of capacity development interventions. This assessment was guided by the following question:

RQ3.1 Does application of the Framework in the SSWT Project facilitate improved outcomes compared with the PSLP Project?
The outcomes assessment findings are presented in Chapter Six.

1.5.4. Stage 4: Expert review

An expert review was conducted in the fourth and final stage of the research. The main aims of the review were to evaluate and validate the Framework as a tool for improving capacity development practice. The review addressed two central research questions:

RQ4.1 What is the utility of the Framework in terms of improving the design, implementation and outcomes of capacity development interventions?

RQ4.2 How can the Framework be refined and improved?

The results of the expert review are presented in Chapter Seven.

The core research questions are presented in Table 1.1. The research questions are referred to throughout the thesis using the question numbers provided in this table along with the code RQ.

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
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<tbody>
<tr>
<td>0</td>
<td>How can the practice of developing capacity be improved?</td>
</tr>
<tr>
<td>1.1</td>
<td>What factors impacted on the success of the PSLP Project?</td>
</tr>
<tr>
<td>2.1</td>
<td>What factors impacted on the success of the SSWT Project?</td>
</tr>
<tr>
<td>2.2</td>
<td>Was the SSWT Project improved compared with the PSLP Project?</td>
</tr>
<tr>
<td>2.3</td>
<td>How can the Framework be refined and improved?</td>
</tr>
<tr>
<td>3.1</td>
<td>Does application of the Framework in the SSWT Project facilitate improved outcomes compared with the PSLP Project?</td>
</tr>
<tr>
<td>4.1</td>
<td>What is the utility of the Framework in terms of improving the process and outcomes of capacity development interventions?</td>
</tr>
<tr>
<td>4.2</td>
<td>How can the Framework be refined and improved?</td>
</tr>
</tbody>
</table>

1.6. Structure of the thesis

This thesis consists of eight chapters. Chapter Two presents a synthesis of the literature relating to capacity development including those literature-based findings that contributed to understanding regarding capacity development. The philosophical perspective, methodological
approach, study design and methods used in this research are presented in Chapter Three. Chapters Four and Five describe the case studies and present the findings of the inquiries into the PSLP and SSWT Projects. The outcomes of these interventions are assessed in Chapter Six. The results of the Framework evaluation and validation are presented in Chapter Seven along with the final version of the Framework for Capacity Development. In Chapter Eight, the main findings of the research are summarised, with reference to the initial research questions. The implications of these findings are assessed and claims are made for the original contributions to knowledge of this research. Recommendations for further work are also presented.
Chapter 2. Capacity Development

2.1. Introduction

This Chapter presents an overview of capacity development. The development industry is introduced contrasting the conventional and alternative development paradigms. This provides a basis for understanding the emerging consensus regarding capacity development and the barriers to changing practice. The core part of this Chapter discusses capacity development practice, describing it in the context of the alternative paradigm. It also provides an initial understanding of what improved capacity development practice might look like.

It is important to note that, while there is a great deal of information and literature about capacity development, capacity development is not yet an academic discipline in its own right and it does not have a codified body of knowledge.

This research is interdisciplinary and draws on a range of literature. It can be described as the scholarship of integration “making the connections across the disciplines, placing the specialties in a larger context, illuminating data in a revealing way and often educating non-specialists” (Boyer 1990 p.16). The interdisciplinary nature of this research requires that, while the subject of capacity development is dealt with comprehensively, a range of other topics are dealt with only at the level necessary to integrate ideas for the purpose of understanding and improving capacity development.

2.2. The development industry

Today, a vast ‘development industry’ exists. This industry has evolved in response to changing ideas about development. A comprehensive discussion of these ideas, including discussion of the historical events that underpin these changes in thinking, is beyond the scope of this research. Instead, by way of introduction to the development industry, the conventional development paradigm, on which the development industry was founded, is contrasted with an alternative development paradigm.
According to Dichter (2003 p.50-53) several ideas formed the basis of the development industry:

- Development can be intentional instead of simply occurring
- Development can be done for or on behalf of others
- Poverty, instead of being a part of society, is a deplorable condition associated with underdevelopment

These ideas were articulated in Harry Truman’s inaugural presidential address in 1949:

We must embark on a bold new program for making the benefits of our scientific advances and industrial progress available for the improvement and growth of underdeveloped areas. More than half the people of the world are living in conditions approaching misery. Their food is inadequate, they are victims of disease. Their economic life is primitive and stagnant… For the first time in history humanity possesses the knowledge and the skill to relieve the suffering of these people… I believe that we should make available to peace loving peoples the benefits of our store of technical knowledge in order to help them realise their aspirations for a better life… Greater production is the key to prosperity and peace. And the key to greater production is a wider and more vigorous application of modern scientific and technical knowledge. (cited in Escobar 1995 p.3)

This speech changed the idea of development forever. From that moment, “two billion people became underdeveloped… [and] ceased being what they were, in all their diversity” (Esteva 1992 p.16). At the same time, the “modern development endeavour” (Dichter 2003 p.42) also referred to as the “development project” (McMichael 2000 p.7) gained impetus. This ‘project’ is founded on what is referred to in this thesis as the conventional development paradigm. Apart from the ideas that development is done on behalf of others (Dichter 2003 p.48) and that it involves helping people escape from the undignified condition called underdevelopment (Esteva 1992 p.16) the underlying assumptions of this paradigm are summarised by Kaplan (1999 p.15-17) as follows:
• Development is created
• Developing countries lack specific skills, abilities and knowledge
• Existing capacities are ignored
• There is a single development pathway i.e. Western
• There is one knowledge system i.e. Western
• There is a preferred cultural or value system i.e. Western
• Development is linear and predictable

The development practice that evolved out of these assumptions centred on transferring resources, for example, through investments in infrastructure, loans and the provision of aid money (Kaplan 1999). There was also particular emphasis on providing know-how in the form of technical assistance (Morgan 2002).

This paradigm can be contrasted with the alternative development paradigm. Throughout the ‘development project’ certain sectors, such as non-governmental organisations, have challenged the conventional ideas about development. While some critics claim what is needed is rejection of the idea of development altogether others advocate for practice based on an alternative development paradigm (Escobar 1995). This alternative paradigm, described by Kaplan (1999 p15-17), assumes that:

• Development is driven by those seeking to develop
• Development is a process
• Developing countries have a range of existing skills and abilities
• Existing capacities should be developed
• There are multiple development pathways
• There are multiple knowledge systems
• There are different cultural and value systems and they are regarded equally
• Development is nonlinear, complicated and unpredictable
Within this paradigm developing countries drive the development process. This paradigm challenges power structures, and individuals and organisations that make up the development industry become partners in the process. This paradigm recognises the complexity of the development project and understands that solutions cannot simply be provided. This paradigm also supports development practice that involves facilitating resourcefulness (Kaplan 1999).

Emerging as a concept in the 1980s (Lavergne and Saxby 2001) capacity development was born out of ideas consistent with the alternative paradigm. As described by Eade (2007)

…its early origins lay in the belief that the role of an engaged outsider is to support the capacity of local people to determine their own values and priorities, to organise themselves to act upon and sustain these for the common good, and to shape the moral and physical universe that we all share. (p.632)

However, to date, much of capacity development practice has been more aligned with the conventional paradigm (see § 2.3).

Capacity development based on this conventional paradigm has had limited success (Escobar 1995; Kaplan 1999). Capacity development interventions have been criticised for crushing local capacity, utilising inappropriate methods, wasting resources, ignoring local wishes and fixating on results (ECDPM 2002; Fukuda-Parr, Lopes, and Malik 2002; Potter and Brough 2004; Eade 2007). Concurrently, the ambiguous nature of capacity development (see § 1.3) has been widely debated. This debate has included claims that:

- Capacity development has been reduced to a catchphrase (Eade 1997; Lusthaus, Adrien, and Perstinger 1999; Kaplan 2000)
- Inadequate theory regarding capacity development diminishes practitioners' ability to engage in the practice (CDRA 1995)
- Without a clear understanding of capacity development, the potential for learning about capacity development is undermined as it is impossible to determine whether capacity development has been successful or if it has failed (James and Hailey 2007)
These criticisms and debates have provided impetus for reconceptualising capacity development. Within the development industry there has been renewed understanding that capacity development needs to be realigned with the alternative paradigm (OECD/DAC 2006; James and Hailey 2007). In recent years there have been several major studies, research efforts and forums on capacity development (e.g., Lipson and Warren 2006; World Bank 2006; The International NGO Training and Research Centre’s (INTRAC) Praxis Program http://www.intrac.org/pages/praxis.html; and, the European Centre for Development Policy Management’s (ECDPM) discussion papers http://www.ecdpm.org). As a result, conceptual clarity is emerging in the form of good practice guidelines and core principles for capacity development (Eade 1997; Bolger 2000; Lopes and Theisohn 2003; OECD/DAC 2006; James and Hailey 2007).

Capacity development is now recognised as one of the highest priority areas for development in the 21st century. In the Paris Declaration on Aid Effectiveness (OECD/DAC 2005), capacity development was identified as a key area for improving aid effectiveness with claims that “only capacity development will enable countries to successfully play their part in implementing the key principles [ownership, alignment, harmonisation, results and mutual accountability] of the declaration” (Proksch and Kampffmeyer 2007 p.25). As outlined in Chapter One, capacity development has also been identified as a key area for realising the Millennium Development Goals (ECDPM 2003; WHO and UNICEF 2005; OECD/DAC 2006). In terms of development aid spending, it is estimated that US$15 billion a year, is spent on capacity development (OECD/DAC 2006 p.11).

However, despite widespread agreement regarding the importance of capacity development, and growing consensus regarding the concept of capacity development based on an alternative paradigm, there remains a gap between the theory that is espoused and capacity development in practice (CDRA 1995; Lopes and Theisohn 2003; James and Hailey 2007).

Currently, the development industry is in transition. This transition is necessary and unavoidable, if for instance the water and sanitation related needs of 3.7 billion people (see § 1.1) are to be met. However, there are barriers to incorporating new thinking into well
established industry practices. This research sets out to provide practical guidance about capacity development practice so it can become more effective. The well-established industry practices that provide the context for this research are described in the next section.

2.3. Well-established practice

The development industry is entrenched in the conventional paradigm and has been for more than sixty years. Dichter (2003 p.74) explains, “despite all the changes in the idea of development… development practice has not really changed. If new ideas get added on, few of the old ones are let go”. The conventional paradigm manifests itself in the way the development industry does business. Implicit in the conventional development paradigm are the positivistic notions that development can be planned, that there are certainties, that it can be predicted, managed, controlled and that there are cause and effect linkages (Eyben 2006; Holm Olsen 2006). A consequence of this mindset is that the development industry subscribes to a results based management approach.

Some of the many implications of this management approach include a project based approach, an emphasis on outputs, and a prevalence of capacity development approaches that have quantifiable outputs, such as training. Although there is an increasing emphasis on longer-term programs, projects remain the “currency” of the development industry (Eade 2007 p.632). The short timeframes of projects are appropriate for funding cycles. Further, within the project cycles the pressure on the development industry to demonstrate results has seen capacity development efforts concentrate on the delivery of ‘products’ or tangible outputs (Lusthaus, Adrien, and Perstinger 1999; Fukuda-Parr, Lopes, and Malik 2002).

Morgan (2006) explains that traditionally much emphasis has been on human resource capacity and the provision of technical assistance and training to develop that capacity. In recent evaluation studies carried out by Lipson and Warren (2006) and the World Bank (2006) it was found that training and technical assistance are still widely used to develop capacity.

Training-of-Trainers (TOT), sometimes referred to as ‘Train the Trainer’ or ‘Training-the-Trainers’, is one form of training used by international development agencies, intergovernmental organisations and multilateral organisations. This method highlights the industry’s emphasis on
outputs. This method is used to train individuals to either be trainers in a generic sense or trainers on a specific subject (e.g., sustainable sanitation, microfinance or wastewater reuse). The assumption is that the TOT model will be replicated by these participants and the participants of all subsequent TOTs (Kaplan 2000) generating an ever increasing group of trainers. The TOT approach to developing capacity is thought to have a range of benefits associated with the multiplier effect it affords. This includes the potential to maximise development outcomes, underpin sustainability and achieve more with less (e.g., money, time, staff and other resources).

The industry’s investment in these well established practices is evident from the fact that the practices persist despite widespread criticism, as Black (2003) states:

> The results oriented, bureaucratic imperatives of many government and donor agencies effectively nullify the long-term participatory, and process oriented approach to capacity building [development] that is promoted in the discourse. (p.117)

This investment is also apparent from the prevalence of methods supported by the results-based management approach even though there are concerns they are often ineffective (World Bank 2006). For example, there are a number of criticisms of training. Aside from concerns that it focuses on outputs, there are concerns that by narrowly focusing on individuals, training ignores the wider context such as the system in which the individuals live and work and may do very little to develop capacity or help individuals facilitate change in the community, environment or workplace (Lusthaus, Adrien, and Perstinger 1999; Bolger 2000; Milen 2001; Eade 2007). Recent evaluation studies also indicate that training often has design flaws that affect outcomes including inappropriate pedagogic design and inadequate follow-up support to trainees (World Bank 2008).

As described in Chapter One this research focuses on improving capacity development interventions that include non-formal training and awareness raising, are for fixed and short-term (i.e., projects) and focus on development of individual capacity (§ 1.3.3). The assumption is that these practices can be improved and realigned with the core principles and good practice
guidelines (Table 2.1) and that what practitioners require are tools for changing their practice. The main outcome of this research is a Framework for improving capacity development practice. This research responds to claims that there is a

...lack of investment in the professional development of capacity builders; inadequate production of appropriate knowledge and resources and absence of time, places, means and systems for capacity builders to meet and exchange experience either within countries or across borders. (James and Hailey 2007 p.69)

The next section describes the conceptual consensus that is emerging regarding capacity development principles and good practice guidelines based on the alternative paradigm.

2.4. Core principles and good practice guidelines

As described in Section 2.2 conceptual consensus is emerging in the form of core principles and good practice guidelines for capacity development. The principles and guidelines offered by leading capacity development practitioners are presented in Table 2.1. These principles and guidelines span ten years. Eade’s (1997) work is the earliest example. Eade, like many practitioners working in the NGO sector, has acknowledged that the early origins of capacity development lie in the alternative paradigm (§ 2.2). The later recommendations include the United Nations Development Program’s (UNDP) ‘10 Default Principles for Capacity Development’ (Lopes and Theisohn 2003 p.13), OECD’s good practice guidelines (2006) and James and Hailey’s (2007 p.34) guidelines derived from the findings from their research into capacity development good practice.

For the purposes of this research the principles and guidelines presented in Table 2.1 have been categorised under five headings. These headings characterise capacity development based on the alternative paradigm:

1. **Endogenous capacity development**: is an endogenous process that “draws upon voluntary learning with genuine commitment and interest” (Lopes and Theisohn 2003 p.13) and is based on “locally driven agendas” (Bolger 2000 p.2).
2. **Reciprocal and respectful capacity development:** involves two way learning, "mutual accountability" (Eade 2007 p.637) and “addresses issues of power and relationships” (James and Hailey 2007 p.61) as well as “open dialogue and a willingness on both sides to respond to feedback” (Eade 2007 p.637).

3. **Contextual capacity development:** "explicitly adapts to the particular context and culture" (James and Hailey 2007 p.61) and “builds on existing capacities rather than creating new ones” (Lopes and Theisohn 2003 p.13).

4. **Considered capacity development:** involves “learning from experience and sharing lessons" (OECD/DAC 2006 p.9).

5. **Sustainable capacity development:** recognises that “capacity is at the core of development” (Lopes and Theisohn 2003 p.13) and that capacity is the basis for sustainable outcomes.

These descriptors expand on the thinking about the capacity development process outlined in Chapter One (§ 1.3.2). They also provide an advance organiser for further discussion about what capacity development based on the alternative paradigm might look like.

The overarching research question in this study is how can the practice of developing capacity be improved? In answering this question the presumption is that improved capacity development practice will be more consistent with the alternative paradigm. Capacity development practice based on the alternative paradigm is discussed in more detail in the following sections. The assumptions that can be drawn from the literature regarding improved practice based on this paradigm are presented at the end of each section.
Table 2.1  Core principles and good practice guidelines for capacity development
Based on Eade (1997; 2007); Bolger (2000); Lopes and Theisohn (2003); OECD/DAC (2006); James and Hailey (2007)

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>• Learning to trust the chosen partner’s navigational skills</td>
<td>• Involves broad-based participation and locally driven agendas</td>
<td>• Scan locally and globally; reinvent locally; capacity development draws upon voluntary learning, with genuine commitment and interest</td>
<td>• Identifying and supporting sources of country owned change</td>
<td>• Is people centred and engages with values</td>
</tr>
<tr>
<td>• Take into account the different (and potentially negative) ways in which their impact will be felt by individuals and social groups</td>
<td></td>
<td>• Establish positive incentives</td>
<td>• Delivering support</td>
<td>• Ensures client responsibility for change</td>
</tr>
<tr>
<td>• Shared risk taking</td>
<td></td>
<td></td>
<td></td>
<td>• Has hands off developmental resourcing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reciprocal &amp; Respectful</td>
<td>• Mutual accountability</td>
<td>• Remain accountable to ultimate beneficiaries</td>
<td>• Understands the international and country contexts</td>
<td>• Addresses issues of power and relationships</td>
</tr>
<tr>
<td>• Open dialogue and a willingness on both sides to respond to feedback</td>
<td>• Builds on local capacities</td>
<td>• Challenge mindsets and power differentials</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Builds on existing capacities rather than creating new ones</td>
<td>• Integrate external inputs into national priorities, processes and systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Takes time to discover existing capacities and potential</td>
<td>• Integrates activities at various levels to address complex problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contextual</td>
<td>• On-going learning and adaptation</td>
<td>• Draws on key learning from past experience</td>
<td>• Learning from experience and sharing lessons</td>
<td>• Pursues a carefully planned and ‘situational’ strategy</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Explicitly adapts to the particular context and culture</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Considered</td>
<td>• Being flexible enough to respond to a changing situation, while maintaining a sense of direction</td>
<td>• Implicit learning from past experience</td>
<td>• Systematically assesses and learns from experience</td>
<td>• Involves a variety of techniques</td>
</tr>
<tr>
<td>Sustainable</td>
<td>• Implies a long-term investment in people and their organisations</td>
<td>• Requires a long term investment</td>
<td>• Uses and develops skilled local capacity building providers</td>
<td>• Focuses on implementation of the change process</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Don’t rush</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.4.1. Endogenous, reciprocal and respectful capacity development

In the Paris Declaration on Aid Effectiveness (OECD/DAC 2005), capacity development was described as an “endogenous process, strongly led from within a country, with donors [and intermediary stakeholders] playing a supporting role” (OECD/DAC 2006 p.3). Capacity development therefore involves developing capacities that enable individuals, organisations and societies to determine their own development agendas and achieve their own development objectives (Bolger 2000). The implications for capacity development are that:

- “Local stakeholders have ownership over the process” (Lopes and Theisohn 2003 p.13).
- “The process draws upon voluntary learning with genuine commitment and interest” (Lopes and Theisohn 2003 p.13).
- The process is participatory and based on “locally driven agendas” (Bolger 2000 p.2).

By recognising that capacity development is an endogenous process there is also recognition that donors, intermediary- and primary- stakeholders are partners in that process. However, this requires rethinking relationships, equality and power dynamics between locals and outsiders involved in the process. Maxwell and Riddell (1998 p.267) note “there are major hurdles to be overcome to flesh out the rhetoric of partnership into the reality of a working relationship”. In practice, due to the difficulties associated with challenging mindsets as well as the dynamic nature of capacity development, concepts such as ownership, participation and partnerships operate along a continuum. This continuum is presented in Table 2.2.

Table 2.2 is a modified version of a participation ladder developed by Chambers (2005 p.106). The original version focused on participation and the roles and relationships between locals and outsiders. Table 2.2 has been expanded to include other factors such as the power dynamic, source of motivation, drivers of change and nature of partnerships. This continuum further contrasts thinking associated with the alternative and conventional development paradigms (§ 2.2).
Table 2.2 Dimensions of capacity development practice  
Based on Chambers (2005)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Continuum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paradigm</td>
<td>Conventional</td>
</tr>
<tr>
<td>Ownership</td>
<td>Outsiders</td>
</tr>
<tr>
<td>Outsiders' actions</td>
<td>Command</td>
</tr>
<tr>
<td>Locals' actions</td>
<td>Comply</td>
</tr>
<tr>
<td>Locals'/outsiders' relationship</td>
<td>Compliance Consultation</td>
</tr>
<tr>
<td>Locals' motivation</td>
<td>Extrinsic</td>
</tr>
<tr>
<td>Locals' role</td>
<td>Slave</td>
</tr>
<tr>
<td>Outsiders' role</td>
<td>Dictator</td>
</tr>
<tr>
<td>Change process</td>
<td>Exogenous</td>
</tr>
<tr>
<td>Power dynamic locals/outliers</td>
<td>High differential</td>
</tr>
<tr>
<td>Partnerships</td>
<td>Weak</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

At one end of the continuum outsiders have ownership over the process; they command and control the situation, dictate to and coerce the locals. The outsiders drive the change process and have an unequal relationship with local stakeholders based on weak partnerships. At the other end of the continuum locals have ownership over the process, initiate action, and are intrinsically motivated to change. At this end of the spectrum outsiders play a supporting role, partnerships are strong and the power differentials are low.

This continuum highlights the complexity of capacity development and in particular the complexity of the relationship between donors, intermediary- and primary stakeholders. Capacity development practice that is consistent with the alternative development paradigm operates on the right hand side of the continuum. However, while capacity development practice that operates from the extreme left is unlikely, by virtue of the fact that donors and intermediary stakeholders are intervening in the development process, the left hand side of the continuum is favoured. The results-based management approach described in Section 2.3 also favours the left. In addition, there are also practical reasons why capacity development practice may shift between the left and the right side. These points are elaborated on here.

**Intervention favours the left hand side:**

- Being a donor implies some kind of superiority in terms of having something to give that others do not have (Lopes and Theisohn 2003 p.41).
• Donors often impose their own agendas as a condition of funding, and consequently treat capacity development as an exogenous process (James and Hailey 2007 p.64).
• An emphasis on outputs encourages control and compliance to ensure that targets are met and ongoing funding is secured.
• There is often an assumption that local stakeholders do not have the knowledge and skills to spend the funds wisely.

Practical reasons for shifting between the left and the right:
• As capacity develops, stakeholders will experience different levels of challenge, understanding and satisfaction with the process of learning and change.
• Primary stakeholders may not have the capacity to initiate action and may require more support from outsiders at the outset. As a result the capacity development process may involve a series of steps that increase participation and lead to a greater degree of ownership.
• Through participation relationships are formed which may lead to increased trust, lower power differentials and a greater sense of being partners in the process (Hickey and Mohan 2004).

Making capacity development practice more endogenous, reciprocal and respectful is complex. Participatory methods have been utilised to this end. However, participation does not always ensure that relationships are reciprocal or respectful. There are growing criticisms that "participatory processes are undertaken ritualistically, which had turned out to be manipulative, or which had in fact harmed those who were supposed to be empowered" (Cooke and Kothari 2001 p.1). Currently, there is an emphasis on relationships and the importance of learning about relationships if the gap between relational goals, such as ownership and partnership, and practice is to be closed (Pasteur and Scott-Villiers 2004; Pasteur 2006). Relationships, however, like participation, can be exploited. The conclusion that some practitioners and researchers are reaching is that fundamentally what matters is attitude (e.g., Chambers and Pettit 2004; James and Hailey 2007) and the ability of organisations and individuals to reflect upon and to change their practice (e.g., Eyben 2006; Pasteur 2006). Chambers and Pettit (2004) describe this as personal agency, awareness and responsibility, commenting that
…in the end it is individuals who act, and it is our own attitudes, behaviours, decisions and commitments – often neglected in development thinking – that have a central role in shifting power relations and contributing to change. (p.158)

According to James and Hailey (2007 p.88) for people engaged in capacity development this involves having the:

1. humility to change ourselves and collaborate with others
2. honesty and openness about our own self-interests
3. a sense of social justice to put the interests of the poor above our own
4. discipline to take capacity building seriously
5. courage and faith to let go of control and trust people to develop themselves. (p.88)

The assumptions of this research based on the above are that improved practice:

- Acknowledges potential issues relating to power, participation and ownership
- Requires stakeholders to have attitudes that support endogenous, reciprocal and respectful practice

2.4.2. Contextual capacity development

In recent years thinking about capacity development has shifted from an emphasis on individuals to a systemic perspective (Milen 2001). This is reflected in the definitions of capacity development presented in Section 1.3.1 and the capacity development principles and good practice guidelines given in Table 2.1. The systemic nature of capacity development is also recognised in conceptual frameworks of capacity development (e.g., Hilderbrand and Grindle 1996; UNDP 1998; Bolger 2000; Fukuda-Parr, Lopes, and Malik 2002). These definitions, principles, guidelines and frameworks highlight the different dimensions of capacity development including the individual, organisational, institutional and societal aspects. They represent different points of intervention for capacity development, but, more than this, they emphasise that developing capacity requires an understanding of the local context and an understanding of the full dimensions of the environment in which it is embedded (e.g., the economic, physical, social and political environment) (Eade 1997). There is also an
understanding that to implement activities that are appropriate for a specific context it is also important to be aware of local needs and utilise and build on existing capacities (Eade 1997; UNDP 1998; Bolger 2000; Lopes and Theisohn 2003). These areas are discussed further in the following sections.

This section also includes a brief discussion of corruption. Corruption is widespread in many developing countries (see Transparency International 2008) and an understanding of the issues relating to corruption and capacity development is important for understanding the local context and improving capacity development.

2.4.2.1. Local context – culture

Contextual understanding provides insight into the complexity of the environment in which capacity development and change take place. This understanding may also provide insight into differences which can affect how stakeholders work together and can influence stakeholders’ understanding of how capacity can be developed. Understanding the local context can involve learning about politics, the economy, religion, ethnicity, class, the natural environment, culture, shared beliefs, values and history. Geertz (1973) defines culture

...as a system of inherited conceptions expressed in symbolic forms by means of which [people] communicate, perpetuate and develop their knowledge about and attitudes toward life. (p.89)

The “inherited conceptions” referred to by Geertz include visible (behaviour) and invisible (beliefs, norms and values) elements that provide the basis for how people act, what they pay attention to and what they value (Trompenaars 1993). Culture also has different layers, culture is determined by national and regional culture, ethnicity, gender, religious affiliation, generation and social and educational level (Hofstede and Hofstede 2005).

While recognising that people are unique and not only a product of their cultures, cultural models can provide a starting point for understanding different cultures. There are a number of cultural models, for example:
- **Dimensions of national culture:** this model compares five dimensions of national cultures: power distance; individualism versus collectivism, masculinity versus femininity, uncertainty avoidance (Hofstede 1980), and long-term versus short-term orientation (Hofstede and Bond 1988).

- **Culture through context:** this model considers differences in the structure and delivery of messages, and in particular the amount of innate understanding (high or low) a person brings to a situation (Hall 1976).

These models emphasise different aspects of culture that influence the different ways people relate to each other, work with each other, communicate, make decisions and acquire knowledge. The dimensions of national culture are used here to highlight some cultural differences that can affect capacity development. This model is based on comprehensive work across all continents over many years.

Hofstede and Hofstede (2005) define the five dimensions of national culture as follows:

**Power distance (PDI):** the extent to which the less powerful members of institutions and organisations within a country expect and accept that power is distributed unequally. Institutions are the basic elements of society, such as the family, the school and the community; organisations are the places where people work. (p.46)

**Individualism versus collectivism (IDV):** individualism pertains to societies in which the ties between individuals are loose: everyone is expected to look after himself or herself or his or her immediate family. Collectivism as its opposite pertains to societies in which people from birth onward are integrated into strong, cohesive in-groups, which throughout people’s lifetimes continue to protect them in exchange for unquestioning loyalty. (p.76)
Masculinity versus femininity (MAS): a society is called masculine when emotional gender roles are clearly distinct: men are supposed to be assertive, tough, and focused on material success, whereas women are supposed to be more modest, tender, and concerned with the quality of life. A society is called feminine when emotional gender roles overlap: both men and women are supposed to be modest, tender, and concerned with quality of life. (p.120)

Uncertainty avoidance (UAI): the extent to which the members of a culture feel threatened by ambiguous or unknown situations. (p.167)


For the purposes of this research Australasia (Australia and New Zealand) and Indonesia are compared across four of the five dimensions (Table 2.3). There was no data available for Indonesia for the long-term versus short-term orientation dimension. Australia, New Zealand and Indonesia were selected because the stakeholders engaged in this research are from these countries. The dimensions are presented as indices. The range of these indices vary slightly for each dimension, but are within zero to 100 and zero to 120 (Hofstede and Hofstede 2005).

<table>
<thead>
<tr>
<th>Index</th>
<th>Range</th>
<th>0</th>
<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>70</th>
<th>80</th>
<th>90</th>
<th>100</th>
<th>110</th>
<th>120</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDI</td>
<td>Small</td>
<td>N^2</td>
<td></td>
<td>A^16</td>
<td></td>
<td>I^18</td>
<td></td>
<td>Large</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IDV</td>
<td>Collectivist</td>
<td>I^14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Individualist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UAI</td>
<td>Weak</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>I^40 N^9 A^91</td>
<td>Strong</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAS</td>
<td>Feminine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>I^85 N^18 A^61</td>
<td>Masculine</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>LTO</td>
<td>Short-term</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>N^10 A^51</td>
<td>Long-term</td>
<td></td>
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</tbody>
</table>

Hofstede’s dimensions have been used to describe cultural differences in a range of areas including family, ideas, religion, social life, the workplace and education (Hofstede 1983; Hofstede and Hofstede 2005). Capacity development is a process of learning that involves intermediary stakeholders working together to facilitate the process and therefore, differences in education and the workplace are pertinent to a discussion of capacity development. Some of the differences between Australasia and Indonesia in the workplace and education are contrasted here. The greatest differences between Australasia and Indonesia are seen across the PDI and IDV (see Table 2.3) and the discussion focuses primarily on these differences.

Workplace

In the workplace cultural differences manifest themselves in a variety of ways including preferences in leadership style, organisation and participation.

Preferred leadership style

Indonesia has a large PDI and is a collectivist culture. In these societies people have a preference for bosses that are “benevolent autocrats”, or “good fathers” (Hofstede and Hofstede 2005 p.55). Hofstede and Hofstede (2005) explain that if people have experiences with “bad fathers”, although ideologically they may reject the boss’s authority, in practice they will continue to comply with their direction. In these societies decisions are made by the boss and staff members are unlikely to contradict their boss (ibid.). In these societies the word ‘no’ is seldom used, because saying no is confrontational (ibid.)

Contrastingly, in Australia and New Zealand where there is a high degree of individualism and small power distance “the ideal boss is a resourceful (and therefore a respected) democrat” (Hofstede and Hofstede 2005 p.56). In Australasia the boss makes the decisions, but there is an expectation that the decision process will be participative and staff will be consulted (ibid.). In these countries staff members easily approach and contradict their boss, in fact speaking ones mind is considered a virtue (ibid.).
Organisation and participation

In countries like Indonesia that have a large PDI and relatively weak UAI Hofstede (1983) describes the organisational structure as a “family”. In these cultures the authority of the leader is undisputed and organisations have well-structured hierarchies (Reynolds and Valentine 2004). Participation by staff members, in for example decision making, is not commonplace and team members are less likely to be trusted by their boss. Encouraging staff members to participate typically requires coercion (Hofstede and Hofstede 2005).

In cultures with a small PDI and relatively weak UAI, such as Australia and New Zealand, a more democratic structure is preferred. Hofstede (1983) refers to this organisation as a “village market”. In these societies communication flows in both directions, from the top down and the bottom up (Reynolds and Valentine 2004) and the stress is on “informal and spontaneous forms of participation” (Hofstede and Hofstede 2005 p.272). Bosses in lower PDI cultures “place more trust in their staff” (ibid. p.272).

Education

In education there are also marked cultural differences between Australasia (individualist society with a small PDI) and Indonesia (collectivist society with a large PDI). These include a different understanding and expectations regarding:

- The purpose of education
- The roles of students and teachers
- How the quality of learning is judged

Statements that contrast Indonesia and Australasia’s expectations and understanding in these areas are presented in Table 2.4.
Table 2.4  Cultural differences between Australasia and Indonesia in education
Based on Hofstede and Hofstede (2005)

<table>
<thead>
<tr>
<th>Area of difference</th>
<th>Indonesia</th>
<th>Australasia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose of education</td>
<td>Learning how to do</td>
<td>Learning how to learn</td>
</tr>
<tr>
<td>Roles of students and teachers</td>
<td>Students only speak up in class when sanctioned by the group</td>
<td>Students are expected to individually speak up in class</td>
</tr>
<tr>
<td></td>
<td>Teachers should take initiative in class</td>
<td>Teachers expect initiative from students in class</td>
</tr>
<tr>
<td></td>
<td>Teachers are gurus who transfer personal wisdom</td>
<td>Teachers are experts who transfer impersonal truths</td>
</tr>
<tr>
<td>Quality of learning</td>
<td>Depends on excellence of teacher</td>
<td>Depends on two way communication and excellence of students</td>
</tr>
</tbody>
</table>

There are a number of potential implications of these cultural differences for capacity development. Australasian and Indonesian stakeholders may have different:

- Expectations regarding leadership style
- Understanding regarding the way individuals will participate in the process and make decisions
- Understanding regarding how to facilitate learning

2.4.2.2. Local context – corruption

In Indonesia “KKN (corruption, collusion and nepotism) is endemic” (Graham 2004 p.84). The Transparency International Corruption Perceptions Index (CPI) “ranks countries in terms of the degree to which corruption is perceived to exist among public officials and politicians” defining “corruption as the misuse of public power for private benefit” (Transparency International 2008). Indonesian’s CPI is 2.6 where zero is ‘highly corrupt’ and 10 is ‘highly clean’. In contrast Australia and New Zealand have an CPI of 8.7 and 9.3 respectively (Transparency International 2008).

The prevalence of corruption stems from a complex interplay of factors, this includes poor governance and poverty (Lopes and Theisohn 2003; Kasper 2006). Kasper (2006 p.5) describes a “circular interaction” between poverty and corruption where impoverished countries are poorly governed by corrupt officials and poor living standards attract corruption. Kasper (2006 p.7) also notes that corrupt practices are also often “steeped in local traditions and culture”. In Indonesia, as described in the previous section, individuals organise themselves into family structures with an undisputed leader or father figure. Mulder (1978 cited in Graham 2004)
explains that one way a leader maintains their status is by “dispensing favours and receiving payments”.

A distinction is sometimes made between different kinds of corruption, suggesting that there are ‘acceptable’ (e.g., mild, petty and facilitative) and ‘unacceptable’ (e.g., massive, grand and blocking) variants (Lopes and Theisohn 2003; Kasper 2006). Some authors question whether the milder forms are culturally appropriate (Graham 2004) whereas others argue that there is “no room for cultural relativism” (Kasper 2006 p.10). Regardless, there is some agreement that corruption undermines development. The following quote illustrates this point: “corruption costs the developing world billions every year, debasing human rights, siphoning off resources, degrading the environment and derailing development, including capacity development” (Lopes and Theisohn 2003 p.116). What is more, according to a recent Global Corruption Report (Transparency International 2008 p.xxiv) “the crisis of water [including sanitation] is a crisis of water governance, with corruption as one root cause”.

The challenge for capacity development practitioners is working within an environment where corrupt practices are widespread and at the same time fighting corruption so that development, and capacity development, is not undermined.

2.4.2.3. Local needs and existing capacities

According to good practice effective capacity development “explicitly adapts to the particular context and culture” (James and Hailey 2007 p.61). A range of tools can be used to assess needs and existing capacities of stakeholders, for example capacity assessment is a tool that can be used “to provide a situational analysis, on the basis of which future capacity needs can be identified… and depending on the extent to which they are participatory, they can play an important role in building ownership into the envisaged change process” (Hauck and Corre 2001 p.1). Other tools include: stakeholder analysis, participatory rural appraisal (PRA), strength, weakness, opportunities and threats (SWOT) analysis, and a plethora of tools for assessing institutional and/or organisational capacity (see Morgan and Taschereau 1996). However, as Lipson and Warren (2006) note, needs are still largely defined by donors instead of by local stakeholders and local capacity is not always taken into consideration. The United Nations
Development Programme (2008 p.30) also cautions that although assessments such as capacity assessment “are desirable and fulfil a key need… there are certain operational and attitudinal constraints” to conducting these assessments and utilising the findings. For example, “the findings will only be used if the process and the findings are locally owned” (ibid. p.31). The failure to determine local needs and capacities is a further indication that capacity development in practice is still considered an exogenous process that can be planned and implemented by outsiders. This lack of assessment can result in “misdirected” activities (McClelland 1995 p.7) and may negate other aspects of the process such as local ownership.

The assumptions of this research based on the above are that improved practice:

- Requires an understanding of the local context
- Involves learning about cultural differences and how they impact on working relationships
- Involves delivering interventions based on needs assessment
- Builds on existing capacity assessment

2.4.3. Considered capacity development

Capacity development has been on the agenda for more than twenty years, yet “very little is known about how capacity develops and there is only limited practical guidance on how to stimulate the process” (ECDPM 2003 p.2). According to several authors, the principal reason for this is that the development industry has a poor track record when it comes to evaluating, reflecting and learning from the process, and that even when learning or evaluation takes place, flawed approaches persist, successes are not followed and failures are repeated (Cassen and Associates 1994; Postma 1998; Berg 2000). This limitation is recognised in the core principles and good practice guidelines (Table 2.1) which highlight the importance of systematically assessing and learning from experience. To address this limitation there are growing claims from practitioners and researchers that reflective practice (Argyris and Schon 1974) is required (Pasteur 2006).

Reflective practice (Argyris and Schon 1974) is a form of action inquiry. Action inquiry is an umbrella term for a number of forms of inquiry that “oscillate between taking action in the field of practice and inquiring into it” (Tripp 2005 p.2). Action inquiry is discussed in more detail in
Chapter Three (§ 3.3.1). Reflective practice, the variant advocated for in the development literature, is discussed here.

According to Agyris and Schon (1974) professional practice can be improved if practitioners “become competent at taking action and simultaneously reflecting on this action to learn from it”. However, there are a number of barriers to reflective practice. Reflection requires individuals to risk exposing levels of personal uncertainty. However, many people fear exposing themselves and this uncertainty (Pasteur 2006). At the same time many practitioners have become skilled at demonstrating certainty and preserving a constancy of knowledge (Schon 1982).

Argyris and Schon (1974) have shown in their research that people tend to have two theories of action, those that they use and those that they espouse. The theory in use may or may not be compatible with the theory espoused, and people may or may not be aware of the incompatibility between these two theories. These incompatibilities persist due to what is described as a tendency towards single-loop learning, as opposed to a more reflective process, double loop learning. Agyris and Schon (1974) describe this as follows:

In single-loop learning, we learn to maintain the field of constancy by learning to design actions that satisfy existing governing variables. In double loop learning we learn to change the field of constancy itself. (p.19)

In other words, single-loop learning enables people to preserve practice without challenging the assumptions upon which it is based. The process of single-loop learning means that even if a practitioner espouses belief in capacity development practice based on an alternative development paradigm, their theory-in-use may lead to actions that reflect a conventional development paradigm. Without double-loop learning, incompatibilities between the theory espoused and that in use will not be exposed.

Aside from a natural tendency not to be reflective, a number of additional barriers to reflective practice have been identified. For instance, practitioners may not have the space or time to be reflective (Pasteur and Scott-Villiers 2006). Chambers (2000 cited in Pasteur 2006) suggests that for reflective practice to become commonplace the following measures are required:
• Professional development so that people have the skills to be reflective
• Emphasis on relationships and trust so that people risk exposing uncertainties
• A flattening of hierarchies and participation to facilitate openness and learning
• Allocation of time for reflection
• New models and approaches that embrace innovation and do not emphasise certainty

It is also important to take into consideration that tolerance for reflection and challenging mindsets may vary across cultures. In Indonesia where the authority of the leader is undisputed and participation in decision making is not commonplace (refer to § 2.4.2.1) there may be additional challenges to encouraging practitioners to be reflective.

The assumptions of this research based on the above are that improved practice:
• Involves learning from experience
• Encourages practitioners to be reflective

2.4.4. Sustainable capacity development

Capacity development is a process of facilitating learning and change. At its core this process involves facilitating sustainable capacity outcomes that can be used to respond to development challenges on an ongoing basis. According to the current consensus long term investments are important for sustainable outcomes (Eade 1997; Bolger 2000). Long term investments are seen as particularly important for developing relationships. Where in the past there has been emphasis on developing human, resource and institutional capacity, there is a growing consensus that relationships and social capital are important for sustainable outcomes (Woolcock and Narayan 2000).

2.4.4.1. Social capital

Bourdieu (1979 cited in Portes 1998 p.3) first defined social capital as “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance or recognition”. A more recent definition describes it as “resources embedded in social relations and social structures which can be mobilised when actors wish to increase the likelihood of success in a purposive action”
These definitions emphasise the positive consequences of relationships with familial and extra-familial networks (Woolcock and Narayan 2000). The latter definition also emphasises the potential benefit of this resource. Lin (2001 p.19-20) offers four explanations as to why social capital can “increase the likelihood of success in a purposive action”, they are:

1. **Information**: the flow of information is facilitated.
2. **Influence**: there are opportunities to exert influence on the agents who play a critical role in decisions.
3. **Social credentials**: social ties and acknowledged relationships may be conceived as social credentials.
4. **Reinforcement**: social relations are expected to reinforce identity and recognition, providing emotional support and public acknowledgement of one’s claim to certain resources.

Capacity development is a process of facilitating learning and change (§ 1.3.1.1). Social capital is therefore a resource that could be mobilised to bring about this change. In collectivist counties like Indonesia the “social network is the primary source of information” (Hofstede and Hofstede 2005 p.97). For that reason, engaging with stakeholders with a high degree of social capital could lead to the promulgation of ideas and information to bring about change.

Networking and/or networks can also facilitate the “deliberate construction of sociability for the purpose of creating this resource” (Portes 1998 p.3). Networking and networks are defined by Engel (1993 cited in Engel and van Zee 2004) as follows:

> Networking is the process resulting from our conscious efforts to build relationships with each other…. networks are more or less formal, more or less durable relational patterns that emerge as a result of such efforts. (p.5)

The European Centre for Development Policy Management (Taschereau and Bolger 2006 p.9) has recently completed a study on networks and capacity. Some of the conclusions from this study are summarised here. The study identifies four main factors that enable or constrain the formation of a network, they are:
1. **Challenges and opportunities in the environment** that can be better addressed by the increased capacity and joint action of a network, or in other words a common purpose.

2. **Individuals and/or organisations** with expertise, skills or resources, such as pre-existing social capital that can be built on.

3. **Leadership** from credible individuals who can inspire and mobilise people to collaborate for a common purpose.

4. **External interventions** that promote or facilitate the creation of a network (e.g., conferences and workshops). Although Mahanty (2002 p.1369) notes for this to be effective it cannot be a “subsidiary part of the intervention process”, establishing connections and forming the network needs to be a central part of the activities.

The study also identified some of the conditions for increased network effectiveness, including:

- That member’s benefit from involvement in the network.
- That network members have ownership over the development of the network.
- That the network is facilitated to nurture the relationships between members.
- The use of information and communication technologies for broad-based participation.

**The assumptions of this research based on the above are that improved practice:**

- Takes time and requires a long-term investment
- Facilitates the development of social capacity which is important for sustainable outcomes
- May use networks to facilitate sustainable outcomes

**2.5. What else matters in capacity development?**

Two additional topics are arguably relevant to capacity development:

1. Leadership and teamwork
2. Adult learning theory

The capacity development literature does not typically cover these topics. James and Hailey (2007) acknowledge the importance of good management and planning for capacity development. However, their discussion focuses on managers’ understanding of capacity development. Leadership is discussed more broadly, but not often in relation to leadership of the team of stakeholders facilitating the process. Discussion tends to focus on the importance of leadership for transformation and change (e.g., Lopes and Theisohn 2003).

Learning is also discussed in the capacity development literature, but the emphasis is on donors and intermediary stakeholders learning and reflecting on their own practice (see § 2.4.3). The literature does not widely recognise that capacity development is an educational process and that understanding learning is important if stakeholders are going to facilitate that process.

However, leadership, teamwork and an understanding of adult learning theory are important for capacity development outcomes. This research goes to show that capacity development can be improved by addressing these aspects of the capacity development process.

2.5.1. Leadership and teamwork

Capacity development, whether it is a longer term program or short term project, requires leadership and teamwork. Leadership styles and essential leadership qualities are discussed in this section. The problems that can arise during teamwork are also introduced as the basis for understanding team building and team development.

2.5.1.1. Leadership

Leadership has been the subject of research efforts for centuries. While there is no commonly agreed upon definition of leadership, for the purpose of this research leadership is defined as “the ability to influence and develop individuals and teams to achieve goals that contribute to a worthwhile purpose” (Robbins et al. 2001 p.400). While leaders consistently influence and develop teams and individuals, any individual can demonstrate leadership and the practice of leadership can occur in situations where there is no formal leadership (ibid.).
This discussion focuses on leadership styles and qualities. The purpose of this discussion is to highlight some of the differences in leadership styles and provide an understanding of essential leadership qualities. These areas are discussed in relation to the leadership of a team (e.g., of intermediary stakeholders) whether leadership is undertaken by an appointed leader or a manager who has assumed a leadership role.

Contrasting leadership styles are often presented along a continuum, for example autocratic to participative, active to passive or highly involved to laissez-faire (Avery 2004). At the autocratic end of the spectrum, leaders tend to take more control of decisions and are less likely to consult others about decisions. At the democratic end of the spectrum the leader is more likely to include others in the decision making process. Where some leaders have a preferred style that they use regardless of the situation, others vary their style depending on the situation. Moxon (1993 p.24) claims that it is “not simply a case of autocrats making poor leaders and democratic managers good team leaders”. The appropriate leadership style will depend on the social context, situation and culture (Hofstede 1983; George 2005; Mintzberg 2005). Culture and leadership were discussed in Section 2.4.2.1.

Although preferred leadership styles may vary, there is some consensus regarding essential leadership qualities. For example, in terms of personality traits, during more than two decades of international research, Kouzes and Posner (2005 p.23) have identified four attributes that have been consistently identified as essential qualities of a leader. According to this research leaders are:

1. **Honest**: truthful, ethical and principled
2. **Competent**: with the ability to get something done and enable others to act
3. **Forward looking**: with a sense of direction and concern for the future
4. **Inspiring**: with passion for a cause

Kouzes and Posner (2005) conclude that these attributes constitute the credibility of the leader and that credibility is established by doing what you say you will do.
Many authors also consider that leadership is also about relationships (George 2005; Kouzes and Posner 2005). Skills such as emotional intelligence, charisma and vision are therefore also seen as key qualities for leaders (Avery 2004). These skills, in particular emotional intelligence (Goleman 1995), which includes factors such as self-awareness, self-management, social awareness and relationship skills, is considered essential for understanding and making the most of relationships, allowing leaders to ‘read’, relate and empathise with people (Lopes and Theisohn 2003; Avery 2004). Emotional intelligence and interpersonal skills have also been identified as important for effective management (Lusthans, Hodgetts and Rosenkrantz 1988 cited in Robbins et al. 2001).

The assumptions of this research based on the above are that:

- Preferred leadership styles vary across cultures
- Credibility and interpersonal skills are essential leadership qualities
- Leadership is important for project outcomes and therefore understanding issues relating to leadership may be important for capacity development outcomes

2.5.1.2. Teamwork

The potential challenges to teamwork provide a basis for understanding how an effective team can be developed. Irwin, Plovnick and Fry (cited in Moxon 1993 p.25) identify four categories of team problems, they are problems with goals, roles, processes and relationships. According to Moxon (1993) too often problems are blamed on personality clashes when in fact the basis of problems is misunderstandings or differing perceptions regarding goals, roles and processes. The areas where problems can arise in each of these four categories are summarised in Table 2.5. These areas represent the conditions for effective teamwork.
Table 2.5 Four categories of team problems
Based on Moxon (1993 p.21-25)

<table>
<thead>
<tr>
<th>Problem category</th>
<th>Conditions for effective teamwork</th>
</tr>
</thead>
</table>
| 1. Goals         | • Clear and understood by everyone  
|                   | • Owned and agreed by everyone     
|                   | • Everyone involved in their development |
| 2. Roles         | • Understand boundaries of role, degrees of freedom and authority  
|                   | • Roles match with others’ expectations  
|                   | • Clarity regarding any overlap in responsibilities |
| 3. Process       | a. Decision making  
|                   | • Clarity regarding responsibility for decision making and levels of authority  
|                   | • Agreement regarding who needs to be consulted and how decisions are communicated  
|                   | b. Communication and meeting process  
|                   | • Understanding regarding individual tolerances for being kept informed, the structure, content and frequency of meetings and attendance at team meetings  
|                   | c. Leadership style  
|                   | • Prepared to seek and accept feedback regarding style and impact on the team |
| 4. Relationships | • Respect for each other  
|                   | • Understand and respect the needs of each other  
|                   | • Similar basic values and attitudes regarding conflict |

Table 2.4 can also be viewed as a descending hierarchy for team development starting with straightforward topics, such as goal and roles, before dealing with the more difficult and confronting topics of processes and relationships (Moxon 1993).

Lencioni (2005) looks at the problems with teams from a different perspective, focusing on the root causes of the problems. Lencioni identifies five dysfunctions of teams:

1. Absence of trust
2. Fear of conflict
3. Lack of commitment
4. Avoidance of accountability
5. Inattention to results

Lencioni identifies a lack of trust as the basis for team dysfunction. In order for a team to function effectively team members must trust one another and make themselves vulnerable to one another (ibid.). Each subsequent dysfunction is a consequence of the preceding one:
• Without trust, team members are unwilling to be vulnerable and open with the group. A consequence of this is a fear of conflict. As a result team members are unable to engage in unfiltered dialogue and passionate debate about ideas.

• Without conflict which allows team members to share ideas and opinions, team members rarely if ever buy in and commit to decisions.

• Without committing to a clear plan of action team members hesitate to hold others accountable for their actions or behaviours.

• Without accountability people can focus on their own needs (e.g., ego and career development) and pay little attention to the goals of the team.

Team-building exercises can be used for building trust. For example personal histories, team effectiveness exercises, personality and behavioural preference profiles for developing interpersonal skills, and 360 degree feedback programs (Lencioni 2005). However, team building takes time and needs to be appropriate for the particular culture and context (Hofstede and Hofstede 2005). It is also important to note that in developing trust the leader plays an important role. That is, the leader must be willing to be vulnerable in order to encourage others to take the same risk (Moxon 1993).

The assumptions of this research based on the above are that:

• Teamwork and team building among stakeholders are important for effective capacity development

2.5.2. Adult learning theory

Capacity development is fundamentally a process of learning and change. As stated by Kolb (1984 p.31 cited in Foley 2000 p.42) “people’s primary mode of adaptation to the world is learning”. This research focuses on developing the capacity of adults. Therefore of particular relevance is adult learning theory. An overview of adult learning theory is presented here.

There is no single theory for adult learning, instead there is what Merriam (2001 p.3) describes as “a mosaic of theories, models, sets of principles, and explanations, that combined, compose the knowledge base of adult learning”. These theories, models and their criticisms will not be
discussed fully here. Instead, some of the principles of these learning theories that can be applied to capacity development activities will be presented.

Current adult learning theories are largely based on a constructivist view of learning. According to Biggs and Moore (1993 p.22) the central tenets of constructivism are:

- People actively construct knowledge for themselves
- Knowledge is based on categories derived from social interaction not observation

The constructivist perspective has a number of implications for the design of learning environments. According to Phillips (1995 p.11) and Jonassen (1991 p.29-30) constructivist learning environments recognise:

- The necessity for active participation by the learner
- The negotiation, as opposed to imposition, of learning goals and objectives
- The interrelatedness of concepts and therefore the existence of multiple dialogues, forms of knowledge and methods
- The importance of learning from real-world environments that employ the context in which learning is relevant
- The use of evaluation as a self analysis tool
- The social nature of learning

Adult learning theorists present a complementary set of characteristics for learning environments. Burns (1995 p.253) provides an overview of theories of adult learning (e.g., Paolo Freire, John Dewey, Jerome Bruner, Carl Rogers and Malcolm Knowles) and concludes there is general agreement that the following characteristics define learning environments for adults:

- Mutual responsibility for defining goals
- Planning and conducting activities that are based on the real needs of the participants
- Participation in decision-making
- Applying learning to solve a problem
- Self-direction
- Teacher’s roles as resource and facilitator
- Use of learner’s experiences as a basis for learning
- An open, democratic environment
- A concern for the worth of the individual and their self concept

In Table 2.6 these characteristics have been compared with the capacity development principles and good practice guidelines, and the underlying assumptions of the alternative development paradigm (Table 2.1 and § 2.4). A connection between adult learning theory and capacity development is not commonly drawn in the literature. However, through the comparison it was possible to derive 10 characteristics that are shared by adult learning and capacity development. This comparison clearly illustrates their similarities and the suitability of adult learning theory as the basis for designing appropriate learning environments such as capacity development interventions.

<table>
<thead>
<tr>
<th>Table 2.6</th>
<th>Characteristics of constructivism, adult learning theory and capacity development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristic</td>
<td>Constructivist/Adult Learning</td>
</tr>
<tr>
<td>1. Participatory</td>
<td>Participation by the learner Participation in decision making</td>
</tr>
<tr>
<td>2. Self-directed</td>
<td>Negotiation of learning goals and objectives Self direction</td>
</tr>
<tr>
<td>3. Flexible</td>
<td>Multiple dialogues, forms of knowledge and methods</td>
</tr>
<tr>
<td>4. Contextual</td>
<td>Learning from real world environments</td>
</tr>
<tr>
<td>5. Reflective</td>
<td>Evaluation as a self analysis tool</td>
</tr>
<tr>
<td>6. Social</td>
<td>Social nature of learning</td>
</tr>
<tr>
<td>7. Facilitated</td>
<td>Teacher’s roles as resource and facilitator</td>
</tr>
<tr>
<td>8. Learner-centred</td>
<td>Use of learner’s experience as basis for learning</td>
</tr>
<tr>
<td>9. Open and democratic</td>
<td>An open and democratic environment</td>
</tr>
<tr>
<td>10. Respectful</td>
<td>A concern for the worth of the individual and their self concept</td>
</tr>
</tbody>
</table>

Models of learning also provide insight into how to develop appropriate learning environments. In the constructivist tradition, learning is often described as a cyclical process (e.g., Kelly 1955; Pfeiffer and Jones 1975; Juch 1983; Kolb 1984). As is the case with adult learning theory, there
is no single model of learning. However, Merrill (2002 p.44) presents a synthesis of other models and claims that “many current instructional models suggest” that learning is facilitated when learning environments are designed to engage the learner in “four distinct phases of learning: (a) activation of prior experience, (b) demonstration of skills, (c) application of skills, and (d) integration of these skills into real-world activities”.

Adult learning theory and learning models provide a basis for understanding how to develop appropriate learning environments such as capacity development interventions. However, it is also important to remember that not all learners (stakeholders) involved in the capacity development process are the same. Differences in learners, cultures and context may require different approaches. On an individual level, Jonassen and Grabowski (1993) have identified three areas of difference: 1) cognitive; 2) personality; and, 3) prior knowledge. Similarly at a cultural or contextual level there may be differences in people’s identities and values that require different approaches or modes of communication (e.g., storytelling, proverbs and dance) (James and Hailey 2007). Given the potential differences, learning theorists agree that flexibility is an important feature of adult learning environments (Kolb 1984; Knowles, Holton, and Swanson 1998), and capacity development interventions (Eade 1997; James and Hailey 2007).

The assumptions of this research based on the above are that:

- Adult learning theory and models of learning provide insight into the design of appropriate learning environments such as capacity development interventions
- Flexibility is an important feature of capacity development interventions

2.6. Summary

There is widespread agreement regarding the importance of capacity development. Concurrently, there is an understanding that capacity development has only had limited success. Some argue that capacity development is entrenched in a conventional development paradigm and that practice is constrained by a lack of adequate theory regarding capacity development. However, as described in Section 2.4, a conceptual consensus is emerging in the form of capacity development principles and good practice guidelines. This consensus is consistent with the alternative development paradigm. Capacity development practice based on these guidelines and principles has been characterised in this Chapter as endogenous,
reciprocal, respectful, contextual, considered and sustainable (§ 2.4). Synthesis of the literature relating to these characteristics has been used to provide the basis for understanding potential factors impacting on the success of capacity development and derive 17 assumptions regarding improved practice (see Table 2.7).

The overarching research question in this research is how can the practice of developing capacity be improved? This Chapter has presented the literature based findings regarding potential improvements. In Chapters Four through Seven these findings are compared with findings from the research. The philosophical perspective, methodology and methods are presented in the next Chapter.

<table>
<thead>
<tr>
<th>No.</th>
<th>Assumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Acknowledges potential issues relating to power, participation and ownership</td>
</tr>
<tr>
<td>2.</td>
<td>Requires stakeholders to have attitudes that support endogenous, reciprocal and respectful practice</td>
</tr>
<tr>
<td>3.</td>
<td>Requires an understanding of the local context</td>
</tr>
<tr>
<td>4.</td>
<td>Involves learning about cultural differences and how they impact on working relationships</td>
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<tr>
<td>5.</td>
<td>Involves delivering interventions based on needs assessment</td>
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<tr>
<td>6.</td>
<td>Builds on existing capacity assessment</td>
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<tr>
<td>7.</td>
<td>Involves learning from experience</td>
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<td>8.</td>
<td>Encourages practitioners to be reflective</td>
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<tr>
<td>9.</td>
<td>Takes time and requires a long-term investment</td>
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<tr>
<td>10.</td>
<td>Facilitates the development of social capacity which is important for sustainable outcomes</td>
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<tr>
<td>11.</td>
<td>May use networks to facilitate sustainable outcomes</td>
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<tr>
<td>12.</td>
<td>Preferred leadership styles vary across cultures</td>
</tr>
<tr>
<td>13.</td>
<td>Credibility and interpersonal skills are essential leadership qualities</td>
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<tr>
<td>14.</td>
<td>Leadership is important for project outcomes and therefore understanding issues relating to leadership may be important for capacity development outcomes</td>
</tr>
<tr>
<td>15.</td>
<td>Teamwork and team building among stakeholders are important for effective capacity development</td>
</tr>
<tr>
<td>16.</td>
<td>Adult learning theory and models of learning provide insight into the design of appropriate learning environments such as capacity development interventions</td>
</tr>
<tr>
<td>17.</td>
<td>Flexibility is an important feature of capacity development interventions</td>
</tr>
</tbody>
</table>
Chapter 3. Philosophical perspective, methodology and methods

3.1. Introduction

The philosophical perspective taken in this research is one of pragmatism. This perspective is discussed in this Chapter. The discussion introduces the core characteristics of the research that informed decisions regarding the methodological choice. Three methodologies, action inquiry, evaluation research and design-based research are summarised and critiqued. This critique provides a rationale for the selection of design-based research as the methodology. Design-based research is further explained and the study design is presented. The data collection methods and data analysis processes are also discussed. Finally, consideration is given to legitimisation of the research findings.

3.2. Philosophical perspective

Pragmatism draws on a range of ideas first articulated by Peirce (1905), James (1907) and Dewey (1917) and more recently by Rorty (1990) and Cherryholmes (1992). While there are "many versions of pragmatism" (Cherryholmes 1992 p.13), research carried out in this tradition can generally be characterised as:

- Practically oriented, problem centred and capable of handling complexity (Creswell and Plano Clark 2007 p.22).
- "Considers the research question to be more important than the method they use or the paradigm that underlies the method" (Tashakkori and Teddlie 2003 p.21).
- "Is pluralistic and oriented towards ‘what works’ and practice" (Creswell and Plano Clark 2007p.23).
- Considers that “research should be evaluated in light of its practical implications” (Aboulafia 1991 cited in Hevner et al. 2004 p.77).

This section briefly summarises these characteristics in relation to this research.

Tashakkori and Teddlie (2003 p.21) describe pragmatism as “a very practical and applied research philosophy”. The overarching research question ‘how can capacity development
practice be improved?’ aims to respond to practical challenges associated with delivering capacity development interventions based on the alternative paradigm. What is more, capacity development takes place in an environment “characterised by complexity and uncertainty” (Pasteur 2006 p.21).

Pragmatism “doubts the necessity of paradigmatic declarations” (Padgett 2004 p.5). Instead “multiple paradigms can be used to support qualitative research” (Tashakkori and Teddlie 2003 p.24). Reeves and Hedberg (2003 p.35) describe this as an eclectic approach that involves “borrowing from other paradigms to collect information and solve problems”. This research draws on a range of paradigms in order to: understand the complexity associated with developing capacity; and, identify design principles for improving capacity development practice. Without making paradigmatic declarations the following characteristics of this research allude to its eclectic nature:

- The research is clarificative in that it is concerned with understanding the process and practice of developing capacity.
- The research is critical, seeking to interrogate assumptions about development and capacity development that may hinder improvements to practice
- The research is improvement oriented, striving to change capacity development practice through improved understanding and critical inquiry.

The research also uses mixed methods. Tashakkori and Creswell (2007 p.4) define mixed methods “as research in which the investigator collects and analyses data, integrates the findings and draws inferences using both qualitative and quantitative approaches or methods in a single study or a program of inquiry”. According to Creswell and Plano Clark (2007 p.5) “its central premise is that the use of quantitative and qualitative approaches in combination provides a better understanding of the research problem than either approach alone”.

Qualitative and quantitative methods used in combination in this research provided a flexible approach to understanding and exploring ways to improve capacity development practice and, afforded a triangulated perspective to address potential threats to validity (§ 3.8). This approach
was also appropriate for carrying out research into practice making it possible to draw on quantitative data collected as part of the practice of developing capacity. The methods used in this research are discussed in Section 3.5.2.

The final relevant characteristic of pragmatism relates to evaluating the research in terms of its utility. Maxcy (2003 p.87) explains that pragmatism’s “unique contribution is to open up inquiry into all possibilities while tying that search to practical ends”. This is sometimes referred to as “pragmatic validity” (Kvale 1989a cited in Miles and Huberman 1994 p.280). A Framework for Capacity Development is the main outcome of this research. The utility of the Framework and this research ultimately depends on whether it contributes to improvements in the practice of development capacity. The pragmatic validity of this research is discussed further in Section 3.8.2.

This section has provided an overview of the philosophical perspective that guides this research. The remainder of the Chapter elaborates on the choices regarding methodology and methods based on this position.

### 3.3. Methodological approach

The philosophical perspective described in the previous section can be characterised as pragmatic, clarificative, critical, improvement oriented and contextual. These characteristics are summarised in Table 3.1.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
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<tbody>
<tr>
<td>Pragmatic</td>
<td>Employs a &quot;what works&quot; approach to the research, and also recognises that judgement regarding the findings of the research will depend on the utility of the Framework and whether it leads to improvements in capacity development practice</td>
</tr>
<tr>
<td>Clarificative</td>
<td>Aims to understand the process of developing capacity</td>
</tr>
<tr>
<td>Critical</td>
<td>Challenges commonly held values and assumptions about capacity development</td>
</tr>
<tr>
<td>Improvement oriented</td>
<td>Strives to change practice through improved understanding and critical inquiry</td>
</tr>
<tr>
<td>Contextual</td>
<td>Focuses on real-world problems cognisant that capacity development is embedded in complex contextual frameworks</td>
</tr>
</tbody>
</table>
In selecting a methodology consistent with the characteristics of the research, consideration was given to methodologies used in development studies and education. Three methodologies were considered for the research:

1. Action inquiry
2. Evaluation
3. Design-based research

These three approaches are described and critiqued here. Finally, a rationale is provided for selecting design-based research as the methodological approach.

3.3.1. Action inquiry

The first methodology considered for the research was action inquiry. As outlined in Chapter Two, action inquiry is an umbrella term for a number of forms of inquiry, (e.g., action research (Lewin 1946; Reason and Bradbury 2006), action learning (Revons 1971), reflective practice (Schon 1982) and appreciative inquiry (Cooperrider 1986)) that Tripp (2005) describes as

…any process that follows a cycle in which one improves practice by systematically oscillating between taking action in the field of practice and inquiring into it… one plans, implements, describes, and evaluates an improving change to one’s practice, learning more about the practice and action inquiry in the process. (p.2)

Peters and Robinson (1984 p.121) elaborate on Tripp's description. Their work focused on action research which they suggest has three main characteristics:

1. **Involvement in change**: problem focused and directed toward the improvement of some existing social practice.
2. **Organic**: research consists of a series of systematic cyclical or iterative stages of fact finding, reflection and planning, strategic action and evaluation.
3. **Collaborative**: research is carried on as a joint, cooperative endeavour among participants.
Action inquiry matches the characteristics of this research (Table 3.1), being pragmatic, clarificative, critical, improvement oriented and contextual. However, while action inquiry accommodates many of the desired characteristics it was not selected for a number of reasons. Action inquiry tends to emphasise the role of the researcher and research participants in improving their own practice (Tripp 2005; Reason and Bradbury 2006). For example in action learning research participants keep explicit records of what they have learnt about their practice that they share with others as part of the learning process (Revons 1971). Similarly in reflective practice the participants aim to reflect on their own assumptions in order to improve their practice (Schon 1982).

While an assumption of this research is that improved capacity development involves learning from experience and encouraging practitioners to be reflective (§ 2.4.2), reflective practice was not a core characteristic of the research. This study did provide an opportunity for reflection and improvements in the researcher’s practice as a capacity development practitioner. Researcher reflexivity was used as a strategy to reduce threats to validity (§ 3.8.3.3). However, research participants were not asked to reflect on their practice due to potential difficulties: 1) securing a commitment from research participants to reflect and improve their own practice; 2) drawing conclusions for improving practice from these reflections; and, 3) managing and resourcing the extensive translation required to implement an action inquiry methodology.

3.3.2. Evaluation

Evaluation methodologies were also reviewed for the research. There is no commonly agreed definition of evaluation, although definitions tend to echo those of Scriven (1967) which claims that “evaluation is judging the worth or merit of something” (cited in Worthen, Sanders, and Fitzpatrick 1997 p.7). At its core evaluation implies that a judgement will be made i.e., an evaluand will be judged against certain criteria. However, evaluations can be carried out for a range of purposes, and they can take a number of different forms.

A common distinction made is between formative and summative evaluations (Scriven 1967):

- **Formative**: formative evaluations are improvement oriented. The aim of the evaluation is to identify information for improving whatever is being evaluated.
• **Summative**: summative evaluations are judgment oriented. The aim of the evaluation is to judge the effect or effectiveness of whatever is being evaluated.

Another dichotomy draws a distinction between process and outcomes evaluations (Robson 2002 p.208). Process evaluations are concerned with understanding what or how something is happening with an evaluand, but not necessarily improving it. Outcomes evaluations, like summative evaluation are judgment oriented, although are more similar to Misanchuk’s (1978 p.6) confirmative evaluation where the evaluation is “conducted after a significant period of time to see how well it retained its effectiveness across time”.

Owen (2006) makes a further distinction between five forms of evaluation studies, although he notes that most evaluations will focus on more than one of these forms:

1. **Proactive**: scoping the environment in which the intervention being studied is to take place.
2. **Clarificative**: clarifying the objectives and ensuring that the outcomes and the objectives are logically connected.
3. **Interactive**: obtaining data from the participants to establish if the design of the intervention is working well or needs to be changed.
4. **Monitoring**: monitoring the progress of the intervention being evaluated.
5. **Impact**: assessing the impact of the intervention to ascertain if the objectives have been achieved and whether any modifications are recommended for the future.

The range of evaluation methodologies makes it theoretically possible to select a methodology that is consistent with the research characteristics (Table 3.1). However, evaluation has connotations of judgement. While judgement is implicit in identifying aspects of capacity development that may benefit from improvement, evaluation alone does not facilitate understanding of the complexity of capacity development and may be inadequate for identifying practical lessons that are useful in other contexts.

Consideration was given to evaluation methods used in the development industry. Today, in the development industry evaluation is increasingly commonplace. In a recent report by the European Centre for Development Policy and Management (ECDPM) on ‘Monitoring and
Evaluation of Capacity and Capacity Development' (Watson 2006) the methodologies used in capacity development were described as broadly falling into two categories: 1) logical framework approach; and, 2) systems approach.

The industry’s emphasis on results-based management (refer to § 2.3) has seen a reliance on evaluations based on the logical framework in order to address accountability concerns (Watson 2006). The logical framework is used to design, plan, implement and evaluate interventions. The framework posits the cause and effect relationship between the inputs, outputs, outcomes and impact (Saldanha and Whittle 1998). The logical framework approach is used in program evaluation under a range of names (e.g., program theory (Bickman 1987), theory based evaluation (Weiss 1997), program logic (Funnell 1997)). A program evaluation, broadly speaking, aims to “investigate the causal mechanisms by which a program achieves its effects” (Davidson 2000 p.18).

A logical framework approach was not considered appropriate for this study for these reasons:

- The logical framework approach is inconsistent with the characteristics of the research (Table 3.1). Its emphasis on establishing cause and effect relationships does not facilitate understanding of the complexity of developing capacity, nor ways to improve capacity development practice.
- The logical framework approach is aligned with the conventional development paradigm (Chambers et. al, 2002; Eyben 2000 cited in Pasteur 2006 p.36).
- In the development context there is rarely a clear understanding of the objectives, outputs, intended outcomes and impact of a project (Mikkelsen 2005). This lack of clarity makes it difficult to make judgements about cause and effect.
- The logical framework approach ignores unintended consequences and outcomes of the program which might be just as important or more important for understanding and improvement (Rogers et al. 2000).

The second approach is based on systems thinking, recognising that the complexity of any capacity development intervention makes it difficult to predict with any certainty the consequences, such as results or outcomes, of any action. The systems approaches to
evaluation (e.g., Drivers of Change Analysis (DFID 2004)) focus more on feedback and learning. They are pragmatic, looking at “what works best, what doesn’t work and why” (Watson 2006 p.19). Systems approaches also tend to involve reflective practice (ibid.), sharing this characteristic with action inquiry. The systems approach is also consistent with many of the characteristics of the research (Table 3.1). However, for the following reasons a systems approach to evaluation was considered inappropriate for this study:

- The methodologies are not well defined (GSDRC n.d.) and they have tended to focus on organisational change (Watson 2006).
- These methods emphasise improving the intervention being evaluated rather than contributing to the wider body of knowledge regarding understanding and improving capacity development practice.

Several innovative approaches to evaluating capacity development were also considered for this study. These approaches include the Most Significant Change technique (Dart and Davies 2003), Outcomes Mapping (Earl, Carden, and Smutylo 2001) and Action Aid’s Accountability, Learning and Planning System (Guijt 2004). These approaches are similar to systems approaches and were not selected for the same reasons.

Evaluation methodologies used in the development industry were further discounted as the methodological choice due to consideration of OECD DAC’s (1991 p.5) criteria for evaluating development assistance. These criteria state that an evaluation should aim to “determine the relevance and fulfilment of objectives, developmental efficiency, effectiveness, impact and sustainability”. Many organisations base their evaluations on these criteria (Foresti et al. 2007). The relevance, impact and sustainability criteria are pertinent to this research. However, overall these criteria do not facilitate understanding of the capacity development process.

3.3.3. Design-based research

The methodology selected for this research was design-based research. Design-based research (The Design-Based Research Collective 2003; Barab and Squire 2004) is variously referred to as design research (Edelson 2002; Bannan-Ritland 2003; Kelly 2003), design science (Hevner et al. 2004), design experiments (Brown 1992; Cobb et al. 2003), development
research (van den Akker 1999; Reeves 2000), developmental research (Richey, Klein, and Nelson 1996) and sometimes formative research (Reigeluth and Frick 1999). The number of variants highlights the methodology’s use in a range of disciplines including information systems, engineering, education and in particular educational technology.

Edelson (2002 p.107) explains that “an important characteristic of design research is that it eliminates the boundary between design and research... it explicitly exploits the design process as an opportunity to advance the researchers understanding”. In an educational context this involves the study of the “instructional design, development and evaluation process as a whole” (Richey, Klein, and Nelson 1996 p.1099), while at the same time viewing this process as a form of inquiry. Wang and Hannafin (2005) elaborate on this definition, describing the methodology as

…a systematic but flexible methodology aimed to improve educational practices through iterative analysis, design, development, and implementation, based on collaboration among researchers and practitioners in real-world settings, and leading to contextually-sensitive design principles and theories. (p.6)

The methodology as articulated by Reeves (2000) is presented diagrammatically in Figure 3.1.

---

**Figure 3.1** Development research methodology

From Reeves (2000)
The general aims common to this methodology are highlighted in Table 3.2 which draws on the wide range of literature carried out under the banner of design research. This table has been developed to illustrate the mapping between the characteristics of design-based research and the overarching research characteristics (Table 3.1).

Design-based research is consistent with the research characteristics in the following ways:

- **Pragmatic**: the findings of the research are judged by “the extent to which [they] inform and improve practice” (Wang and Hannafin 2005 p.8).
- **Improvement oriented**: the research process “engages the researcher in direct improvement of practice” (Edelson 2002 p.105). Through this process design-based research is also critical and clarificative.
- **Contextual**: the research focuses on solving real world problems (The Design-Based Research Collective 2003).

In addition to these characteristics design-based research is participatory and reflective. These are not core characteristics of the research. However, they are consistent with the practice of developing capacity based on the alternative paradigm. As described in Chapter Two, the core principles of capacity development advocate for practice that involves reciprocal and respectful partnerships and encourages reflective practice. The methodology also advocates the use of mixed and multiple methods (Wang and Hannafin 2005).

Design-based research can be further characterised in terms of the type of studies and knowledge that can be gained through using this methodology.
Table 3.2  The common aims and characteristics of design-based research.
Based on characteristics derived from the Design-Based Research Collective (2003); Reeves, Herrington and Oliver (2004); Wang and Hannafin (2005).

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<tr>
<td>Pragmatic and improvement oriented</td>
<td>• Maintains a commitment to theory construction and explanation while solving real-world problems</td>
<td>• Must lead to sharable theories that help communicate relevant implications to practitioners and other designers • Designing and theorising are intertwined</td>
<td>• Design-based research refines both theory and practice • The value of theory is appraised by the extent to which principles inform and improve practice</td>
</tr>
<tr>
<td>Contextual</td>
<td>• Focuses on broad-based complex problems</td>
<td>• Account for how designs function in authentic settings… not document only success and failures, but focus on interactions that refine our understanding of the learning issues involved • The development of such an account relies on methods that can document and connect processes of enactment to outcomes of interest.</td>
<td>• The research process, research findings and changes from the initial plan are documented • Research results are connected with the design process and the setting • The content and the depth of generated design principles varies • Guidance for applying generated principles is needed</td>
</tr>
<tr>
<td>Participatory</td>
<td>• Involves intensive collaboration among researchers and practitioners</td>
<td></td>
<td>• Researchers and practitioners are both involved in the design processes</td>
</tr>
<tr>
<td>Reflective</td>
<td>• Conducts rigorous and reflective inquiry to test and refine innovative learning environments as well as to reveal new design principles • Requires long-term engagement that allows for continual refinement of protocols and questions</td>
<td>• Development and research take place through continuous cycles of design, enactment, analysis and redesign</td>
<td>• Processes are iterative cycles of analysis, design, implementation and redesign</td>
</tr>
</tbody>
</table>
3.3.3.1. Types of studies

In the literature a distinction is made between two kinds of design-based research. This dichotomy is variously referred to as Type I and Type II development research (Richey, Klein, and Nelson 1996) and formative and reconstructive studies (van den Akker 1999). The two kinds of design-based research differ in a number of ways (Richey, Klein, and Nelson 1996; van den Akker 1999), for example:

- **Timing:** Type I studies are usually performed during the entire development process of a specific intervention. Type II studies often take place after the actual design and development is completed.

- **Aim:** Type I studies are aimed at optimisation of the quality of the intervention as well as testing design principles. Type II studies are focused on the articulation and specification of design principles.

- **Conclusions:** Type I studies generate context specific design principles, although the implications for similar situations may be discussed. Type II studies generate generalisable design principles.

Both Type I and Type II studies are considered relevant to this research. As van den Akker (1999 p.6) notes there are “many possible differences and linkages” between different types of design-based research and the “boundaries and labels are not very strict”. This study:

- is carried out during and after the design and implementation of specific capacity development interventions (Type I and II)

- had the dual aims of testing design principles to optimise the capacity development intervention being studied (Type I) and articulating and specifying design principles for improving capacity development practice (Type II)

- sought to generate generalisable design principles for improving capacity development practice (Type II).
3.3.3.2. Types of theories

The theories or knowledge that can be gained through design-based research are also
differentiated in the literature. Edelson (2002) describes three types of theories that can be
developed from design research:

A **domain theory** is the generalisation of some portion of the problem analysis.
These are generalisations or theories about the world; they are not theories about
design per se. These theories are descriptive and can include context theories and
outcomes theories. A context theory characterises the challenges and opportunities
presented by a class of design contexts. An outcomes theory characterises a set of
outcomes associated with some intervention. (p.113)

A **design framework** is a generalised design solution that is prescriptive. They
describe the characteristics that a designed artefact must have to achieve a
particular set of goals in a particular context. A design framework is a collection of
coherent design guidelines for a particular class of design challenge. (p.114)

A **design methodology** provides guidelines for the process rather than the
product. A design methodology describes a) a process for achieving a class of
designs, b) the forms of expertise required, and, c) the roles to be played by the
individuals representing those forms of expertise. (p.115)

Van den Akker (1999) describes two types of theories which are similar to Edelson’s design
framework and design methodology. According, to van den Akker (1999)

The major knowledge to be gained from development research is in the form of
‘design principles’ to support designers in their task... those principles cannot
guarantee success, but they are intended to select and apply the most appropriate
(substantive and procedural) knowledge for specific design and development tasks.
(p.9)
The types of theories and knowledge claims that can be gained from design-based research are consistent with the aims of the research: to identify substantive and procedural design principles for improving the process, design and outcomes of capacity development interventions.

3.3.4. Conclusion

Consideration was given to three methodologies for this research, action inquiry, evaluation and design-based research. Based on the critique presented in this section design-based research was selected for the following reasons:

- The methodology accommodates the desired research characteristics (see Table 3.1).
- The approach “advances design, research and practice concurrently” (Wang and Hannafin 2005 p.5). Design-based research is similar to action inquiry in that it oscillates between taking action and inquiring into it. However, in design-based research the emphasis is on the design of the intervention and the identification of design principles as opposed to reflecting on one’s own practice.
- Aspects of evaluation are relevant to design-based research. Application of the design-based research methodology involves an evaluation and testing phase (see Figure 3.1). However, this phase is combined with analysis, development, synthesis and reflection which make it possible to move beyond judgements about the merits or worth of a capacity development intervention to facilitate understanding and identify design principles for improving practice. Evaluative aspects of this research are discussed further in Section 3.4).
- The knowledge claims that can be made from design-based research are consistent with the aims of the research which include identifying design principles for improving capacity development practice.
- Design-based research “yields practical lessons that can be directly applied” (Edelson 2002 p.105).

The selection of design-based research as the methodology also provided an opportunity to explore the utility of the methodology and its appropriateness for developing design principles for improving capacity development.
Application of the design-based research methodology and the resulting study design are described further in Section 3.4. Firstly, however, it is important to note that case studies are used in this research.

3.3.5. Case studies

The case study concept is ambiguous and widely debated with little consensus as to what constitutes a case, study or case study (Ragin and Becker 1992). Case studies are described as a “research strategy” (Yin 1994 p.14); a “process of learning about the case” (Stake 1994); the end product of our learning (Stake 1994; Merriam 1998); or, the “unit of analysis (the bounded system, the case)” (Merriam 1998 p.34). It is the latter position that is taken in the context of this research, that is case and case study are used interchangeably to convey the capacity development interventions being studied.

Studying cases is considered appropriate in situations where the object of the study is “embedded in a number of contexts or backgrounds” (Stake 2005 p.449) and “not readily distinguishable from its context” (Yin 2003 p.4). As outlined in Chapter Two, capacity development is embedded in complex contextual frameworks (Fukuda-Parr, Lopes, and Malik 2002). Moreover, in development studies international evaluation experts advocate for the use of cases because they can be more manageable in potentially problematic situations in developing countries, for example in terms of management and logistics (Patton 2002 p.99).

The PSLP and SSWT Projects served as case studies in this research. These case studies are described in the following section.

3.4. Study design

The application of design research to the conduct of this study is presented diagrammatically in Figure 3.2. The study is made up of four stages:

1. **PSLP Case**: inquiry into the PSLP Project in order to identify design principles for improving capacity development practice and inform the development of a preliminary Framework for Capacity Development for improving practice.
2. **SSWT Case**: implementation of the SSWT Project based on application of the preliminary Framework and evaluation of the Framework in order to validate and improve the Framework.

3. **Outcomes Assessment**: assessment of the outcomes of the PSLP and SSWT Projects to evaluate whether application of the Framework to the SSWT Project resulted in improved longer-term outcomes.

4. **Expert Review**: evaluation of the Framework by ‘experts’ in order to further evaluate and validate the Framework as a tool for improving capacity development practice.

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![Study Design Diagram](image)

**Figure 3.2** Study design

Each stage of the study is summarised here. Complete details are provided in the corresponding chapters four to seven.

**3.4.1. Stage 1: PSLP Case**

The first stage of the study involved inquiry into the PSLP Project. The purpose of this inquiry was to identify the factors that impacted on the success of the intervention (RQ1.1) and in doing so identify ways to improve the process and outcomes of capacity development interventions. This stage of the study included the following steps:
• **Analysis:** exploring the problems with water and sanitation in Indonesia and difficulties associated with responding to these challenges through approaches such as capacity development.

• **Development:** the development of a plan for developing capacity and a corresponding program of activities for the PSLP Project designed to respond to the problems with water and sanitation in Indonesia.

• **Testing and evaluation of solutions in practice:** implementation of the activities of the PSLP Project based on the plan, and evaluation of these activities in order to identify the factors that impacted on its success and to identify potential areas of improvement.

• **Synthesis and reflection:** consideration of the capacity development process, research findings and literature based findings in order to identify design principles and develop a preliminary Framework for Capacity Development for further consideration in the second stage of the study.

The PSLP case is presented in Chapter Four.

3.4.2. Stage 2: SSWT Case

In the second stage of the study the SSWT Project was designed and implemented based on the findings of stage one. The main aims of this stage of the study were to identify the factors impacting on the success of the SSWT Project (RQ2.1) and to evaluate the Framework for Capacity Development to determine whether the SSWT Project was improved compared with the PSLP Project (RQ2.2). A secondary aim of stage two of the study was to refine and improve the Framework (RQ2.3). In exploring these questions the following steps were taken:

• **Analysis:** further consideration of the problem with developing Indonesian capacity in sanitation and the extent to which the preliminary Framework identified in the first stage of this study could address these problems and improve the capacity development process and outcomes.
• **Development**: the development of a plan for developing capacity in water and sanitation based on the Framework identified in stage one.

• **Testing and evaluation of solutions in practice**: implementation of the SSWT Project using the Framework and the evaluation of this Framework in order to establish whether its application led to improvements in capacity development.

• **Synthesis and reflection**: consideration of the SSWT Project in light of the research questions in order to refine the existing design principles, identify new design principles and improve the Framework.

The SSWT case is presented in Chapter Five.

3.4.3. **Stage 3: Outcomes Assessment**

An outcomes assessment was carried out in the third stage of the research. In the literature a range of terms are used to describe this process:

• **Summative evaluation**: judging the effect or effectiveness of an intervention (Scriven 1967).

• **Outcomes evaluation**: assessing the impact of an intervention to ascertain whether the objectives have been achieved (Owen 2006).

• **Confirmative evaluation**: evaluating an intervention “after a significant period of time to see how well it retained its effectiveness across time” (Misanchuk 1978 p.6).

• **Outcomes or impact assessment**: assessing the changes in “participants’ attitudes, knowledge, skills, intentions, and/or behaviours thought to result from your activities" (W.K. Kellogg Foundation 2001 p.83).

• **Impact assessment**: “systematic analysis of the lasting or significant changes positive or negative, intended or not – in people's lives, brought about by a given action or series of actions” (Roche 2001 p.363).
These definitions use different terminology to describe what specifically is being assessed or evaluated through the process (e.g., impact, outcomes, objectives, effect), but they all refer to a process that:

- Takes place after the intervention is complete
- Involves assessing the consequences of an intervention
- Is typically used to provide a judgement about the effectiveness of an intervention

The term ‘outcomes assessment’ was selected for use in this research. Outcomes and impact assessment are more commonplace in the development literature. Although outcomes and impact are often used interchangeably, as defined by Roche (2001 p.363) impact assessments involve the analysis of “lasting or significant changes” such as improvement in the sanitation condition in Indonesia”. Within the timeframe of this research assessing the longer-term outcomes as opposed to “lasting change” was considered more appropriate.

The outcomes assessment focused on evaluating the longer-term outcomes of the PSLP and SSWT Projects, in particular changes in capacity including attitudes, knowledge, skills, intentions, relationships as well as actions thought to result from the PSLP and SSWT Projects. The outcomes assessment represented an extension of the evaluation carried out in stage two of the study which evaluated the Framework in relation to improvements in the design, implementation and immediate outcomes of the interventions.

The central aim of the outcomes assessment was to establish whether application of the Framework facilitated improved outcomes compared with the approach employed in the PSLP Project (RQ3.1).

The findings from the outcomes assessment are presented in Chapter Six.

3.4.4. Stage 4: Expert Review

An expert review of the Framework was carried out in the fourth stage of the study. Expert review, also referred to as, ‘connoisseur review’ (Elsworth 2004) and ‘connoisseur based studies’ (Flagg 1990), is a form of ‘expertise oriented evaluation’ (Worthen, Sanders, and
Fitzpatrick 1997). In an expert review, individuals with relevant expertise and experience are called upon to evaluate the object being studied (e.g., intervention, educational program or product). The experts engaged in this process may comment on, for example, subject matter, content (Rowntree 1990), or design and utility (Flagg 1990). A primary aim of expert reviews is improvement (Vars 2002).

Connoisseurship and criticism are the bases of this form of evaluation (Eisner 1976). Drawing on Eisner’s research Worthen, Sanders and Fitzpatrick (1997 p.128-129) describe these concepts:

**Connoisseurship** is the art of appreciation – not necessarily a liking or preference for what is being observed but rather an awareness of its qualities and the relationships between them. The connoisseur, in Eisner’s view, is aware of the complexities in real-world settings and possesses refined perceptual capabilities that make the appreciation of the complexity possible. The connoisseur’s perceptual acuity results largely from a knowledge of what to look for (advance organizers, or critical guideposts), gained through a backlog of previous relevant experience. (p.128)

**Criticism** is not a negative appraisal… but rather an educational process intended to enable individuals to recognise the qualities and characteristics that might otherwise have been unnoticed and unappreciated… Evaluators are cast as a critic whose connoisseurship enables them to give a public rendering of the quality of the significance of that which is evaluated. (p.129)

The main criticisms of expert review are threats to validity, in particular the potential biases of the reviewers (Flagg 1990). These are discussed further in Section 3.8, and Chapters Seven and Eight.

The expert review carried out in this study had two aims: 1) to establish the external and pragmatic validity (see § 3.8.2) of the Framework, or in other words validate the Framework as a tool for improving capacity development (RQ4.1) in contexts besides the case studies; and, 2) to
refine and improve the Framework (RQ4.2). An additional aim of the review process was to expand the Framework by developing a heuristic for the impact and ease of applying specific design principles.

To meet these aims step one of the methodology (analysis of the problem) was not considered necessary. This stage of the study involved:

- **Development**: the development of a heuristic that would expand the Framework in order to improve its utility by providing users with an indication of the impact of individual design principles and the ease with which they can be applied.

- **Testing and evaluation**: evaluation and validation of the Framework based on expert opinion.

- **Synthesis and reflection**: refining and improving the Framework based on the review process.

The results and findings of the expert review are presented in Chapter Seven.

This section has presented an overview of the study design. The data collection procedures used in this study are described in the next section.

3.5. **Data collection**

In this section the data collection methods are discussed and the research participants are introduced. The challenges to conducting cross-cultural research, data analysis process and legitimisation of the findings are discussed in subsequent sections.

3.5.1. **Research participants**

Aside from the researcher (as a participant-as-observer – see § 3.5.2.1), the participants in the research comprise three main groups:
1. **Intermediary stakeholders/team members:** the individuals who facilitated implementation of the PSLP and SSWT Projects. This included staff from the Environmental Technology Centre (ETC), Murdoch University and staff from the Institute of Environmental Management and Technology (IEMT), Merdeka University who participated as team members in the implementation of one or both of the interventions.

2. **Primary stakeholders:** the individuals who participated in the activities of the PSLP and SSWT Projects. The primary stakeholders included individuals from local government, NGOs, government corporations, hospitals, academia and industry identified as having a stake or interest in water and sanitation related issues. This group is chiefly referred to as stakeholders.

3. **Expert reviewers:** individuals who are practitioners and researchers in the field of capacity development and have experience developing capacity. An Indonesian expert also participated in the research.

Complete details of the research participants in each stage of the research are provided in the corresponding chapters.

### 3.5.2. Methods

As outlined in Section 3.2 this research uses mixed methods. The methods appropriate to this research principally include qualitative methods, in particular participant observation and interviews. However, quantitative methods such as scale-items in questionnaires were also used. The methods used in this study are described here.

#### 3.5.2.1. Participant observation

According to Adler and Adler (1994 p.377) observation is “one of the earliest and most basic forms of research” and is often used in conjunction with other methods (ibid.). Observation has a number of variants (e.g., structured observation and participant observation). The variant used in this research is participant observation.
Using participant observation as a method requires consideration of the following:

- Role of the researcher
- Types of observation

A summary of participant observation is provided here. The way participant observation is used in this research is then discussed.

**Role of the researcher**

When using participant observation the researcher comes to a situation with the dual purpose of “engaging in activities appropriate to the situation and observing the activities, people and physical aspects of the situation” (Spradley 1980 p.54). There are a number of distinguishing characteristics of this process. These include the role of the researcher in the situation being observed, the degree of participation by the researcher, and the proximity of the researcher to those being observed. A number of schemas that represent these differences are presented in Table 3.4.

**Table 3.3** Overview of participant observation schema

<table>
<thead>
<tr>
<th></th>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Role of the researcher</td>
<td>Complete participant</td>
<td>Complete</td>
<td>Insider</td>
<td>Complete-member-researcher</td>
</tr>
<tr>
<td>Degree of participation</td>
<td>Participant-as-observer</td>
<td>Active</td>
<td>Nominal</td>
<td>Active-member-researcher</td>
</tr>
<tr>
<td>Proximity to the observed</td>
<td>Observer-as-participant</td>
<td>Moderate</td>
<td></td>
<td>Peripheral-member-researcher</td>
</tr>
<tr>
<td>Low-------------------------High</td>
<td>Complete observer</td>
<td>Passive</td>
<td>Marginal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-participation</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Gold’s (1958) typology emphasises the role of the researcher ranging from a complete participant to a complete observer, whereas Spradley (1980) characterises the level of involvement of the researcher ranging from complete participation to non-participation. The schema proffered by Adler and Adler (1994) provides a combination of the two taking into...
account the roles and level of involvement. Jorgensen (1989), on the other hand, focuses more on the proximity of the researcher to the observed and whether the researcher is an insider or native and nominal or marginal. A further distinction that is made in the literature is between “whether the observer [researcher] operates covertly or overtly” (Jorgensen 1989 p.21).

The defining characteristics of participant observation are not clear-cut (Atkinson and Hammersley 1994). A decision regarding the role of the researcher ultimately depends on the nature of the research questions.

Types of observation

Spradley (1980 p.128) presents a schema of three kinds of observation, namely, descriptive, focused and selective. Descriptive observations describe everything that happens. In focused observations “researchers know what they are looking for” and their attention is drawn to specific aspects of the thing being studied. Selective observations are more appropriate for ethnographic studies and involve “looking for differences among specific cultural categories” (ibid.). A useful distinction made by Creswell (2005 p.214) is between descriptive field notes which “describe what happens” and reflective field notes which include “personal thoughts of the researcher that relate to hunches, insights, broad ideas, themes that emerge during the observation”.

Whether these observations are descriptive, focused, selective or reflective they can include details about space, actors, activities, objects, acts, events, time, goals and feelings (Spradley 1980) or “context, interactions and activities” (Patton 2002 p.209). Researchers recommend that observations are recorded at the time or as soon after something is observed to reduce selective memory (see below) and improve the accuracy of the account (Robson 1993; Creswell 2005).
Advantages and disadvantages of participant observation

Patton (2002 p.203-205) describes some of the advantages of participant observation:

- First hand experience allows the researcher to be open, discovery oriented and inductive and less reliant on preconceptions.
- The researcher has the opportunity to see things that other team members or stakeholders may not be aware of and therefore are unable to report on.
- It provides better understanding of the context.
- The researcher can learn things that other team members or stakeholders may be unwilling to talk about in an interview.
- Observation permits the researcher to move beyond the selective perceptions of others.

Forcese and Richer (1973 p.157) also note that through observation there is “the potential for insight and a richness of data that other data collection techniques, such as questionnaires, preclude”.

Participant observation also draws a number of criticisms. These criticisms relate primarily to the subjective nature of the interpretations of the situation and the potential for bias. Robson (1993 p.203-205) identifies the following observational biases:

- **Selective attention**: the researcher's interests, experience and expectations affect what they pay attention to.
- **Selective encoding**: the researcher's expectations 'colour' what is seen and affect the encoding and interpretation of it.
- **Selective memory**: the time it takes for the researcher to record the event after it takes places affects the accuracy and completeness of the account.

Other criticisms cited in the literature include:

- Ethical issues relating to observations that are carried out covertly (Lofland and Lofland 1995).
• The “high cost in time” (Whyte 1984 p.27).
• It “depends on patience and skill of the observer” (Forcese and Richer 1973 p.157).
• Reactivity, this is where the researcher’s presence affects what is being observed i.e., the way that people behave or respond (Lincoln and Guba 1985).

Participant observation in this study

Participant observation was used in this research to directly observe the case studies. This method is consistent with the characteristics of the research, enabling analysis of real world problems and permitting the researcher to reflect on the process of developing capacity.

The researcher participated in the design and conduct of the case studies as a team member and at the same time observed the process. Gold’s (1958) ‘participant-as-observer’ most accurately describes the role adopted by the researcher. The researcher’s role can also be characterised as overt, that is the team members and primary stakeholders were aware of the dual roles of the researcher.

As a team member the researcher coordinated the interventions and contributed to the proposal writing phase, preparation and implementation of the activities, reporting and monitoring. As an observer, the researcher observed the process of developing capacity.

The researcher kept three kinds of field notes throughout the study:

1. **Descriptive:** The researcher observed and described everything about the capacity development interventions. This included notes taken during all interviews, activities and meetings as well as daily entries which included detailed accounts of conversations with research participants, interactions between research participants, the context in which the cases took place and the activities implemented as part of the interventions.

2. **Focused:** Specific emphasis was given to: determining the factors that impacted on the success of the interventions; identifying potential areas of improvement; and, assessing the applicability of the Framework for Capacity Development for improving practice.
3. Reflective/dialogic: The field notes also have a dialogic and reflective aspect through which the researcher considered potential biases and assumptions, identified themes and identified areas that required further clarification. Researcher reflexivity was a strategy used to address potential threats to validity (§ 3.8.3.3).

3.5.2.2. Interviews

The second method used was the interview. Interviews are in essence a conversation with a specific purpose (Robson 1993 p.228). Depending on the purpose, interviews can be characterised in a number of ways, for example:

- The degree of structure or standardisation
- The type of questions
- The delivery method

An overview of interviews as a research method is provided here, followed by a description of the way interviews are used in this research.

Degree of structure or standardisation

A range of typologies describe the degree of structure or standardisation of interviews. Three typologies are presented in Table 3.4.

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree of structure/standardisation</td>
<td>Standardised open ended</td>
<td>Fully structured</td>
<td>Respondent</td>
</tr>
<tr>
<td>HIGH</td>
<td>Interview guide</td>
<td>Semi-structured</td>
<td>Respondent</td>
</tr>
<tr>
<td>LOW</td>
<td>Informal conversational</td>
<td>Unstructured</td>
<td>Informant</td>
</tr>
</tbody>
</table>

The typologies presented use different terminology to distinguish between three forms of interviews that have a high, medium or low degree of structure. Robson's (2002) typology is
used in this study. This typology uses unambiguous language to describe the structure of the interviews.

Fully structured interviews are implemented using an interview schedule that prescribes the questions and the order that the questions will be asked (Cohen, Manion, and Morrison 2000). Patton (2002 p.285) explains that fully structured interviews reduce interviewer effects and bias when several interviewers are used, are systematic and reduce the necessity for interviewer judgement during the interview and make data analysis easier. There are also a number of limitations. For example, fully structured interviews do “not permit the interviewer to pursue different topics or lines of questioning” and “reduce the extent to which individual differences and circumstances can be taken into account” (ibid.).

In semi-structured interviews an interview schedule includes questions and/or topics to be discussed, but these are delivered flexibly. The interviewer may change the wording of a question and the sequence that questions are asked (Robson 2002). Semi-structured interviews enable the researcher to make best use of the time available. At the same time, the predetermination of questions ensures that the interview process is systematic and comprehensive (Patton 2002).

Unstructured interviews are the least standardised; the researcher may have a particular area of interest, but the interview has a conversational style. These interviews are highly responsive to the individual and context. The main limitations of unstructured interviews are that it can take a long time to collect systematic information, they are more open to interviewer effects and the data obtained can be difficult to analyse (Patton 2002).

Semi-structured and unstructured interviews enable the interviewer to pursue interesting responses, explore underlying motives that administered questionnaires and fully-structured interviews cannot (Robson 2002).
Types of questions

In an interview, questions can be open ended or closed (Creswell 2005). An open ended question allows the person interviewed to respond in any way they want with “no restrictions on the content or manner of the response” (Robson 2002 p.275). Closed questions encourage the person interview to choose between fixed alternatives (e.g., yes or no).

In an interview both types of questions can be used to “elicit information about what a person knows, what they do and what they think and feel” (Robson 2002 p.272). Patton (2002 p.290-292) describes six kinds of questions that can be asked of people: “1) experience/behaviour; 2) opinion/value; 3) feeling; 4) knowledge; 5) sensory; and, 6) background/demographic”.

Open ended questions are preferred because they encourage people to say more (Patton 2002).

Delivery method

Creswell (2005 p.215) explains that the type of interview and method used to deliver an interview “will ultimately depend on the accessibility of the individuals, the cost and the amount of time available”. The delivery methods include one-on-one interviews, focus groups, telephone interviews, email interviews or open-ended questions in questionnaires.

Advantages and disadvantages of interviews

There are a number of advantages and disadvantages of interviews as a research method (Patton 2002; Robson 2002; Creswell 2005). These are summarised here:

Advantages

- They are a flexible and adaptable way of finding things out
- Non-verbal cues may give messages which help understand the verbal response
- Rich and illuminating data can be obtained
Disadvantages

- To make profitable use of the flexibility of unstructured interviews requires considerable skill and experience
- The lack of standardisation raises concerns about reliability
- Biases are difficult to rule out
- Interviewing is time consuming
- The presence of the interviewer may affect how the interviewee responds
- The responses may not be articulate, prescriptive or clear

There are also a number of additional challenges when conducting cross-cultural interviews, which is the case in this research (Patton 2002). For example:

- Words often have different meaning in other cultures
- There are words and ideas that cannot be translated
- Interpreters may summarise and explain questions and responses instead of interpreting question and response precisely

Strategies for overcoming these challenges are discussed in Section 3.8.

Interviews in this study

In this study, fully structured, semi-structured and unstructured interviews were used. The interviews principally included open ended questions designed to ascertain the experience, opinions and knowledge of the research participants. The delivery methods included one-on-one interviews, telephone interviews and open-ended questions in questionnaires.

Fully structured and semi-structured interviews were delivered using interview schedules and guides respectively. These were initially developed in English. For interviews carried out with Indonesian participants the schedule and/or guide was translated into Indonesian. Where a second translator was available the schedules were ‘back translated’ (§ 3.6.1.1).
The type of interview and interview procedure used in each stage of the research depended on the aims and stage of study, the language ability of the research participants and the interpreters available. An overview of the interview type and process for each stage of the research is presented in Table 3.5 and summarised for each group of research participants below. Details of the questions and purpose of the interviews are provided in the appropriate chapter when the results are presented.

**Table 3.5** Interview types and procedures used in this research

<table>
<thead>
<tr>
<th>Interview type</th>
<th>Interviewer</th>
<th>Research Participant</th>
<th>Delivery</th>
<th>Interpretation</th>
<th>Transcription</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stage One</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fully structured</td>
<td>Indonesian national</td>
<td>Primary stakeholders</td>
<td>One-on-one</td>
<td>Unavailable</td>
<td>Manual</td>
</tr>
<tr>
<td>Semi-structured and unstructured</td>
<td>Researcher</td>
<td>Team members</td>
<td>One-on-one</td>
<td>Not applicable</td>
<td>Manual and Electronic</td>
</tr>
<tr>
<td><strong>Stage Two</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semi-structured and unstructured</td>
<td>Researcher</td>
<td>Team members</td>
<td>One-on-one</td>
<td>Not applicable</td>
<td>Manual and Electronic</td>
</tr>
<tr>
<td><strong>Stage Three</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semi-structured</td>
<td>Indonesian national</td>
<td>Primary stakeholders</td>
<td>One-on-one</td>
<td>Available</td>
<td>Manual and Electronic</td>
</tr>
<tr>
<td>Semi-structured</td>
<td>Researcher</td>
<td>Team members</td>
<td>One-on-one</td>
<td>Not applicable</td>
<td>Manual and Electronic</td>
</tr>
<tr>
<td><strong>Stage Four</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semi-structured</td>
<td>Researcher</td>
<td>Expert reviewers</td>
<td>One-on-one</td>
<td>Not applicable</td>
<td>Manual</td>
</tr>
</tbody>
</table>

*Primary stakeholders*

Fully structured interviews were carried out one-on-one with the primary stakeholders in the first stage of the research. The interviews were conducted by an Indonesian national. Interpretation was unavailable and to reduce interviewer effects the interviews were fully structured. The interviews were transcribed manually by the interviewer and recorded electronically if permitted by the stakeholder and if the background noise was acceptable. The interviews were subsequently translated by a consultant.

Due to the availability of an interpreter, in the third stage of the research the primary stakeholders were interviewed using a semi-structured format. The interview questions were delivered by an Indonesian national and simultaneously interpreted for the researcher. The
interview responses were manually transcribed by the researcher in English and recorded electronically using a digital voice recorder.

**Team members**

Semi-structured and unstructured interviews were carried out one-on-one with the team members during the first, second and third stages of the research. The interviews were conducted and transcribed manually by the researcher. They were also recorded electronically depending on the location of the interview and background noise levels. Semi-structured interviews were utilised to enable the researcher to follow unanticipated lines of discussion. Unstructured interviews or informal conversations also took place with the team members during these stages of the research and accounts of these conversations were recorded in the researcher’s field notes.

**Expert reviewers**

As part of the expert review carried out in the fourth stage of the research the reviewers were interviewed. The interviews were semi-structured. These interviews were conducted by the researcher one-on-one and via telephone depending on the location of the reviewer. The interviews were transcribed manually by the researcher.

**3.5.2.3. Questionnaires**

Questionnaires are commonly used for the evaluation of educational activities (Cohen, Manion, and Morrison 1989). Questionnaires are thought to have an effective role in collecting opinions, views and experiences, especially regarding process (Rowntree 1990). Consistent with the mixed methods approach used in this research Forcèse and Richer (1973 p.176) highlight the “potential complementarity” of using questionnaires and interviews commenting “a study utilising both devices would embody a richness of data not possible with one technique alone”.

Questionnaires were implemented at the end of each of the activities of the PSLP and SSWT interventions. The questionnaires were used to evaluate the activities. They were used to gauge the primary stakeholders’ opinions of the activity, the utility of various aspects of the activity and the ways that the activity could be improved. The questionnaires included primarily open-ended
questions and scale items. They were initially developed in English and subsequently translated into Indonesian using the process described above for interview schedules.

A questionnaire was also implemented in the fourth stage of the research. This questionnaire was used to obtain feedback from the expert reviewers on the ease and impact of applying the design principles.

### 3.5.2.4. Documentation

Documentation from a program or project is a rich source of information (Patton 2002 p.233). Documentation can be used for triangulation purposes (see § 3.8.3.1) and to complement what has been collected directly by the researcher using other methods (Forcese and Richer 1973). The documentation from the PSLP and SSWT interventions is used as an additional source of data. This includes proposals, audiovisual materials developed as part of the interventions, photographs and reports about the interventions, as well as email communications between team members.

### 3.6. Conducting cross-cultural research

As described in Section 3.5.2.2 there are a number of unique challenges associated with carrying out cross-cultural research, in particular when the research is carried out in another language. The problems relate to difficulties with translation and interpretation and in particular with ensuring that questions and responses are accurately conveyed in the way intended. To overcome these challenges Brislin, Lonner and Thorndike (1973) suggest a number of strategies:

- **Back translation**: having a bilingual person translate English research instruments into for example Indonesian and then another bilingual person to translate them back into English.
- **Redundant questions**: asking more than one question related to a concept.
- **Precise questioning and translation**: ensuring that questions are asked precisely and that the full and complete answers are translated.

The way this research accommodated this strategies is discussed here.
3.6.1.1. Back translation

The research instruments were initially developed in English by the researcher and then translated into Indonesian. When a second translator was available these instruments were ‘back translated’ into English. The research instruments were also reviewed by Indonesian team members prior to their use and modified based on a discussion with the researcher to ensure that the language was appropriate.

3.6.1.2. Redundant questions

Redundant questioning is a form of triangulation (§ 3.8.3.1). Examples of redundant questioning used in this research include:

- **Two questions one method**: asking the participants the same or similar questions using scale items and open-ended questions in the evaluation questionnaires.
- **One question two or more methods**: asking the participants the same or similar question in an interview and questionnaire.

3.6.1.3. Precise questioning, full and complete translation

In circumstances when interviews were not carried out in English, or when interpretation was unavailable, structured interviews were utilised. Structured interviews utilise exactly the same questions for all research participants (§ 3.5.2.2). Prior to the interviews the interviewer and note-takers were provided with guidance regarding the interview process, including the importance of delivering and recording questions and responses verbatim. The researcher observed the process and provided ongoing feedback and guidance to the interviewer and note-taking regarding their interview technique. Where consent was given by the participant the interviews were also recorded electronically.

3.7. Data analysis

This section discusses the data analysis procedures used in this research for:

- **Qualitative data**
- **Quantitative data**
3.7.1. Qualitative data analysis

The qualitative data collected from this study included interview data, open-ended interview questions in questionnaires, observations and documentation. Analysis of this data was carried out according to the steps described by Miles and Huberman (1994 p.9) as “a fairly classic set of analytical moves”:

1. Affixing codes to the initial set of qualitative data.
2. Noting reflections or other remarks.
3. Sorting through the materials and identifying similar phrases, relationships between variables, patterns, themes, distinct differences between sub-groups, and common sequences.
4. Taking these patterns, themes etc. into the field to focus the next wave of data collection.
5. Elaborating a small set of generalisations that cover the consistencies discerned in the database.
6. Confronting those generalisations with a formalised body of knowledge in the form of constructs or theories.

Details of the process used in this study are elaborated here.

Coding, reflection and theme-ing

The software package QSR NUD*IST Vivo 1.1 (NVivo) and Microsoft Word were used to code the data. While software packages have the advantage of being able to handle large amounts of data and facilitate detailed consideration of the data, as noted by Welsh (2002 n.p.) “in order to achieve the best results it is important that researchers do not reify either electronic or manual methods and instead combine the best features of each”.

NVivo and Microsoft Word were used concurrently and interchangeably depending on the volume of data. The software package NVivo was selected because it is “not rigidly tied to a particular view of qualitative analysis” (Robson 2002 p.463).
Each document obtained through the data collection process (e.g., interview transcript) was examined and each statement made by a participant was coded. In NVivo the coding tool was used; in Microsoft Word this was achieved with the highlight tool and tables. Using Crabtree and Miller’s (1992 cited in Robson 2002) typology three strategies were used to code the data:

1. **Quasi-statistical:** this strategy “uses word or phrase frequencies and inter-correlations as key methods of determining the relative importance of terms and concepts” (Robson 2002 p.458). The quasi-statistical analysis in this study involved sorting and organising the data in order to assign weight and to prioritise the responses (e.g., according to the number of participants who made a similar response).

2. **Template:** the template strategy uses codes “determined on an a priori basis (e.g., derived from theory or the research question) or from an initial read of the data. These codes serve as templates (or ‘bins’) for data analysis; the template may be changed as analysis continues” (Robson 2002 p.458). The research questions and literature based findings were used as a priori codes as were the codes identified in previous stages of the study.

3. **Editing:** the editing strategy is “more interpretive and flexible making use of none or few a priori codes if any. The codes are based on the researcher’s interpretation of the meanings or patterns in the text” (Robson 2002 p.458). This strategy was used to openly explore the central research question in relation to the cases, in particular to identify factors impacting on the success of the interventions and areas of improvement. Consideration was also given to any relationships between themes such as the relationship between an expert reviewers’ experience and the responses provided.

The codes derived from these processes were continuously refined by joining similar and/or duplicate ideas. This process was combined with reflection and consideration of the data in light of the research questions. The outcome was a set of key themes. These themes were used to identify and develop components of the Framework for Capacity Development.
Utilising, elaborating and linking the findings

Design-based research is iterative and includes some or all of the phases of analysis, design, development, implementation and evaluation. The analysis carried out within each stage of the study was used to inform subsequent steps and stages of the study. The Framework for Capacity Development was applied in the second case and refined, added to and evaluated through this process. The Framework was further evaluated, added to and refined in stages three and four of the study. The research findings were utilised, elaborated and linked through this process.

3.7.2. Quantitative data analysis

Quantitative data was collected from scaled items in the questionnaires. As described above quasi-statistical data was also collected from the qualitative data. Quasi-statistical data is presented either as the number or percentage of participants that made a particular response. Analysis of scaled items involved the use of descriptive statistics in order to present the results as a mean. Due to small sample sizes standard deviations are not calculated for means.

3.8. Legitimisation of the research findings

There are two ‘traditional’ constructs for verifying conclusions about research, validity and reliability. While these have a long tradition in quantitative research, there is some debate about whether they are appropriate for qualitative studies (LeCompte and Goetz 1982). According to Lincoln and Guba (1985) the rigour and findings of qualitative studies should be judged using alternative constructs such as the concepts of credibility, transferability, dependability and confirmability. Conversely there are claims that these alternate constructs can be more of a threat to legitimacy as they provide support for arguments that qualitative studies are invalid and unreliable (Robson 2002). Others argue that reliability and validity can be applied to quantitative, qualitative and mixed methods studies, but how these are addressed in these studies varies (Cohen, Manion, and Morrison 2000). The way reliability and validity relate to this research are discussed here.

3.8.1. Reliability

Reliability can be defined as the extent to which a study can be replicated. For quantitative methods this involves ensuring “replicability over time and over instruments” (Cohen, Manion, and Morrison 2000 p.117). However, for qualitative studies the research process may preclude
replicability, as explained by LeCompte and Goetz (1982 p.35) “unique situations cannot be reconstructed precisely” and “human behaviour is never static”. Given these constraints in qualitative studies the concept of “quality control” (Goetz and LeCompte 1984; Smith and Robbins 1984 cited in Miles and Huberman 1994 p.278) may be more applicable than replicability. Quality control is concerned with “fidelity to real life, comprehensiveness, context- and situation-specificity, authenticity, detail, honesty, depth of response and meaningfulness of respondents” (Cohen, Manion, and Morrison 2000 p.120).

Strategies for establishing reliability used in this research include, triangulation, researcher reflexivity and an audit trail. These are discussed in Section 3.8.3. In addition, in this thesis “careful description” (LeCompte and Goetz 1982) of the research process, the research participants and researcher’s role in the cases being observed is provided.

3.8.2. Validity

Validity relates to the “accuracy and credibility of the findings” and interpretations of a study (Creswell 2005 p.252). As noted by Cohen, Manion and Morrison (2000 p.105) the concept of validity is “multifaceted” citing 18 different kinds of validity. Not all these kinds of validity are appropriate for studies that use qualitative methods (ibid.). Five types of validity are considered relevant to this research:

1. **Descriptive validity**: descriptive validity is whether an account is factually accurate (Maxwell 2002). In this research it relates to the accuracy of the descriptions provided based on interviews and observations.

2. **Interpretive validity**: interpretive validity is concerned with whether an account conveys the intended meaning (Maxwell 2002). For Maxwell (2002), this relates to comprehending the phenomena from the perspective of the participants in the situation being studied. Pertinent to this research are the interpretations of the data collected, in particular the stakeholders and team members’ perspectives and opinions, for example, of the factors impacting on the success of the interventions.
3. **Theoretical validity:** theoretical validity is whether the theory of some phenomenon is 'valid', or in other words whether the explanation of that phenomenon is accurate (Maxwell 2002). In this context of this research this relates to ‘validity’ of the theories regarding factors impacting on the success of the case studies and ways that capacity development could be improved.

4. **External validity:** external validity “refers to the degree to which the results can be generalised to the wider population, cases or situations” (Cohen, Manion, and Morrison 2000 p.109). External validity can also be referred to as generalisability. Relevant to this research is the generalisability of the Framework for Capacity Development as a tool for improving capacity development practice in contexts other than those in which it was developed.

5. **Pragmatic validity:** pragmatic validity relates to the “level of usable knowledge offered” (Miles and Huberman 1994 p.280) from the research. Pragmatism is the philosophical perspective that underpins this research. As outlined in Section 3.2 a pragmatic approach considers that the research should be judged by its “practical implications” (Aboulafia 1991 cited in Hevner et al. 2004 p.77). In the context of this research pragmatic validity relates to the utility of the Framework for Capacity Development for improving capacity development practice.

Lincoln and Guba (1985) consider that generally there are three broad threats to validity: reactivity, respondent bias and researcher bias. As described in the section on participant observation, reactivity relates to the way the researcher’s presence may affect what is being observed (Lincoln and Guba 1985). LeComte and Goetz (1982 p.46) explain that research participants may consciously behave differently in the presence of a researcher, “to reveal themselves in the best possible light” or unconsciously distort their behaviour to provide what they “believe the researcher wants to see”. Related to this is respondent bias, where respondents “may lie, omit relevant data, or misrepresent their claims” for the same reasons (ibid.).
Researcher bias encompasses the observational biases outlined in Section 3.5.2.1. Researcher bias relates to the assumptions and preconceptions of the researcher that can affect decisions about the research. These can affect the way decisions regarding research participants, what is and is not reported on and the kinds of questions asked (Lincoln and Guba 1985).

Additional threats to validity include ensuring that data is collected and represented accurately. This involves avoiding “common pitfalls” in data collection such as “equipment failure, environmental hazards, and transcription errors” (Easton, McCormish, and Greenberg 2000 p.703).

In this research, triangulation, researcher reflexivity, prolonged involvement and an audit trail are used to address threats to validity. These are discussed in the next section.

3.8.3. Strategies to overcome threats to legitimacy

The legitimacy of this research is addressed using four strategies:

1. Triangulation
2. Audit trail
3. Researcher reflexivity
4. Prolonged involvement

These strategies were selected based on consideration of both the potential threats to validity and the literature regarding appropriate ways to address them. A fifth strategy, expert review, was also used to address threats to validity, in particular threats to external and pragmatic validity. The expert review process was described in Section 3.4.4.

3.8.3.1. Triangulation

Triangulation is a widely used strategy for reducing threats to validity (Robson 2002). Triangulation is a process of using multiple perceptions to clarify meaning and verify an observation or interpretation (Stake 1994 p.241). It is a “systematic process of sorting through the data to find common themes or categories” (Creswell and Miller 2000 p.127). Denzin (1978 p.295) identifies four basic types of triangulation:
1. Data: the use of data from a range of sources
2. Observer: the use of multiple researchers or observers
3. Theory: the use of multiple perspectives to interpret the data
4. Methodological: the use of multiple methods to study a single problem

This research utilised the following strategies:

- **Data and methodological triangulation**: as noted by Denzin (1978 p.291), participant observation combines methods and “in itself provides a triangulated perspective”. Throughout the study data was collected from multiple sources. This included the collection of data using range of methods (e.g., observation, interviews and questionnaires) and from a range of research participants. The research findings were verified, cross-checked and confirmed among and between different data sources, methods and participants.

- **Observer triangulation**: the PSLP and SSWT team members engaged in the case studies also made observations in relation to those factors impacting on the success of the interventions and ways that the interventions could be improved. The team members shared these observations in semi-structured interviews and informal conversations with the researcher. The team members’ observations were used to corroborate or elucidate findings.

This research also uses a third type of triangulation, “interdisciplinary triangulation” (Janesick 1994). Janesick (1994 p.215) posits that by drawing from other disciplines “we may broaden our understanding of method and substance”. As outlined in Chapter Two (§ 2.1) this research can be described as the scholarship of integration, and as such is inherently interdisciplinary. A central concept of the scholarship of integration is “making connections across the disciplines” (Boyer 1990 p.16).

### 3.8.3.2. Audit trail

The literature presents audit trails in two ways. The first suggests that an audit is carried out by an individual external to the study who examines the interpretations and accounts to establish
credibility (Creswell and Miller 2000). The second description recommends systematic and rigorous recording of research activities including a data collection chronology, raw data and details of coding and data analysis to establish an auditable trail (Creswell and Miller 2000; Robson 2002). Both representations of audit trails require that the research process is recorded. However, in the latter case the audit is not carried out. This study uses the second strategy, providing an audit trail. For each stage of the study a research matrix presents an overview of the data collection procedures used to address specific research questions. These matrices provide a chronological account of the data collection process. Throughout this thesis unique identifiers are used for all data presented. These identifiers make it possible to trace the analysed data to the raw data. The raw data is also provided on DVD (Appendix A).

3.8.3.3. Researcher reflexivity

While action research was not selected as the methodology for this research, reflective practice is integral to this research. Reflective practice is a characteristic of design-based research (§ 3.3.3) and consistent with the core principles of capacity development based on the alternative paradigm (§ 2.2). Researcher reflexivity involves the researcher disclosing his or her assumptions, beliefs and biases about the research (e.g., about process, findings and interpretations) (Creswell and Miller 2000). Ahern (1999) provides a detailed account of how reflexivity can be used to identify potential areas of bias. As described in the section on participant observation (§ 3.5.2.1), the researcher used reflective and dialogic field notes to consider potential biases and assumptions. Some of these reflections are presented in boxes as part of Chapter Four. The complete field notes are available in Appendix A.

3.8.3.4. Prolonged involvement

A further strategy used to reduce threats to validity is prolonged involvement. This involves a repeated or ongoing association with the research participants. Jorgensen (1989 p.80) notes that “developing and sustaining relationships with insiders in the field is crucial to gathering accurate and dependable information”. Robson (2002) cites a number of advantages of this strategy:

- The researcher builds trust with participants
• The researcher establishes rapport with participants so they are comfortable disclosing information and are less likely to give biased information
• The researcher finds gatekeepers to information, people and sites
• The initial reactivity is reduced

The central limitation is that “positive or negative biases may build up” (Robson 2002 p.174).

This study included inquiry into two cases carried out in the same location over a period of four years. As a participant-as-observer during that time the researcher engaged with many of the research participants, in particular team members, on an ongoing basis.

This section described the potential threats to the legitimacy of this study, and presents the range of strategies used to ensure the validity of this research. The legitimacy of this research is revisited in Chapter Eight.

3.9. Ethics approval

In accordance with the Murdoch University ‘Human Research Ethics Committee Policies and Guidelines’ (Murdoch University 2005) the following steps were taken to ensure ethical conduct in this research:

• Participants were formally invited to take part in the research
• Participants were provided with details of the research including their role in the research
• Participants were under no obligation to participate in the research
• Participants were assured that their responses would be treated confidentially
• Participants were provided with access to the research findings

This study received Ethics Approval from Murdoch University Human Research Ethics Committee on 23rd March 2006. The approval statement is provided in Appendix B.
3.10. Summary

In this Chapter the philosophical perspective taken in this research was introduced. This research is underpinned by a pragmatic philosophy which is capable of handling the complexity of carrying out research into capacity development. This philosophy is also problem centred and real-world oriented and provides an appropriate framework for addressing the overarching research question ‘How can the practice of developing capacity be improved?’

This Chapter also presented five core characteristics of the research. This research can be characterised as pragmatic, clarificative, critical, improvement oriented and contextual. A design-based research methodology that accommodates these characteristics was selected. This study design advances research and practice concurrently. The knowledge claims that can be made from design-based research include substantive and procedural design principles which can be used to improve capacity development practice.

An overview of the resulting study design was provided. The study includes four stages: 1) PSLP case; 2) SSWT case; 3) outcomes assessment; and, 4) expert review. These four stages incorporate iterative phases of analysis, development, testing and evaluation, and synthesis and reflection. All four stages use combined methods including participant observation, interviews and questionnaires. Consideration was also given to the legitimacy of the research.

The results of the first stage of the research are presented in the next Chapter.
Chapter 4. The PSLP Case

4.1. Introduction
The Public Sector Linkages Program (PSLP) Project served as the first case in the research. This case study provided the basis for inquiry into the practice of developing capacity. The purpose of this inquiry was to evaluate those factors that impacted on the success of the PSLP Project and to derive design principles for improving capacity development interventions. These design principles are incorporated into a preliminary Framework for Capacity Development.

4.2. Overview of the PSLP Project
The PSLP Project was a capacity development intervention aimed at improving Indonesian capacity in water and sanitation through a process of institutional strengthening. Funded by the Australian Agency for International Development (AusAID) Public Sector Linkages Program (PSLP) (http://www.ausaid.gov.au/pslp) this involved the partnering of Murdoch University's Environmental Technology Centre (ETC), Australia and Merdeka University's Institute for Environmental Management and Technology (IEMT), Indonesia. Through a series of collaborative activities, carried out over a period of a year, the intervention sought to develop the capacity of IEMT staff to be better able to provide services and training on water and sanitation to their stakeholders. At the same time, through this process the activities sought to develop the capacity of IEMT's stakeholders.

4.2.1. Team members
The PSLP Project was implemented by a team of people made up of staff from Murdoch University and Merdeka University. These team members were selected by the team leaders from ETC and IEMT. The characteristics of the team members including language ability, gender and role are presented in Table 4.1.

All team members were academics, aside from the researcher. The team members from Murdoch University included four ETC staff members with expertise in water and sanitation and an education consultant. The Merdeka University team members included three IEMT staff with expertise in water and sanitation and a lecturer in the sociology department. A number of general staff from Merdeka University and IEMT also supported the intervention. In accordance
with AusAID guidelines, officially, team members other than the education consultant were not paid from AusAID money for their involvement.

### Table 4.1 The PSLP team members

<table>
<thead>
<tr>
<th>Code</th>
<th>Role</th>
<th>Affiliation</th>
<th>English Speaking</th>
<th>Indonesian Speaking</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
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<td>Indonesian team leader and technical expert</td>
<td>Merdeka University – IEMT Staff</td>
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<td>L++</td>
<td>M</td>
</tr>
<tr>
<td>I2</td>
<td>Technical expert</td>
<td>Merdeka University – IEMT Staff</td>
<td>L+</td>
<td>L++</td>
<td>M</td>
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<tr>
<td>I3</td>
<td>Technical expert</td>
<td>Merdeka University – IEMT Staff</td>
<td>L</td>
<td>L++</td>
<td>F</td>
</tr>
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<td>I4</td>
<td>Technical expert</td>
<td>Merdeka University – Academic</td>
<td>L-</td>
<td>L++</td>
<td>M</td>
</tr>
<tr>
<td>E1</td>
<td>ETC team leader and technical expert</td>
<td>Murdoch University – ETC Staff</td>
<td>L++</td>
<td>L</td>
<td>M</td>
</tr>
<tr>
<td>E2</td>
<td>Education consultant</td>
<td>Murdoch University – Teaching and Learning Centre</td>
<td>L++</td>
<td>L-</td>
<td>M</td>
</tr>
<tr>
<td>E3</td>
<td>Technical expert</td>
<td>Murdoch University – ETC Staff</td>
<td>L++</td>
<td>L</td>
<td>M</td>
</tr>
<tr>
<td>E4</td>
<td>Technical expert</td>
<td>Murdoch University – ETC Staff</td>
<td>L++</td>
<td>L-</td>
<td>M</td>
</tr>
<tr>
<td>E5</td>
<td>Technical expert</td>
<td>Murdoch University – ETC Staff</td>
<td>L++</td>
<td>L-</td>
<td>M</td>
</tr>
<tr>
<td>R</td>
<td>Project coordinator</td>
<td>Murdoch University – Researcher</td>
<td>L++</td>
<td>L-</td>
<td>F</td>
</tr>
</tbody>
</table>

*L++ Native speaker L+ Proficient L Basic ability L- Limited or no ability

### 4.2.2. Program of activities

The program of activities for the PSLP Project was developed through the process of applying for funding from AusAID’s PSLP grant scheme. This scheme is a “funding mechanism that aims to improve public sector capacity for governance and management for nationally determined development outcomes” (AusAID 2004a p.2). The application process was completed by the researcher and ETC team leader who developed the proposal for the PSLP Project. The final program of activities for the PSLP Project included the following three phases and activities.

**Phase 1: Understanding IEMT’s existing capacity**
- Activity 1: Joint ETC-IEMT Workshop

**Phase 2: Identifying the needs and priorities of IEMT’s stakeholders**
- Activity 2a: Needs Assessment Interviews
- Activity 2b: Capacity Building on Water and Sanitation Seminar
Phase 3: Developing IEMT’s capacity to deliver training

- Activity 3: Training-of-Trainers (TOT) Workshop on Sustainable Sanitation

These phases are elaborated below.

Firstly, however, it is useful to understand that in carrying out these activities, an additional aim of the intervention was to make use of one of four training packages. These packages were developed by the ETC and the Teaching and Learning Centre at Murdoch University, in collaboration with the United Nations Environment Programme International Environmental Technology Centre (UNEP-IETC). These training packages were developed as a generic set of resources for a wide range of users (e.g., regional and national centres, university teachers, professional trainers, policy makers and regulators, consultants and development assistance bodies) (UNEP-IETC and ETC n.d.). The four ETC-UNEP-IETC training packages, on sustainable sanitation, rainwater harvesting, water demand management and wastewater reuse, comprise of a monograph, training manual and study guide, PowerPoint presentations and an eLearning module. It was intended that one of these training packages would be translated into Indonesian and provide the basis for the TOT workshop delivered in activity three.

4.3. Overview of the Stage One of the research

The PSLP case study was the first of four stages in this research (refer to Figure 3.2). This stage of the research was guided by the research question:

RQ1.1 What factors impacted on the success of the PSLP Project?
RQ1.1a Does the PSLP Project meet the needs of the stakeholders?
RQ1.1b Does the PSLP Project enable stakeholders to facilitate learning beyond the timeframe of the intervention?

In accordance with the research methodology, answering this question involved exploiting the process of designing, developing and implementing the PSLP Project as an opportunity to advance understanding of the factors impacting on its success (Edelson 2002).
Through this process the PSLP Project was analysed and evaluated. This involved two strategies: the researcher openly explored the factors that impacted on the success of the project; the researcher also explored a priori factors based on the research questions (RQ1a and RQ1b), researcher’s experience (refer to Box 4a) and the literature (Chapter Two). The findings of the inquiry into the PSLP Project are used to derive design principles for improving practice which are incorporated into the preliminary Framework for Capacity Development.

**Box 4a: My Development Experience**

*Prior to conducting this research I worked with the United Nations Environment Program in Bangkok and Japan, and the Institute for Global Environmental Strategies (IGES) in Japan. I was involved in capacity development using eLearning, networking and training, including training-of-trainers. The target audience for my work was local government decision makers, as well as non-governmental organisations and industry in developing countries and those countries with economies in transition. The organisations that I worked with often had considerable resources, both human (e.g., skilled and experienced people) and fiscal. Given these resources I always felt that we should have been more effective. I was particularly critical that more time was not spent on assessing the needs of ‘decision-makers’. The people that I worked with were experts in a range of fields with a broad understanding of the overarching development challenges, but little time was spent understanding the specific needs of the target audience. While I observed that the change process was in many respects about committed people and involved small and incremental changes I always felt our efforts were hindered by the mismatch between overarching needs and local needs. My development experience provided the impetus for this research.*

A research matrix is presented in Table 4.2. This matrix provides an overview of the data collection methods used in this stage of the research. The data collection methods included semi-structured and structured interviews, observation, documentation (e.g., workshop proceedings, email communications and photographs) and questionnaires.

Aside from the researcher, as a participant-as-observer, the research participants included the PSLP Project team members (see Table 4.1) and primary stakeholders.
There were 65 primary stakeholders who participated in some or all of the activities in phase two and phase three of the intervention. The characteristics of the primary stakeholders and details of their involvement in the PSLP activities are summarised in Table 4.3.

The primary stakeholders included: 13 individuals from academia; 21 from local government; six from government corporations; two from local hospitals; 14 from NGOs; and, nine from local industry. Eight primary stakeholders who were involved in all three activities and a further 13 were involved in two activities. The group included 12 females and 53 males.

Throughout the thesis data sources are referenced using codes that can be cross-referenced with the research matrix and raw data (Appendix A) thereby providing an audit trail (§ 3.8.3.2). The codes SI and SSI are used for structured and semi-structured interviews respectively, O for observations, Q for questionnaires and D for documentation. A further distinction is made between emails (DE) and images (DI). The numbers one to three are used to denote which phase of the project the data was collected from.

For the sake of clarity codes are also used as identifiers for the research participants. The codes I1 to I4 and E1 to E5 are used to refer to IEMT and ETC team members respectively (see Table 4.1). The codes used for primary stakeholders are P1 to P65 with the letters G, N, A, IN, GC and H used to denote whether they are from local government, an NGO, academia, industry, a government corporation or hospital (Table 4.3).

Quotations from the research participants are presented in English throughout the thesis. English is a second language for the Indonesian research participants and these quotations are presented verbatim, their English has not been corrected. Similarly the translation and/or interpretation provided have not been corrected. The presentation of verbatim responses is important when conducting cross-cultural research as corrections may alter the meaning intended by the research participant (see § 3.6).
<table>
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<tr>
<th>#</th>
<th>Research question</th>
<th>Activity 1</th>
<th>Activity 2a</th>
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<th>Activity 3</th>
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<td>Capacity Building Seminar on Water and Sanitation</td>
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<td>Q</td>
<td>P</td>
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<td></td>
<td></td>
<td>O</td>
<td>SI</td>
<td>SI</td>
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<td></td>
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<td>D</td>
<td>O</td>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td>a</td>
<td><strong>Does the PSLP Project meet the needs of the stakeholders?</strong></td>
<td>O</td>
<td>D</td>
<td>P</td>
<td>SSI</td>
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<tr>
<td></td>
<td></td>
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<td>SI</td>
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<td>O</td>
<td>D</td>
<td>O</td>
</tr>
<tr>
<td>b</td>
<td><strong>Does the PSLP Project enable stakeholders to facilitate learning beyond the timeframe of the intervention?</strong></td>
<td>Q</td>
<td>TM</td>
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<td>P</td>
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<td>D</td>
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<td>D</td>
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</tbody>
</table>

### Method
- **SI**: Structured Interview
- **SSI**: Semi-structured Interview
- **O**: Observation
- **Q**: Questionnaire
- **D**: Documentation
- **DI**: Documentation – image
- **DE**: Documentation – email

### Research Participants
- **TM**: Team members
- **P**: PSLP primary stakeholders
Table 4.3  Primary stakeholders’ involvement in PSLP activities

<table>
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<tr>
<th>Code</th>
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<th>Activity 2b Seminar</th>
<th>Activity 3 Workshop</th>
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</table>
4.4. Factors impacting on the success of the PSLP Project

An inquiry into each phase of the PSLP Project is carried out in this section. As described in Chapter Three, using a design-based research methodology this inquiry combines analysis, development, evaluation and testing, and synthesis and refinement (§ 3.4.1) to identify those factors that impacted on the success of the intervention. Three central criteria were used to ‘measure’ success: 1) delivering an intervention that meets the needs of the stakeholders; 2) delivering an intervention that facilitates learning; and 3) delivering an intervention that develops and/or facilitates learning and change beyond the timeframe of the intervention i.e., sustainable outcomes. These criteria are presented as research questions 1.1a and 1.1b in the research matrix (Table 4.2).

4.4.1 Phase 1: Understanding IEMT’s existing capacity

A Joint IEMT-ETC Workshop was the first activity of the PSLP Project. The main aim of the workshop was to develop an understanding of the existing capacity of IEMT and its staff with respect to capacity building on water and sanitation. Additional aims included:

- Strengthening the linkage between ETC and IEMT
- Beginning the process of understanding and developing the capacity of IEMT staff
- Introducing team members to the ETC-UNEP-IETC training packages
- Providing an opportunity to meet face to face and further plan for subsequent activities

The researcher, in conjunction with the ETC team leader and education consultant, prepared the workshop program. The workshop was carried out at Murdoch University. All four team members from IEMT and three team members from the ETC (E1, E2 and researcher) attended the workshop. The three remaining ETC team members gave presentations and attended a number of the sessions.

Taking into consideration concerns raised by team members during the workshop, the workshop proceedings (PSLP1D), results of the workshop evaluation questionnaire (Appendix C and PSLP1Q), literature on capacity development and researcher’s experience a range of factors that could impact on the success of the PSLP Project were identified. These included:
• Making decisions regarding the project prior to assessing the local needs
• Not involving IEMT team members in the project design
• The appropriateness of the methods to be used in subsequent activities
• The relationship between IEMT and ETC team members
• The adequacy of the project planning
• Difficulties engaging with appropriate stakeholders
• Indonesian culture and the local context
• A lack of organisational capacity and institutional support
• The sustainability of the project

The factors are discussed here.

4.4.1.1 Making decisions regarding the project prior to assessing the local needs

Previous work (Boyd 2004) had found that a limiting factor in capacity development was the organisation’s failure to assess local stakeholders’ needs. As described in Chapter Two the needs of local stakeholders are still largely defined by donors (Lipson and Warren 2006) and failure to take into account the needs can result in misdirected activities (McClelland 1995). For this reason, the PSLP Project included a needs assessment (phase two). This assessment would be “used to guide decision making for the rest of the project” (PSLPD p.3).

However, while the importance of assessing needs was recognised by the program of activities and team members discussed the value of carrying out a “training needs assessment with stakeholders” (I2-PSLP1O), decisions were made by the team members regarding the project prior to this assessment. It was decided that of the four available TOT packages (see § 4.2.2) the package on sustainable sanitation would be translated for use in the TOT workshop (Activity 3) (PSLP1O-29/08/05). Cost and time benefits were associated with this decision. The translation of one training package was to be delivered as part of the outputs of the intervention (PSLPD p.5). The TOT package on sustainable sanitation had already been partially translated as part of a previous collaboration between IEMT and ETC. However, this decision could potentially impact on the success of the PSLP Project, depending on whether the local stakeholders also identified a need for training on sustainable sanitation (Activity 2a and 2b). In
the analysis of the second phase of the project the training related needs of the stakeholders are discussed. The TOT workshop is evaluated in relation to these needs in the third phase.

4.4.1.2 Not involving IEMT team members in the project design

Related to concerns that the project might not reflect the local primary stakeholders’ needs, the researcher reflected that success of the project could also depend on whether the intervention met IEMT team members’ (local intermediary stakeholders) expectations and needs. Good practice suggests that an important criterion for the success of capacity development is that local stakeholders drive the process and have ownership over the process (Bolger 2000; Lopes and Theisohn 2003). The literature on teamwork also stresses the importance of team members owning and agreeing on the goals of a project and being involved in their development (Moxon 1993). Contrary to this the PSLP proposal was developed principally by the researcher guided by the ETC team leader, who due to a longstanding relationship with IEMT staff, felt that he was “aware of IEMT’s needs” (E1-PSLPO). The IEMT team leader reviewed the proposal in the final stages, but other IEMT team members did not have an opportunity to see or comment on the program prior to activity one (PSLPO-25/08/05).

The third day of the workshop did provide ETC and IEMT team members with an opportunity to share their vision for the intervention. The ETC team leader described the activities outlined in the PSLP Proposal and his understanding of their aims and how they would be implemented. After his presentation he encouraged the IEMT team members to share their understanding, commenting “this is only my point of view” and “I am not disappointed if they [my ideas] are not good” (E1-PSLPO). In the discussion that followed the IEMT team leader remarked that he was “very pleased that we have the same minds” (I1-PSLPO).

However, comments made by IEMT team members during the workshop suggest that they may not have agreed entirely with the proposal. There was one team member who felt the intervention should be more “practical, not only theoretical” (I2-PSLPO). This team member suggested that the program be modified to include a demonstration project like the one presented on constructed wetlands on day two of the workshop commenting “this was excellent, and his project was successful” (I2-PSLPO). The other team members agreed that a
demonstration project would be beneficial and that team members “should start thinking about practical examples” (E1-PSLPO) to be implemented in a subsequent project.

While some revisions were made to the program of activities based on IEMT’s team members’ suggestions (see § 4.4.1.7 below), the program was not altered significantly. Not involving IEMT team members in the design process and failing to incorporate more of their suggestions may have impacted on the success of the project.

4.4.1.3 The appropriateness of the methods to be used in subsequent activities

The third activity of the PSLP Project would make use of a TOT workshop. Training is used extensively to develop capacity. The World Bank alone spends “approximately [US]$720 million annually on training” (World Bank 2008 p.53). However, as outlined in Chapter Two training is subject to widespread criticism (Milen 2001; World Bank 2006, 2008).

The team members did not discuss the appropriateness of training or TOT. IEMT team members provided feedback regarding their preferred delivery methods. In the workshop evaluation questionnaire the IEMT team members indicated that they had a preference for “PowerPoint presentations and then discussion” (I2-PSLP1Q), “role-play” (I1-PSLP1Q) and “face to face and discussion methods” (I3-PSLP1Q). IEMT team members also identified “demonstration projects” (I2-PSLPO) and “field trip[s]” (I3-PSLP1Q) as appropriate and explained that Indonesian people prefer to be involved in something that “is real” (I3-PSLPO).

The finding that demonstration project and practical activities were appropriate for developing capacity is consistent with the literature that explains that in Indonesia the main purpose of education is “learning how to do” (Hofstede and Hofstede 2005). These findings are also consistent with the literature on adult learning theory (§ 2.5.2). Adult learning is facilitated when it involves learning from real world environments and participation by the learner (Burns 1995), active experimentation (Kolb 1984) and/or the application of skills (Merrill 2002).

The workshop provided initial insight into whether the methods to be utilised in the PSLP Project were appropriate for developing capacity in Indonesia. However, IEMT team members raised concerns that greater consideration should have been given to “brainstorming the
implementation of capacity building programme that are culturally acceptable” (I1-PSLP1Q) and discussion of “methods of delivering services across cultures” (I3-PSLP1Q). The researcher also recorded concerns in her field notes (PSLPO-26/08/05) that “success [of the project] depends on there being something real for people to see or do” and whether it is “enough to plan for this for the second round [of the project]”. The appropriateness of the methods used in phase two and three could impact on the success of the PSLP Project.

It is also important to note, that AusAID subscribes to a results-based management approach and that the project was in part designed to use a TOT to meet their requirements for outputs. Donor constraints may also affect the success of the project. This is discussed further in Section 4.4.3.10.

4.4.1.4 The relationship between ETC and IEMT team members

The PSLP Project was the most recent collaboration between Murdoch University and Merdeka University. The relationship between these two universities spans more than 10 years during which time several of the PSLP team members (E1, I1 and I2) have worked together on a range of activities. The relationship between the Universities and team members was a potential strength of the project. The team members had prior experience working with each other and the ETC team leader had an understanding of the local context. Muttaqin (n.d. p.5) explains that “strong relationships are essential to successful business in Indonesia”. This pre-existing relationship may have also provided the foundation for trust which is important for effective teamwork (Lencioni 2005).

The Joint IEMT-ETC Workshop provided old and new colleagues with an opportunity to meet and foster this relationship. A number of team members thought this was one of the most valuable aspects of the workshop commenting that the workshop provided them with an opportunity to “strengthen the existing linkage between ETC and IEMT” (I1-PSLP1Q), “meet face to face with colleagues” (Researcher-PSLP1Q) and “establish a good relationship” (E1-PSLP1Q).
4.4.1.5 The adequacy of the project planning

A central aim of the Joint IEMT-ETC Workshop was for team members to plan activities two and three. During the workshop ETC and IEMT team leaders presented their vision for the PSLP Project. This was discussed by all team members. The teams also completed a strengths, weaknesses, opportunities and threats (SWOT) analysis of IEMT and identified a range of factors that could impact on the success of the project. An action plan for the remaining activities was also prepared.

The team members’ opinions of these planning opportunities were mixed. A team member from IEMT commented that day five of the workshop (action planning) was beneficial because it enabled them to “clarify the purpose [of the project], develop a timeline, ascertain roles and responsibilities, finalise a work plan and discuss the budget” (I2-PSLP1Q). However, an ETC team member thought that the “action planning seemed rushed” that the “plan of action was still not sufficiently concrete” and that “there [was] too much uncertainty and scope for overruns” (E2-PSLP1Q).

Similarly, IEMT team members felt that the “SWOT analysis in the workshop program [was] essential” (I1-PSLPQ). These team members commented that this analysis helped develop an “understanding about IEMT’s SWOT and how to close the gap with the help of ETC” (I2-PSLP1Q). It also built “a strong confidence to achieve the objectives of the project together” (I1-PSLP1Q). Conversely, ETC staff commented that the “SWOT analysis could have been brainstormed more, not simply presented” (E2-PSLP1Q).

The team leaders may have felt that due to their longstanding relationship more detailed planning was not required. Nevertheless, whether the activities were adequately planned for could impact on the success of the PSLP Project. As Moxon (1993) notes, ensuring that there is clarity regarding the goals of a project and roles of people involved is important for effective teamwork.
4.4.1.6 Stakeholder engagement

The IEMT team members raised concerns that it might be difficult engaging appropriate stakeholders “who have a strong commitment to join our dream. Otherwise the project (goals and aims) will be difficult to sustain” (I1-PSLP1O). The team members identified a number of “specific challenges to implementing activities such as workshops and seminars in Indonesia” (PSLP1D p.5). For example:

- It can be difficult to get the right person to attend
- An incentive may be required to ensure attendance
- In many cases participants will not attend an entire workshop
- Key community leaders should be involved to secure commitment from others

Given the potential “constraints associated with identifying and securing a commitment from stakeholders” (PSLP1D p.12) IEMT team members suggested revisions to the program. The original proposal included a series of meetings with different stakeholder groups (e.g., local government, NGOs, academia and industry) to identify their water and sanitation training related needs. This was to be followed by a joint stakeholder meeting to prioritise these needs. In order to secure a commitment from stakeholders the revised program included: needs assessment interviews with potential stakeholders (Activity 2a) and a one day seminar for all stakeholders on capacity building on water and sanitation to further identify and prioritise the needs of the stakeholders (Activity 2b).

4.4.1.7 Indonesian culture and the local context

During the workshop IEMT team members identified a number of threats to the project relating to Indonesian culture and the local context. This included: people being “money, reward or profit oriented”; a “lack of awareness”; “a lack of environmental concern”; that “the local community is struggling with poverty”; and, the “slow and indirect” nature of Indonesian people (PSLP1D p.5-7).
It was explained by an IEMT team member that for these reasons he was concerned about the suitability of the program “for government and community groups in East Java” (I2-PSLP1O). He commented that “in East Java people are interested in money and how to survive, they do not think about the environment” (I2-PSLP1O) and went on to describe how

...at the moment [in Indonesia] there is an informal agreement between government and industry where if industry is not complying a bribe is paid, this is much cheaper than a wastewater treatment plant. This is a problem throughout the region. Even though there are regulations. (I2-PSLP1O)

Team members recognised these potential threats to the project, in particular the threat of corruption. In Indonesia corruption is endemic (Graham 2004) (see § 2.4.2.2). The IEMT team leader commented that “corruption is a known factor especially in the decentralisation era where there is no control from central government” (I1-PSLP1O). However, he felt that it was “essential” to “create and build participation from local government...because we need their support” (I1-PSLP1O). Given these constraints the team member stressed that it would be important “to think about the focus of the project” and “to make a suitable programme for the people there” (I2-PSLP1O).

4.4.1.8 A lack of organisational capacity and institutional support

The Joint IEMT-ETC Workshop provided team members with an opportunity to begin understanding the existing capacity of IEMT. As outlined in Section 4.4.1.5, the IEMT team members gave presentations about their work and completed a SWOT analysis of their institute.

The strengths of IEMT included a “good relationship with the local government, mayor of the city, local NGO ALTRUIS, universities and companies”, and “good staff and good track record” (PSLP1D p.7). The IEMT team members saw the PSLP Project as an opportunity “become a ‘capacity builder’ of local governments and communities” and to use the PSLP Project “to promote IEMT as a capacity building institute for water and sanitation” (PSLP1D p.7).
The weaknesses and threats to the project identified through this process included:

- Lack of facilities. The IEMT team leader explained that we have access to facilities on campus, but we have to pay additional money for these “this is why we prefer to have seminars outside of the campus” (I1-PSLP1O)

- That the PSLP is the “first experience of this kind for IEMT” (PSLP1D p.7). As remarked by one team member IEMT’s prior work was all technical and that “the intention here [of the PSLP Project] is to not do a technical project, but to educate people and look at how to educate people” (E2-PSLP1O).

Although a core aim of the PSLP Project was to develop IEMT’s institutional capacity, a failure to address these weaknesses and threats could impact on the success of the project, in particular the ability of the institute to support capacity development on an ongoing basis and facilitate sustainable outcomes. IEMT’s capacity is discussed further in phase three in the section on sustainability (§ 4.4.3.7).

IEMT team members also indicated during the workshop that the success of the project “would depend on a commitment from the Rector of Merdeka University” (PSLP1D p.12). The IEMT team leader explained that “if the Rector is invited here we will gain his support and attention and create a climate of good will” (I1-PSLP1O). For this reason it was decided that the Rector of Merdeka University would be invited to visit Murdoch University and the ETC prior to phase two of the project.

4.4.1.9 Not taking into consideration the sustainability of the project

In Chapter One capacity development was defined as a process of learning and change that involves facilitating sustainable outcomes (§ 1.3.1.1). Sustainable outcomes are central to the success of capacity development interventions. As remarked by the IEMT team leader during the workshop a “priority is a sustainable project” (I1-PSLP1O).
Throughout the workshop a number of issues were raised that could potentially impact on the sustainability of the PSLP Project. This included issues raised in the previous sections such as the ability to engage stakeholders and the institutional capacity of IEMT. The team members were particularly concerned about ongoing funding and ongoing activities. The team members discussed looking for ways to “link with other projects” and to secure “other sources of funding” so that a second phase of the PSLP Project could be implemented (PSLP1D p.8). The team members’ ability to implement a program that facilitated sustainable outcomes is discussed further in phase two and phase three.

4.4.1.10 Conclusion

The inquiry into phase one identified nine factors that could potentially impact on the success of the PSLP Project (Table 4.4). A plus and minus sign is included for each factor to indicate whether it is likely to have a negative or positive impact on the project. These factors will provide the basis for evaluating subsequent activities. Consideration will be given to whether these factors impacted on subsequent activities and the outcomes of the intervention. New factors will also be identified and discussed.

Table 4.4 Initial factors impacting on the success of the PSLP Project: Phase 1

<table>
<thead>
<tr>
<th>No.</th>
<th>Factors PHASE 1</th>
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<tbody>
<tr>
<td>1</td>
<td>Making decisions regarding the project prior to assessing the local needs (-)</td>
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<tr>
<td>2</td>
<td>Not involving IEMT team members in the project design (-)</td>
</tr>
<tr>
<td>3</td>
<td>The appropriateness of the methods to be used in subsequent activities (-)</td>
</tr>
<tr>
<td>4</td>
<td>The relationship between IEMT and ETC team members (+)</td>
</tr>
<tr>
<td>5</td>
<td>The adequacy of the project planning (+/-)</td>
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<tr>
<td>6</td>
<td>Difficulties engaging appropriate stakeholders (-)</td>
</tr>
<tr>
<td>7</td>
<td>Indonesian culture and the local context (-)</td>
</tr>
<tr>
<td>8</td>
<td>A lack of institutional support and organisational capacity (-)</td>
</tr>
<tr>
<td>9</td>
<td>Not taking into consideration the sustainability of the project (-)</td>
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4.4.2 Phase 2: Identifying the needs and priorities of IEMT’s stakeholders

The second phase of the PSLP Project was designed to identify the water and sanitation training related needs of IEMT’s stakeholders. It included two activities:

a. Needs assessment interviews with potential stakeholders
b. A seminar for all stakeholders on capacity building on water and sanitation

The needs assessment interview was designed to identify IEMT’s stakeholders’ water and sanitation related needs. The findings from the needs assessment were to provide the basis for decision making regarding the project. The interviews also provided an opportunity to identify and engage with appropriate stakeholders.

The interview was structured and included 11 questions. However, only eight are relevant to the research questions addressed in this Chapter (see Table 4.5). The complete set of questions is available in Appendix D.

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
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<tr>
<td>1</td>
<td>In your experience (opinion), what are the most important problems concerning clean water and sanitation in Indonesia? Why?</td>
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<td>2</td>
<td>What actions do you think need to be taken in order to overcome the water and sanitation problems?</td>
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<tr>
<td>3</td>
<td>What do you think are the topics appropriate to the present needs in relation to water and sanitation training?</td>
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<td>4</td>
<td>Are you familiar with the basic principles of sustainable sanitation, water reuse, water demand management and rain water harvesting?</td>
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<td>5</td>
<td>Do you think that training packages with such topics as above will be beneficial?</td>
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<tr>
<td>6</td>
<td>What do you think would be a good result from these activities? What do you hope to achieve through attending these activities?</td>
</tr>
<tr>
<td>7</td>
<td>What contribution can you (individually or collectively) give to overcome the problems of clean water and sanitation in Indonesia based on your own involvement in this activity?</td>
</tr>
<tr>
<td>8</td>
<td>What factors do you think will support the success or the failure of this project?</td>
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</table>

In total 19 of IEMT’s stakeholders were interviewed. The interviewees included five people from NGOs, one from a government corporation, four people from local government and nine from academia (refer to Table 4.3). The interviews took place in the two weeks prior to the seminar and were carried out either at the work place or home of the stakeholder, or at the offices of
IEMT. All interviews, apart from two, were carried out in Indonesian using an interview schedule. The researcher observed the interviews, but was not provided with simultaneous interpretation. The interviews were documented by IEMT staff and later translated by a consultant. The researcher conducted and documented two interviews in English.

Directly after the needs assessment interviews the one-day seminar on water and sanitation was held at Merdeka University. The purpose of the seminar was for stakeholders to discuss and prioritise their needs, in particular the most appropriate local needs for the TOT workshop to be held in the third phase of the project.

In total, 42 stakeholders participated in the seminar. The group included 17 people from local government and government corporations, eight from NGOs, eight from academia and nine from industry. This group included 14 of the 19 stakeholders who had been previously interviewed (see Table 4.3). All IEMT team members were present as well as the team leader and researcher from ETC.

The researcher spent two months in Indonesia during phase two of the project as a participant observer. The researcher facilitated the needs assessment process and assisted in the preparation and implementation of the seminar. The researcher kept descriptive and focused field notes during this time including details of informal discussions with the team members and observations about the implementation of the intervention. The researcher also included reflections about the time spent in Indonesia and experience working with IEMT. The time in Indonesia provided the researcher with an opportunity to observe the IEMT team members working together, engage directly with the team members, see and discuss the problems with water and sanitation in Indonesia and experience first-hand the problems with developing Indonesian capacity in water and sanitation. The researcher also carried out semi-structured interviews with the team members during this phase. This interview included 10 questions that corresponded roughly with questions asked of stakeholders in the needs assessment interviews (Appendix E). The purpose of these interviews was to elicit team members’ opinions of the needs and priorities of the stakeholders as a comparison.
The findings of the inquiry into the second phase of the PSLP Project are presented in the following sections. The factors identified in phase one (Table 4.4) provided the framework for this inquiry and the broad areas to which the problems relate are used as headings.

4.4.2.1 Local needs

It was found during the inquiry into phase one of the PSLP Project that making decisions regarding the activities prior to assessing the local needs could impact on the success of the project. In phase two the needs of the stakeholders were assessed through interviews and evaluations carried out during the seminar. A comparison of the findings of this assessment and interview data obtained from team members made it possible to establish whether team members understood the stakeholders’ needs. It also made it possible to assess whether team members were justified in making the decision to deliver the TOT workshop (Activity 3) on sustainable sanitation or if this decision would impact on the success of the project.

In the interviews the stakeholders and team members were asked on what topic they thought training would be useful and whether training on the topics of the ETC-UNEP-IETC training packages would be beneficial.

The training topics that ETC team members identified as useful primarily related to “sanitation” (E1- and E4-PSLP2SSI) indicating that delivering training on sustainable sanitation would be most appropriate. Specific suggestions such as “greywater, organic waste management, composting and compost toilets and water purification” (E3-PSLP2SSI) were also made. Other needs identified by ETC team members included a need for training on “rainwater harvesting” (E1-PSLP2SSI), but as a second priority to sanitation, and, training on “adult learning principles rather than content” and “how to teach people about sanitation” (E2-PSLP2SSI).

Only two IEMT team members responded to this question. These responses related to water with the team leader commenting “water is a key issue in Indonesia” (I1-PSLP2SSI). The topics suggested included “rainwater harvesting” (I3-PSLP2SSI) and “how to manage water sustainably” (I1-PSLP2SSI).
The team members thought the topics of the four ETC-UNEP-IETC training packages were appropriate for developing stakeholder capacity. Although, the team members from ETC acknowledged that they “did not know the [local] context” (E2-PSLP2SSI) and that other topics might be more appropriate.

The stakeholders provided similar responses and identified similar needs to the team members. Nine stakeholders identified a need for training on “water and sanitation technology” (P48N-PSLP2SI) making the following specific suggestions: “water and sanitation technology that is efficient, easy and cheap” (P16G-PSLP2SI); and “training in constructing water and sanitation technology that is efficient, easy and cheap” (P12A-PSLP2SI). Eighteen stakeholders said that receiving training on the topics of the training packages would be “very beneficial”.

A seminar activity and seminar evaluation questionnaire (Appendix F) provided further opportunities for stakeholders to discuss their training priorities and decide which ETC-UNEP-IETC package they would like to receive training on in activity three. The results of both these exercises are summarised in Table 4.6.

### Table 4.6  Stakeholders’ training priorities: seminar exercises

<table>
<thead>
<tr>
<th>Training topic</th>
<th>Seminar activity</th>
<th>Seminar evaluation questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Third priority</td>
<td>Second priority</td>
</tr>
<tr>
<td>Water conservation</td>
<td>Number of stakeholders</td>
<td>3</td>
</tr>
<tr>
<td>Sustainable sanitation</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Rainwater harvesting</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Wastewater reuse</td>
<td></td>
<td>4</td>
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</tbody>
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In the activity carried out during the seminar, from a list of fourteen topics identified by IEMT team members, the stakeholders were asked to select and prioritise three topics that they would like to receive training on. Thirty-two stakeholders, including 12 who had previously been interviewed, completed this task. The stakeholders identified sustainable sanitation as the
highest priority for further training with rainwater harvesting second (PSLP2D). Ranked third was wastewater reuse.

In the seminar evaluation the stakeholders were asked to prioritise the topics of the training packages. In this exercise based on the mean responses stakeholders identified water conservation as the highest priority. Sustainable sanitation was identified as the second priority and rainwater harvesting and wastewater reuse were ranked third equal.

The findings of the seminar exercises were consistent with the needs assessment interviews. Overall stakeholders identified three priorities for training: 1) water conservation; 2) sustainable sanitation; and, 3) rainwater harvesting. In terms of the highest priority, sustainable sanitation and water conservation received the highest rankings. Water conservation was not included in the seminar activity so it is difficult to ascertain whether it was the highest priority overall or whether sustainable sanitation was.

Contrary to the findings in phase one, the decision to deliver the TOT workshop on sustainable sanitation prior to assessing local needs may not have impacted on the project. IEMT team members and stakeholders gave some indication that issues relating to water were particularly important in Indonesia. Stakeholders also consistently identified sustainable sanitation as a priority suggesting that the decision to deliver training on this topic was appropriate. At this time, sixteen stakeholders indicated that they would like to participate in the third phase of the project.

However, while this decision may have been appropriate, the researcher reflected that the process of assessing needs was potentially flawed and that team members continued to make decisions regarding the project without taking into consideration local needs. These factors may have affected the success of the project and are discussed here.

A flawed assessment process

The assessment process was potentially flawed for the following reasons:
Having made the decision to deliver the workshop on sustainable sanitation in phase one, the team members were committed to reaching the conclusion that sustainable sanitation was a priority.

The needs assessment interviews were a precursor to the seminar. The results of the interviews were intended to provide the basis for discussions carried out during the seminar regarding training priorities. However, information obtained from the interviews was not used to inform the seminar program.

The main aim of the seminar was for stakeholders to discuss and prioritise their needs (PSLPD). However, the seminar program consisted almost entirely of presentations and included little discussion time for stakeholders to share and prioritise their needs (PSLP2D).

The seminar activity that was used to involve stakeholders in the decision making process did not take into account the stakeholders’ commitment to the project. The researcher noted in her field notes (PSLPO-18/11/05) that “at the seminar there was roughly a 50:50 split for sustainable sanitation and rainwater harvesting… however, in terms of future commitment the groups most likely to want to continue to participate are those in NGOs and they are interested in rainwater harvesting”.

Not implementing the needs assessment in an open and truly consultative manner potentially impacted on the project in a range of ways: it may have affected the findings, failed to build local ownership through the process and resulted in the delivery of a project that did not take into account developing a program for stakeholders that were motivated and interested.

Developing the activities without taking into consideration local needs and capacity

The needs assessment interviews and seminar provided a range of information that could have been used to inform the PSLP Project. Aside from the stakeholder’s training related needs this included information about:

- The aspects of sanitation stakeholders were particularly interested in e.g., low-cost and simple technologies for waste treatment
• Stakeholders’ capacity, including their ability to raise awareness (see § 4.4.2.3 below) and involvement in existing projects that the PSLP Project could be connected to. During the seminar stakeholders who gave presentations during the seminar made suggestions regarding ways to link with existing projects e.g., Water and Sanitation Project for Low Income Communities (WSLIC) a multi-stage project funded by the World Bank and a Water Quality Monitoring Project carried out by a local NGO with a school network along the Brantas River (PSLPO-29/09/05)

• Appropriate methods for developing capacity (§ 4.4.2.3 below)

This information was not used to inform decisions regarding the project. The researcher commented to ETC team members after phase two that “IEMT were not interested in analysing the data that was collected [during phase two] prior to making decisions about the workshop to be held next year” (PSLPO-25/11/05). As will be explained in more detail in phase three, the workshop program did not focus on sanitation technologies, build on the existing capacity of stakeholders involved in ongoing projects or utilise a method that would develop the stakeholders’ ability to facilitate learning and change in the area of sanitation. Developing the activities without taking into consideration local needs and capacity may have impacted on the success of the PSLP Project.

The researcher reflected that a possible reason why team members from IEMT were not interested in the findings is that they may have felt “that this part is my research and not the project” (PSLPO-15/09/05). There were also cross-cultural differences that impacted on the working arrangements (discussed below in § 4.4.2.7) that may have affected this process. The reasons why the needs assessment findings were not utilised more widely to design the project is explored further in phase three.

4.4.2.2 Local stakeholder commitment and ownership

In phase one, IEMT team members’ limited involvement in the project design was identified as a factor that could reduce their ownership over the project and contribute to team dysfunction. These factors could in turn impact on their commitment to the project and its subsequent success.
In the second phase of the project the researcher interacted with IEMT team members implementing the project. The actions of IEMT team members, during this period, gave further indication that they lacked commitment to the intervention. The researcher recorded the following observations in her field notes:

- **Work loads**: “I2 is doing most/all of the work. It seems that I3 is not interested at all. I4 is interested, but has a semi-retired life and schedule as well as other interests, and doesn’t really want to work. I1 is [mostly] absent” (PSLPO-16/09/05).

- **Meeting attendance**: team members typically arrived late to meetings, scheduled meetings were frequently cancelled (e.g., PSLPO-03/10/05 and 19/10/05), the team leader often did not attend (e.g., PSLPO-21/09/05) and team members also often failed to attend (PSLPO-26/10/05). In some instances it was explained that team members did not attend meetings as “a quiet democracy against decisions being made about the project” (PSLPO-27/10/05).

- **Participation in meetings**: the team members did not engage in the discussion during meetings, instead “sending messages or taking notes with [their] head hung in silence” (PSLPO-04/10/05).

- **Organisation of phase two activities**: things were organised at the last minute “two days out from the seminar and most of the official letters have not been sent” (PSLPO-26/09/05). There was no discussion about how the seminar would work or how the needs of the stakeholders would be prioritised. The activity that was used to prioritise stakeholders’ needs during the seminar (explained in § 4.4.2.1) came about without prior planning.

The IEMT team members’ lack of commitment to the project may have been due to their limited involvement in the project design. However, this may not have been the only factor. Issues relating to planning of the project may also have contributed to team dysfunction which may have affected team members’ commitment to the project. Poor planning is discussed below in Section 4.4.2.5.
It is also possible that some of these actions may have been due to cultural differences. According to Trompenaars (1993 p.109) the concept of time varies across cultures and as a construct for coordinating activities there are differences, for example: “whether the time agreed for a meeting may be approximate or precise” and “whether the time to complete a task is vitally important or merely a guide”. Muttaqin (n.d. p.8) explains that “Indonesians are generally not punctual”. This may explain why team members were late to meetings, but it does not explain why they frequently failed to attend meetings.

The commitment and motivation of the team members was potentially further diminished due to ambiguity regarding whether IEMT team members would be paid. The PSLP guidelines state that “salaries or associated staff costs of partner country counterpart organisations [e.g., IEMT] cannot be met” by the fund (AusAID 2004a p.6). However, IEMT staff members receive meagre pay from the University (“IDR1.5million per month (approx AUS$150)” (I2-PSLP-3/10/05)) and as a result work on a number of jobs. On this subject one team member said “You know I work hard on many projects… I enjoy it, but I also expect something from every activity” (I2-PSLP3SSI). This team member explained “I1 proposed a fee for this activity, he promises to us. Not in the regulation of AusAID. Normally they do something bad/corrupt; we want to tell you and E1 so we can get some money from this project. I1 seems to try to avoid” (I2-PSLP3SSI).

During the project IEMT team members were uncertain as to whether they would be paid. This uncertainty, combined with heavy workloads, potentially impacted on the team members’ available time and commitment to the project.

The phase two inquiry indicates that several factors may have affected team members’ commitment to the project such as not involving team members in the project design and ambiguity regarding whether team members would be paid for their involvement in the project. In addition, inadequate planning in phase one (§ 4.4.1.5) meant that team members may have lacked clarity regarding the goals of the project and their roles which contributed to team dysfunction. Issues relating to poor planning are discussed further in (§ 4.4.2.5). The lack of commitment of the IEMT team members to the project may have affected their willingness to develop and implement a successful project particularly with respect to facilitating sustainable outcomes. This is explored further in phase three.
4.4.2.3 Appropriateness of the capacity development methods

In phase one it was established that the appropriateness of the methods used in subsequent activities could impact on the success of the project. The second phase of the project provided an opportunity to explore the appropriateness of the methods in terms of:

- Stakeholders’ opinions regarding appropriate methods for developing capacity
- The capacity required by stakeholders to address the problems with water and sanitation in Indonesia
- Stakeholders’ ability to take action beyond the timeframe of the intervention

To gauge the appropriateness of different methods for developing capacity, in the seminar evaluation questionnaire, stakeholders were asked to rank eight methods on a scale of one to five where one is ‘not good’ and five is ‘excellent’. The stakeholders identified demonstration projects as the most appropriate method for developing capacity in water and sanitation with a mean of 4.2. Training and computer-based learning were ranked equally with a mean of 3.8 and networking and learning with simulation were ranked equally with a mean of 3.7. The method that was considered the least appropriate was seminars.

The stakeholders also commented that a successful project would “not [be] limited to training…[but would] also be applied in the field” (P26G-PSLP2SI) “with a definite field project” (P56N-PSLP2SI). This was consistent with the suggestions made by IEMT team members during the Joint IEMT-ETC Workshop (§ 4.4.1.3). ETC team members also recognised the importance of giving people the “opportunity to practice” (E2-PSLP2SSI) and ensuring that the workshop was “participatory” not “one way traffic” (E4-PSLP2SSI).

It had been decided in the first phase that a demonstration project was beyond the scope of the PSLP Project (§ 4.4.1.1). However, these findings suggest that the TOT (Activity 3) would benefit from incorporating a practical component, and that failure to do so, could impact on the success of the project. This finding is consistent with adult learning theory (Merrill 2002). The TOT workshop is evaluated against adult learning theory in phase three.
Further consideration was given to the appropriateness of TOT in terms of enabling stakeholders to respond to the problems with water and sanitation in Indonesia after the intervention. As outlined in Chapter One (§ 1.2) a successful capacity development intervention responds to local needs and enables people engaged in the process to facilitate learning and change on an ongoing basis.

In the needs assessment interviews eleven stakeholders said that they thought the problems with water and sanitation in Indonesia related to a lack of awareness regarding sanitation, water and the environment. The stakeholders commented that a good outcome of the PSLP Project would be that the “activities can give understanding to the public about the importance of water and sanitation” (P5A-PSLP2SI).

These results suggest that awareness raising activities were needed to improve water and sanitation in Indonesia. The third activity aimed to develop the capacity of the stakeholders to be trainers. In Chapter Two the TOT approach was described (§ 2.3). A TOT aims to develop the capacity of individuals to be trainers in a generic sense or on a specific subject with the assumption that this approach will generate an ever increasing group of trainers and trainees (Kaplan 2000). A TOT can be used to facilitate awareness raising. However, this is dependent on the ability of the individuals who are being trained to be trainers (i.e., stakeholders) to carry out training beyond the timeframe of the intervention.

In the needs assessment interviews stakeholders were asked how they thought they could contribute to addressing the problems with water and sanitation through their involvement in the project. Nine stakeholders said they could contribute by informing others and disseminating information about what they learnt from the project, for example:

“I am a host on the national radio (weekly Saturday programme). I can publicise these outcomes to the people in Malang city” (P4A-PSLP2SI)

“I would like to spread this information through the churches and teach it to the students in the seminary” (P43N-PSLP2SI)
“I think that materials from this seminar will be useful for my lectures” (P4A-PSLP2SI)

Only three stakeholders said they could give “training” (P8AN- and P26G-PSLP2SI) or “educational courses and guidance” (P16G-PSLP2SI) after the project.

The implications of these findings are that a TOT might not be the most appropriate method for developing the stakeholders’ capacity in phase three. Training the stakeholders to be trainers’ may not:

- Address the need for increased capacity for awareness raising to respond to the problems with water and sanitation in Indonesia.
- Be appropriate for the selected stakeholders given that they may be unable to carryout training after the intervention.

The appropriateness of the TOT workshop is further assessed in phase three.

4.4.2.4 Relationship between IEMT and ETC

In phase one the relationship between IEMT and ETC team members was identified as a potential strength of the project. No particular information arose in phase two.

4.4.2.5 Project planning

In phase one, inadequate planning for phases two and three was identified as a factor that could impact on the success of the project. In phase two there were a number of misunderstandings regarding the project that may have stemmed from inadequate planning. The researcher recorded some of these misunderstanding in her field notes:

- “I have just realised that there may be some confusion about the purpose of activities two and three i.e. in terms of finding out what the needs are (training demand assessment) then finding stakeholders who can be involved as trainers or other…” (PSLPO-11/09/05)
Two weeks after arriving in Indonesia for phase two of the project the researcher was told by I2 that “he and I1 were surprised that we were to interview each of the stakeholders” for the needs assessment interviews. The researcher wondered how this confusion came about given that this was talked about during “the workshop [activity one] or more importantly in discussions between I1 and [myself]” (PSLPO-20/09/05).

These misunderstandings indicate that team members lacked clarity regarding the goals of the phase two. As noted by Irwin, Plovnick and Fry (cited in Moxon 1993 p.25) a lack of clarity regarding goals can affect teamwork. The problems experienced by team members are elaborated on below (§ 4.4.2.7). In addition as described in Section 4.4.2.2 inadequate planning was identified as a factor that may have affected team members’ commitment to the project.

4.4.2.6 Stakeholder engagement

During phase one of the PSLP Project IEMT stakeholders raised concerns that difficulties associated with identifying and engaging appropriate stakeholders could impact on the success of the project (§ 4.4.1.1). At that time team members explained that it might be difficult to get the right person to attend, that an incentive might be required and that people might not attend the activity for the entire time.

Despite these concerns 19 stakeholders participated in the needs assessment interviews and 42 stakeholders attended the seminar for the full day. There were also 16 stakeholders who at the end of the seminar said that they would like to participate in the third phase of the project (PSLP2D p.16). The majority of the stakeholders who attended the seminar were expressly identified by the IEMT team members rather than having been substituted by a boss or colleague, so in that sense were the right person.

The researcher reflected in her field notes (PSLPO-19/09/05) that IEMT team members took several steps to secure the commitment of stakeholders: “It seems the process is to meet with the head guy to gain his approval [to meet with a particular stakeholder] and get names [if IEMT team members had not identified already identified a stakeholder from the organisation]. Then write a letter of invitation, call the stakeholder and try to see them straight away”. During the
needs assessment interviews IEMT team members also asked the stakeholders to commit to the project by signing a commitment form.

Contrary to the initial finding that stakeholder engagement could impact negatively on the project, the ability of IEMT staff to engage stakeholders in a culturally appropriate way impacted positively on the project. The process of engaging stakeholders in the TOT workshop is discussed in the phase three.

4.4.2.7 Indonesian culture and local context

IEMT team members raised a number of concerns in phase one regarding the appropriateness of the activities for Indonesian people, citing corruption, a lack of concern for the environment and cultural differences such as the slow and indirect nature of Indonesian people as potential threats to the project’s success. In phase two team members reiterated these concerns, commenting when interviewed that “in a country where governance is not good the misappropriation of funds is more widespread” (E1-PSLP2SSI) and that corruption, poor governance could impact on the success of the project (PSLP1D).

In the second phase of the project there was no evidence to suggest that these factors impacted on the project where primary stakeholders were concerned. However, cultural differences may have affected the implementation of the project where team members were concerned.

As a participant-as-observer (§ 3.5.2.1) the researcher lived and worked in Indonesia during phase two of the intervention and had the joint roles of participating in the PSLP Project while conducting the research. The researcher experienced a number of difficulties working with IEMT team members during this time that may have been due to cultural differences. The main areas of difficulty related to decision-making and team members’ involvement in this process, as discussed earlier. However, there were a range of other challenges to working in Indonesia. The researcher’s reflections on her time spent in Indonesia are summarised in Box 4b. The difficulties relating to decision making are discussed below.
Box 4b: First Indonesian Experience

Indonesia was not my first expatriate experience; prior to this project I had lived and worked in Thailand and Japan. I had also travelled through the Middle East, Asia and Africa. Throughout these experiences: I had grappled with indirect styles of communication; tried to figure out when yes meant yes, and when it meant no; and, developed considerably more patience than I had prior to spending time abroad. I came to Indonesia with some understanding of the challenges that I might face, but I also knew that there would be new challenges. I knew that there would be many things that I would not understand, not only because I do not speak Indonesian, but also because that is what it is like when you visit another country… a lot of things do not make sense. Hofstede and Hofstede (2005 p.326 ) explain that “culture shocks are environment-specific. For every new cultural environment there is a new shock”.

On the whole Indonesian culture was fascinating and not entirely surprising; nevertheless I experienced a number of challenges working with IEMT team members and in particular the IEMT team leader. During the two months that I spent in Indonesia the team leader and I rarely communicated directly about the project. It was not uncommon for the team leader to miss scheduled meetings and instead send messages to me through I2, or, when he did attend meetings to hold the meeting in Indonesian. The team leader did not include me in the decision making process, nor consult me about the project. The process of communicating via the ETC team leader in Australia seemed convoluted and patronising. As a result I spent a lot of the time wondering why I was in Indonesia to work with IEMT to implement the project. Not only did I not have the opportunity to regularly engage with the IEMT team leader to participate in the design and implementation of the project, but I was isolated from the rest of the team members spending many days alone in the project office. I2 was the exception, he worked hard on the project and did his best to help me navigate the difficulties I faced, but at the end of the day he was not the team leader. He had his own commitments and issues with the team leader; he did not have decision making authority or responsibility for the project.

So what did I expect? Of course I knew that team members would not only be working on the PSLP Project, but I had hoped to engage with a group of people that were excited about the project and were committed to collaborating with ETC to implement a successful project.
While I was in Indonesia my field notes had a dialogic aspect to them which I used to identify a range of factors that affected the way we worked together. In the end I decided that there may have been an element of truth to all these factors which contributed to the problem and made it difficult to deliver a project with good outcomes. Some of these factors have been discussed in the main text (e.g., ownership and language) others are summarised here.

- **Relationships and trust:** It takes time to build trusting relationships, especially in Indonesia (Muttaqin n.d.), and two months may not have been long enough.

- **Gender and status:** I wondered if being a relatively young female without any academic standing affected the way team members behaved towards me. According to Muttaqin (n.d. p.3) “Javanese culture emphasizes respect, which means that age and social status must be acknowledged”.

- **Personality:** I felt that personality was a factor and that this was in part why I worked better with I2 than I1, but I was also aware that people tend to exaggerate the influence of personality when explaining the behaviour of others, and to overlook the effect of contextual factors (Buchanan and Huczynski 2004 p.230). Moxon (1993) also notes that too often problems are blamed on personality clashes when the basis of problems is misunderstandings regarding goals, roles and processes.

- **Assumptions of similarity:** I1 and I2 lived and studied in Australia for five and seven years respectively. As a result I assumed that they would be familiar with more democratic and consultative ways of working with people. For I2 this was the case. However “[I1] still functions very much as an Indonesian” (PSLPO-28/10/05). This was a false assumption on my part. Barna (1998 cited in Friedman and Berthoin Antal 2005 p.72) explains that “the ‘assumption of similarity’ is one of the greatest stumbling blocks to intercultural communication”.

The lessons I learnt as a capacity development practitioner are that the process is always more complex than you can imagine, that you can never know enough about cultural differences, and that individuals make an enormous difference to the outcomes of a project.
A particular example of the slow and indirect nature of Indonesians that may have affected phase two of the project related to the way decisions were made. As the project coordinator the researcher was responsible for managing the project from the ETC’s side. However, as outlined in Box 4b, the researcher did not have decision making authority. The decision making process involved the researcher emailing the ETC team leader in Australia with a request and or suggestion, the ETC team leader would then email the IEMT team leader about this matter. The decisions were made by the team leaders with limited consultation with team members. In phase three IEMT team members explain their dissatisfaction with the decision making process (§ 4.4.3.2).

Cultural differences undoubtedly affected team members’ expectations and degree of satisfaction with this decision making process. As described in Chapter Two, Indonesia has a high power distance (PDI78) and is a collectivist culture (IDV14). Conversely, New Zealand has a low power distance (PDI21) and high degree of individualism (IDV79). These differences manifest themselves in leadership styles and expectations regarding who is involved in decision making. Leaders in Indonesia tend to do so autocratically and ‘subordinates’ are not consulted or involved in the decision making process. In New Zealand, although leaders are responsible for decision-making, the process is more likely to be participative and there is an expectation that staff will be consulted about decisions that affect them. The researcher had an expectation that the process would be participative, however according to the IEMT team leader’s cultural norms decisions were made by the team leaders.

In the literature review on teamwork (§ 2.5.1.2) four categories of team problems were discussed. One category relates to process and includes whether there is “clarity regarding responsibility for decision making” and “agreement regarding who needs to be consulted” (Irwin, Plovnick and Fry cited in Moxon 1993 p.25). A second category regarding roles is also cited as important, this relates to whether team members have similar expectations regarding each other’s roles. A lack of clarity and agreement about the decision making process and team members’ roles may have affected the ability of team members to work together to plan and implement the project. For the researcher this lack of clarity made it difficult to spontaneously engage with I2, who was “doing most of the work” (PSLPO-15/09/95), to generate ideas about the project and design the workshop program for phase three.
The phase two inquiry indicates that cultural differences contributed to team dysfunction which affected the ability of the researcher to work with team members to plan and implement the activities.

### 4.4.2.8 Institutional support

Institutional support was identified as important for successful implementation of the project. In order to secure this support the rector of Merdeka University was invited to Australia to visit Murdoch University for one day. This action contributed to the success of the project in the following ways. The rector provided the project with an office in a central location on campus. He also signed letters of invitation which were important for securing the commitment of stakeholders (§ 4.4.2.6).

However, the support from the rector may have also had a negative impact on the project. The researcher reflected in her field notes (PSLPO-11/09/05) that the office allocated by the rector provided team members with "a central place to work from, but the others all have their own offices [off-campus]". As a result the researcher was alone in this office for most of the time during the two months making it difficult to engage with team members on a regular basis. Also, the office was not equipped with any resources "we do not have a telephone, printer etc. [L2 explained that] the rector apparently decided that we should have an air conditioner instead of computer".

Although there is no direct evidence to support this, the rector’s ‘support’ may have also meant that IEMT team members were obligated to hold the seminar at Merdeka University even though they said during phase one (§ 4.4.1.8) that they “prefer to have seminars outside of the campus” (I1) because of the cost of using the facilities on campus.

The same issues relating to institutional support were identified in phase three and are not discussed further.
4.4.2.9 Sustainability of the project

At its core the process of developing capacity involves facilitating sustainable outcomes (§ 2.4.4). In phase one team members identified sustainable outcomes as important for the success of the project. This was reiterated by team members and stakeholders in phase two. In interviews with the researcher the team members commented that the success of the PSLP Project depended on whether there were sustainable outcomes, such as:

1. **Capacity:** for example of IEMT staff “to deliver a training program” (E1-PSLP2SSI) and “build capacity” (E2-PSLP2SSI) as well as the “capacity of the stakeholders… in the area of sustainable sanitation” (E2-PSLP2SSI).

2. **Awareness:** of the stakeholders “to assist with the implementation of for example sanitation in communities” (E1-PSLP2SSI), “to save water, manage water sustainably” (I1-PSLP2SSI) and for “government” to “change their behaviour and their way of thinking about sanitation” (I4-PSLP2SSI).

3. **Ongoing action:** for example the stakeholders “train a few people themselves” (E1-PSLP2SSI) in “their department or area to spread this knowledge” (I3-PSLP2SSI), to “take interest and initiative and ownership in having something installed” (E4-PSLP2SSI) “or they try to design waste water treatment or water treatment by themselves by asking us as their supervisors” (E2-PSLP2SSI).

4. **Lasting partnerships and programs:** “leaving in place successful functioning partnerships and programs to move forward in the delivery of sanitation” (E5-PSLP2SSI) carried out “not only this year, but continuously” (I3-PSLP2SSI) with “enthusiastic participants who are willing to continue to expect the next activity which can be further training, further development of materials” (I2-PSLP2SSI).

5. **Ongoing relationships:** “an ongoing relationship, a mutually rewarding relationship and some positive outcomes for that community area in terms of water and sanitation” (E3-PSLP2SSI).
The stakeholders also commented that a successful project would be “sustainable” (P17G-PSLP2SI), and include “follow-up” (P49N- and P6A- PSLP2SI) and ongoing “cooperation” (P40GC- and P43N-PSLP2SI) between IEMT, ETC and stakeholders.

The challenges to achieving sustainable outcomes were also reiterated by the team members and stakeholders. They expressed concerns that the sustainability of the project would depend on there being:

- **Funding**: interventions often failed to generate income in order to “continue” the intervention (I3-PSLP2SSI).

- **Willingness and commitment of the local stakeholders**: “there has to be buy-in from the people taking part in it” (E2-PSLP2SSI) people need to be willing to “participate, to be fully open and collaborative… to learn… [and] act on the agreements in the program after it is finished” (E5-PSLP2SSI).

The ability of team members to address the issues relating to the sustainability would impact on the success of the project. However, analysis of phase two of the project suggests that team members may not have adequately addressed many of the issues relating to sustainability.

Funding was not available to support ongoing activities. As discussed in phase one team members were committed to exploring funding possibilities, these are discussed further in phase three. In the second phase team members explored opportunities for ongoing collaboration, such as a joint Murdoch University and Merdeka University Masters of Science (see PSLPO-20/09/05). However, this was unsuccessful.

Aside from a lack of funding, IEMT also lacked the institutional capacity to support ongoing activities. In the second phase, while living and working in Indonesia the researcher had the opportunity to observe first hand the extent of IEMT’s capacity. The researcher concluded during that time “IEMT as an institution is very weak… IEMT consists of 5 staff members, of which two work as consultants under this umbrella, two are essentially admin and possibly paid for by I2 and one is retired and more of a figure head” (PSLPO-18/11/05).
Forty-seven local stakeholders participated in the activities of phase two and there were some indications that they were committed to participating in phase three (§ 4.4.2.1). However, they may not have been in a position to take action after completion of the project. The ability of the stakeholders to contribute to sustainable outcomes is discussed further in phase three.

Other factors that could potentially impact on the sustainability of the project identified in phase one included: a lack of institutional support, the appropriateness of the methods for developing stakeholders’ capacity and local ownership over the project.

The team members secured institutional support from Merdeka University’s rector (§ 4.4.2.8). However, as discussed elsewhere:

- The needs assessment process may have been flawed and consequently failed to build local ownership and foster willingness and commitment among primary stakeholders (§ 4.4.2.1)
- The team members continued to demonstrate a lack of ownership over the project (§ 4.4.2.2)
- The TOT method may have been inappropriate insofar that it was unlikely to facilitate development of capacity that stakeholders can utilise beyond the timeframe of the intervention (§ 4.4.2.3)

In phase two there was further evidence to suggest that a central factor impacting on the success of the project was a failure to address constraints to implementing a project with sustainable outcomes.

4.4.2.10 Conclusions

The second phase of the PSLP Project was evaluated in order to provide further insight into the factors that impacted on the success of the project. Based on the inquiry into phase two, the list of factors impacting on the success of the project has been updated (Table 4.7).
Table 4.7  Factors impacting on the success of the PSLP Project: Phase 2

<table>
<thead>
<tr>
<th>No.</th>
<th>Factors PHASE 1</th>
<th>Factors PHASE 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Understanding local needs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Making decisions regarding the project prior to assessing the local needs (-)</td>
<td>Making decisions regarding the project prior to assessing the local needs (-)</td>
</tr>
<tr>
<td>2</td>
<td>Failing to accurately assess local needs and build ownership through the needs assessment process (-)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Developing the activities without taking into consideration local needs and capacity (-)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Not taking into consideration the needs of stakeholders that demonstrated the most commitment to facilitating learning and change (-)</td>
<td></td>
</tr>
<tr>
<td><strong>Commitment and ownership</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Not involving IEMT team members in the project design (-)</td>
<td>Not involving IEMT team members in the project design (-)</td>
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<tr>
<td>6</td>
<td>Lack of commitment (-)</td>
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<tr>
<td>7</td>
<td>Not clarifying upfront whether team members would be paid for their involvement (-)</td>
<td></td>
</tr>
<tr>
<td><strong>Relationships</strong></td>
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<tr>
<td>8</td>
<td>The relationship between IEMT and ETC team members (+)</td>
<td>No new data arose here.</td>
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<tr>
<td><strong>Appropriate methods</strong></td>
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<tr>
<td>9</td>
<td>The appropriateness of the methods to be used in subsequent activities (-)</td>
<td>The appropriateness of the methods to be used in subsequent activities (-)</td>
</tr>
<tr>
<td>10</td>
<td>Not utilising a demonstration project (-)</td>
<td>Not including a practical component (-)</td>
</tr>
<tr>
<td>11</td>
<td>Not developing the TOT workshop based on adult learning theory (-)</td>
<td></td>
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<tr>
<td><strong>Planning</strong></td>
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<tr>
<td>12</td>
<td>The adequacy of the project planning (+/-)</td>
<td>The adequacy of the project planning (-)</td>
</tr>
<tr>
<td>13</td>
<td>Difficulties associated with planning due to cultural differences and a lack of commitment (-)</td>
<td></td>
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<tr>
<td><strong>Institutional capacity and support</strong></td>
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<tr>
<td>14</td>
<td>Failure to address weaknesses and threats to IEMT’s organisational capacity (-)</td>
<td>A lack of organisational capacity (-)</td>
</tr>
<tr>
<td>15</td>
<td>A lack of institutional support (-)</td>
<td>Institutional support (+/-)</td>
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<tr>
<td><strong>Stakeholder engagement</strong></td>
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<tr>
<td>16</td>
<td>Difficulties engaging appropriate stakeholders (-)</td>
<td>Effective and culturally appropriate engagement of stakeholders (+)</td>
</tr>
<tr>
<td><strong>Culture and the local context</strong></td>
<td></td>
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<tr>
<td>17</td>
<td>Indonesian culture and the local context (-)</td>
<td>Indonesian culture and the local context (-)</td>
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<tr>
<td>18</td>
<td>Cultural differences that contributed to team dysfunction (-)</td>
<td></td>
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<tr>
<td><strong>Sustainability</strong></td>
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<tr>
<td>19</td>
<td>Not taking into consideration the sustainability of the project (-)</td>
<td>Not taking into consideration the sustainability of the project (-)</td>
</tr>
<tr>
<td>20</td>
<td>Not securing or budgeting funding to facilitate ongoing action and activities (-)</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Not utilising a method that would develop capacity that would facilitate sustainable outcomes (-)</td>
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4.4.3 Phase 3: Developing IEMT’s capacity to deliver training

The final phase of the project aimed to further develop the capacity of IEMT’s staff to deliver training on sanitation to their stakeholders through the joint implementation of the TOT Workshop on Sustainable Sanitation. The workshop was jointly implemented by all the PSLP team members.

The workshop was carried out over three days at Merdeka University. The workshop sought to develop local capacity in sanitation. The workshop used a TOT format (§ 2.3), where a central aim of the workshop was to introduce IEMT’s stakeholders to the ETC-UNEP-IETC training package on sustainable sanitation and develop their capacity to deliver training on sanitation using these materials (e.g., monograph, training manual, eLearning package and PowerPoint slides).

The workshop program included numerous presentations and two group activities. The first of these engaged stakeholders in a hands-on demonstration of the e-Learning component of the training package. In the second stakeholders worked in groups to develop action plans for future activities including training-of-trainer workshops and a demonstration project.

There were 33 stakeholders who attended the workshop, including 15 individuals from government and government corporations, nine stakeholders from NGOs, seven from academia, and two from a local hospital. The group included eight stakeholders who had been involved in both activities in phase two (see Table 4.3).

The researcher spent three weeks in Indonesia working with IEMT team members to prepare for the workshop. During this time the researcher observed the process of implementing the project and kept field notes regarding the factors impacting on the success of the TOT workshop specifically and the PSLP Project overall.

On the final day of the workshop 19 stakeholders, including eight that were interviewed previously, were interviewed to provide data for triangulating the findings in phase two. The interviews were structured and included four questions:
1. What do you think is needed to improve water and sanitation in Indonesia?
2. Specifically, what do you need so that you can contribute to improving water and sanitation in Indonesia?
3. What action related to water and/or sanitation would you like to be part of after this workshop?
4. Of the materials on sustainable sanitation presented to you, what do you think will be most useful in the future?

An Indonesian national conducted, transcribed and translated the interviews. The complete interview schedule is provided in Appendix G.

The stakeholders also evaluated the workshop using a questionnaire (Appendix H).

Semi-structured interviews were carried out with IEMT team members after the workshop. These interviews were used to clarify previous findings and observations about factors impacting on the success of the project (see Appendix I).

This section builds on the findings from phases one and two of the project.

4.4.3.1 Understanding local needs

One of the main criteria of success against which the PSLP Project was evaluated was whether it met the needs of the stakeholders (RQ1b). The inquiry into phases one and two found that decisions regarding the project were made without full consideration of stakeholders’ needs. Further, these decisions may have led to the delivery of a TOT workshop that did not meet the stakeholders’ needs thereby affecting the success of the project. In this section the TOT workshop delivered in phase three is evaluated in relation to the needs identified by stakeholders.

In phase two stakeholders identified a need for training on water conservation, sustainable sanitation and rainwater harvesting with a particular interest in water and sanitation technologies. The stakeholders also identified a need for awareness raising. The needs are discussed here in three areas: 1) sanitation; 2) awareness raising; and, 3) water.
Sanitation

The TOT workshop was designed to respond to the need for sustainable sanitation. In the workshop evaluation stakeholders indicated that the workshop was beneficial, that it was useful for developing their understanding of issues in sustainable sanitation. Stakeholders also commented that "it adds knowledge" (5A-PSLPQ) and "it’s very good because it gives me new knowledge" (28G-PSLPQ). However, stakeholders also identified a number of limitations.

The stakeholders commented that missing from the workshop was broader discussion of sanitation including waste other than "domestic waste" (33G-PSLPQ) and in particular pesticide waste "because Batu is an agricultural area in which the use of pesticide is high" (25G-PSLPQ) as well as "solid waste" (30G-PSLPQ). One stakeholder also commented that discussion of "the effect of water pollution and health" (29G-PSLPQ) was missing from the workshop. The stakeholders also remarked that the workshop did not take into account the local context. This is discussed further below (§ 4.4.3.4).

In phase two, twelve stakeholders interviewed identified a need for technology, in particular low-cost and simple technologies for treating waste, and nine identified a need for training on water and sanitation technology. A presentation on constructed wetlands (a low cost simple technology for treating wastewater) was the only presentation on this topic. This presentation was frequently cited as one of the best aspects of the workshop (PSLP3Q (50%); PSLP3SI (68.4%); PSLP3D (81%)). A team member reported on the presentation on wetlands in the workshop report writing that this presentation "was interesting due to high expectation of people to know, understand and apply this kind of simple technology" he also noted that "their interest [could] be seen from the enthusiasm of the participants in asking questions" (I2-PSLP3D p.3). However, while this presentation provided stakeholders with knowledge of wetlands, it did not provide them with the practice required to apply this technology. Knowledge alone may not have enabled stakeholders to take action after the workshop. In the section on the appropriateness of the methods used in the TOT workshop (§ 4.4.3.4 below) not providing stakeholders with an opportunity to practice was identified as a pedagogical shortcoming of the workshop. In the evaluation questionnaire seven stakeholders also identified the opportunity practice and/or a field visit as missing from the workshop. This limitation is discussed further in Section 4.4.3.4.
The workshop also failed to provide stakeholders with information about a range of technology options. The following request was made by one stakeholder “please sharpen the subject e.g., so that the equipment to treat the waste is a more feasible one. It can be applied here” (P30G-PSLPQ).

The stakeholders’ feedback suggests that while the topic of sanitation was appropriate the workshop did not address the local and specific needs of stakeholders and that this may have affected the ability of stakeholders to use what they learnt after the workshop.

**Awareness raising**

In phase two 17 out of the 19 stakeholders identified a need for awareness raising in order to respond to development challenges relating to sanitation in Indonesia. In phase three stakeholders restated this need with six stakeholders commenting that “the most important thing is awareness in the community” (P7A-PSLP3SI). Five stakeholders also indicated that they would like to be involved in awareness raising after the workshop (PSLP3SI).

Despite the need for awareness raising, only one presentation that included an example of community awareness raising was included in the TOT program. The workshop program did not include activities that would develop stakeholders’ capacity to raise awareness or carry out training. Consequently, the workshop did not address the need for ongoing awareness raising to improve the sanitation condition in Indonesia. This may have limited stakeholders’ opportunities to contribute to sustainable outcomes.

**Water**

The stakeholders who identified a need for training on rainwater harvesting in the second phase restated this need in the third phase. In the workshop evaluation questionnaire they identified “rainwater harvesting” as missing from the workshop (P46N- P52N- P55N-PSLP3Q). These stakeholders also approached ETC team members about why rainwater harvesting was not included in the program. They had travelled from Ambon Island to attend the workshop. The researcher recorded this encounter in her field notes:
At the first opportunity in the opening session P46N came to ask me where RWH [rainwater harvesting] fits in the programme. This puts me on the spot… she said this was identified as the priority in the seminar. I commented that it was identified as the second priority (I now wonder what information the participants were given about the workshop), but that our team had been briefed about the Ambon teams’ interest and that they would make time to talk to them… seven people have come from Ambon, they are motivated and ‘desperate’… at least the situation is. (PSLPO-24/02/06)

Ambon Island is located in the archipelago province of Maluku. The stakeholders from Ambon explained during the workshop that in recent years there has been civil conflict in Ambon. The stakeholders shared photographs of Ambon to illustrate “how beautiful Ambon was before civil conflict and how poor the environmental condition is after that” (PSLP3D p.4).

In the interviews carried out with stakeholders in phase three, four stakeholders also identified needs relating to water including “conservation of water resources” (P9A-PSLP3SI), the “provision of healthy and clean water” (P15G-PSLP3SI) and “improving the quality of water” (P34G-PSLP3SI).

While sanitation was a priority the stakeholders who demonstrated their commitment by travelling to the workshop from Ambon were more interested in water. The project may have been more successful if it had focused on delivering the activities to stakeholders who demonstrated commitment to the project.

In phase two the potential reasons why team members failed to deliver the project based on stakeholders’ needs, or in line with the needs assessment included: a flawed needs assessment process (§ 4.4.2.1), and confusion among IEMT team members about whether the needs assessment was part of the project or part of the research (§ 4.4.2.1). In phase three, in conversation with IEMT team members after the workshop there was some indication that the terminology may have been confusing. IEMT team members acknowledged in phase one of the project that conducting a needs assessment was important (§ 4.4.1.1). However, they may not have drawn a connection between a needs assessment and training demand assessment
(TDA). As remarked by one team member “the project could have been improved if it included a TDA” (I3-PSLP3SSI). A further factor is that IEMT team members may not have felt that they had ownership over the needs assessment process. According to UNDP (2008), for the findings of an assessment to be used, the process and findings need to be locally owned. A failure to discuss the concept of needs assessment in more detail and ensure that team members agreed at the outset how the results would shape the intervention may have affected the team members’ ability to develop a project based on need.

**Factors impacting on the success of the PSLP Project:**

- Not delivering activities based on stakeholders’ needs
- Not developing the intervention in response to the stakeholders who demonstrated a commitment to facilitating learning and change after the intervention
- Not discussing the concept of needs assessment and agreeing on how the results would be used to inform decision making

### 4.4.3.2 Commitment and ownership

In phases one and two it was found that IEMT team members lacked commitment to and ownership over the intervention and that this would potentially limit the outcomes of the intervention. One of the reasons was that IEMT team members only had limited involvement in the design of the intervention (§ 4.4.1.2). In order to facilitate their ownership, in the third phase of the project ETC team members asked the IEMT team to prepare the TOT workshop program. Aside from facilitating IEMT team members’ ownership of the workshop, it was also anticipated that the program would reflect local experience.

The researcher observed the initial meeting IEMT had to discuss the program (PSLPO-26/10/05). In that meeting two proposals were presented. The IEMT team leader suggested a program that involved introducing the stakeholders to three approaches to developing capacity in sanitation: “Day 1: training; Day 2: Training-for-Trainers; Day 3: Demonstration projects” (I1-PSLPO-26/10/05). In contrast a team member presented a program that focused more on providing the stakeholders with information about sustainable sanitation. He suggested “Day 1: Overview and understanding the purpose of the workshop. Day 2: Field-trip [to a place] that
already have good sanitation system/waste water treatment system to give idea about real situation. Day 3: Divide into three groups: 1) domestic waste 2) industrial waste 3) specific” (I2-PSLPO-26/10/05). No agreement was reached during the meeting, and the IEMT team leader suggested that each team member “draw up a program” and then meet to “mix our ideas” (I1-PSLPO-26/10/05).

A copy of the draft workshop program developed by I1 was sent to ETC (PSLPDE). The program indicated that the first day of the workshop would be held at Merdeka University and the remaining two days at Purwodadi Botanical Gardens. IEMT team members explained that hosting the workshop at the Botanical Gardens would provide a pleasant and appropriate learning environment and ensure that stakeholders were focused on the workshop (I2-PSLPO-18/10/05). The IEMT team had also explained during phase one of the project that holding a workshop outside of the university is less expensive (§ 4.4.1.8).

The ETC team members reviewed the program and made specific suggestions regarding the topics of the presentations and gave their feedback. The education consultant raised concerns that it should be restructured to “address real problems rather than simply presenting information” (E2-PSLPDE) and that the “focus of the workshop seems to be heavily on e-learning, but [the] needs analysis seemed to indicate that this wasn't appropriate for the local context” (E2-PSLPDE). The researcher also provided specific feedback, including raising concerns:

• That day two of the proposed program “consists entirely of presentations” and whether this was appropriate “given that they [stakeholders] did not find the seminar format [in phase two] entirely appropriate” (Researcher-PSLPDE).
• That the stakeholders may not have “enough [information on day one and two] to complete” the action plans on day three (Researcher-PSLPDE).

The ETC team members commented that they thought it would be useful if the program included site visits including to “wastewater treatment sites” (E3-PSLPDE) and visiting areas that are “non-sewered” (E5-PSLPDE). The ETC team leader summarised the team members’ comments and conveyed them to the IEMT team leader. IEMT staff finalised the workshop
program (see PSLPDE). It included the topics suggested for presentations, but it did not address the concerns and suggestions raised by ETC team members.

The process of developing the workshop program illustrates difficulties relating to collaboration within the IEMT team and between IEMT and ETC. These difficulties are discussed further here.

**Collaboration within IEMT team**

Phase two indicated less than optimal collaboration in the IEMT team. After the workshop the researcher carried out a semi-structured interview with two of the IEMT team members (I2 and I3). In this discussion the team members raised a number of concerns regarding leadership of the project. The team members commented that the team leader "asks for suggestions and then discards them" (I3-PSLP3SSI). It was explained that one of the team members (I2) developed the workshop program, but "then I1 changed half of it. [and the] discussion didn’t go well" (PSLP3SSI). The team members also had complaints about the IEMT leader’s role as financial manager of the project (§ 4.4.2.2 and § 4.4.3.6). The team members’ dissatisfaction with their team leader may have affected the way they engaged in the development of the workshop program and their commitment to the project. In phase two it was described how team members frequently failed to attend meetings and when they did attend they did not engage in the discussion (§ 4.4.2.2).

In the literature review on culture (§ 2.4.2.1), it was explained that in countries like Indonesia that have a large power distance (PDI 78) and weak uncertainty avoidance (UAI 48) the preferred leader is a “benevolent autocrat” or “good father” (Hofstede and Hofstede 2005). Team members do not dispute their leader’s authority and do not expect to participate in decision making (ibid.). However, IEMT team members complained that they were not involved in the decision making and that their suggestions were not given consideration. The basis of the team members’ complaints was not explored further during the PSLP Project, although according to the literature team members may not have found the project leader to be “credible” (Kouzes and Posner 2005) and/or a “good father” (Hofstede and Hofstede 2005). Credibility is an essential quality of a leader (Kouzes and Posner 2005). Similarly, when people in Indonesia are confronted with a “bad father” although they may comply with the team leader’s direction,
"ideologically" they may have rejected his authority (Hofstede and Hofstede 2005 p.55) and this does not imply a commitment to the work done (Muttaqin n.d.).

It is also possible that the team members and team leader had different expectations regarding their roles within the team. Three of the four team members, including the team leader had lived overseas. One team member who indicated that he would have liked to participate more fully in the design of the workshop program had lived in Australia for seven years and had only recently returned to Indonesia. Having spent considerable time overseas it is possible that this experience may have shifted his expectations regarding leadership styles and acceptable levels of consultation. At the same time, although the team leader had also lived abroad, his expectation may have remained consistent with his cultural norms. The IEMT team leader was asked to comment on his leadership style after the workshop. He commented that his approach was necessary for two reasons. Firstly, his “main objective as team leader” was the “success of the project” and control of the project was considered essential to this. Secondly, because the team members were working on a “voluntary” basis he felt that he could not “force them” or depend on them.

The challenges to the IEMT team working collaboratively may have impacted negatively on efforts to foster IEMT’s ownership and commitment to the project. These problems also affected team members ability to work together to develop the program with good outcomes.

Collaboration between IEMT and ETC

Although the IEMT team was essentially responsible for developing the workshop program, ETC team members were asked for feedback on the draft program. This request provided an opportunity for ETC to collaborate with IEMT in finalising the program. However, as described above this process was not collaborative.

There was no direct evidence why IEMT and ETC did not collaborate more fully to develop the workshop program. However, possible reasons include:

- For much of the project, the majority of team members were located in their respective countries and only met face-to-face for workshops in phases one and three.
• In phase one of the project inadequate planning was identified as a factor that could potentially impact on the success of the project. Neither in phase one, nor at any other time during the project did team members clarify roles, discuss the working relationship or develop a working ‘culture’ of openly collaborating on the project.

• IEMT and ETC may have had different expectations regarding participation and consultation due to cultural differences (refer to § 4.4.2.7).

The inability of team members to work together to develop the workshop program reduced the opportunities for designing an innovative and effective program.

Factors impacting on the success of the PSLP Project:

• Difficulties working collaboratively due to different cultural expectations regarding leadership styles and management practices

4.4.3.3 Existing relationships

In phase one the relationship between IEMT and ETC team members, in particular the team leaders, was identified as a factor that could contribute to the success of the project. After phase three, in an interview carried out with the IEMT team leader, his comments suggested that this relationship was important for project outcomes as he was committed to ensuring the project was a success remarking that “if I know I can’t succeed the programme I will tell E1 I don’t want to do because I will be embarrassed… if I have a feeling at least 90 percent success ok” (I1-PSLP3SSI). The pre-existing relationship between IEMT and ETC provided a foundation for working together and may have provided a short-cut to establishing trust which, as described in Chapter Two, is necessary for effective teamwork (Lencioni 2005).

Factors impacting on the success of the PSLP Project:

• Existing relationship between ETC and IEMT team members

4.4.3.4 Methods

In phases one and two there was some indication that the appropriateness of the TOT workshop as a method for developing the capacity of the stakeholders would depend on:
• Whether the workshop was based on adult learning theory and in particular provided stakeholders with an opportunity to practice and/or apply what they had learnt
• The ability of the stakeholders to use what they had learnt to facilitate ongoing learning and change

The workshop is evaluated in relation to these areas in this section.

**Adult learning theory**

Adult learning theories provide insight into how to develop appropriate learning environments. In Chapter Two, 10 characteristics of adult learning environments were described (Table 2.5) and the design of appropriate adult learning environments were discussed. The TOT workshop is evaluated against adult learning theory in this section.

**Contextual**

According to adult learning theorists learning is more likely to take place when content is presented in a meaningful context (Biggs and Moore 1993 p.45) such as the “real-world contexts in which learning is relevant” (Phillips 2006 p.407). However, limited consideration of the local context was given to the design of the workshop. Over the three days only two presentations included specific information and examples relevant to Indonesia. In the workshop evaluation questionnaire several stakeholders identified this as a shortcoming in the workshop program, commenting that the workshop could be improved if the program had taken into consideration the “sanitation problem in Indonesia” (P53N-PSLP3Q), that “the local issue of Indonesia should be raised” (P54N-PSLP3Q) and that the discussion about waste treatment should have focused on the “more feasible one that can be applied here” (P30G-PSLP3Q). Failing to take into consideration the local context may have limited the learning that took place during the workshop.

Taking into consideration the local context also involves accommodating local customs and practices. It was observed during the workshop that while the workshop program included morning, lunch and afternoon breaks the time of these varied each day and did not accommodate local prayer times. Two stakeholders commented on this in the workshop
evaluation commenting that the “the time for praying for the Muslims should be considered” (P34G-PSLP3Q) and “please pay attention to the exact sholat [prayer] time” (P30G-PSLP3Q) 
Given that 22 out of the 33 stakeholders were Muslim it may have been more appropriate to develop a program that takes this into account.

At the same time, one local practice that was taken into consideration was the provision of certificates of attendance. The researcher observed that certificates of attendance were especially important to stakeholders. Even in phase one the IEMT team members requested that they be provided with a certificate. Discussion with IEMT team members and staff revealed that in Indonesia certificates of attendance are an important addition to a person’s resume.

Opportunities to practice and/or apply what was learnt

In the phase two, providing stakeholders with an opportunity to practice and/or apply what they learnt during the workshop was identified by stakeholders and team members (§ 4.4.2.3) as important for learning outcomes. This finding is supported by the literature on adult learning theory which suggests that learning is facilitated when learners are engaged in the learning cycle (Kolb 1984) which includes providing the learner with an opportunity to practice. Although there is no single theory for adult learning (Merriam 2001) according to Merrill (Merrill 2002 p.44) this involves: “(a) activation of prior experience, (b) demonstration of skills, (c) application of skills, and (d) integration of these skills into real-world activities”.

The TOT workshop consisted almost entirely of technical presentations (PSLP3D). The presentation based program, with the exception of the eLearning session, did little more than activate the prior experience of the stakeholders. The workshop did not demonstrate the skills necessary to apply sustainable sanitation, nor did the program provide stakeholders with an opportunity to practice what they had learnt, or integrate these activities into real-world activities.

Having made their preference for demonstration projects and practical activities clear during phase two, the stakeholders also identified this as a limitation of the workshop, commenting:
There should be one example of the technique of treatment water and sanitation that has already done in Indonesia (Malang) that can be shown to the participants of the workshop (P52N-PSLP3Q).

There is not any practice. There should have been a practice or at least a visit to Lavalette hospital. There is a wetland there (P3A-PSLP3Q).

The stakeholders that were interviewed during the workshop also remarked that they wanted to be involved in a "project [that] really happens, not just theory" (P37GC-PSLP3SI) and that they wanted to "practice the theory that I have got during the workshop" (P7A-PSLP3SI).

Providing stakeholders with an opportunity to practice is indicated by adult learning theory, and was desired by stakeholders, but was not implemented. This decision may have affected learning outcomes and stakeholders’ satisfaction with the workshop.

Learning environment (physical)

The researcher reflected during the workshop that the venue for the workshop may not have been an appropriate learning environment. The workshop took place at Merdeka University and utilised four rooms, a hall, meeting room, classroom and computer laboratory. The vast majority of the activities took place in the meeting room (see Figure 4.1). The researcher’s field notes (PSLPO-21/02/06) described the meeting room as follows:

The workshop is held in the main meeting room which has seats for 60 people, but is really too small. The meeting room is approximately 12 x 5 metres. The seating is a horse shoe arrangement, with a second row of seats along the walls on either side. The horse shoe seats approximately 30 people and the additional rows seat 20 people. The room is accessed by two doors, both of which are squeaky. At the open end of the horse shoe there is a screen for the presentations. The room is dimly lit and the windows along one side of the room are shrouded in curtains and curtain nets. There is no air conditioning in the room. The workshop is attended by 33 participants and nine presenters [and three interpreters]. The room is stuffy and crowded.
There have been numerous studies carried out on the built environment and how it can affect learning (e.g., Paradise and Cooney 1980; Burgess 1981). In addition, several authors provide checklists for analysing the appropriateness of the learning environment. According to Vosko (1991 p.27) things to consider include:

- Seating arrangements
- Personal space needs
- Barrier free access to and in the classroom
- Adequate control over ventilation, heating and cooling
- Flexible furnishings
- Windows and blinds and shades that are operable
- Adequate sightlines

The description of the meeting room illustrates that stakeholders did not have barrier free access to the room, there was no ventilation and the windows and shades were inoperable. The seating arrangements were not flexible and stakeholders had limited personal space. After the
workshop an IEMT team member commented that one of the problems with the workshop was “the facilities, air conditioning. I feel sorry and ashamed” (I3-PSLP3SSI).

The decision to hold the meeting at Merdeka University was made by the IEMT team leader. It was difficult to ascertain the basis for this decision. It seems unlikely that this decision was to save money as in phase one it was explained that it was cheaper to hold the meeting outside of University (§ 4.4.1.8). A PSLP team member subsequently explained that the meeting rooms were provided free of charge, but in delivering the workshop IEMT were required to establish a committee which had a number of associated costs. This committee was made up of Merdeka University staff who were then paid while the workshop took place whether they provided any specific services for the workshop or not. It was also a requirement that food was provided to the committee as well as a number of other staff members based on their position. This supported the finding from phase two that the rector’s support may have been conditional on the activities being held at the university. Although not the only possible explanation, whatever the reason for this decision, the workshop venue may have affected the stakeholders’ ability to learn from the workshop and their experience of the workshop.

Sociable

Bransford, Brown, and Cocking (1999) conclude that participation in social practice is a fundamental form of learning. The social aspect of learning is widely recognised as an important characteristic of adult learning environments (Table 2.5). Moreover, in capacity development, the social aspects of a learning activity can provide opportunities for building long-term relationships and social capital with benefits beyond the timeframe of the activity (Woolcock and Narayan 2000). The TOT workshop, though delivered face-to-face, did not optimise the social dimension of learning. Rather, a number of factors limited opportunities for social engagement:

- The workshop program did not include a social function (PSLP3D)
- The meals were provided in boxes which were eaten at the stakeholders’ desk
- The room in which the workshop took place was small and crowded which meant people could not move around and there was limited space for socialising
• The program did not include a field trip (PSLP3D)

These factors resulted in reduced opportunities for stakeholders to informally interact and socialise with each other and may have affected learning outcomes.

Other characteristics

The TOT workshop failed to incorporate a number of other characteristics of adult learning environments:

• **Participatory:** for effective adult learning “learners must participate actively in the learning experience” (Burns 1995 p.252). The PSLP stakeholders had limited opportunities to actively participate in the workshop. The program included little time for discussion and stakeholders commented in the workshop evaluation questionnaire that the workshop was missing “interaction between participants” (P10A-PSLP3Q), “group dynamic” (P34G-PSLP3Q) and that it would have been “good if some of the material was learning in a group” (P46N-PSLP3Q).

• **Learner-centred:** a learner-centred approach “utilises the learner’s past experience” (Burns 1995 p.252) (or existing capacity) as a basis for learning. In the phase two interviews and during the seminar stakeholders provided some information about their existing capacity and experience with sanitation (§ 4.4.2.1), but this was not taken into consideration when developing the workshop program. The stakeholders did not have an opportunity to share their experiences during the workshop (PSLP3D).

The TOT workshop did not adequately take into consideration adult learning theory: 1) the content was not presented in a context that was relevant to stakeholders; 2) the workshop was primarily presentation based and included only the first of four distinct phases of learning identified by Merrill (2002) as important for adult learning; 3) the learning environment was not conducive to learning; 4) the stakeholders had limited opportunities to socialise; 5) stakeholders did not actively participate in the learning process; and, 6) the workshop did not utilise
stakeholders’ past experience and existing capacity as the basis for learning. The learning outcomes of the workshop were potentially affected as a result.

Ability of stakeholders to use what they had learnt

A further limitation of the TOT workshop was that it did not provide stakeholders with the necessary skills to carry out training. In the workshop evaluation questionnaire stakeholders said that the workshop was of value principally because of the knowledge it provided, commenting that “it adds knowledge” (P5A-PSLP3Q) and “it’s very good because it gives me new knowledge” (P28G-PSLP3Q). The program focused on the technical content and apart from a presentation on ‘Learning and Training in the 21st Century’, adult learning theory and training methodologies were largely ignored. The program did not utilise the training manual and study guide that is part of the TOT package. This is a common criticism of TOT. Deri (1996 p.1) comments “most TOTs are plain training courses with no or little preparation of participants on how to replicate the training they are receiving”. As one stakeholder commented, they needed training that included a “strategy of communicating this matter to the community” (PS26-PSLP3Q). Another remarked that “three days [is] not long enough to become trainers” (P4A-PSLP3SI).

The main factor that affected stakeholders’ ability to deliver training after the intervention was that the TOT was poorly implemented and failed to develop their capacity to deliver training. In phase two there were a number of indications that the TOT method was inappropriate because stakeholders were not in a position to carry out training after the workshop. This was reiterated by stakeholders in the third phase. The stakeholders who were interviewed were asked what activities they would like to be involved in after the intervention. Three main activities were identified: 1) pilot project or practical activity; 2) training/training-of-trainers; and 3) awareness raising.

Six stakeholders said they would like to be involved in a training of “students” (P9A-PSLP3SI) “and teachers” (P3A-PSLP3SI), and “industry” (P16G-PSLP3SI) including two who said they would like to give training-of-trainers about “clean water” (P1AN-PSLP3SI) and to “sanitation workers in public health centres” (P29G-PSLP3SI). However, these same stakeholders also
identified barriers to carrying out training, in particular: a lack of materials such as “books”, for example “on how to make treatment systems for waste for poor people” (P34G-PSLP3SI) and a “module on water and sanitation” (P29G-PSLP3SI); and, a “lack of funding” (P9A- and P16G-PSLP3SI).

The workshop provided stakeholders with materials. However, the PSLP Project did not make provision for ongoing funding and support. Consequently, while some stakeholders may have had the motivation to carry out further training, they lacked the wherewithal. In terms of achieving sustainable outcomes the decision to utilise a TOT may have impacted on the success of the project.

A failure to design the workshop based on adult learning theory affected learning outcomes. This finding was consistent with a recent evaluation of the World Bank’s training efforts which found that “training success is predicated on adequate design” (World Bank 2008 p.xiii) and that “good training design” makes “use of appropriate and professional pedagogic design, including opportunities to practice learned skills” (ibid. 2008 p.54). What is more, the TOT method was not appropriate for developing stakeholders’ capacity to take action on ongoing basis. This was in part because the TOT was poorly implemented, but also because stakeholders were not in a position to carry out training after the intervention.

Factors impacting on the success of the PSLP Project:
- Not designing the workshop based on adult learning theory
- Not providing stakeholders with an opportunity to practice
- Not providing stakeholders with an opportunity to socialise
- Not delivering the workshop in an appropriate learning environment
- Utilising inappropriate methods for learning and/or sustainable outcomes
- Providing stakeholders with certificates of attendance
- Not accommodating local customs such as prayer times
4.4.3.5 Stakeholder engagement

In spite of initial concerns from team members that it would be difficult to engage participants in the activities of the PSLP Project (§ 4.4.1.7), in the third phase there was sustained and increasing interest in the project.

In total 65 individuals participated in the project, with 8 individuals involved continuously and a further 13 were involved in two of the three main activities (Activities 2a, 2b and 3). Further, there were several requests from “other people that wanted to attend” (I1-PSLP3SSI). In one instance, the manager of one of the participants contacted IEMT to see if more of their staff could attend. In response the IEMT staff member commented that they “had to say yes otherwise my reputation is not good” (I2-PSLP3SSI).

As discussed in the phase two, the ability of IEMT staff to engage stakeholders in a culturally appropriate way impacted positively on the project. The researcher had further opportunity to observe this process in the third phase. There were seven steps involved in selecting and engaging stakeholders. The process included steps to ensure appropriate and interested stakeholders were identified, that they had support from their superior, that they recognised the event as an official activity and demonstrated their commitment. The steps taken by IEMT team members to engage stakeholders are presented in Table 4.8.

Table 4.8  Steps involved in engaging stakeholders

<table>
<thead>
<tr>
<th>No.</th>
<th>Step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Potential participants were identified via relationships and networking.</td>
</tr>
<tr>
<td>2</td>
<td>Identified participants were telephoned or spoken to in person to provide background regarding the project as well as gauge their interest and availability.</td>
</tr>
<tr>
<td>3</td>
<td>Where applicable:</td>
</tr>
<tr>
<td></td>
<td>a The participant’s superior was met with to gain approval for the identified individual to be involved and released for the duration of the workshop.</td>
</tr>
<tr>
<td></td>
<td>b A letter was sent to the individual’s superior formally inviting the selected individual to attend the workshop.</td>
</tr>
<tr>
<td>4</td>
<td>The participants were provided with a formal invitation, signed by the Rector of Merdeka University and delivered by hand.</td>
</tr>
<tr>
<td>5</td>
<td>After accepting the invitation, participants were asked to sign a commitment form for their involvement in the project.</td>
</tr>
<tr>
<td>6</td>
<td>In the days just prior to the activities participants were telephoned or visited, this served as a reminder.</td>
</tr>
<tr>
<td>7</td>
<td>At the end of the workshop participants were provided with a payment for their local transport costs and other expenses.</td>
</tr>
</tbody>
</table>
At the conclusion of the project, the team members agreed that a successful aspect of the PSLP Project was the stakeholders’ continued participation in the activities. Aside from utilising a method that effectively engaged stakeholders, IEMT team members identified two additional reasons why stakeholders were interested in the project:

1. The involvement of several “key people” in the community (I2-PSLP3SSI). As noted by Muttaqin (n.d. p.7) in Indonesia, particularly among Javanese, “respect for elders and political or social superiors transcends into all areas of life”.

2. An interest in capacity building “at the moment everyone wants to know about capacity building… what it is, how to do it” due to a country-wide capacity building initiative which was being launched by the government at the time of the project (I1-PSLP3SSI).

The ability to engage with stakeholders using an effective and culturally appropriate process impacted positively on the project.

Factors impacting on the success of the PSLP Project:

- An effective and culturally appropriate method of engaging stakeholders
- The involvement of key people in the community

4.4.3.6 Indonesian culture and local context

In phase two of the project cultural differences impacted on the working relationship between IEMT team members and the researcher. In phase three the researcher did not experience the same problems. Hofstede and Hofstede (2005 p.324) explain that when people live in a foreign country, even for short assignments of up to three months, their feelings about the culture changes over time and moves through several phases along what is termed ‘the acculturation curve’. After initial phases of euphoria and cultural shock a person may reach a phase of acculturation where they learn to “function under the new conditions”. This phase is followed by a stable state where a person may find the situation “negative compared to home” or they may become “biculturally adapted” or have “gone native”. It is possible that the researcher was more aware of the cultural differences and based on prior experience was able to work with IEMT
staff without difficulty. It was also possible that team members were more accepting of each other having worked together in phases one and two of the project.

The area where the local cultural context may have impacted on the project was financial management. The financial management of the activities carried out in Indonesia was at the discretion of the IEMT team leader. The budget for the TOT workshop included: AUS$5000 for stakeholder costs (e.g., catering, room hire and transport); AUS$700 for computer equipment; AUS$3500 for materials; printing and photocopying; AUS$500 for workshop preparation; and, AUS$3375 for professional interpreters.

However, there were several indications that the funds were not spent on the items budgeted for, or on items identified by team members as important for the successful delivery of the project. For example:

- In phase one team members from IEMT identified a field trip as an appropriate method for developing capacity. However, this was not included in the TOT workshop program. In the workshop evaluation in phase three stakeholders identified the lack or practice and field visit as missing from the workshop.
- The workshop was budgeted for five days. However, the program was reduced to three days instead of five. In the workshop evaluation 50 percent of the stakeholders thought the workshop was too short “for that many topics” (P53N-PSLP3Q), that it was “impossible to cover the information well” (P46N-PSLP3Q) and that the “time for discussion [was] limited” (P54N-PSLP3Q).
- The workshop did not take place at the Purwodadi Botanical Gardens as planned, despite having being told during phase one that it was cheaper to hold activities outside of Merdeka University and discussing the potential benefits in phase two. If the workshop had been held at the gardens it would have addressed the need for providing stakeholders with practical examples.
- Professional interpreters were not employed. The total amount paid to the translators was AUS$520 from a budgeted amount of AUS$3375 at a rate of AUS$40 per day (PSLPO-27/02/06). There were complaints from stakeholders in the workshop evaluation about the
quality of translation (P47N- P52N- P55N-PSLP3Q). The effect of poor quality interpretation on the project is discussed further in Section 4.4.3.8.

The IEMT team members explained after the workshop that they were asked to find translators and food for a “low price” (I2-PSLP3SSI). The IEMT team members commented that “we want to look good and provide good food” (I3-PSLP3SSI), but that the team leader asked them to “minimise the cost” (I2-PSLP3SSI) in these areas. One translator was “told that the project doesn’t have very much money” which was why they were only offered a small amount for the work” (PSLPO-27/02/06).

The IEMT team leader indicated that many of these decisions were necessary because of limited funds. The decision to hold the workshop at Merdeka University may have been due to an expectation from the rector that IEMT would do so in exchange for his support (see § 4.4.2.8). However, IEMT team members implied that after the workshop how much they were paid would depend on what was left over from the project and that it was for this reason they were asked to minimise costs (PSLP3SSI).

In semi-structured interviews with the researcher after the workshop IEMT team members questioned whether it is “the right management if the director (team leader) is also the treasurer” (I2-PSLP3SSI). They raised a lack of transparency as an issue commenting that the IEMT team leader “does not want to mention openly [and] seems to hide something” (I2-PSLP3SSI) about the budget. They also said that if they were involved in any future activities “it is good enough if I1 [is still the leader, but] does not hold the money. If I hold the money I1 will dictate to me a lot. I3 or I4 would be the right person” (I2-PSLP3SSI).

A detailed reconciliation of the budget and expenditure was not provided so it is difficult to ascertain how the money was spent or if money was left over. However, in a discussion with an IEMT team member two years after the workshop (during the third stage of the research) it was established that IEMT team members were paid for their involvement. The amount they received was undisclosed, but it was explained that from the money left over from the project the team leader kept half and the other half was divided between the three team members (I2-OASSI).
The relationship between IEMT and ETC team leaders meant that the financial arrangements were based on trust. As described previously trust is the basis of effective teams. However, a lack of transparency and clarity regarding finances may have eroded this trust. Failing to discuss financial matters openly and ensure that processes were transparent may have impacted on the success of the project in terms of team members’ commitment and the design of the workshop. Team members may have also benefited from a frank discussion about corruption, including whether they felt that payments to team members and stakeholders were culturally appropriate and whether transparency and better reporting regarding expenditure would have addressed many of the issues.

**Factors impacting on the success of the PSLP Project:**

- A lack of transparency and clarity regarding financial management of the project
- Not discussing payment and incentives for IEMT team members at the outset of the project

### 4.4.3.7 Sustainability

Inquiry into phases one and two of the PSLP Project had found that the project had not taken into account the sustainability of the project. This was despite the fact team members and stakeholders were aware that sustainable outcomes are a foundation of successful capacity development. Inquiry into phase three provided a further opportunity to assess whether the PSLP Project was likely to facilitate sustainable outcomes. A range of interrelated factors that may have affected the sustainability of the project were identified. Many of these factors have been discussed in previous sections and are summarised here:

- The TOT workshop sought to develop local capacity in sanitation. The workshop provided stakeholders with information and knowledge relating to sanitation (e.g., wetlands). However, as outlined in Section 4.4.3.4 it included limited information about adult learning theory or training methodologies, and did not provide an opportunity to practice what they learnt. While stakeholders identified the workshop of value because of the knowledge that they gained, it has been argued here that knowledge alone may not have been enough to facilitate sustainable outcomes.
• The workshop failed to address the need for awareness raising (§ 4.4.3.1). The stakeholders may have been in a better position to take action after the workshop if the project had focused on developing their capacity to raise awareness rather than ineffectively delivering a workshop designed to develop their capacity to be trainers.

• There was a lack of funding and materials available for stakeholders to facilitate learning and change after the workshop. On the final day of the workshop stakeholders were engaged in a session to prepare action plans for a follow-on TOT and/or demonstration projects. It was hoped that funding could be secured for a continuation of the PSLP Project and implementation of these action plans, as remarked by one team member “if we are talking capacity building… but no continuation it is embarrassing” (I1-PSLP3SSI). In a debriefing meeting held after the workshop team members discussed and committed to submitting a proposal to AusAID for a second PSLP grant. An application was submitted, however this was unsuccessful. In Chapter Five the findings suggest that rather than focusing on action plans a more successful approach is to focus on the design of the intervention.

• Throughout the TOT workshop the opportunities for social engagement and developing relationships that could provide the basis for ongoing action were limited (§ 5.6.4.3). However, to support future learning, information sharing and ongoing collaboration, the Indonesian International Water Association was launched during the TOT workshop as a mechanism for ongoing networking. This association would be the Indonesian chapter of the International Water Association (http://www.iwa.org). During the workshop the stakeholders gave their support to the association and agreed to be founding members (PSLP3D). The outcomes associated with this network are discussed in Chapter Six.

In phase three there was further evidence to suggest that the PSLP failed to address the sustainability of the project and that this would affect the outcomes of the project. The outcomes of the PSLP Project are assessed in Chapter Six.

**Factors impacting on the success of the PSLP Project:**

• Implementing activities that did not develop the capacity, in particular skills, that stakeholders needed to facilitate learning and change
• Not selecting stakeholders with the ability to take action after the workshop

• Establishing a mechanism for networking

• Not having funding available to support ongoing action and activities

4.4.3.8 Interpretation

The TOT workshop was conducted principally in Indonesian. The presentations given in English by ETC team members were simultaneously interpreted into Indonesian. The Indonesian content was also interpreted into English for ETC team members, but in a more informal manner. Three interpreters were utilised.

There were a number of problems with the interpretation provided during the workshop:

• Stakeholders who were bilingual commented that the English presentations, in particular the technical content, were not always interpreted accurately. They commented that “the translator sometimes mistranslate the words. It disturbs my concentration” (P55N-PSLP3Q) and “if it is possible (it should have been) prepare a translator that understand about environment” (P47N-PSLP3Q).

• There were five team members from ETC who required interpretation at any one time and typically two interpreters available. This meant that interpretation was not provided for all the sessions.

• The room was crowded (see description in § 4.4.3.4) and the team members and interpreters were seated in rows which made it difficult for the interpreters to communicate with all the team members.

• The researcher’s personal experience of the interpretation was that it was often not fluent and not always available (PSLPO-23/02/06).

Although a budget line had been included for interpretation, professional interpreters were not employed. The three interpreters employed were friends and family of IEMT team members and neither professionals nor experts in the field of sanitation. In Section 4.4.3.6 it was explained that IEMT staff had been asked to find translators for a “low price” (I2-PSLP3SSI).
The researcher reflected that improving the quality of the interpretation, so that it was accurate and more readily available, could have a number of benefits, including greater understanding of the content being delivered, and increased scope for more interactive sessions and discussion among team members and stakeholders. Both of these factors are important for learning outcomes.

**Factors impacting on the success of the PSLP Project:**

- Not utilising interpreters that were proficient and familiar with the subject matter

### 4.4.3.9 Learning materials

As described above (§ 4.4.2), the TOT workshop utilised the sustainable sanitation training package. For the purposes of the PSLP Project, all training materials, apart from the slides, were translated into Indonesian. These learning materials were intended to contribute to the outcomes of the project by providing stakeholders with resources that they could use to facilitate ongoing learning and change after the workshop.

In the interviews with stakeholders on the final day of the workshop the main thing they said they needed in order to carry out training was materials, in particular “training media for instance books and other tools/instruments” (P9A-PSLP3SI) and “reference” materials (P39GC-PSLP3SI). The training package would potentially provide them with the resources they needed. However, the stakeholders identified limitations of the package.

Nine of the stakeholders interviewed commented that the most useful aspect of the package was the eLearning component because it is “*simple*” (P30G-PSLP3SI) and can give “*more up to date information*” (P38GC-PSLP3SI). However, there were also comments that the eLearning component “should be simplified” and made “*appropriate with the Indonesian condition*” (P53N-PSLP3SI). As discussed in Section 4.4.3.4 providing learners with a meaningful context for learning is important for learning outcomes. The stakeholders also noted that the appropriateness of eLearning would depend on the audience, commenting that for “*community awareness I will use slide… because they [local community] can just watch and listen and slides*”
are interesting. Slides can also be modified’ (P15G-PSLP3SI). However, the utility of the slides may have been limited because they were not translated.

The researcher reflected that stakeholders may have required materials for use in settings other than formal training programs (e.g., preaching, lectures and work- and community-based programs). In the workshop evaluation only three stakeholders said that they would use the materials for training after the workshop. This was consistent with the result obtained in phase two that the main way stakeholders could contribute to improvements in sanitation after the intervention was through awareness raising (§ 4.4.2.3).

The failure to provide stakeholders with learning materials that were suitable for awareness raising and not only translated, but customised for the local context may have affected project outcomes.

**Factors impacting on the success of the PSLP Project:**

- Not providing stakeholders with materials that were customised for the local context

4.4.3.10 Conclusion

The inquiry conducted in the third phase of the project provided further evidence to support the findings in phase two and identify new factors impacting on the success of the project (RQ1.1). The factors identified in the third phase have been added to those in Table 4.7 to provide a complete overview of the factors impacting on the success of the project (Table 4.9).

In the third phase, stakeholders were effectively engaged and committed to attending the TOT workshop (§ 4.4.3.5). However, the findings suggest that the workshop did not meet their needs (RQ1.1a) and was not design based on stakeholders’ existing capacity (§ 4.4.3.1). It did not utilise stakeholders preferred methods of demonstration projects and/or practical activities. What is more, the workshop did not address the need for awareness raising and recognise the potential benefits of developing stakeholders’ ability to raise awareness rather than delivering a TOT.
<table>
<thead>
<tr>
<th>No.</th>
<th>Understanding local needs</th>
<th>Commitment and ownership</th>
<th>Relationships</th>
<th>Appropriate methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Making decisions regarding the project prior to assessing the local needs (-)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Making decisions regarding the project prior to assessing the local needs (-)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Failing to accurately assess local needs and build ownership through the needs assessment process (-)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Developing the activities without taking into consideration local needs and capacity (-)</td>
<td>Not delivering activities based on stakeholders needs and capacity (-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Not taking into consideration the needs of stakeholders that demonstrated the most commitment to facilitating learning and change (-)</td>
<td>Not developing an intervention in response to stakeholders that demonstrated the most commitment to facilitating learning and change (-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Not involving IEMT team members in the project design (-)</td>
<td>Not involving IEMT team members in the project design (-)</td>
<td>The relationship between IEMT and ETC team members (+)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Lack of commitment (-)</td>
<td>Not discussing payment and incentives for IEMT team members at the outset of the project (-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Not clarifying upfront whether team members would be paid for their involvement (-)</td>
<td>Difficulties working collaboratively due to cultural expectations regarding leadership styles and management practices (-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Not involving IEMT team members in the project design (-)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Not utilising a demonstration project (-)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Not developing the TOT workshop based on adult learning theory (-)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Not providing stakeholders with an opportunity to practice (-)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Not providing stakeholders with an opportunity to socialise (-)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Not delivering the workshop in an appropriate learning environment (-)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Providing stakeholders with certificates of attendance (+)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Not accommodating local customs such as prayer times (-)</td>
<td></td>
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</tbody>
</table>

### Table 4.9 Factors impacting on the success of the PSLP Project: Phase 3

<table>
<thead>
<tr>
<th>No.</th>
<th>Factors PHASE 1</th>
<th>Factors PHASE 2</th>
<th>Factors PHASE 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Making decisions regarding the project prior to assessing the local needs (-)</td>
<td>Making decisions regarding the project prior to assessing the local needs (-)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Failing to accurately assess local needs and build ownership through the needs assessment process (-)</td>
<td>Not delivering activities based on stakeholders needs and capacity (-)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Developing the activities without taking into consideration local needs and capacity (-)</td>
<td>Not developing an intervention in response to stakeholders that demonstrated the most commitment to facilitating learning and change (-)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Not taking into consideration the needs of stakeholders that demonstrated the most commitment to facilitating learning and change (-)</td>
<td>Not discussing the concept of needs assessment and agreeing on how the results would be used to inform decision making (-)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Not involving IEMT team members in the project design (-)</td>
<td>Not involving IEMT team members in the project design (-)</td>
<td>The relationship between IEMT and ETC team members (+)</td>
</tr>
<tr>
<td>6</td>
<td>Not clarifying upfront whether team members would be paid for their involvement (-)</td>
<td>Not discussing payment and incentives for IEMT team members at the outset of the project (-)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Lack of commitment (-)</td>
<td>Difficulties working collaboratively due to cultural expectations regarding leadership styles and management practices (-)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Not involving IEMT team members in the project design (-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Not utilising a demonstration project (-)</td>
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<td>10</td>
<td>Not developing the TOT workshop based on adult learning theory (-)</td>
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<td>Not providing stakeholders with an opportunity to practice (-)</td>
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</tr>
<tr>
<td>12</td>
<td>Not providing stakeholders with an opportunity to socialise (-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Not delivering the workshop in an appropriate learning environment (-)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Providing stakeholders with certificates of attendance (+)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Not accommodating local customs such as prayer times (-)</td>
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</table>
### Table 4.9  
Factors impacting on the success of the PSLP Project: Phase 3 (continued)

<table>
<thead>
<tr>
<th>No.</th>
<th>Factors PHASE 1</th>
<th>Factors PHASE 2</th>
<th>Factors PHASE 3</th>
</tr>
</thead>
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<tr>
<td>18</td>
<td>The adequacy of the project planning (+/-)</td>
<td>The adequacy of the project planning (+)</td>
<td>Difficulties developing the workshop program (-)</td>
</tr>
<tr>
<td>19</td>
<td>Difficulties associated with planning due to cultural differences and a lack of commitment (-)</td>
<td>Difficulties developing the workshop program (-)</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Failure to address weaknesses and threats to IEMT’s organisational capacity (-)</td>
<td>A lack of organisational capacity (-)</td>
<td>A lack of organisational capacity (-)</td>
</tr>
<tr>
<td>21</td>
<td>A lack of institutional support (+)</td>
<td>Institutional support (+/-)</td>
<td>Institutional support (+/-)</td>
</tr>
<tr>
<td>22</td>
<td>Difficulties engaging appropriate stakeholders (-)</td>
<td>Effective and culturally appropriate engagement of stakeholders (+)</td>
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<tr>
<td>23</td>
<td></td>
<td>Involvement of key people in the community (+)</td>
<td>Involvement of key people in the community (+)</td>
</tr>
<tr>
<td>24</td>
<td>Indonesian culture and the local context (-)</td>
<td>Indonesian culture and the local context (-)</td>
<td>Indonesian culture and the local context (-)</td>
</tr>
<tr>
<td>25</td>
<td>Cultural differences that contributed to team dysfunction (-)</td>
<td>A lack of transparency and clarity regarding financial management of the project (-)</td>
<td>A lack of transparency and clarity regarding financial management of the project (-)</td>
</tr>
<tr>
<td>26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td></td>
<td>Not providing stakeholders with materials that were customised for the local context (-)</td>
<td>Not providing stakeholders with materials that were customised for the local context (-)</td>
</tr>
<tr>
<td>28</td>
<td>Not taking into consideration the sustainability of the project (-)</td>
<td>Not taking into consideration the sustainability of the project (-)</td>
<td>Not taking into consideration the sustainability of the project (-)</td>
</tr>
<tr>
<td>29</td>
<td>Not securing or budgeting funding to facilitate ongoing action and activities (-)</td>
<td>Not having funding available to support ongoing action and activities (-)</td>
<td>Not having funding available to support ongoing action and activities (-)</td>
</tr>
<tr>
<td>30</td>
<td>Not utilising a method that would develop capacity that would facilitate sustainable outcomes (-)</td>
<td>Implementing activities that did not develop the capacity, in particular skills, that stakeholders needed to facilitate learning and change (-)</td>
<td>Implementing activities that did not develop the capacity, in particular skills, that stakeholders needed to facilitate learning and change (-)</td>
</tr>
<tr>
<td>31</td>
<td></td>
<td>Not selecting stakeholders with the ability to take action after the workshop (-)</td>
<td>Not selecting stakeholders with the ability to take action after the workshop (-)</td>
</tr>
<tr>
<td>32</td>
<td></td>
<td>Establishing a mechanism for networking (+)</td>
<td>Establishing a mechanism for networking (+)</td>
</tr>
<tr>
<td>33</td>
<td></td>
<td>Not utilising interpreters that were proficient and familiar with the subject matter (-)</td>
<td>Not utilising interpreters that were proficient and familiar with the subject matter (-)</td>
</tr>
</tbody>
</table>
The TOT workshop had a number of pedagogical shortcomings (§ 4.4.3.4). It was not based on adult learning theory and utilised methods that were inappropriate for facilitating learning and sustainable outcomes. Consequently, there was some indication that the stakeholders lacked the capacity, in particular skills, to take action after the workshop. The stakeholders also indicated that they lacked the wherewithal to take action, and the project did not address this. Without the provision of funding and ongoing support many of the stakeholders were not in a position to take action after the workshop. The factors identified indicate that the TOT workshop did not enable stakeholders to facilitate learning and change beyond the timeframe of the intervention (RQ1.1b).

A range of other factors also impacted on the success of the project. These related to implementation of the project (§ 4.4.3.2 and § 4.4.3.6). The project failed to foster local ownership and commitment to the project. The project also failed to address issues relating to teamwork, leadership, planning and financial management. A further limitation was that the project did not develop team members’ understanding of cultural differences and how they can affect working relationships and cross-cultural collaboration. The challenges to working together affected team members’ ability to deliver a workshop that met the needs of stakeholders and facilitated sustainable outcomes.

4.5. Summary

Inquiry into the PSLP Project was guided by the research question “what factors impacted on the success of the project”? (RQ1.1). Thirty-three factors were identified as impacting on the success of the project (Table 4.9). They include six factors that had a positive impact on the project and 27 that had a negative effect. The factors identified relate to nine aspects of the capacity development process:

1. **Local needs**: failing to adequately take into account the needs of local stakeholders (§ 4.4.3.1)
2. **Commitment and ownership**: a lack of commitment and ownership over the process (§ 4.4.3.2)
3. **Relationships**: working with people with who there was an existing relationship based on trust (§ 4.4.3.3)
4. **Methods**: not utilising methods that were based on adult learning theory and that were appropriate for the local context (§ 4.4.3.4)

5. **Planning**: inadequate planning which contributed to team dysfunction (§ 4.4.2.5)

6. **Institutional capacity and support**: not taking into consideration the institutional capacity to support ongoing learning and change (§ 4.4.2.8)

7. **Stakeholder engagement**: utilising a culturally appropriate method of engaging stakeholders (§ 4.4.3.5)

8. **Culture and the local context**: insufficient understanding of cultural differences which affected team members’ ability to work together (§ 4.4.3.6)

9. **Sustainability**: not delivering an intervention that facilitated sustainable outcomes (§ 4.4.3.7)

The factors that impacted on the success of the PSLP Project were compared the five core characteristics of the alternative paradigm. This comparison indicated that:

1. *The process of implementing the intervention was not endogenous*: local team members lacked ownership over the process and this was identified a limiting factor (§ 4.4.2.2).

2. *The relation between team members was respectful and reciprocal*: however, there was greater scope for two-way learning. There were a number of challenges, in particular regarding cross-cultural differences, that may have affected the ability of team members to work together to develop the intervention (§ 4.4.3.2).

3. *The intervention was not designed explicitly for the local context*: despite carrying out a needs assessment the intervention and activities were not designed to meet the needs of the stakeholders, nor build on their existing capacity (§ 4.4.2.1 and § 4.4.3.1).

4. *The process of implementing the intervention did not involve learning or reflecting on experience*: there were a number of potential barriers to team members’ learning and reflecting on the experiences in the intervention including: a lack of ownership; inadequate planning; and, cross-cultural differences. In addition, team members did not consider or discuss the potential benefits of learning and reflection.
5. **The intervention was not designed to maximise sustainable outcomes:** the activities limited the opportunities for facilitating learning and sustainable outcomes. The activities did not develop stakeholders’ capacity to take action after the intervention and the intervention did not address the need for ongoing funding and support (§ 4.4.3.7).

This comparison highlights that the PSLP Project was not aligned with the alternative paradigm. A similar analysis indicates that the PSLP Project was aligned with the conventional paradigm.

Practice based on the conventional paradigm emphasises resource transfer and the provision of know-how (Kaplan 1999; Morgan 2002). This paradigm also ignores local capacities and assumes that development is linear and predictable (Kaplan 1999). The PSLP Project:

- Focused on the provision of knowledge about sustainable sanitation (§ 4.4.3.4). In Chapter Six the outcomes assessment findings indicate that main thing stakeholders gained through their involvement in the project was knowledge (§ 6.3.2.1).
- Did not build on the existing capacities of local stakeholders (§ 4.4.2.1).
- Utilised a TOT method which conforms to the results-based management approach associated with the conventional paradigm.

Several factors contributed to the PSLP Project being developed based on the conventional paradigm, including: 1) donor influence; 2) the evolution of the project; and, 3) the experience and personal beliefs of the people involved in the project.

There is evidence that points to the PSLP grant scheme being underpinned by the conventional paradigm. The language used in the documentation that supports the proposal is conventional. For example this documentation explains that the purpose of the grant is to “transfer capacity building skills and expertise” (AusAID 2004a p.2).

In addition, the proposal form requires that applicants “number and briefly describe each specific output to be achieved by the implementers during the life of the activity” and describe the “activities [that] will be undertaken to achieve the[se] outputs” (PSLPD p.2). This is a
logframe approach to designing projects that is consistent with a result-based management approach (§ 2.2). There is widespread agreement (Chambers et. al, 2002; Eyben 2000 cited in Pasteur 2006 p.36) that “tools, such as the logframe, embody the linear logic and elimination of unpredictability associated with a positivist paradigm; these need to be modified or alternatives must be sought if they are to reinforce a new development philosophy”.

An ‘informal’ note is included with the proposal documentation that provides some guidance that is consistent with the alternative paradigm (e.g., “spend time with their counterpart organisation discussing their priority needs and what is feasible” (AusAID 2004b p.3)). However, a disclaimer attached to this note informs applicants that “it is not an official AusAID document” (ibid. p.1). Conforming to the proposal requirements in part led to the design of a project that was ‘conventional’.

A second factor that contributed to the conventional nature of the PSLP Project was the evolution of the project. Several team members had been involved in the development of the TOT training packages and had a desire to make use of them. This contributed to the delivery of an intervention that utilised a TOT. The TOT approach itself is in some ways conventional as it conforms to the results-based managed approach taken by AusAID with easily quantifiable outputs such as trainees, trainers and training materials.

A further factor that contributed to the delivery of a project based on the conventional paradigm was the personal beliefs and experience of the team members. The majority of the team members were engineers. Some of the team members had development experience, but their involvement was typically in a technical assistance mode that involved the ‘transfer’ of knowledge. The team members’ prior experience undoubtedly contributed to the project’s emphasis on the technical content. It also seems likely that team members were constrained by their prior experience and this contributed to team members developing an intervention that was based on their experience and which was more conventional.

Comparison of the PSLP Project with the alternative and conventional paradigms indicates that the conventional nature of the project was an underlying factor that impacted negatively on project outcomes. Given the limited success of the PSLP Project this provides justification for
moving away from the conventional paradigm and supports practice based on the alternative paradigm.

In the next section the findings from the inquiry in the PSLP Project are used to derive design principles for improving capacity development practice. These design principles provide specific design guidance regarding ways to integrate thinking about the alternative paradigm into practice.

4.6. The preliminary Framework for Capacity Development

The 33 factors that impacted on the success of the intervention were used to derive design principles for improving capacity development practice and develop the preliminary Framework for Capacity Development. The process of developing the Framework involved the following three steps:

1. Deriving design principles to address the factors that impacted on the success of the intervention
2. Categorising the design principles as either substantive or procedural issues and grouping similar issues together
3. Structuring the Framework in a way that it would provide practitioners with practical guidance regarding ways to design capacity development interventions

These steps are elaborated on here. The steps are available in tabular form in Appendix J.

Design principles are intended to support designers by providing the most “appropriate knowledge for specific design and development tasks” (van den Akker 1999 p.9 see § 3.3.3.2). In the context of this research the design principles are intended to support capacity development practitioners in improving the process and outcomes of interventions that they deliver. To derive the design principles from the factors identified through inquiry into the PSLP Project, in most cases the factor could be rephrased to provide design guidance. Where this was not the case consideration was given to the literature and in particular the assumptions regarding improved practice presented in Chapter Two. Twenty-two design principles were derived through this process. Six Indonesian guidelines were also identified. These guidelines
addressed factors that were based on insufficient corroboration to be classified as a design principle. However, they were identified by team members and stakeholders as important for delivering capacity development intervention in the Indonesian context.

In the second step of the Framework development the design principles were categorised as either substantive or procedural. As explained in Chapter Three this research sought to identify substantive and procedural design principles for improving capacity development interventions (§ 3.3.3.2). Procedural design principles relate to improving the process of developing capacity including the forms of expertise required to implement the intervention and the roles to be played by the individuals (stakeholders) involved in the intervention (Edelson 2002). The procedural issues that impacted on the project were:

- Team member selection
- Intervention planning and management
- Stakeholder selection and engagement
- Language and interpretation

The substantive design principles relate to the design of the intervention (Edelson 2002). The substantive issues that impacted on the implementation of the project related specifically to the design of the activities carried out, and to a lesser degree the design of the project. The substantive design principles were:

- Activity scope and objectives
- Appropriate pedagogy
- Learning resources and materials
- Sustainability and ongoing support

The final step of the Framework development involved structuring the Framework in a way that would provide practitioners with practical guidance regarding the implementation and design of capacity development interventions. The preliminary Framework for Capacity Development is presented in Table 4.10.
4.7. Conclusions

The PSLP Project has been described in this Chapter. The inquiry into the PSLP Project sought to understand and evaluate the project and identify the factors that impacted on its success (RQ1.1). Through this inquiry 33 factors that impacted on the success of the PSLP Project were identified. The findings indicate that the project did not meet the needs of the stakeholders, or develop stakeholders’ capacity to facilitate learning or sustainable outcomes (RQ1.1a and b). They also indicate that an underlying limitation of the project was that it was based on the conventional development paradigm.

The factors impacting on the success of the PSLP Project were used to derive 22 design principles and six Indonesian guidelines. These principles have been incorporated in the preliminary Framework for Capacity Development intended to provide practical guidance regarding ways to reintegrating thinking about capacity development based on the alternative paradigm and to improve practice. This Framework is applied, evaluated and refined in Chapter Five.
### Table 4.10 Preliminary Framework for Capacity Development

<table>
<thead>
<tr>
<th>DP</th>
<th>Design Principle</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Team member selection</strong></td>
</tr>
<tr>
<td>1.1</td>
<td>When selecting team members take into consideration not only the requisite skills (technical, pedagogical and cultural) but also personalities and the potential for developing working relationships based on mutual understanding and trust</td>
</tr>
<tr>
<td>1.2</td>
<td>Where possible work with individuals with whom there is an existing relationship</td>
</tr>
<tr>
<td>2</td>
<td><strong>Intervention planning and management</strong></td>
</tr>
<tr>
<td>2.1</td>
<td>Facilitate ownership, commitment and motivation to the intervention by involving team members in all stages of the design, planning, implementation and management of the intervention and providing in-country team members with appropriate and agreed upon incentives</td>
</tr>
<tr>
<td>2.2</td>
<td>Take steps to secure an appropriate level of institutional support</td>
</tr>
<tr>
<td>2.3</td>
<td>Manage finances in an open and transparent manner</td>
</tr>
<tr>
<td>2.4</td>
<td>Develop the capacity of all project members to be culturally competent</td>
</tr>
<tr>
<td>2.5</td>
<td>Incorporate professional development activities that foster team building and appropriate management practices</td>
</tr>
<tr>
<td>3</td>
<td><strong>Stakeholder selection and engagement</strong></td>
</tr>
<tr>
<td>3.1</td>
<td>Select stakeholders who have the motivation and ability to facilitate learning/change after completion of the activity</td>
</tr>
<tr>
<td>3.2</td>
<td>Establish a culturally appropriate method of stakeholder engagement</td>
</tr>
<tr>
<td>4</td>
<td><strong>Activity scope and objectives</strong></td>
</tr>
<tr>
<td>4.1</td>
<td>Develop the program of activities based on stakeholders’ needs</td>
</tr>
<tr>
<td>4.2</td>
<td>Develop a program that builds on the existing capacities of stakeholders</td>
</tr>
<tr>
<td>5</td>
<td><strong>Appropriate pedagogy</strong></td>
</tr>
<tr>
<td>5.1</td>
<td>Design activities based on adult learning principles</td>
</tr>
<tr>
<td>5.2</td>
<td>Ensure the overall approach includes delivery methods that are locally and culturally appropriate</td>
</tr>
<tr>
<td>5.3</td>
<td>Ensure the venue for the activity is an environment conducive for learning</td>
</tr>
<tr>
<td>5.4</td>
<td>Provide stakeholders with opportunities to socialise with each other</td>
</tr>
<tr>
<td>6</td>
<td><strong>Learning resources and materials</strong></td>
</tr>
<tr>
<td>6.1</td>
<td>Make use of locally available resources and materials</td>
</tr>
<tr>
<td>6.2</td>
<td>Ensure that any generic materials are modified for the local environment and that this goes beyond translation</td>
</tr>
<tr>
<td>6.3</td>
<td>Develop learning resources and materials in conjunction with stakeholders as part of the program</td>
</tr>
<tr>
<td>7</td>
<td><strong>Language and translation</strong></td>
</tr>
<tr>
<td>7.1</td>
<td>Employ proficient interpreters and translators who are familiar with the subject matter in order to minimise the barrier language can have on the intervention</td>
</tr>
<tr>
<td>8</td>
<td><strong>Sustainability and ongoing support</strong></td>
</tr>
<tr>
<td>8.1</td>
<td>Include a budget line or develop a self-funding mechanism to support activities beyond the timeframe of the intervention</td>
</tr>
<tr>
<td>8.2</td>
<td>Establish mechanisms for networking</td>
</tr>
<tr>
<td>8.3</td>
<td>Develop a program that fosters relationship building</td>
</tr>
<tr>
<td>IG</td>
<td><strong>Indonesian Guidelines</strong></td>
</tr>
<tr>
<td>1</td>
<td>Ensure that team members understand what a needs assessment is and agree upon how these results will be used to shape the intervention</td>
</tr>
<tr>
<td>2</td>
<td>Involve stakeholders who are key people in the community i.e., respected leaders, elders, religious leaders and government officials</td>
</tr>
<tr>
<td>3</td>
<td>Develop stakeholders’ capacity to raise awareness of sanitation issues in Indonesia</td>
</tr>
<tr>
<td>4</td>
<td>Demonstration projects are appropriate for developing Indonesian capacity in sanitation</td>
</tr>
<tr>
<td>5</td>
<td>Develop a program that accommodates local customs such as prayer times</td>
</tr>
<tr>
<td>6</td>
<td>Provide stakeholders with a certificate of attendance for their involvement in the intervention</td>
</tr>
</tbody>
</table>
Chapter 5. The SSWT Case

5.1. Introduction

The Sustainable Sanitation and Wetland Technology (SSWT) Project was the second case in this research. The SSWT Project was carried out with the specific purpose of designing and implementing a capacity development intervention based on the preliminary Framework for Capacity Development. As outlined in the previous Chapter, this Framework was derived primarily from inquiry into the PSLP Project as well as synthesis of the literature. The preliminary Framework incorporates two components:

1. **Design principles**: to improve the design, implementation and outcomes of capacity development interventions

2. **Indonesian specific guidelines**: to facilitate the development of Indonesian capacity

The Framework is tested and evaluated in this Chapter. At the same time the SSWT Project is described and the way in which the Framework was applied is highlighted. To evaluate the Framework the factors that impacted on the success of the SSWT Project are explored and the project is compared with the PSLP Project. The evaluation process also sought to identify improvements to the Framework and a revised Framework is presented in Section 5.8. The abbreviations DP and IG are used to refer to the design principles and Indonesian guidelines respectively in this Chapter.

5.2. Overview of the SSWT Project

The SSWT Project, like the PSLP Project, was a capacity development intervention aimed at developing Indonesian capacity in sanitation. The intervention consisted of a single activity, a workshop. The target audience for the workshop included individuals from local government, NGOs, academia and community-based organisations. Fourteen primary stakeholders participated in the workshop, including nine females and five males. The characteristics of the primary stakeholders are summarised in Table 5.1.
The SSWT Project was implemented by three core team members and 17 support staff. The core team members had all participated in the PSLP Project and included an academic staff member from the IEMT and from the ETC, and the researcher. The characteristics of these team members including language ability, gender and role are presented in Table 5.1.

<table>
<thead>
<tr>
<th>Code</th>
<th>Role/Affiliation</th>
<th>English Speaking*</th>
<th>Indonesian Speaking*</th>
<th>Gender</th>
<th>PSLP</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS21G</td>
<td>Health Department</td>
<td>L-</td>
<td>L++</td>
<td>F</td>
<td>Y</td>
</tr>
<tr>
<td>PS19N</td>
<td>Christian Minister/ALTRUIS NGO</td>
<td>L</td>
<td>L++</td>
<td>M</td>
<td>Y</td>
</tr>
<tr>
<td>PS8A</td>
<td>Widya Karya Catholic University</td>
<td>L</td>
<td>L++</td>
<td>F</td>
<td>Y</td>
</tr>
<tr>
<td>S66C</td>
<td>Community member/Miss Environment</td>
<td>L++</td>
<td>L++</td>
<td>F</td>
<td>N</td>
</tr>
<tr>
<td>S67C</td>
<td>Community member/Doctor with local NGO</td>
<td>L++</td>
<td>L++</td>
<td>F</td>
<td>N</td>
</tr>
<tr>
<td>S68C</td>
<td>Community member/Family welfare movement (PKK)</td>
<td>L-</td>
<td>L++</td>
<td>F</td>
<td>N</td>
</tr>
<tr>
<td>S69GC</td>
<td>Water Services Corporation</td>
<td>L</td>
<td>L++</td>
<td>F</td>
<td>N</td>
</tr>
<tr>
<td>S70G</td>
<td>Department of Parks, Health and Housing</td>
<td>L</td>
<td>L++</td>
<td>M</td>
<td>N</td>
</tr>
<tr>
<td>S71G</td>
<td>Forestry Department</td>
<td>L-</td>
<td>L++</td>
<td>F</td>
<td>N</td>
</tr>
<tr>
<td>S72G</td>
<td>Department of Energy</td>
<td>L-</td>
<td>L++</td>
<td>M</td>
<td>N</td>
</tr>
<tr>
<td>S73C</td>
<td>Trainee priest at Passionis</td>
<td>L-</td>
<td>L++</td>
<td>M</td>
<td>N</td>
</tr>
<tr>
<td>S74C</td>
<td>Nun – Sisters of Carmelitasi Convent</td>
<td>L-</td>
<td>L++</td>
<td>F</td>
<td>N</td>
</tr>
<tr>
<td>S75A</td>
<td>School of Tourism – Merdeka University</td>
<td>L+</td>
<td>L++</td>
<td>F</td>
<td>N</td>
</tr>
<tr>
<td>S76T</td>
<td>Teacher – St Albertus High School</td>
<td>L-</td>
<td>L++</td>
<td>M</td>
<td>N</td>
</tr>
<tr>
<td>I2</td>
<td>Team leader/Merdeka University – IEMT Staff</td>
<td>L+</td>
<td>L++</td>
<td>M</td>
<td>Y</td>
</tr>
<tr>
<td>E3</td>
<td>Wetlands expert/Murdoch University – ETC Staff</td>
<td>L++</td>
<td>L</td>
<td>M</td>
<td>Y</td>
</tr>
<tr>
<td>E6</td>
<td>Project coordinator/Murdoch University – Researcher</td>
<td>L++</td>
<td>L</td>
<td>F</td>
<td>Y</td>
</tr>
</tbody>
</table>

*L++ Native speaker L+ Proficient L Basic ability L- Limited or no ability

The main aims of the workshop as outlined in the project proposal (SSWTD) were to:

- Develop the skills and abilities of stakeholders to implement sanitation technology, in this case constructed wetlands for wastewater treatment
- Develop the skills and abilities of the stakeholders to raise awareness in the area of sanitation
- Support stakeholders in the development of learning resources that can be used to raise awareness in the area sanitation
- Provide an opportunity for stakeholders to practice and apply what they have learnt
To achieve these aims the workshop program combined theoretical and practical activities. The first day of the workshop provided stakeholders with an overview of sustainable sanitation and wetland technology. The second day of the workshop focused on the demonstration of a sanitation technology through active engagement in the construction of a wetland. On day three of the workshop stakeholders were introduced to a range of methods that could be used for awareness raising and they worked together to develop an awareness raising activity or resource that they could use in their community or workplace after the workshop. On the final day of the workshop, the stakeholders delivered an awareness raising session to the community using the resources or activities developed on the previous day. The conduct of the workshop is described in more detail in Section 5.4.

5.3. Overview of stage two of the research

Design-based research is an iterative methodology that “exploits the design process as an opportunity to advance the researcher’s understanding” (Edelson 2002 p.107). The second stage in the research provided an opportunity to: further advance understanding of factors that impact on the success of capacity development interventions; develop an intervention based on the Framework; evaluate the Framework in order to establish whether it led to improvements in capacity development; and, synthesise and reflect upon the process and outcomes to refine and improve the Framework. This second stage of the research was guided by three central research questions:

RQ2.1 What factors impacted on the success of the SSWT Project?
RQ2.2 Was the SSWT Project improved compared with the PSLP Project?
RQ2.3 How can the Framework be refined and improved?

As was the case for the PSLP Project, the research participants were made up of two core groups, the team members and primary stakeholders (Table 5.1). Among the primary stakeholders were three individuals who had also participated in the PSLP Project. These stakeholders were included in the SSWT Project to obtain comparative data regarding the interventions, for example, whether the SSWT Project better met their needs and improved on the PSLP Project.
In answering the research questions, the methods employed included semi-structured and unstructured interviews, observation, a questionnaire and documentation.

Semi-structured interviews were carried out with the SSWT team members prior to the workshop and after the workshop. The interview schedules are presented in Tables 5.2 and 5.3 respectively. These interviews were used to ascertain team members’ opinions of the design, implementation and outcomes of the SSWT Project as well as their opinion of this project compared with the PSLP Project.

Table 5.2 Interview schedule for interviews with team members prior to the workshop

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Overall, what is your opinion of this project?</td>
</tr>
<tr>
<td>2</td>
<td>Have you been comfortable with your role in the project?</td>
</tr>
<tr>
<td>3</td>
<td>What specific problems have you experienced in implementing this project?</td>
</tr>
<tr>
<td>4</td>
<td>What aspects of this project have improved on the PSLP project?</td>
</tr>
<tr>
<td>5</td>
<td>What aspects of this project have made it worse than the PSLP project?</td>
</tr>
<tr>
<td>6</td>
<td>What is your opinion of the workshop program?</td>
</tr>
<tr>
<td>7</td>
<td>Do you anticipate that there will be any problems with the activities of the workshop?</td>
</tr>
<tr>
<td>8</td>
<td>Do you think the participants will actively participate in the activities?</td>
</tr>
<tr>
<td>9</td>
<td>Do you think the participants will be able to use what they learn in this workshop in their workplace/community?</td>
</tr>
<tr>
<td>10</td>
<td>How do you think this project could be improved, both in terms of its implementation and activity design?</td>
</tr>
</tbody>
</table>
Table 5.3 Interview schedule for interviews with team members after the workshop

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What was your impression of the workshop?</td>
</tr>
<tr>
<td>2</td>
<td>What were the best/worst aspects of the workshop?</td>
</tr>
<tr>
<td>3</td>
<td>Were you surprised by anything?</td>
</tr>
<tr>
<td>4</td>
<td>Were there any problems with the activity design?</td>
</tr>
<tr>
<td>5</td>
<td>Did the participants appear comfortable and happy with their role in the workshop?</td>
</tr>
<tr>
<td>6</td>
<td>Were the delivery methods appropriate?</td>
</tr>
<tr>
<td>7</td>
<td>Can you suggest any ways that the workshop could have been improved?</td>
</tr>
<tr>
<td>8</td>
<td>Do you think the participants will use what they learnt in this workshop in their workplace/community?</td>
</tr>
<tr>
<td>9</td>
<td>What's your opinion of this workshop as compared with the PSLP training workshop?</td>
</tr>
<tr>
<td>10</td>
<td>What were the best aspects of the project?</td>
</tr>
<tr>
<td>11</td>
<td>Were there any problems in implementing the project?</td>
</tr>
<tr>
<td>12</td>
<td>Were there any cross-cultural challenges to working together?</td>
</tr>
<tr>
<td>13</td>
<td>How could this project have been improved?</td>
</tr>
<tr>
<td>14</td>
<td>Is there anything that you have learnt from implementing this project that you will be able to use in future capacity development activities?</td>
</tr>
</tbody>
</table>

Participant observation was a core method used throughout the research (see § 3.5.2.1). The researcher carried out the inquiry into the SSWT Project, and at the same time was the project coordinator. For the duration of the SSWT Project the researcher kept descriptive, selective and reflective field notes. These included details of informal discussions with team members and stakeholders during the project.

An evaluation questionnaire was utilised to evaluate the SSWT workshop. The evaluation was designed to ascertain the participants’ opinion of the workshop including: the value of the workshop; best and worst aspects of the workshop; appropriateness of the methods; and, whether the workshop fulfilled stakeholders’ expectations (see Appendix K). The evaluation questionnaire was completed by 13 participants in Indonesian and one participant in English. The responses were translated into English by the bilingual team leader.
Documents such as project proposals, emails, photographs, DVD footage and news clips were also utilised. These documents were produced as part of the intervention and provide evidence of factors that impacted on the success of the intervention. The DVD footage is used to provide evidence of stakeholder engagement and their ability to raise awareness and construct a wetland. Two DVDs are included on Appendix A (these are referenced SSWTF1 and SSWTF2 respectively):

1. **DVD – wetland construction**: a 9.28 minute DVD presents an overview of day two of the workshop. The stakeholders can be seen participating in the construction of the wetland including all the steps involved in constructing the wetland.

2. **DVD – awareness raising session**: the fourth day of the workshop is presented in a 9.34 minute DVD. The stakeholders can be seen delivering an awareness raising session to the community.

One individual with extensive Indonesian experience, the Chair of South East Asian Studies at Murdoch University, provided expert comment on some aspects of the SSWT Project in the initial stages. These interviews were unstructured and did not utilise an interview guide or schedule as they came about spontaneously through the process of delivering the intervention. All interviews were conducted and transcribed by the researcher in English.

An overview of the data collection process and methods are presented in a research matrix (Table 5.4). The complete details of the research methods and data analysis are provided in Chapter Three. All raw data is available in Appendix A.

Data sources are referenced in this chapter using codes that can be cross-referenced with the research matrix and raw data to provide an audit trail (§ 3.8.3.2). The code SSI is used for semistructured interviews (B and A are used to denote whether the interview took place before or after the intervention), US for unstructured interviews, O for observations, Q for questionnaires and D for documentation. Documentation is further distinguished by E, F and I for emails, film and images. Codes are also used as identifiers for the research participants (refer to Table 5.1).
### Table 5.4  Research matrix for the SSWT Project

<table>
<thead>
<tr>
<th>#</th>
<th>Research question</th>
<th>Sustainable Sanitation and Wetland Technology Workshop</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Before</td>
</tr>
<tr>
<td>2.1</td>
<td><strong>What factors impacted on the success of the SSWT Project?</strong></td>
<td>SSI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>O</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D</td>
</tr>
<tr>
<td>2.2</td>
<td><strong>Was the SSWT Project improved compared with the PSLP Project?</strong></td>
<td>SSI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>O</td>
</tr>
<tr>
<td></td>
<td></td>
<td>D</td>
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<tr>
<td>2.3</td>
<td><strong>How can the Framework be refined and improved?</strong></td>
<td>O</td>
</tr>
<tr>
<td></td>
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</tbody>
</table>

#### Method

<table>
<thead>
<tr>
<th>Method</th>
<th>Research Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSI</td>
<td>Semi-structured Interview</td>
</tr>
<tr>
<td>UI</td>
<td>Unstructured Interview</td>
</tr>
<tr>
<td>O</td>
<td>Observation</td>
</tr>
<tr>
<td>Q</td>
<td>Questionnaire</td>
</tr>
<tr>
<td>D</td>
<td>Documentation</td>
</tr>
<tr>
<td>DE</td>
<td>Documentation – email</td>
</tr>
<tr>
<td>DI</td>
<td>Documentation – image</td>
</tr>
<tr>
<td>DF</td>
<td>Documentation – film</td>
</tr>
<tr>
<td>TM</td>
<td>Team members</td>
</tr>
<tr>
<td>P</td>
<td>PSLP primary stakeholders</td>
</tr>
<tr>
<td>S</td>
<td>SSWT primary stakeholders</td>
</tr>
<tr>
<td>PS</td>
<td>Primary stakeholders in the PSLP and SSWT projects</td>
</tr>
<tr>
<td>IE</td>
<td>Indonesian expert</td>
</tr>
</tbody>
</table>
5.4. The SSWT workshop

The SSWT workshop was carried out over four days in Malang, Indonesia. The proceedings of the workshop are described in this section.

Aside from formalities, such as the workshop registration and opening ceremony, the first day of the workshop consisted primarily of presentations. These were intended to provide stakeholders with an overview of sustainable sanitation and wetland technology and to activate their prior experience of sanitation.

The workshop program also included opportunities to get to know the stakeholders. The stakeholders shared their stories and experiences relating to sanitation in a group discussion. The stakeholders also completed a ‘getting to know you questionnaire’ designed to give them a further opportunity to share their experiences and clarify what the stakeholders hoped to learn from the workshop (Appendix L).

The program for day two was designed to demonstrate wetland technology and provide stakeholders with an active role in the construction of the wetland. This activity also provided people with an opportunity to interact informally and provided a basis for fostering relationships.

In preparation for day two, in the two weeks prior to the workshop, team members selected a suitable site for the technology demonstration, purchased materials and prepared the site. The selected site was a seminary, *Passionis*, located on 16 hectares approximately four kilometres from Merdeka University. The seminary itself housed approximately 50 individuals. Aside from religious training, the seminary operated as a small farm or ‘ecovillage’ with livestock, an orchard, a coffee plantation, and cheese making business. The site also included a centre for retreats. The site was considered appropriate for the following reasons:

- The wetland would be in keeping with the environmental ethos of the site which already practised greywater recycling, where water from the laundry was used to water salak (edible spiny palm) plants.
• The site met the requirements for wetland construction e.g., the waste stream could be easily accessed and the available areas were sunny and downhill of the waste source eliminating the need for a pump.

• The workshop participant from Passionis would be in a position to maintain the wetland.

Though originally it was thought that the wetland would treat greywater, the greywater was already being reused. After consideration of alternative treatment options team members determined that treating blackwater post septic tank would have environmental and health benefits. The wetland design (i.e., size) was finalised based on estimated wastewater volumes. The team leader and wetland expert decided that two wetlands of approximately two by three metres and sixty centimetres deep would be required to treat the wastewater. Subsequently, the materials required were purchased and the site was prepared. Given that the wetland was to be constructed in a single day it was decided to dig the holes prior to the workshop. Not only would this reduce the amount of labour, but also eliminate the risk of hitting hard rock, roots etc. In addition, some of the plumbing would also be pre-prepared. The materials purchasing and site preparation was carried out by the wetland expert and a contractor employed to provide assistance. At this time it was also decided that given that the wetland requires time to 'settle' the wastewater would only be allowed to enter the wetland two weeks after the workshop. The contractor would assume responsibility for this.

On the day of the workshop stakeholders met at the workshop venue and then travelled to the seminary. During the journey, stakeholders were provided with a two page handout with an overview of the steps involved in building a wetland (Appendix M). Upon arriving at the site the stakeholders were welcomed by the head of the seminary and then given a brief introduction by the wetland expert. The remainder of the day was spent constructing the wetland. The construction of the wetland was filmed by a professional film crew. The footage was edited to produce a nine and a half minute DVD that could be used for future awareness raising. This DVD was distributed to all the stakeholders (SSWTF1).
The process of constructing the wetland involved the following seven steps, steps two to six of which were completed by the stakeholders:

1. Digging the hole
2. Lining the hole with plastic and sand
3. Determining the level of the outlet
4. Installing the inlet pipe
5. Filling the wetland with gravel media
6. Planting the reeds in the wetland
7. Allowing wastewater to enter the wetland

The stakeholders, along with the three core team members and nine of the 17 support staff actively participated in the tasks required to complete the construction. The two wetlands were built sequentially over a period of five hours with breaks for morning tea and lunch. Throughout the day, the majority of stakeholders maintained momentum and enthusiasm for the task in spite of the task being physically challenging. The enthusiasm can be seen in the video footage (SSWTF1-5.39-5.50min). All stakeholders and team members helped line the wetlands. For each wetland a group of two or three stakeholders worked with the wetland expert on steps three and four. The main task of filling the wetland with media was completed by everyone forming a chain to transport the 6 cubic metres of gravel the 25 metres from the gravel pile to the wetland by bucket. The stakeholders took turns planting the plants in the wetland. The end result was two wetlands for treating blackwater from the seminary.

The third day of the workshop had the dual aims of: 1) engaging stakeholders in the task of developing resources that they could use in their community or workplace to facilitate learning about sanitation after the workshop; and, 2) developing stakeholders’ understanding of and ability to raise awareness of sanitation.

The program for day three included two sessions. In the first session, the stakeholders were introduced to a range of methods that could be used for awareness raising. Drawing on the experience of local practitioners and experts including the workshop facilitator and researcher,
the session included presentations on different approaches including the use of mass media, multimedia, edutainment, traditional song and dance, public speaking and posters.

In the second session stakeholders worked together in groups to develop a resource or activity that could be used to raise awareness of sanitation. This activity or resource would be delivered to a group of community members by the stakeholders on the fourth day of the workshop. The groups developed the following resources and activities:

Group 1. A short drama to raise awareness that there is a problem with sanitation
Group 2. A PowerPoint presentation and personal statements about the problems with sanitation in Indonesia
Group 3. A song and presentation of the DVD from day two identifying wetlands as a potential solution to the sanitation problems in Indonesia

On the final day of the workshop, the stakeholders delivered the awareness raising session they had created to the community. The session provided the stakeholders with an opportunity to practice and apply the skills they had learnt about raising awareness. The awareness raising session was attended by forty-six individuals including: 20 community health workers from the health department; 10 nuns; 10 individuals from the local chapter of the PKK of which one of the stakeholders was a member; and, six individuals from local NGOs and the community. As was the case with day two of the workshop, the awareness raising session was filmed by a professional film crew. The DVD produced was subsequently distributed to the stakeholders as a resource for future awareness raising (SSWTF2). The confidence with which the stakeholders delivered this session and the participants’ engagement can be seen on this DVD.

Throughout the session there was considerable media presence. Three local television companies attended and interviewed team members and several local newspapers also interviewed the team leader. The media had been invited by the public relations department of Merdeka University. The workshop was showcased on the news on three local television stations that evening and the following night (SSWTF3).
5.5. The success of the SSWT Project

Stage two of the research is guided by the central research question: What factors impacted on the success of the SSWT Project? In answering this question the research sought to establish whether the SSWT Project was a success and if the Framework contributed to this success. Three criteria provided the basis for judging the success (§ 1.2).

A successful or improved capacity development intervention:

1. Meets the needs of the stakeholders
2. Develops the stakeholders’ capacity to facilitate learning and change
3. Facilitates ongoing action and change

The team members’ overall impression was that the workshop was a success. After the workshop the team leader remarked “to me this is really unbelievable. I didn’t expect that it would be like this” (I2-SSWTSIA), the wetlands expert expressed that it was “excellent” (E3-SSWTSIA) and the researcher was “thrilled with the outcome” (SSWTO-28/06/07).

The feedback from stakeholders in the workshop evaluation suggested that they also thought that the workshop was a success. Ten stakeholders commented that the workshop was “very good”, “useful”, “meaningful” or “interesting”, at the same time providing a range of explanations as to why it was of value. The stakeholders identified the workshop of value: for the knowledge they obtained; the practical experience; and, because it raised their awareness (success criterion one). Responding to the question “please comment on the value of the workshop to you” their comments included:

“Raising my awareness on good sanitation and enriched my knowledge with an alternative for waste management” (S67C-SSWTQ)

“Very good for me and the knowledge about the processing of wastewater” (S70G-SSWTQ)

“Very meaningful because I needed to add to my existing outlook, and also because it gave me some practical experience” (PS8A-SSWTQ)
“It added to my insights into the development and my passion for the environment” (S73C-SSWTQ)

“Very useful as a way of making people aware of how the problem can be approached” (S72G-SSWTQ)

“Very good – we can apply this to our local environment, because this workshop can be directly put into practice” (PS21G-SSWTQ)

The team members and stakeholders also commented positively on the design of the workshop. The wetlands expert commented:

*Having the wetland bit sooner rather than later – a good idea – usually not the way it’s done in my experience, normally on the last day. Linear thinking, old model. The wetland wasn’t the be all and end all – good to do it early as it helped the outcomes on the following days in terms of team morale.* (E3-SSWTSIA)

The stakeholders commented on the way the workshop combined theory and practice:

It is “very interesting because it was different to the workshop that I had previously attended. This workshop was completed in terms of theory, practical and their implementation (the community are invited into it)” (S69GC-SSWTQ).

The workshop was “good because there was time for theory and practical elements in balance” (S66C-SSWTQ).

All three stakeholders who also attended the PSLP TOT workshop indicated that this workshop was more useful “because of the direct practical example” (PS8A-SSWTQ).

During the workshop the stakeholders engaged actively in the activities and demonstrated through their actions that they had the capacity to construct a wetland, develop resources for awareness raising and use them to raise awareness with the community (success criterion two).
The stakeholders' ability as well as the enthusiasm with which they completed these tasks can be seen in the DVDs developed on days two and four (SSWTF1 and SSWTF2).

The workshop evaluation also provided some indication that stakeholders had the capacity to take action (success criterion three). In the evaluation questionnaire seven stakeholders said they would use what they had learnt to raise awareness with a range of audiences including “at home and then with friends, then in public” (PS43N-SSWTQ), “my neighbours and work colleagues” (S69GC-SSWTQ), “the wider community” (S66C-SSWTQ) and “on campus” (S75A-SSWTQ). And, there were five stakeholders who indicated that they would try to apply the technology, for example to “put it into practice at a house as an example” (PS21G-SSWTQ), to “try it in houses and try to apply this technology in the Malang Region” (S70G-SSWTQ), to introduce the technology to “tourism and schools” (S72G-SSWTQ) and “to make the community more aware through trials in park environments” (S71G-SSWTQ).

When interviewed after the workshop the team leader said that these stakeholders and several other stakeholders had shared their intentions with him. He explained:

_They look forward for applying the technology and also telling to so many people e.g., it is clear for S67C she might [have] told to some people already about connecting eight houses for one wetland and S75A before the workshop she asked me is it possible to change my pond to be a wetland and because that’s concrete, that’s possible, doesn’t need to be plastic, as long as it doesn’t leak and she might do that. Also, PS43N he is looking for land because his house is small, a place outside the house, but he has to talk to his neighbours if it is possible to connect to a wetland outside their houses. Also, S70G and S69GC said that if there is a land beside the river, especially Brantas PJTI [local river authority] will provide some money to build a wetland around that place. Also PS8A, [she is] also willing to build a wetland at her house. (I2-SSWTSI)_

The effect of the SSWT Project in facilitating ongoing action is assessed in Chapter Six.
The feedback from stakeholders and team members suggests that the SSWT Project was a success. The factors that contributed to this success are described in the following section. At the same time, further justification of the project’s success is provided.

5.6. Framework evaluation

The Framework was developed to improve the design, implementation and outcomes of capacity development interventions and support practice more aligned with the alternative paradigm. To make a judgement about whether the Framework facilitates improvements and contributes to an intervention’s success the evaluation is guided by the research questions (Table 5.4) and the three success criteria outlined in the previous section. Each component of the Framework is evaluated in turn and the Indonesian guidelines are included in the discussion where applicable. Throughout the evaluation, improvements to the Framework are highlighted.

To provide a quick reference to the preliminary Framework applied in the SSWT Project, a fold out copy of in A3 format is included in Appendix N.

5.6.1. Team member selection and intervention planning and management

In the PSLP Project an existing relationship between team members provided a good foundation for a working relationship. However, a range of factors affected team members’ ability to work together and effectively implement the project. Chapter Four described how there was a lack of clarity regarding: team members’ roles; the objectives of the PSLP Project; decision making processes; and, financial management (§ 4.4.2.5 and § 4.4.3.6). The team members experienced difficulties in all four categories of team problems: goals, roles, processes and relationships. (Irwin, Povnick and Fry, 1974 cited in Moxon 1993 p.25). There were also some problems with personalities (Box 4b). The PSLP Project was further complicated by cultural differences and a lack of local ownership over the process (§ 4.4.2.2). The preliminary Framework includes a series of design principles to address these factors. These were incorporated in two components: 1) team member selection; and, 2) planning and management of the intervention. These components are interrelated and are discussed together in the following section.
5.6.1.1 Team members and teamwork

As outlined in Section 5.2 the SSWT Project team was made up of three core team members and 17 support staff. The core team members included the researcher (project coordinator), team leader and wetlands expert. The team members were selected by the researcher taking into consideration the Framework and the nature of the project.

The team members had all worked together on the PSLP Project and during that time they demonstrated that they had the expertise, cultural competence and personalities to work together as a team (DP1.1). The IEMT and ETC staff members are engineers, the former with expertise in wastewater treatment and the latter with specific expertise in using wetlands for wastewater treatment and the demonstration thereof in Costa Rica. They are also academics with teaching experience. The researcher’s expertise includes environmental science, capacity development and education (refer to Box 4a). The selected team members had all lived and worked in different countries and during the PSLP Project demonstrated that they had an understanding of cultural differences. Having worked together for the duration of the PSLP Project, team members had an existing relationship (DP1.2).

The planning and preparation for the SSWT Project took place over a period of three months. Unlike the PSLP Project, the SSWT team members were involved in all aspects of the intervention design and delivery (DP2.1). This was intended to build team members ownership over the process as well as ensure they had clarity regarding the planning and management of the project.

In the initial stage, the researcher sought to secure a commitment from the team members, in particular the Indonesian team leader, by providing them with a concept for the intervention based on the Framework. This encouraged a general discussion about the Framework and how the components thereof could be incorporated into the activities (SSWTD). Although at the outset the team leader was “slow to respond” (SSWT-27/04/07), within a short timeframe he was driving the intervention, pushing the other team members for decisions and information. When the researcher was delayed in sending a draft of the workshop program the team leader remarked “finally, you are back on track. I am waiting for your draft” (SSWTDE-26/04/07).
The first draft of the workshop program was developed by the researcher and was then reviewed by the team leader. The team leader responded by saying “I've tried to work out the workshop programme and check it for correction” (SSWTDE-30/04/07). The suggested corrections largely conformed to the format of the PSLP TOT workshop, being both “presentation based and expert driven” (SSWTO-30/04/07). Due to the tone of the team leader’s response, the researcher nervously responded with a rationale for a different approach explaining how it was thought a new approach might better meet the needs of the target audience as well as how it was anticipated that the Framework would improve on the approach used in the PSLP Project (SSWTDE-01/05/07). Fortunately, the team leader responded favourably, saying: “this project is challenging. I like it; even [if] this is something new for me to combine social and technical knowledge” (SSWTDE-02/05/07). At this time the researcher expressed relief that the team leader understood and was receptive to the new ideas (SSWTO-03/05/07). The workshop program was finalised collaboratively. Prior to the workshop the team leader remarked “I am happy with this design [although] I wasn't thinking that it would be like this at the beginning” (I2-SSWTSIB).

In delivering the workshop, all team members worked together in a synergistic manner. The program was discussed during each day and changes were made as appropriate. The team members were observed to be motivated and committed to seeing it succeed, with team members spending several late nights preparing for the following day.

The Framework addressed many of the challenges to working together. The SSWT team members collectively had the appropriate technical, pedagogical and cultural expertise to work together to deliver the project successfully. The project was well planned and managed. Unlike the PSLP Project there were no difficulties with joint decision making or working collaboratively. When interviewed after the workshop the team members were asked whether they thought there were any problems with the implementation of the project. No team member commented on problems with the other team members or with working arrangements. The wetlands expert commented during the interview that “everything went smoothly” (E3-SSWTSIA).

The researcher also reflected on the SSWT Project in comparison to the experience in the PSLP Project. The project members had joint ownership over the process and as described
above worked collaboratively to implement the project. The researcher did not experience any problems with personalities and the wetlands expert also commented that there were “no issues with people or personalities” (E3-SSWTSSIA). Similarly there were not any problems relating to cultural differences. On the subject of cross-cultural challenges, the wetlands expert remarked that he “thought there might have been [challenges], but there wasn’t” (E3-SSWTSIA). The team leader remarked that some of the support staff “think you [the researcher] are a bit strict” (I2-SSWTSIA), but felt that this did not impact on the intervention.

Given that there were not any problems relating to cross-cultural differences or team work, the design principles relating to developing cross-cultural competence among team members and fostering team building and appropriate management practices were not applied directly to the SSWT Project. However, this may not always be the case, and given the potential difficulties working cross-culturally and in teams (refer to § 4.4.2.7), incorporating these principles may be beneficial.

In addition to team members having the expertise and personalities to successfully implement the project, the researcher noted “relationships really can make such a difference. There is trust, we know what to expect from each other, and we are comfortable working together” (SSWTO-15/06/07). This is consistent with the team building literature that trust is the basis of effective teamwork (Lencioni 2005).

5.6.1.2 Institutional support

The institutional arrangements for the intervention were left to the discretion of the team leader. The IEMT operates within Merdeka University, but has some flexibility regarding decisions as to how their external activities are managed. The team leader decided to secure institutional support for the intervention from the Rector of Merdeka University, but at the same time manage the intervention through the IEMT.

There were a number of benefits to this approach. The implementation of the intervention was not unnecessarily bureaucratic. The intervention was managed directly by the team members in a simple, open and transparent manner avoiding many of the administrative requirements of the
University. The team leader indicated that these arrangements were “excellent because we don’t have so much formality, not so much bureaucracy… shortcut everything and open everything” (I2-SSWTSIBA). At the same time, this approach allowed team members to take advantage of the credibility associated with the University’s support. This was especially important in the process of engaging stakeholders where the letter of invitation was extended and signed by the Rector.

The institutional arrangements, though appropriate for effective implementation of the intervention, may not have been entirely satisfactory to the University. The Rector expressed surprise that the ETC team leader from the PSLP Project had not informed him of this intervention and that the workshop was not to be held at the University (SSWTO-11/06/07 and 12/06/07). However, due to the good relationship between the SSWT team leader and the Rector, this did not impact negatively on the project. Further there were a number of benefits to the University including publicity from the media coverage of the event.

In many respects, the institutional arrangements were appropriate (DP2.3). However, it is unclear whether these arrangements would have been possible without the PSLP Project having preceded the SSWT Project.

5.6.1.3 Financial management

In the PSLP Project a number of problems stemmed from whether team members would be paid for their involvement in the project and concerns regarding the financial management of the project. For this reason, the Framework emphasises the importance of providing in-country team members with incentives and fair reward for their involvement (DP2.1) and managing the finances in an open and transparent manner (DP2.4).

The team leader was provided with payment for his involvement in the project (DP2.1) and there were no problems relating to his commitment. He appointed the role of financial manager to one of the support staff. The financial management of the SSWT Project was open and transparent with all core team members and several support staff having access to financial information.
Prior to the workshop the team leader noted, this approach “very handy, otherwise if you go through the rector, or the head of IEMT, that’s very rigid, it’s not flexible” (I2-SSWTSSIB). At the same time this approach provided an opportunity for ETC team members to learn the real cost of working on such interventions, including understanding about hidden costs, for instance the small payments or petty bribes referred to as uang rokok (cigarette money) often required for tasks to be completed in a timely manner. This approach also made it possible to flexibly manage the budget, respond to a number of unplanned costs, and with the total budget in mind, work to achieve the objectives of the intervention.

The researcher reflected that even though they were well managed, it was difficult to reconcile some of the ‘local costs’, such as paying stakeholders to participate in the activities, with the core principles of capacity development. The stakeholders were paid approximately IDR 400,000 (AUS$55) for their involvement. The researcher understood that this was locally appropriate, but it also conflicts with the ideas that the capacity development is an endogenous process based on “voluntary learning” (Lopes and Theisohn 2003 p.13) and “locally driven agendas” (Bolger 2000 p.2) (§ 2.4). The team leader observed the researcher was challenged by this, commenting “…maybe you as a New Zealander, foreigner here, you look at the people, especial for the 40 something [that attended day three of the workshop], it seems that they are alright, but they are still struggling to be there because they have to rent a microlet [minibus], they also need a bit of money for coming” (I2-SSWTSSIA). The researcher reflected that while stakeholders (including team members) are willing to participate, payment is common practice (Graham 2004) and the reality of the socioeconomic conditions in Indonesia may mean it is necessary.

5.6.2. Stakeholder selection and engagement

Capacity development is defined in this research as a process of learning and change that better enables individuals, groups, organisations and societies to respond to development challenges with sustainable outcomes (§ 1.3.1.1). Based on inquiry into the PSLP Project there was some indication that the ability of stakeholders to facilitate learning and change after the intervention was limited because they lacked the wherewithal and motivation to take action after the intervention (§ 4.4.3.4). To address this limitation the Framework recommends careful selection of appropriate local stakeholders taking into account their motivation and ability to
facilitate learning and change on an ongoing basis (DP3.1) as well as their role in the community and workplace (IG6). A culturally appropriate process of engaging stakeholders was also identified as important for securing stakeholder commitment (DP3.2).

A total of 14 stakeholders participated in the SSWT workshop (see Table 5.1). These stakeholders were identified by the team leader according to the design principles and engaged based on experience in the PSLP Project regarding a culturally appropriate process of engagement. When interviewed prior to the workshop the team leader explained that having reflected that in order to improve on the PSLP Project he “need[s] to select the right participants” (I2-SSWTSIB), he also took into consideration two additional factors. Firstly, the team leader identified and invited a greater number of female participants commenting that “I heard and I feel that women play an important role in sanitation... it is the women’s responsibility to manage the health of their family well”. In addition, given that participants would be asked to work in groups, share their experiences and engage in discussions he thought that females would be more comfortable in these tasks “because they talk more”. Secondly, the team leader also made a decision to invite only a small number of local government staff and carefully select those invited. During the PSLP Project the SSWT team leader observed that “many government people like to come, but not apply themselves...we expected the government will do something, but it is very clear they won’t do anything” (I2-SSWTSIB).

The team members identified the selection of appropriate stakeholders as a key factor in the success of the intervention. After the workshop the team members were asked if they had learnt anything from the SSWT Project. Both team members commented on the selection of the stakeholders. The team leader commented that he had learnt “how to select the participants, that’s the key because if you select wrong person this is like an input of a system, the input should be good” (I2-SSWTSSIA). The wetlands expert remarked that he learnt about “inviting the people, being selective [about the stakeholders which] seemed to work well” (E3-SSWTSSIA). Even a stakeholder commented in the evaluation questionnaire that the workshop “was well planned with the right participants” (S67C-SSWTQ).
As described in the Sections 5.4 and 5.5 the stakeholders engaged fully in the workshop activities and had intentions to use what they had learnt from the workshop to raise awareness of sanitation and implement wetland technologies.

The researcher observed that the stakeholders’ personalities contributed positively to the delivery of the group activities. On the second day of the workshop the researcher reflected in her field notes “S68C is fun and her humour seemed to lighten everyone’s mood” and “I think though that we were lucky because a few of the people (S68C- and S70G) seemed to have a good sense of humour and so joked and kept the atmosphere light” (SSWTO-26/06/07). Several stakeholders also commented that one of the best aspects of the delivery methods was “each person in the group” (PS43N-SSWTQ) and that “everybody was open” (S70G-SSWTQ).

As was the case with the PSLP Project (§ 4.3.5), the process of engaging stakeholders was considered central to the stakeholders’ attendance and a factor in their sustained and continued attendance for the duration of the workshop. Fourteen stakeholders attended all four days of the workshop. One stakeholder who was invited did not attend. Stakeholders were engaged using a modified version of the process utilised during the PSLP Project (see Table 4.8). The process included two additional steps. The team leader wanted the researcher “to meet with each of the participants and deliver the newsletter and letter of invitation” prior to the workshop. The researcher reflected at that time that she thought this was because this “would be appropriate in terms of securing their support” (SSWTO-12/06/07), but also so that stakeholders were prepared. Providing stakeholders with information about the format of the workshop was considered important because such a format was not common in Indonesia (see § 5.6.4.1). In a discussion with an Indonesian expert about the workshop he explained that it is important that Javanese people are prepared as they “like to be in control at all times and outbursts of emotion such as sorrow or happiness are not culturally desirable” (IE-SSWTO-17/05/07). In the third stage of the research during the outcomes assessment interviews the team leader also explained “that’s true; basically that is for preparation. If you give the material before that would be good, also you tell them to prepare… really make them happy and well prepared” (I2-OASSI). The researcher also learned from support staff prior to the workshop that the stakeholders were “being asked to sign a letter saying that they will pay back the money if they do not attend the four days” (SSWTO-13/06/07). Although lengthy and arguably overly
bureaucratic, the process was based on cultural norms and was important for securing stakeholders’ commitment. It led to the development of a new Indonesian guideline ‘never surprise a Javanese’ (New IG7).

Application of the design principles for stakeholder engagement contributed positively to the delivery of the project, the workshop was well attended and stakeholders were personable and engaged well with the activities and each other. There was some indication that the careful selection of stakeholders was also important for outcomes. In Section 5.5 it was explained how stakeholders had the intention to use what they had learnt to raise awareness and apply the wetland technology after the workshop.

The researcher reflected after the workshop on the difficulties in applying these design principles. The process of engaging stakeholders was easily established and implemented (DP3.2), but selecting appropriate stakeholders (DP3.1 and 3.4) depended on team members’ ability to judge whether a stakeholder was motivated and willing. This issue cannot easily be addressed by the Framework.

5.6.3. Activity scope and objectives

A factor that impacted negatively on the PSLP Project was designing the activities without taking into consideration local needs and capacity. Consistent with the core principles for capacity development (see Table 2.1) and the findings of the PSLP Project, the Framework advocates designing the intervention based on locally determined needs and existing capacity (DP4.1 and 4.2).

The PSLP stakeholders identified a need for sanitation technology, awareness raising and practical experience, and expressed a particular interest in wetlands (§ 4.4.3.1). The SSWT Project was implemented to meet these needs (DP4.1).

The feedback provided by stakeholders in the evaluation questionnaire gave several indications that the workshop had met their needs. The overall benefit of the workshop received a mean ranking of 3.9 where 4 is ‘very good’ (SSWTQ). This was reiterated by 10 stakeholders who commented that workshop was “very good”, “useful”, “meaningful” or “interesting” (SSWTQ).
These stakeholders identified three main areas of value: 1) it provided them with practical experience; 2) it increased their knowledge; and, 3) raised their awareness. Each area was identified as valuable by four stakeholders. The valuable aspects of the workshop correspond with the identified needs.

The stakeholders were expressly asked in the questionnaire to comment on the ways in which the workshop had or had not fulfilled their expectation. Nine stakeholders said that the workshop had fulfilled their expectations.

These stakeholders remarked:

“These activities certainly fulfilled my expectations so that I can be more comfortable with sanitation and wetlands” (S74C-SSWTQ).

“These workshop activities easily fulfilled my expectations, for me to know the relationship between wetlands and a sustainable environment” (S71G-SSWTQ).

“Already fulfilled my expectations: the practical creation of a wetland (this was not expected – and I was very happy with it – two thumbs up for the idea)” (S66C-SSWTQ).

Of this group two stakeholders indicated that although their expectations were fulfilled, they could be further fulfilled if the workshop included “other information in connection with sanitation” (S75A) and “other waste management alternatives” (S67C-SSWTQ). Of the four stakeholders whose expectations were “not yet” (PS43N-SSWTQ) fulfilled, they indicated where there were gaps in the activities. For example:

“The examples of wetlands are not practically demonstrated” (PS21G-SSWTQ)

“The practical evidence as to how we could apply this ourselves” (S73C-SSWTQ)

“There is a bit of a gap in the empirical evidence from the results of filtering through wetlands” (PS8A-SSWTQ)
These gaps are discussed further in the section on appropriate pedagogy (§ 5.6.4.1).

A further indication that the SSWT workshop had met their needs is that stakeholders had intentions to use what they had learnt after the workshop. These intentions were described in Section 5.5.

However, a drawback of the SSWT Project was in not recognising the existing capacity of stakeholders (DP4.2). The workshop program included opportunities to get to know the stakeholders and for the stakeholders to share their stories and experiences. On the first day of the workshop stakeholders were asked to complete a ‘getting to know you’ questionnaire. This questionnaire provided participants with an opportunity to: explain their understanding of sustainable sanitation; share their previous experience in the areas of sanitation and awareness raising; clarify what they hoped to learn from the workshop; and, to identify how and to whom they might share what they learned after the workshop. The questionnaire was completed by 13 participants in Indonesian and one in English. The questionnaires were neither translated nor read fully at that time or during the workshop due to a lack of time and available translators.

There were several indications that the program could have been improved if this design principle had been applied more thoroughly. Throughout the workshop a number of stakeholders made comments that demonstrated that they had considerable experience and knowledge of sanitation programs and awareness raising campaigns. If there had been prior knowledge of this stakeholders could have been given an opportunity to present case studies of their experiences. It was also evident from the workshop evaluation that some stakeholders had considerable technical knowledge. Failure to recognise the stakeholders’ existing technical capacity meant the program did not provide them with enough technical information. These stakeholders commented that more technical information regarding wetlands was required including “results of empirical evidence about filtering through wetlands and different mediums” (PS8A-SSWTQ) and “technical indicators as to where wetlands are most efficient” (S72G-SSWTQ), the "presentation of data concerning the quality of water before entering a wetland compared with after the wetland possibly to convince user to use a wetland" (S66C-SSWTQ)
and “an evaluation and plan of the costs that are needed [and] the positive and negative effects of sustained sanitation and wetlands” (S71G-SSWTQ).

The experience of the SSWT Project further highlights the benefit of developing the program based on local stakeholders’ needs and capacity. The SSWT Project met the stakeholders’ needs and this contributed positively to the success of the project. However, the experience of the SSWT Project also highlighted some challenges to implementing these design principles.

While the Framework is consistent with the alternative paradigm and recognises the importance of building on existing capacity (Lopes and Theisohn 2003) there can be difficulties matching the needs with resources and short timeframes. The use of capacity and needs assessment tools such as those described in Chapter Two (§ 2.4.2.3) is also often contingent on the support of donors. With project based funding, donors often do not provide money for these assessments, instead they establish the agenda (Lipson and Warren 2006) and/or assume that local counterparts will have this knowledge.

A further limitation of applying DP4.2 was that team members did not discuss at the outset the concept of capacity assessment, nor agree at the beginning how the results of the ‘getting to know you questionnaire’ would be used. The importance of discussing the purpose of the needs assessment has already been included as an Indonesian guideline (IG1), and team members discussed the importance of designing the workshop based on needs. Prior to the workshop the team leader commented that this project was improved “because basically [it is] the conclusion from the last project, the need of the participant from the last project fulfilled in this project” (I2-SSWTSIB). However, based on the experience of the SSWT Project IG1 has been expanded to incorporate capacity assessment.

A new design principle was also identified. The researcher reflected that many of the changes to the SSWT workshop were based on the evaluation of the PSLP workshop. The success of the SSWT Project illustrates the benefits of evaluating and improving capacity development interventions based on those findings. A new design principle (DP5.5) recommends evaluating the learning activities and using the findings to inform the design of future activities.
5.6.4. Appropriate pedagogy

Pedagogical shortcomings and inappropriate methods affected the success of the PSLP Project (see § 4.4.3.4). To address these limitations the Framework recommends developing capacity development interventions and activities according to adult learning principles (DP5.1). As described in Chapter Two adult learning environments can be characterised as participatory, self-directed, flexible, contextual, reflective, social, facilitated, learner centred, open and democratic and respectful (Table 2.5). Chapter Four incorporated several specific design principles, corresponding with these characteristics, into the preliminary Framework:

- Ensure the venue for the activity is an environment conducive for learning (DP5.3)
- Provide participants with opportunities to socialise with each other (DP5.4)

In addition, the Framework also recommends ensuring that the overall approach includes delivery methods that are locally and culturally appropriate (DP5.2). Based on the experience of the PSLP Project it was established that demonstration projects were appropriate for developing Indonesian capacity in sanitation (IG4). The PSLP evaluation also found that knowledge alone was not enough to facilitate learning and change and that stakeholders also required skills such as the ability to raise awareness (IG3).

These design principles are discussed and evaluated in this section.

5.6.4.1 Adult learning theory and appropriate methods

The SSWT workshop was designed based on Merrill's (2002) first principles of instruction. This model was selected because it is a synthesis of other models and is design oriented, consistent with the design based approach used in the Framework and research. Merrill (2002) suggests that effective learning environments engage learners in four distinct phases of learning. The workshop incorporated three of these four phases. The workshop:

1. Activated the participants’ prior experience of sanitation and awareness raising
2. Demonstrated the skills necessary to implement sanitation technology, in this case a constructed wetland for wastewater treatment, and raise awareness
3. Provided participants with an opportunity to apply those skills

The workshop program did not integrate these skills into real world activities because of the timeframe and available resources.

There were several indications that applying DP’s 5.1 and 5.2 contributed to the success of the project. Critically, the workshop facilitated learning, and unlike the PSLP Project, developed human capacity in the form of knowledge and skills. The workshop developed the stakeholders’ capacity to construct a wetland and deliver an awareness raising activity. This was demonstrated by their actions during the workshop (SSWTF1 and SSWTF2). Consequently, stakeholders had the capacity to take action after the workshop.

Application of these design principles also led to the delivery of a workshop that utilised methods that stakeholders thought were appropriate, contributing to their satisfaction with the workshop. Section 5.5 describes how in the workshop evaluation questionnaire stakeholders commented that the demonstration and opportunity to apply the skills relating to wetlands were especially valuable. The opportunity to practice was also identified as an improvement on the design of the PSLP Project by the three stakeholders that attended both workshops.

However, while the SSWT workshop facilitated learning and utilised locally appropriate methods two shortcomings were identified. First, the program did not activate stakeholders’ prior experience completely. As described in the previous section, the project failed to adequately assess and develop the program based on stakeholders’ existing capacity. Further, the fourth phase of learning recommended by Merrill (2002) was identified by stakeholders as missing from the workshop. The stakeholders commented that the program could be improved by including an opportunity to “apply the wetland technology in Malang” (PS19N-SSWTQ) by “providing a direct example to the community” (S75A-SSWTQ). To complete the activity, where possible (i.e., with the available resources and time), phase four should also be included. In the case of applying technologies, this could be achieved by either holding a series of activities or by integrating the technology into a real-world example at the same time as it was demonstrated.
5.6.4.2 Learning environment

The PSLP workshop was held in an environment that was not conducive to learning and this may have affected learning outcomes (§ 4.4.3.4). In contrast, the SSWT workshop venue addressed Vosko’s (1991) guidelines for learning environments (§ 4.4.3.4). The SSWT workshop was held at one of Malang’s high end hotels. The room provided was large, with flowers, plants, banners, white table cloths and bows on the chairs adding a degree of grandeur to the event (see Figures 5.1 and 5.2). Given the size of the room the seating arrangements were flexible and as such were arranged each day as appropriate for the activities. The room had air conditioning, or alternatively the numerous windows could be opened to regulate the temperature. The room was a comfortable and pleasant learning environment. As noted by the wetlands expert the venue was “much better” and a “more conducive atmosphere, people more relaxed, PSLP [Project was] more formal” (E3-SSWTSIA). In addition, the team leader commented that the environment was important for supporting the stakeholders in the activities, remarking

*We have to support them from every side of the possibility, to make them comfortable, if we have a very nice meeting room like at [the hotel] other than at Merdeka University where the air conditioner does not work etc., that will provide everything for them to be able to push themselves to express their talent.* (I2-SSWTSIA)

The decision to hold the SSWT Project at a hotel was made by the team leader. Aside from being an appropriate learning environment, this decision was also made based on it being cheaper to hold the workshop at this venue than at Merdeka University. At the hotel, the meeting room, including audio-visual support and room set-up, was provided free of charge so long as catering was provided by the hotel. The appropriateness of the learning environment for the SSWT workshop had benefits in terms of cost savings and learning outcomes.
Figure 5.1 SSWT workshop meeting room (day one)

Figure 5.2 SSWT workshop meeting room (day four)
5.6.4.3 Opportunities to socialise

As described in Chapters Two and Four, participation in social practice is important for learning (Bransford, Brown, and Cocking 1999) and an important characteristic of adult learning environments (Jonassen 1991; Phillips 2006). Whereas the activities of the PSLP Project provided stakeholders with limited opportunities to socialise, the SSWT program was designed to maximise the opportunities for social engagement. The arrangements for morning and afternoon tea breaks and lunches facilitated social interaction due to an appropriate learning environment (see previous section) and good food provided by the hotel restaurant. The working group activities on days two, three and four provided further opportunities for stakeholders to socialise. Throughout the workshop the facilitator engaged the stakeholders in song.

The opportunities for socialising were beneficial. This is evident from the laughing, singing, talking and interaction among stakeholders (refer to video footage SSWTF1-4.37min and SSWTF2-5.42min) and the confidence with which stakeholders participated in the activities. As articulated by the wetlands expert one of the best aspects of the workshop is that “everyone got into it. It was pleasant, fun, not stressed out” (E3-SSWTSIA). The opportunities to socialise were also important for relationship building, this is discussed further in the section on sustainability (§ 5.6.7).

5.6.4.4 Reflection

After the SSWT Project the researcher reflected that there were difficulties applying DP’s 5.1 and 5.2. Application of these design principles required the researcher to challenge and encourage the team members to deliver something other than what they were used to. The program required stakeholders to actively engage in the activities. While the team leader was supportive, and, as described in Section 5.6.1.1, he was receptive to new ideas, this approach challenged his thinking about how Indonesians would respond to something new and learn and participate in the activities. Prior to the workshop he commented that “designing a workshop like this is not common in Indonesia, we really put ourselves at risk… maybe you [the researcher] are more optimistic… will it work I’m not sure” (I2-SSWTSSIB). Asked if there might be any problems with the workshop, the team leader responded:
Yes, because this is something new, and I know that Indonesian people normally they hesitate to respond, they are resistant to new things, in this case the handicap will be the encouragement, I mean for us as the speakers to encourage them to work responsively especially on day three, that’s really… I’m really concerned about that. (I2-SSWTSSIB)

The wetlands expert also raised concerns about the design of the workshop and in particular whether the stakeholders would engage in the manual task of constructing the wetland. The wetlands expert remarked “hopefully you don’t get people sitting like stunned mullets and think it will be delivered to them and that they don’t have to participate” (E3-SSWTSSIB).

In order to deliver the activities based on adult learning theory the researcher worked with the team members, in particular the team leader to encourage them to apply these design principles. In an email with the team leader prior to the workshop the researcher explained “I would also like to challenge our ideas and see if we can inspire people to work in different ways” (SSWTDE-04/05/07). The team member identified a range of steps they could take to increase the likelihood that these activities would be successful. Many of these steps were in fact consistent with adult learning principles. The following steps were taken:

- Stakeholders were provided with a newsletter that outlined the program prior to the workshop. This was to ensure stakeholders were prepared and that Javanese stakeholders were not surprised by the format (New IG7).
- The presenters worked with the stakeholders on day three to get them started, provide encouragement and assist them in making a decision regarding the resource to develop (SSWTO-27/06/07).
- Pre-digging the holes for the wetland to ensure that the time was appropriate for the task required and stakeholders did not find the task too arduous.
- Delivering the workshop in an appropriate learning environment (§ 5.6.4.2)

The outcome was that stakeholders actively engaged in the construction of the wetlands and the developing of learning resources (§ 5.5). In the workshop evaluation questionnaire
stakeholders commented on their role in the workshop and said “it was very pleasant and we could be actively involved in the activities” (S73C-SSWTQ), “it’s comfortable and everyone is quite active and nice to each other” (S67C-SSWTQ), “I felt comfortable and was thoroughly involved (in the workshop)” (S74C-SSWTQ) and, it was “comfortable, fine and challenging” (S70G-SSWTQ). They were also asked how they felt about the opportunities to practice what they learnt. The stakeholders commented positively, remarking “I am very very very very satisfied” (S73C-SSWTQ) and I am “very happy with the practical knowledge” (S75A-SSWTQ).

After the workshop, the team leader stated that “the way everyone worked together on day two” (I2-SSWTSSIA) was the best aspect of the workshop. The wetlands expert remarked that his “preconception regarding how active participants would be was dispelled entirely” (E3-SSWTSSIA).

The researcher reflected in her field notes (SSWTO-28/06/07) that “…trainers need experience with alternatives. I2 is like any academic i.e. not trained to be a teacher so his experience and understanding is based only on what has been delivered to him”. Based on the researcher’s experience of applying design principles 5.1 and 5.2 two new design principles have been added to the Framework:

- Constantly challenge assumptions about appropriate pedagogy to ensure that the program does more than replicate what people are familiar with (DP5.6)
- Encourage team members to work collaboratively and be reflective (DP2.6)

### 5.6.5. Learning resources and materials

During the TOT workshop PSLP stakeholders were provided with an Indonesian version of the TOT training package on sustainable sanitation. This package was intended to contribute to the outcomes of the project by providing stakeholders with a resource that they could use to facilitate learning after the workshop. However, there were a number of limitations of these resources. They did not take into consideration the local context, but more importantly they were not in a format that could be widely utilised to facilitate learning after the intervention. To address these limitations, the preliminary Framework advises: making use of locally available resources (DP6.1); modifying generic materials for the local environment not only translating
them (DP6.2); and, developing resources in conjunction with the stakeholders as part of the program (DP6.3).

Local resources were not utilised in the implementation of the SSWT Project (DP6.1) due to a lack of time and funds as well as a lack of appropriate staff members to complete this task. Not applying this design principle was identified by stakeholders as a limitation of the SSWT Project. In the evaluation questionnaire stakeholders commented that technical and detailed information about wetlands for example “specifications of plant varieties that can be planted with wetland” (S71G-SSWTQ) was missing from the workshop. The sourcing of local materials could have addressed this limitation. During the workshop stakeholders brought resources and sanitation programs to the attention of the team members including materials used in a local hygiene program (S69GC) and details of sanitation project in a new housing development (S70G). This suggests that it may have been beneficial to ask the stakeholders prior to the workshop (as part of the capacity assessment) whether they had any resources. This experience reinforces the importance of applying design principles 6.1 and 4.2. However, it also highlights the constraints.

The resources that stakeholders were provided with included a pamphlet outlining the steps for constructing a wetland. This was prepared by the wetlands expert specifically for the activity on day two. The steps involved in constructing a wetland are universal (E3-SSWTDE-22/11/08) and for this reason this pamphlet was translated, but not customised for this activity (DP6.2). Additional resources developed during the workshop included DVDs of day two and day four that were given to stakeholders at the end of the workshop.

While the stakeholders were provided with few resources, as described in the previous section, the stakeholders developed their own resources for awareness raising. Stakeholders demonstrated that they could develop resources and that these resources were appropriate for raising awareness. The stakeholders delivered the awareness raising session with confidence and the audience was engaged and stimulated (SSWTF2-4.37min). The community members asked questions about the cost of constructing the wetland, whether edible crops could be grown in the wetland (SSWTO-28/06/07) which demonstrated that they had engaged with the content. The usefulness of the materials developed during the workshop for ongoing awareness raising is explored further in the outcomes assessment (§ 6.3.2.3).
5.6.6. Language, interpretation and translation

The team leader was multilingual, speaking Indonesian, English and Javanese, and nine of the 17 Indonesian support staff spoke English, three fluently and others to a high standard. The remaining support staff had limited understanding of English. Prior to implementing the SSWT Project, reflecting on her own experience of the PSLP Project and not being able to speak the language, the researcher thought it might be beneficial to take Indonesian lessons. The researcher took intensive lessons in the month prior to the workshop. At the end of these lessons, the researcher could communicate with team members, support staff and stakeholders on a basic level. The wetlands expert had studied Indonesian at school and was also able to communicate in Indonesian at a basic level.

Problems relating to translation and interpretation during the PSLP Project impacted negatively on the project (§ 4.4.3.8). To overcome these problems the Framework recommends ensuring that proficient interpreters and translators are employed (DP7.1). However, contrary to DP7.1 efforts were not made to employ a professional interpreter. The researcher recorded a discussion with the team leader about interpretation in her field notes (SSWTO-16/06/07) “Talking to I2 at dinner last night, he felt that translation [an interpreter] would not be necessary. But, then I explained that if E3 and I didn’t have an interpreter we would not be able to engage fully”. Subsequently team members made the following arrangements for interpretation:

- In the formal sessions English to Indonesian interpretation was provided by the team leader and workshop facilitator.
- In the formal sessions Indonesian to English interpretation was provided by one of the PSLP interpreters. This interpreter was employed to assist the wetlands expert on day two and the researcher on day four of the workshop. On all other days bilingual team members and support staff provided some interpretation.
- For all informal conversations interpretation relied on any bilingual team members and stakeholders.
- The translation of any materials was carried out by the team leader and one of the workshop coordinators.
As was observed during the PSLP Project, the lack of interpretation provided during the SSWT workshop at times limited the involvement of overseas team members. Neither the wetlands expert nor researcher could understand the workshop proceedings. The wetlands expert commented after the workshop that for him “translation” was the only problem with implementing the project (E3-SSWTSA). The researcher also reflected that “language really is the most challenging aspect” (SSWTO-27/06/07). While both the wetlands expert and researcher expressed their frustration that they often did not understand what was being said and could not freely engage with the stakeholders, there was no indication that this impacted on the stakeholders’ experience of the workshop.

However, while team members were unable to engage fully in the workshop there were several benefits to having some understanding of the local language. It was a gesture of goodwill which meant that communication between team members was not reliant on the English abilities of SSWT team members. The researcher found it especially useful for working with support staff as she was able to ask clarifying questions such as who, what, why, when and understanding some of subtleties of the language, such as when yes actually means no. The wetlands expert was able to independently visit local markets and source materials for the wetland. This may have also facilitated the team members’ understanding of the local culture.

The translation of materials for the workshop was problematic. The translation was often not completed until the last minute which did not allow sufficient time for it to be reviewed or back translated (§ 3.6.1.1). As noted in the researcher’s journal, “translation is a problem especially when the team leader has to do most of it. Everything needs to be completed much earlier to allow time for this” (SSWTO-26/06/07). As described in Section 5.6.3, on day one the ‘getting to know you questionnaires’ were not translated due to a lack of time and available translators.

The SSWT Project highlights the constraints associated with inadequate translation and interpretation arrangements, the challenges to providing interpretation and translation, as well as the benefits to having some basic understanding of the local language. These findings reinforce the importance of applying design principle 7.1 and led to a new design principle, 7.2, which recommends making language tuition available to all team members.
5.6.7. Sustainability and ongoing support

A core aspect of capacity development is providing stakeholders with the capacity to respond to development challenges on an ongoing basis. As such, sustainability is an integral component of the Framework. Chapter Four identified appropriate pedagogy, delivering an activity based on need and existing capacity and careful selection of stakeholders as important for sustainable outcomes. A number of additional factors relating to providing support for ongoing activities were also identified. These factors were not easily addressed by other components of the Framework and were included a separate component. To support sustainable outcomes the Framework recommends making provisions for ongoing funding (DP8.1), establishing mechanisms for networking (DP8.2) and developing a program that fosters relationship building (DP8.3).

As described in Chapter Two, increasingly, relationships are seen as important for sustainable outcomes. These relationships whether an informal network of friends, family and associates (social capital) or formal networks are thought to “increase the likelihood of purposive action” (Lin 2001 p.12) by facilitating the flow of information. In the case of the SSWT Project this could increase the dissemination of information and knowledge of sanitation and wetlands, a low-cost technology for treating wastewater, and improve decision making about sanitation.

The workshop program was designed to facilitate relationship building (DP8.3) through the inclusion of working group activities on days two, three and four and opportunities to socialise (DP5.4) as well as application of other adult learning principles (DP5.1). As described in previous sections stakeholders engaged fully in the activities and were observed to be laughing and enjoying the activities. At the end of the workshop in the evaluation questionnaire one stakeholder remarked that what they liked most about the workshop was the “close feeling of unity” (S74C-SSWTQ) and another commented that they had “made new friends that have inspired me” (S66C-SSWTQ). On the last day of the workshop the researcher observed that the stakeholders spent time taking photos of each other (SSWT-26/06/07). Several of the stakeholders also discussed establishing an arisan. An arisan is “a regular social gathering whose members contribute to and take turns winning an aggregate sum of money” (Ecols and Shadily 1991). These meetings would also provide stakeholders with an opportunity to discuss activities and areas of interest relating to the environment.
The stakeholders developed friendships, were self-motivated to meet, and as described in Section 5.5 had intentions to use what they had learnt from the workshop. In addition, in the evaluation questionnaire five stakeholders also commented that they would like to be involved in organised activities and that they hoped “these activities can continue and that I can still be involved” (S76T-SSWTQ), that this “workshop doesn’t stop coming here” (PS21G-SSWTQ) and that “you can find the time to implement this workshop or other workshops” (S71G-SSWTQ). The stakeholders also requested that workshop organisers arrange for the stakeholders to visit the wetland once it was fully operational.

In the PSLP Project a limiting factor was that funds were not available to support ongoing activities. The SSWT Project had a set budget of AUS$17,000 and was for a fixed term of four months. Initially there were concerns that the budget would be constrained due to a poor exchange rate (SSWTO-11/06/07) and that funding would not be available for ongoing activities (DP8.1). However, at the end of the intervention there was a surplus of funds (AUS$4000).

After the workshop the team members discussed ways to spend this money and provide stakeholders with ongoing support and motivation. The researcher recorded details of the team members’ suggestions in her field notes:

I2 asked how it [the surplus] should be spent. E3 advocated for monitoring [of the wetland], whereas I pushed for using it to build another wetland, perhaps with S68C. I really hope that the latter happens, monitoring is important, but I think that the bulk should be spent on something that will create momentum. I2 has also suggested another newsletter and maybe a visit to the site [wetland at Passionis] at the participants’ request. The bus was provided at a cheap rate… if they can use the bus they will take the participants to see the site in a few weeks. (SSWTO-28/06/07)

Some of these funds were subsequently spent on monitoring and to support research students. The actions taken after the workshop including whether the relationships between stakeholders were sustained and if there were any benefits associated with these relationships are explored further in the outcomes assessment in Chapter Six.
5.6.8. Indonesian guidelines

The preliminary Framework included six Indonesian specific guidelines. In the previous sections, the way that several of these guidelines contributed to the success of the SSWT Project has been discussed, including: ensuring that team members understand and agree upon the purpose of the needs assessment (IG1); developing stakeholders’ capacity to raise awareness (IG3); and, demonstration projects are appropriate for developing Indonesian capacity in sanitation (IG4). A new guideline which recommends never surprising a Javanese was also identified (New IG7). The three remaining guidelines are discussed briefly here and an additional guideline is introduced.

5.6.8.1 IG2: Involve stakeholders who are key people in the community

The main criterion used to select stakeholders was that they were motivated and had the ability to facilitate learning/change after the workshop (DP3.1). Indonesian guideline two was not applied directly. However, the group of stakeholders still included key people in the community including religious leaders, respected members of community groups (e.g., PKK) and government officials.

Several of these stakeholders were responsible for inviting the community members to attend the session on day four of the workshop. While the team leader thought that maybe 75 percent of the invited guests would attend at best (SSWT-28/06/07) it was estimated that there was 95 percent attendance. The journalists and cameramen who attended the session also expressed surprise that the event was so well attended (SSWT-28/06/07). Although it is not possible to ascertain why the community awareness raising session was well attended, it may have been due to stakeholders’ standing in the community. This reinforces the positive contribution that applying IG2 can make.

5.6.8.2 IG5: Develop a program that accommodates local customs

The Framework recommends accommodating local customs. This was based on the experience of the PSLP Project where the workshop program did allow for the exact prayer times. Due to an oversight the SSWT workshop program did not include breaks at the specific prayer times. However, the meeting room was adjoined by a dedicated prayer room that stakeholders utilised
freely throughout the workshop. On day two, transportation was made available to take stakeholders from Passionis to attend prayers at the mosque. There were no complaints from stakeholders about these arrangements.

5.6.8.3 IG6: Provide stakeholders with a certificate of attendance

In the planning and preparation for the SSWT Project the importance of certificates was reiterated by support staff and stakeholders. The stakeholders were asking whether they would receive a certificate for their attendance (SSWTO-13/06/07). In addition, a support staff member who had attended a workshop in Australia the previous year “asked if we [the researcher and E3] could prepare a certificate for her for the workshop” (SSWTO-18/06/07). On the final day of the workshop stakeholders were provided with certificates of attendance.

5.6.8.4 New IG8: Involve media in the activities

In Section 5.4 it was described how there was considerable media presence on the final day of the workshop. The media presence was thought by the team members to reinforce “the importance that the others attached to the workshop” (E3-SSWTSIA). The media presence was also valuable insofar that it further raised awareness of sanitation and wetlands. Based on this experience a new Indonesian guideline advises that ‘involving media in the activities can add credibility to the activities and contribute to greater awareness’ (New IG8).

5.7. Summary

The Framework analysis presented in the previous section identified a range of factors that contributed to the success of the SSWT Project, providing a response to the overarching research question for the second stage of the research (RQ2.1): What factors impacted on the success of the SSWT Project? These factors are summarised here:

- **Team members’ ability to deliver a successful intervention**: the team members had the expertise, cultural competency and personalities to work together effectively to implement the project and deliver an intervention based on the Framework. A pre-existing relationship between team members provided the basis for trust which is important for effective teamwork (§ 5.6.1.1).
• **Team members’ commitment to the intervention:** team members’ involvement in all stages of the project planning ensured that team members had joint ownership over the process and had clarity regarding roles and goals of the project. This reduced the risk of team dysfunction and contributed positively to their commitment to the project (§ 5.6.1.1).

• **Appropriate financial management and institutional arrangements:** the financial and institutional arrangements were appropriate for effective, transparent and flexible management of the project (§ 5.6.1.2 and § 5.6.1.3).

• **Involvement of motivated stakeholders with the ability to take action after the workshop:** the stakeholders engaged fully in the activities of the workshop and there was some indication that they would use what they had learnt after the workshop to implement wetlands and raise awareness of sanitation (§ 5.6.2).

• **Delivering an intervention based on stakeholders’ need:** the SSWT Project responded to stakeholders’ need for affordable sanitation technology, awareness raising and practical experience in both these areas (§ 5.6.3).

• **Designing activities based on adult learning and utilising appropriate methods:** the workshop facilitated learning and developed stakeholders’ capacity to implement sanitation technology and raise awareness (§ 5.5 and § 5.6.4.1). Stakeholders demonstrated through their actions that they had the knowledge and skills to implement sanitation technology and raise awareness of sanitation, that is, they had the capacity to contribute to sustainable outcomes.

• **Engaging stakeholders in activities to develop learning resources:** these activities contributed to the success of the project in three ways. Firstly, this activity was integral to developing stakeholders’ capacity to raise awareness. Secondly, this group activity provided an opportunity for relationship building. Finally, the stakeholders developed resources that were locally and culturally appropriate for raising awareness of sanitation.
• Delivering an intervention that maximised the opportunities for socialising and fostered relationship building: there were several indications that this contributed to stakeholders forming friendships and that this was important for learning and sustainable outcomes. The stakeholders indicated that they were self-organised to meet and motivated to take action after the intervention (§ 5.6.7).

The evidence presented here indicates that the SSWT Project was a success and that the Framework was central to this success. The SSWT Project achieved the three success criteria outlined in Section 5.5. That is, it:

• Met the needs of the stakeholders
• Developed stakeholders’ capacity to facilitate learning
• Developed stakeholders’ capacity to facilitate ongoing action and change

This also indicates that the SSWT Project was improved compared with the PSLP Project (RQ2.2).

There were, however, a number of design principles were not applied, principally due to a lack of time and resources:

• Stakeholders existing capacity was not adequately assessed or taken into consideration
• Locally available resources were not sourced or utilised
• Professional/proficient interpreters were not employed
• Stakeholders did not have an opportunity to integrate learned skills into real world activities

The SSWT experience highlighted some of the challenges associated with balancing application of the design principles with short time frames and the available resources. However, while there was some indication that the project could have been improved if these design principles
had been applied, the project was successful despite the fact that not all the design principles were applied. This suggests that success is not contingent on application of the complete Framework.

Inquiry into the SSWT Project sought to identify ways that the preliminary Framework could be improved (RQ2.3). Given that it may not always be practicable or necessary to apply all the design principles the Framework could be improved if users of the Framework were provided with guidance for prioritising application of the design principles. In Chapter Seven, to improve the Framework, a heuristic is developed to provide users with guidance regarding the: 1) overall utility of individual design principles; 2) impact that a design principle has on improving the practice and outcomes of a capacity development intervention; and, 3) ease of applying individual design principles when implementing a capacity development intervention.

The Framework has also been improved through the inclusion of four new design principles and two Indonesian guidelines. The new design principles recommend: encouraging team members to work collaboratively and be reflective (DP2.6); evaluating activities to inform and improve future activities (DP5.5); challenging assumptions about appropriate pedagogy to ensure that activities do more than replicate what people are familiar with (DP5.6). These design principles highlight the importance of team members being committed to learning and improving an intervention. The fourth new design advises making language tuition available to team members to reduce the language barrier (DP7.2). These have been added to a revised Framework (see Table 5.5).

5.8. Conclusions

This Chapter described the delivery of the SSWT Project based on application of the Framework. The evaluation findings indicate that the Framework facilitated the delivery of a successful intervention based on the alternative paradigm. The Framework addressed many of the limitations of the PSLP Project and consequently, SSWT stakeholders had developed the capacity to take action and facilitate learning and change in the area of sanitation. In Chapter Six the outcomes of the PSLP and SSWT Projects are further assessed and compared to establish whether the Framework led to sustainable outcomes.
Table 5.5  Revised Framework for Capacity Development

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Chapter 6. Outcomes Assessment

6.1. Introduction
The longer-term outcomes of the PSLP and SSWT Projects are assessed in this Chapter. The purpose of this assessment was to further evaluate the Framework for Capacity Development. In Chapter Five the Framework was evaluated in order to establish whether it facilitated improvements to the design, implementation, and immediate outcomes of the SSWT Project. In this Chapter the outcomes of the projects are assessed and compared in order to determine whether the Framework led to improved longer-term outcomes. The outcomes assessment also provided an additional opportunity to identify ways that the Framework could be improved.

6.2. Overview of stage three of the research
An outcomes assessment was carried out in the third stage of the research. The assessment focused on identifying the longer-term outcomes of the PSLP and SSWT Projects. In particular it focused on identifying changes in capacity, including attitudes, knowledge, skills, intentions, relationships as well as actions thought to result from the PSLP and SSWT Projects. The third stage of the research was guided by the core research question:

RQ3.1 Does application of the Framework in the SSWT Project facilitate improved outcomes compared with the PSLP Project?

Two sub-questions were also used to provide evidence to answer this question:

RQ3.1a Did the PSLP and SSWT Projects develop capacity that can be used to facilitate learning and change in sanitation?
RQ3.1b Did the PSLP and SSWT Projects facilitate ongoing actions in the area of sanitation?

The findings of the outcomes assessment will be used to judge the relative success of the PSLP and SSWT interventions and make a judgement about the effectiveness of the Framework.

The outcomes assessment methodology is described in more detail in Chapter Three (§ 3.4.3).
6.2.1. Assessment process

The outcomes assessment was carried out 24 months after completion of the PSLP Project and eight months after the SSWT Project. The outcomes of both projects were assessed by carrying out semi-structured interviews with primary stakeholders and one intermediary stakeholder. The interview schedules are presented in Tables 6.1 and 6.2.

The interviews were designed to assess outcomes in two areas:

1. Actions taken after the interventions in the area of sanitation/wetlands
2. Capacity (e.g., human, social and resource) developed through involvement in the interventions

The interview schedule also included questions about ways to improve the Framework.

Table 6.1 Interview schedule – primary stakeholders

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<thead>
<tr>
<th>No.</th>
<th>Question</th>
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<tr>
<td>1</td>
<td>Have you been involved in any projects or activities relating to sanitation since the PSLP/SSWT Project? Please describe – what was the activity/project, what was your role in this, how did these activities come about?</td>
</tr>
<tr>
<td>2</td>
<td>Have you participated in any awareness raising activities since the PSLP/SSWT Project? Please describe – what was the activity/project, what was your role in this, how did these activities come about?</td>
</tr>
<tr>
<td>3</td>
<td>If yes to 1 and/or 2 did you use anything that you learnt from the PSLP/SSWT Project when you participated in these activities? Please describe.</td>
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<tr>
<td>4</td>
<td>If no to 1 and/or 2 Do you have any plans? What are the barriers?</td>
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<td>5</td>
<td>Have you remained in contact with any of the participants from the PSLP/SSWT Project? Please describe the relationship</td>
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<td>6</td>
<td>Have you used any of the materials from the PSLP/SSWT Project? If yes – How have you used them?</td>
</tr>
<tr>
<td>7</td>
<td>In your opinion, how could the PSLP/SSWT Project have been improved?</td>
</tr>
<tr>
<td>8</td>
<td>What was the most useful thing that you got out of your participation in the PSLP/SSWT Project?</td>
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</tbody>
</table>
**Table 6.2** Interview schedule – intermediary stakeholder

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
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<tbody>
<tr>
<td>1</td>
<td>To your knowledge, have any of the PSLP and SSWT stakeholders been involved in any awareness raising activities or activities related to water and sanitation since these projects? Please provide details.</td>
</tr>
<tr>
<td>2</td>
<td>To your knowledge, have any of the resources from the PSLP and SSWT projects been used (e.g., by you, the stakeholders, others) since completion of the projects? Please provide details.</td>
</tr>
<tr>
<td>3</td>
<td>Has anything happened with the IWA network or Arisan? What do you think the barriers were to these networks being established?</td>
</tr>
<tr>
<td>4</td>
<td>Have you participated in any projects or activities relating to sanitation/awareness raising since the workshop? Please describe. How did they come about?</td>
</tr>
<tr>
<td>5</td>
<td>Since the SSWT Project have you applied any of the things you learnt as part of the SSWT Project in your work? Please provide details</td>
</tr>
<tr>
<td>6</td>
<td>What was the most useful thing that you got out of your involvement in the SSWT Project?</td>
</tr>
<tr>
<td>7</td>
<td>In your opinion, how could the SSWT Project have been improved?</td>
</tr>
<tr>
<td>8</td>
<td>Were there other benefits from the project e.g., institutionally?</td>
</tr>
<tr>
<td>9</td>
<td>What's the best/worst thing about having been involved in these (PSLP and SSWT) projects?</td>
</tr>
</tbody>
</table>

An Indonesian national conducted the interviews with primary stakeholders in Indonesian. A bilingual Australian national simultaneously interpreted the interviews for the researcher. The researcher documented the responses in English. The interviews were also recorded electronically. The interview with the intermediary stakeholder was conducted and transcribed by the researcher in English. The data collection procedures are described in more detail in Chapter Three Section 3.5. All raw data is provided in Appendix A.

It is important to note that attribution of an outcome to a given intervention is a matter of judgement (Roche 2001). To make judgements about attribution the interview schedule incorporated redundant questioning (§ 3.6.1.2); this involved asking stakeholders two or more similar questions (e.g., questions one and two and questions three and six). Observer triangulation was also used (§ 3.8.3.1). The communication style in Indonesia poses a number of unique challenges to assessing outcomes, in particular the indirect style of communication. Graham (2004 p.161) explains that “for Indonesians the best communication tool is circumlocution, the most readily accepted messages are translucent, and everything is oblique”. 


As a result, people rarely respond to a question with a direct yes or no (Hofstede and Hofstede 2005). A more common response is ‘not yet’ which is an ambiguous response intended to convey that something may or may not happen. Given the potential difficulty ascertaining whether the actions or intentions of stakeholders since the interventions had or had not occurred the interviewer, an Indonesian national, was asked to provide additional insight. After each interview, the interviewer was asked to comment on the responses provided by the stakeholder. This was used to clarify when stakeholders’ actions or intentions were likely to occur.

Documentation, including emails, photographs and images were also used to triangulate interview responses.

6.2.2. Research participants

Fifteen primary stakeholders participated in the outcomes assessment. The group included six stakeholders who participated in the PSLP Project, six from the SSWT Project and three who participated in both. The stakeholders were selected to achieve diversity in terms of their roles (e.g., academics, NGO staff, local government officials, community members) and for gender balance. The stakeholders from the PSLP Project were selected on the basis that they had been involved in the third phase of the project (Activity 3: TOT workshop) and had preferably been involved in one or both of the other activities in phase two (Activity 2a: needs assessment interviews and Activity 2b: seminar). The characteristics of the research participants are presented in Table 6.3.

One intermediary stakeholder also participated in this stage of the research. This stakeholder was a Merdeka University and IEMT staff member who was involved in both the projects as a team member (PSLP) and team leader (SSWT). He was included for three reasons: 1) to assess the individual and institutional outcomes of the interventions for IEMT and its staff; 2) to provide observer triangulation by elucidating or corroborating findings (see § 3.8.3.1); 3) as a way to gain insight regarding outcomes for other stakeholders not included in outcomes assessment. In this assessment this stakeholder is referred to as the SSWT team leader or using the code I2.
Table 6.3 Research participants’ characteristics

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>P15G</td>
<td>Central Office Kabupaten Malang</td>
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<tr>
<td>P7A</td>
<td>Merdeka University</td>
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<tr>
<td>P29G</td>
<td>Health Department Kabupaten Malang</td>
</tr>
<tr>
<td>P3A</td>
<td>Negeri University</td>
</tr>
<tr>
<td>P23G</td>
<td>Department of Cleaning, Parks and Gardens, City of Batu</td>
</tr>
<tr>
<td>P25G</td>
<td>Health Department, City of Batu</td>
</tr>
<tr>
<td>PS43N</td>
<td>Minister/ALTRUIS NGO</td>
</tr>
<tr>
<td>PS8A</td>
<td>Widya Karya Catholic University</td>
</tr>
<tr>
<td>PS21G</td>
<td>Health Department City of Malang</td>
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<tr>
<td>S75A</td>
<td>Director of the School of Tourism - Merdeka University</td>
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<tr>
<td>S68C</td>
<td>Family welfare movement (PKK)</td>
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<tr>
<td>S73C</td>
<td>Trainee catholic priest Passionis</td>
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<tr>
<td>S70G</td>
<td>Department of Parks, Health and Housing, Kabupaten Malang</td>
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<tr>
<td>S69GC</td>
<td>Water Services Corporation</td>
</tr>
<tr>
<td>S72G</td>
<td>Forestry Department, City of Batu</td>
</tr>
<tr>
<td>I2</td>
<td>SSWT Team Leader and PSLP Project Member</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Involvement</th>
<th>PSLP Project</th>
<th>SSWT Project</th>
<th>Gender</th>
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<tbody>
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<td>Activity 1</td>
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6.3. Outcomes of the interventions

The results of the outcomes assessment are presented and discussed in two parts:

1. Ongoing actions and intentions of stakeholders as a result of their participation in the PSLP and SSWT Projects
2. Capacity developed through the PSLP and SSWT Projects

Improvements to the Framework are discussed in Section 6.5. The findings are summarised and discussed in Section 6.6.

6.3.1. Ongoing action and intentions

The first part of the assessment sought to determine whether stakeholders: 1) had taken any action; 2) been involved in any activities; or, 3) had any intentions relating to sanitation, wetlands or awareness raising, as a result of their participation in the PSLP and SSWT Projects.

The stakeholders were asked directly if they had been involved in any activities relating to sanitation since the intervention, their role in these activities and how they came about. They were also asked whether they used anything they learnt from the projects when they
participated in these activities. The information provided was triangulated using data from other questions in the interview including whether stakeholders had used the materials that were made available through the interventions and the benefit of the intervention.

The outcomes of the projects are initially compared for the three primary stakeholder groups:

1. Local government
2. Academia
3. Community

These comparisons provide the basis for discussion about whether the outcomes of the SSWT Project are improved over those for the PSLP Project (RQ3.1). The outcomes relating to the individual and institutional outcomes for IEMT and IEMT's staff are discussed below in Section 6.4.

6.3.1.1. Local government stakeholders

The responses from local government stakeholders regarding: 1) the activities they have been involved in relating to sanitation/wetlands since the interventions; 2) their reported intentions relating to sanitation and/or wetlands; and, 3) the contribution that the PSLP/SSWT project made to these activities are summarised in Table 6.4. All tables presented in this chapter use shading to draw a distinction between the stakeholders that attended the PSLP, SSWT projects and those who attended both.

Table 6.4 illustrates that both PSLP and SSWT stakeholders have been involved in sanitation projects since the interventions. However, while this was the main activity for PSLP stakeholders, SSWT stakeholders had also given presentations on wetlands and awareness raising and had specific intentions relating to wetlands including plans to build a wetland and carry out research. One PSLP stakeholder had built a wetland, but it is explained below that this was not a direct outcome of the project. Outside of work, neither PSLP nor SSWT stakeholders had engaged in activities relating to sanitation. Although, a stakeholder who had participated in both projects and one PSLP stakeholder, had shared the materials from the
workshop with their families (PS21G- and P15G-OASSI) and talked to people in their neighbourhood about sanitation.

In terms of the contribution of the PSLP/SSWT Projects to these actions and intentions, both the PSLP and SSWT stakeholders identified knowledge. However, SSWT stakeholders also identified motivation and empowerment in addition to knowledge. These findings are elaborated on here.

Table 6.4  The activities and intentions of government stakeholders relating to sanitation and the PSLP/SSWT Project contributions

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<td><strong>1. Activities of stakeholders relating to sanitation/wetlands</strong></td>
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PSLP government stakeholders had all been involved in sanitation projects since the PSLP Project as part of their work. These projects were not a direct outcome of the PSLP Project. However, the PSLP Project provided an opportunity to develop the stakeholders’ capacity to contribute to these projects and their work. The stakeholders were asked if they had used anything from the PSLP Project in their work. The PSLP stakeholders identified knowledge, commenting “I mostly got knowledge from the PSLP Project, how to manage waste in different
ways” (P25G-OASSI) and “I already knew about it from university so for me it was like a refresher course” (P29G-OASSI). Some of these stakeholders also shared the materials from the workshop with their “office colleagues” (P25G-OASSI).

A stakeholder who attended the PSLP Project has “built a wetland at” his “house” (P23G-OASSI) (see Figure 6.1). Initially this stakeholder indicated that he “used the knowledge from the PSLP Project to make a wetland”. However from further discussion it transpired that this was not a direct outcome of the PSLP Project. This stakeholder had participated in additional training relating to wastewater “since the PSLP Project” including a “provincial program” and USAIDs “ESP [Environmental Services Program] training on wetlands” (P23G-OASSI).

SSWT stakeholders had also been involved in sanitation projects as part of their work. In contrast with PSLP stakeholders, they also had a number of specific intentions to apply what they had learnt about wetland technology in a new project and as part of existing projects. One stakeholder described a plan for later in 2008 to make “a wetland in the schools and hotels, making an example in one school and maybe one hotel, so that other schools can see it” (S72G-OASSI). He explained that there was “funding for this from the government”, although the project with hotels would depend on whether they could overcome some technological constraints. This stakeholder also had plans to carry out research. He explained that “at the moment there is no data and no indication of which plants are good to use [in wetlands]. I want to do trials to find out which plants are more effective. The government will be paying us to do this for six months this year” (S72G-OASSI).

The other government official explained that his department has the “job of managing domestic wastewater and sewerage in Kapanjen” (S70G-OASSI). He said that he wanted to “give information about wetlands to the heads of 200 families. Then we want to develop something using the wetland system. There is money in the budget for sanitation generally, not specifically wetlands, but the money could be spent on this” (S70G-OASSI). This stakeholder took the researcher to the site that the proposed wetland system would be built on (see Figure 6.2).

Like the PSLP stakeholders, the SSWT stakeholders had also used knowledge from the SSWT Project in their work, such as “the simplest way to build a wetland” (S72G-OASSI), and shared
the materials with their “work colleagues” (S72G-OASSI). These stakeholders commented that the DVD developed during the workshop “constitutes important technical information when explaining it [wetlands] to people” (S73G-OASSI) and described how it had been “shown to 15 PUSKESMAS” (PS21G-OASSI) and used “as proof about wetlands as a treatment system to convey what the technology is” (S70G-OASSI). However, in addition to technical knowledge SSWT stakeholders identified increased knowledge of awareness raising, confidence and enthusiasm as outcomes of the project. As remarked by one stakeholder:

*It was important for my knowledge about empowering people. It gave me more enthusiasm, more confidence, not only to empower society, but people in the department. I have used the drama/song [developed during the workshop] in the department. It influenced me; it inspired me to give presentations about how to present to the society... I work with each district; there are seven waste management centres. I give them a presentation about how to manage waste and how to do the presentation so that we can raise awareness in society. (S70G-OASSI)*

The confidence and enthusiasm of the government stakeholders was evident from their intentions relating to wetlands. The SSWT team leader remarked that the difference between the PSLP and the SSWT project is that

*...this [the SSWT] project is enjoyable. Although I don’t think that people use that kind of creativity during the workshop, they not use that anymore, but because of the excitement during the workshop they still have the motivation to share or do other things with the information. I learn that if we can improve SSWT by putting a bit of technical point of view choosing the right media for raising awareness, that’s actually will be useful for longer, they can use it after the workshop as well. (I2-OASSI)*
Figure 6.1  Wetland at stakeholders’ home built after training with USAID (P23G-OASSI)

Figure 6.2  Proposed site for wetland system in Kapanjen (S70G-OASSI)
One SSWT stakeholder from government had not used anything that they learnt in their work, although they said the “workshop had a large influence, for example empowerment, but I haven’t been able to implement it” (S69GC-OASSI). This stakeholder shared their idea to “give training on wetlands” remarking that it “is easy to do the training, but it is difficult to find a location. The problem is not the funds, I have a lot of activities going on, and it depends on the topics to be discussed”.

The findings indicate that the outcomes of the PSLP and SSWT Projects for government stakeholders were disparate. The PSLP Project contributed knowledge, but this did not facilitate action, learning or change. In contrast the SSWT Project motivated stakeholders and gave them the knowledge and motivation to take action and utilise what they had learnt.

6.3.1.2. Academic stakeholders

The activities and intentions of the academic stakeholders relating to sanitation/wetlands since the interventions are summarised in Table 6.5. This table also presents an overview of any contribution the PSLP/SSWT Projects had to these activities and/or intentions.

The PSLP and SSWT stakeholders from academia had all given presentations on sanitation and wetlands since the interventions and several of them had intentions relating to constructing wetlands and carrying out research. In addition the SSWT stakeholders had also engaged in informal awareness raising about wetlands. The main contribution of the PSLP and SSWT Projects was knowledge. While the overview suggests that outcomes were similar for academic stakeholders the discussion below highlights that there were a number of differences.
One PSLP stakeholder had given “three consultations/presentations” to government, the community and PKK [family welfare movement]. She explained that “the first two [presentations were] about sanitation the third about solid waste management” (P7A-OASSI). The other PSLP stakeholder from academia explained how he teaches his students “about wetlands” (P3A-OASSI).

When asked if they used anything they learnt from the PSLP Project in their presentations these stakeholders responded by saying “a little bit, it was more for my knowledge” (P7A-OASSI) and “not really, I look at the internet to find out more about the discourse on wetlands” (P3A-OASSI). Later in the interview these stakeholders said that they used “information in the monograph” (P7A-OASSI) when they give the presentation and the “slides” (P3A- and P7-OASSI) in their lectures.

The stakeholder who taught his students about wetlands said that he heard “about wetlands for the first time at the PSLP” (P3A-OASSI). However, in the TOT workshop evaluation questionnaire this stakeholder said that the workshop should have included a trip to Lavalette.

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**Table 6.5** The actions and intentions of academic stakeholders relating to sanitation and the PSLP/SSWT Project contributions

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>P7A</th>
<th>P3A</th>
<th>PS8A</th>
<th>S75A</th>
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</thead>
<tbody>
<tr>
<td>1. Activities of stakeholders relating to sanitation/wetlands</td>
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<td>Presentation on sanitation</td>
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<td>Presentation on wetlands</td>
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<tr>
<td>Informal awareness raising</td>
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<tr>
<td>2. Intentions of stakeholders relating to wetlands</td>
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<td>Plans to build a wetland</td>
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<tr>
<td>Plans to research wetlands</td>
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<tr>
<td>3. Project contribution to these activities/intentions</td>
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<tr>
<td>Knowledge of sanitation</td>
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<td>Knowledge of wetlands</td>
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<td>Environmental awareness</td>
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One PSLP stakeholder had given “three consultations/presentations” to government, the community and PKK [family welfare movement]. She explained that “the first two [presentations were] about sanitation the third about solid waste management” (P7A-OASSI). The other PSLP stakeholder from academia explained how he teaches his students “about wetlands” (P3A-OASSI).

When asked if they used anything they learnt from the PSLP Project in their presentations these stakeholders responded by saying “a little bit, it was more for my knowledge” (P7A-OASSI) and “not really, I look at the internet to find out more about the discourse on wetlands” (P3A-OASSI). Later in the interview these stakeholders said that they used “information in the monograph” (P7A-OASSI) when they give the presentation and the “slides” (P3A- and P7-OASSI) in their lectures.

The stakeholder who taught his students about wetlands said that he heard “about wetlands for the first time at the PSLP” (P3A-OASSI). However, in the TOT workshop evaluation questionnaire this stakeholder said that the workshop should have included a trip to Lavalette.
hospital “there is a wetland there” (P3A-PSLP3Q) which suggests he may have had prior knowledge of wetlands and that he did not learn about wetlands through the PSLP Project.

The PSLP stakeholders also shared their intentions relating to wetlands. It was one stakeholders’ intention to carry out research; she remarked “I want wetlands to be the subject of my PhD, if it is possible… but I have a family” (P7A-OASSI). The other stakeholder shared his “obsession” to “develop a wetland on campus for wastewater from the restaurant and faculty building” (P3A-OASSI) and for the NGO that he is involved in to “make a project on the River Brantas to give an example to society that is not that expensive”.

The SSWT stakeholders reported substantially deeper engagement with dissemination activities than PSLP stakeholders. Since the workshop, the SSWT stakeholders had also given presentations, and these were on wetlands. However, unlike the PSLP academics these stakeholders had not only given presentations as part of their work but also engaged in informal awareness raising. A stakeholder who participated in both projects described how she puts the “materials [from the PSLP and SSWT] into some subjects. I use the slide show and show the film of the wetland. I especially use the material prepared by S70G – the PPT about wetlands”. She also explained how she talks “about wetlands and promote[s] them in Kampung”. The other stakeholder explained how she made a presentation “from the materials and the DVD” (S75A-OASSI) and used it to “inform the candidates for the Malang Ambassadors of Tourism” and used the materials from the workshop with her family and students.

In addition to awareness raising, both of the SSWT stakeholders had intentions to build a wetland at their homes “for greywater” (PS8A-OASSI) and for “a small pond [instead of using] water from the well” (P75A-OASSI). In the SSWT workshop evaluation questionnaire both these stakeholders had said they wanted to build wetlands at their homes (§ 5.5). Since the workshop, one stakeholder had “collected plastic bottles for the wetland [to use as a media instead of gravel]” (PS8A-OASSI) and the SSWT team leader had “been to [the stakeholders’] house” to look at the pond and discuss the possibility of converting it into a wetland (S75A-OASSI).

One of the SSWT stakeholders also said she wanted to “promote wetlands in housing estate” and expressed her intentions to “do research about wetlands” (PS8A-OASSI). This stakeholder
was engaged in discussions with Murdoch University and Merdeka University staff regarding research topics and was applying for funding from local government.

Although these stakeholders had engaged in awareness raising and taken several steps towards building wetlands they also identified several barriers. These included technological constraints and a lack of credibility or capacity to inform others and take action. These stakeholders commented “there is an expert from Brawijaya University; we need to learn regularly from someone like this. If we would like to inform PKK we have to know exactly, we have to know better ourselves so that we can inform others” (S75A-OASSI) and “I do not have the capacity to make decisions about wetlands because engineering is a very male dominated area and very patriarchal” (PS8A-OASSI).

Neither SSWT stakeholder responded directly when asked whether they used anything that they learnt from the project in these activities. However, during the interview one stakeholder remarked that she did not “know about wetlands before [the projects]” (PS8A-OASSI).

Based on the comments made by stakeholders the main difference identified was that SSWT stakeholders had not only used what they learnt in their work, but also engaged in informal awareness raising with the wider community.

There were also several indications that the intentions of the SSWT stakeholders were more likely to eventuate. Although they identified some constraints to taking action these stakeholders had taken steps towards implementing the wetlands at their homes and carrying out research.

The interviewer also commented at the end of the interviews that the comments made by PSLP stakeholders were largely anecdotal. These findings suggest that, like the government stakeholders, the academic stakeholders who participated in the SSWT Project were motivated by the project.

6.3.1.3. Community stakeholders

The actions and intentions of three stakeholders from the community, including community groups such as the PKK, are discussed in this section. One stakeholder who participated in both
interventions is included in this group. The stakeholders from community groups that only participated in the PSLP Project were not available to be interviewed.

The actions and intentions of the community stakeholders and the projects’ contributions are summarised in Table 6.6. This table shows that community stakeholders had all engaged in formal and informal awareness raising activities. In addition, one stakeholder had plans to build a wetland. The SSWT Project’s contribution to these activities included knowledge, environmental awareness, information, motivation, empowerment and confidence.

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>PS43N</th>
<th>S68C</th>
<th>S73C</th>
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<tr>
<td><strong>1. Activities of stakeholders relating to sanitation/wetlands</strong></td>
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<td>Presentation on sanitation</td>
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<td>Presentation on wetlands</td>
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<tr>
<td>Informal awareness raising</td>
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<td><strong>2. Intentions of stakeholders relating to wetlands</strong></td>
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<tr>
<td>Plans to build a wetland</td>
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<tr>
<td><strong>3. Project contribution to these activities/intentions</strong></td>
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<tr>
<td>Knowledge of wetlands</td>
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<tr>
<td>Environmental awareness</td>
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<tr>
<td>Information I can share with people</td>
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<td>☐</td>
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<tr>
<td>Motivation/empowerment/confidence</td>
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The actions of the stakeholders from the community related to two main areas, presentations and informal awareness raising. The stakeholders’ comments included:

“I talk to the taxi driver and he asks me to come to his village and build a wetland” (PS43N-OASSI).

“At the seminary I give lectures and talk to students about what I have already studied” (PS43N-OASSI).
“When we go for prayers in rural areas if I have a chance I tell people about wetlands and sanitation, also about waste management and rubbish problem” (S68C-OASSI).

“For work experience I gave information about wetlands to the villages around catholic churches” (S73C-OASSI).

“I had to give a seminar at university about the environment and I included information about the wetland and how we implemented it” (S73C-OASSI).

“Some of my friends at the seminary have watched the DVD” (S73C-OASSI).

In addition, two of these stakeholders had shown wetlands to people. One stakeholder, who lives at the seminary Passionis, where the wetland was built for the SSWT Project, commented that he shows visitors the wetland. He explained that his friends “from Kalimantan came to visit and I show them the wetland. They tell me that they want to implement a wetland and they ask me to implement it for them, but I cannot because I live here” (S73C-OASSI). Another stakeholder demonstrated wetlands to her neighbours and the PKK. This stakeholder described how she uses “a baby bath to make a small, miniature wetland. I use husks from the rice and then put plastic on top” (S68C-OASSI).

The third stakeholder from this group provided plans for a “wetland [that] will be built at the seminary [he is affiliated with]” (PS43N-OASSI) (Figure 6.3). This stakeholder explained how this wetland would “be used to treat waste from the restaurant and one of the dormitories. The wastewater will then be reused for irrigation” (PS43N-OASSI). This stakeholder also described his ideas to develop wetlands “in the villages between Malang and Blitar” (PS43N-OASSI) and at his home. However, he also identified barriers to implementing these ideas commenting that “my house is so small there is no land for a wetland” and “the problem [for the village project] is that there isn’t any funding” (PS43N-OASSI).

Asked to comment on whether they had used anything from the workshop in these activities the stakeholders from community groups provided diverse responses:
“I have been talking about the environment for 20 years or more, this program provides some additional information. About the wetlands I never knew about that before” (PS43N-OASSI).

“They increased my knowledge. Because I know about it I can actually share it with people” (S68C-OASSI).

“I was moved and motivated by the program because before it I didn’t know much about the environment before” (S73C-OASSI).

These comments suggest that the workshop benefited the community members in different ways. The two stakeholders from community groups who regularly engaged in awareness raising said that for them the workshop contributed knowledge. The other stakeholder was a trainee priest, prior to the SSWT workshop he was neither aware of environmental issues nor engaged in ongoing activities relating to the environment, for him the workshop was motivating and increased his awareness of the environment.

The stakeholders from the community had not used the materials from the workshop, aside from one stakeholder that had shared the DVD with his friends.

The findings indicate that the stakeholders from community groups had widely disseminated the information from the SSWT Project.
Figure 6.3  Seminary construction plans including wetland (PS43N)
6.3.1.4. Summary

The actions taken subsequent to the PSLP and SSWT Projects were compared in this section. The findings presented confirmed the findings from Chapters Four and Five. The main differences between the outcomes of the PSLP and SSWT Projects related to:

- **Objectives of the intervention**: the SSWT achieved its intended objectives whereas the PSLP Project did not. The PSLP Project was designed to develop local capacity in sanitation; in particular it aimed to develop stakeholders’ ability to deliver training on sanitation. However, training was not an outcome of the project. By comparison, the SSWT Project was designed specifically to develop stakeholders’ ability to raise awareness and provide them with practical skills for building a wetland. The SSWT Project achieved these outcomes.

- **Direct outcomes**: the PSLP stakeholders had not engaged directly in activities relating to sanitation as a result of their involvement in the PSLP Project. The SSWT stakeholders had engaged in activities and had intentions relating to sanitation that could be directly attributable to the SSWT Project (RQ3.2a).

- **Project contribution**: the PSLP Project provided stakeholders with knowledge of sanitation, but this did not directly facilitate action and was only of limited use in their ongoing activities. In contrast, the SSWT Project provided stakeholders with knowledge, but also motivated and empowered them to take action. The capacity stakeholders developed through their involvement in the interventions is discussed further in Section 6.3.2.

- **Dissemination of materials**: The PSLP stakeholders from government and academia had incorporated the workshop materials into presentations. The SSWT stakeholders from government and academia had utilised the materials in presentations for their work. The academic stakeholders had also distributed them to their family and the wider community. The outcomes associated with the resources are discussed further in Section 6.3.2.3.
The findings of the first part of the assessment indicate that in terms of the actions taken by stakeholders the outcomes of the SSWT Project were improved compared with the PSLP Project (RQ3.1).

Aside from improved outcomes there was also some indication that the SSWT Project was appropriate for a more diverse range of stakeholders. The stakeholders from the community acquired environmental awareness and information that could be shared with others. The government and academic stakeholders, who may have already had the technical knowledge, were empowered to use their knowledge to raise awareness and motivate others.

6.3.2. Capacity outcomes

The second part of the assessment considered the capacity developed through the PSLP and SSWT Projects. The capacity outcomes were assessed by asking stakeholders to comment on the most useful thing they got out of their participation in the interventions (refer to Table 6.1) and through analysis of the actions and intentions of stakeholders identified in the previous section (§ 6.3.1).

The assessment in this section focused on assessing capacity outcomes in three out of the four categories (§ 1.3.1.2) of capacity used in this research:

1. Human capacity
2. Social capacity
3. Resource capacity

The PSLP and SSWT Projects had focused on developing individual capacity and therefore institutional capacity was not included in the assessment. Institutional capacity is discussed separately in relation to the outcomes associated with IEMT in Section 6.4.

The outcomes in each of these categories are discussed in the following sections.
6.3.2.1. Human capacity

James and Hailey (2007 p.17) define human capacity as “the attributes that can be found in individuals, such as their skills, knowledge, experiences, values and attitudes”. Human capacity was assessed firstly by combining stakeholders’ responses to two questions: 1) whether they have used anything that they learnt from the intervention; and, 2) the benefit of the intervention. Secondly, these responses were triangulated with stakeholders’ actions. The findings are summarised in Table 6.7. This table presents the human capacity outcomes associated PSLP, SSWT and stakeholders that attended both interventions.

Table 6.7 illustrates that both PSLP and SSWT stakeholders reported that the interventions developed their knowledge. However, the SSWT stakeholders also reported that they were motivated and empowered by their involvement in the intervention. One PSLP stakeholder said that the workshop gave him “inspiration to tell people in society about this knowledge” (P23G-OASSI). However, this stakeholder had only shared this information with his work colleagues since the workshop.

<table>
<thead>
<tr>
<th>Human capacity</th>
<th>Stakeholders</th>
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<tbody>
<tr>
<td>Technical knowledge</td>
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<tr>
<td>Knowledge that can be shared with others</td>
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<tr>
<td>Environmental awareness</td>
<td>☓</td>
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<tr>
<td>Knowledge of how to raise awareness</td>
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<tr>
<td>Motivation/empowerment</td>
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There was a range of human capacity outcomes associated with the SSWT Project. The SSWT stakeholders identified technical knowledge as one of the most beneficial aspects of the workshop. This included environmental awareness generally and information about the “science itself” (S68C-OASSI) and “how to solve wastewater problems in an affordable way” using
technology “that can be easily implemented” (S72G- and S69G-OASSI). However, the main benefit of the SSWT intervention identified by all of the stakeholders related to their knowledge of and motivation to raise awareness, including: 1) having information that they could share with each other; 2) knowledge of how to raise awareness; and, 3) feeling motivated and empowered.

1. Having information and knowledge that they could share with others:

“Being able to use what I got from participating to share with other people” (S75A-OASSI).

“Because I know about it I can actually share it with people” (S68C-OASSI).

“It increases my knowledge and I can tell and show everyone, give information to everyone” (S73C-OASSI).

2. Knowledge of how to raise awareness:

“The science about increasing peoples’ capacity to believe in themselves to give presentations and have enthusiasm about the environment. For me it was about how to present/convey ideas to society. It was important for my knowledge about empowering people” (S70G-OASSI).

“A lot of things. How to make it yourself, I feel special because I make it myself. How to convey it to society, different methods. Knowledge about this. The influence is more about how to empower people rather than knowledge, information or tools” (S69GC-OASSI).

“Increase in knowledge about how to socialise it. Learning a simpler way to convey it to society instead of a long winded way. How to socialise the wetlands to the hotels. That’s the influence it had on me” (S69GC-OASSI).

3. Feeling motivated and empowered:

“I was moved and motivated by the program…The program gave me more motivation and makes me care more about the environment” (S73C-OASSI).
“I really want to implement wetlands. It was important for my knowledge about empowering people. It gave me more enthusiasm, more confidence” (S70G-OASSI).

The SSWT Project had increased stakeholders’ knowledge of sanitation and wetlands. More importantly, it had motivated and empowered stakeholders to use this capacity to facilitate learning and take action. In the first part of the assessment it was explained that the SSWT stakeholders have engaged in awareness raising and have explicit intentions relating to constructing and carrying out research on wetlands. These stakeholders had the human capacity (knowledge, skills and motivation) to do so. Only one stakeholder who remarked that the workshop had “a large influence, for example empowerment” (S69GC-OASSI) had not been involved in any ongoing activities.

In contrast, the responses from PSLP stakeholders confirmed the findings from Chapter Four and the first part of the assessment, that the PSLP Project had principally developed human capacity in the form of knowledge. The stakeholders identified four areas where there knowledge was increased:

1. **Wetlands:**

“It increases my knowledge about the discourse. How to overcome environmental problems in an affordable way; ‘appropriate technology’. I did hear about wetlands for the first time at the PSLP” (P3A-OASSI).

“The information about wetlands was the most useful. The materials provided about wetland building, this has added to my knowledge” (P7A-OASSI).

“An increase in knowledge, this is how you build a wetland, theoretical knowledge” (P23G-OASSI).

2. **Waste management:**

“For my knowledge about the science of waste management” (P7A-OASSI).
“I mostly got knowledge from the PSLP Project, how to manage waste in different ways. The influence was knowledge about waste management” (P23G-OASSI).

3. Wastewater treatment and reuse:

“Helping neighbours with septic tanks and pipes, where to put this. This is from information provided in [E1’s] lecture” (P15G-OASSI).

“For myself the technology of wastewater management” (P25G-OASSI).

4. Hygiene and health:

“If people get sick I have knowledge about what causes it” (P15G-OASSI).

The outcomes assessment verified the findings from stage one and two of the research, and first part of the assessment.

6.3.2.2. Social capital

Aside from assessing human capacity the outcomes assessment sought to determine whether the interventions had facilitated relationships and/or engaged in networks that could provide the basis for ongoing action (i.e., social capital). Relationships and networks are seen as increasingly important for capacity development (Eyben 2006).

Both interventions had taken some steps to facilitate the relationships and/or a network between stakeholders after the workshop. The SSWT workshop program was designed to foster relationship building (DP8.3). In addition, after the SSWT Project team members agreed to produce a bimonthly newsletter to provide a medium for stakeholders to share their experiences and provide updates on the monitoring of the wetland at Passionis. It was also planned that the stakeholders would be taken to see the wetland. The stakeholders themselves discussed meeting regularly through an arisan.
For the PSLP Project, stakeholders that attended the TOT workshop agreed to be founding members of the Indonesian chapter of the International Water Association.

In the interviews the stakeholders were asked if they were in contact with anyone from the interventions and the nature of this contact. The contacts maintained by stakeholders since the interventions are presented in Table 6.8.

Table 6.8 illustrates that all the stakeholders interviewed except for one PSLP stakeholder had been in contact with other stakeholders from the interventions. However, the SSWT stakeholders had remained in contact with more stakeholders than PSLP stakeholders. The other main difference between PSLP and SSWT stakeholders was the kinds of relationships that they had formed. Where the PSLP stakeholders had primarily been involved with stakeholders through their work, the SSWT stakeholders have maintained several kinds of relationships including informal social contact, friendships and working relationships. This difference is elaborated on here.

Many of the SSWT stakeholders had been in contact with other stakeholders informally. A stakeholder explained that she contacts stakeholders “for special occasions” remarking that “I cannot talk to people about all the technical aspects that I was taught. I cannot remember. I can only send them a general greeting, just so that we still have a relationship. I usually call to see how they are going” (S68C-OASSI). This stakeholder has also made contact with the researcher informally by SMS. There are some stakeholders that meet in “market place” (S70G-OASSI) and others that stayed in contact initially although it had been “several months since I spoke to these people” (PS21G-OASSI). These people said that this was mostly social contact, but that sometimes they talked about “sanitation” (S70G-OASSI) or whether they have “built one [wetland] yet” (S68C-OASSI). A friendship has developed between two stakeholders, the SSWT team leader and one of the SSWT presenters “they are now friends, but specific friends that will talk about environmental issues” (PS8A-OASSI).
Table 6.8 Contacts maintained by PSLP Stakeholders, SSWT stakeholders and intermediary stakeholders

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<tr>
<th>Stakeholder interviewed</th>
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Five stakeholders from the SSWT Project had also been in contact with the team leader on an ongoing basis. These stakeholders knew the team leader prior to the intervention. However, new opportunities and activities have developed since the workshop. For example, the SSWT team leader explained in an email to the researcher that one SSWT stakeholder and two presenters from the SSWT workshop have established “a group named Prasantha…We have collaboration with Kaliandra, LSM [NGO] in Trawas. We are invited to give a talk at Kaliandra almost regularly (especially on earth day, environment day, etc)” (OADE-20/0508).

Two stakeholders had limited contact with other stakeholders, they remarked “everyone has their own personal activities” (PS43N-OASSI) and “I didn’t write any contact numbers down” (S73C-OASSI).

In contrast to the SSWT stakeholders, the PSLP stakeholders had primarily remained in contact through their work. Some stakeholders from government “met through the PSLP Project” (P15G-OASSI) whereas others knew each other before “but not very well” (P29G-OASSI). These stakeholders meet at “interdepartmental meetings” (P29G-OASSI) that take place “every three months” for staff “talk about all the developments (environment, hygiene and health) in the Malang area” (P15G-OASSI). There was also one stakeholder from the PSLP Project who regularly meets with a stakeholder from government who participated in the SSWT Project due to their involvement in USAID Environmental Services Program (P23G-OASSI). The two stakeholders from academia that were interviewed said that they had been in contact with one or two other stakeholders although “very rarely” commenting that “everyone is very busy and people have family” (P7A-OASSI), one of these stakeholders had contacted a stakeholder from government “to ask about waste management” (P3A-OASSI).

Both PSLP and SSWT stakeholders developed new contacts through the intervention. However, the SSWT Project had done more than this; it had fostered friendships and new working relationships. The SSWT Project also provided stakeholders who knew each other prior to the intervention with an opportunity to strengthen their relationship.

While relationships were formed during the SSWT Project neither intervention led to the development of a formal network that provided the basis for ongoing action. The arisan that
stakeholders talked about at the end of the SSWT Project was not established; the newsletter was not produced; and, the stakeholders were not taken to see the wetland. Similarly, no action was taken with respect to the Indonesian International Water Association.

In the interviews the stakeholders suggested that ongoing interaction should be coordinated as part of the intervention. A SSWT stakeholder commented that they would like to meet with stakeholders and see the wetland remarking the “[team leader] says it is okay, but this has not happened yet” (PS43N-OASSI). A PSLP stakeholder also remarked “we plan to make a water and sanitation association (IWA) with [E1], but what has happened?” (PS21G-OASSI).

In his interview the SSWT team leader talked about the stakeholders’ expectation that he would coordinate ongoing activities, he explained:

> Here, especially in Indonesia, when someone has an idea that you are coordinator, they are waiting… [S68C] always mentions her willingness to get together, also [S75A] she also asks. They have some kind of motivation, [but they are] lacking who will coordinate this. (I2-OASSI)

This finding was consistent with the literature on networks. According to Taschereau and Bolger (2006) factors that constrain network effectiveness include a lack of leadership from someone who can inspire and mobilise people to collaborate for a common purpose and a lack of facilitation to nurture relationships between members. What is more, Mahanty (2002 p.1369) explains that for networks to be effective they cannot be developed as a “subsidiary part of the intervention process”, establishing connections and forming the network needs to be a central part of the activities. Neither intervention took the steps necessary to facilitate the development of a formal network. This is discussed further below in relation to sustainable outcomes in the section on improving the Framework (§ 6.4).

To support the development of networks an additional design principle has been added to the Framework:
• Identify and provide support to a network leader and/or facilitator to coordinate ongoing
networking

6.3.2.3. Resource capacity

Resource capacity includes tangible resources such as extractable natural resources, funding,
materials and infrastructure and intangible resources such as time (Moore, Severn, and Millar
2006; James and Hailey 2007). Learning resources were an output of both the PSLP and SSWT
Projects. For the PSLP Project a training-of-trainers training package on sustainable sanitation
was provided, which included:

• PowerPoint slides
• eLearning package
• Monograph
• Trainers manual

These materials had been translated into Indonesian as part of the intervention. The
stakeholders were also provided with three other TOT training packages on rainwater
harvesting, wastewater reuse and water demand management.

On the other hand, the SSWT stakeholders, were provided with few resources, but developed
their own:

• PowerPoint presentation that explains wetlands
• Short drama about the problems with sanitation
• Song lyrics for a popular children’s song about wetlands

Two DVDs were also developed during the workshop of the stakeholders constructing a wetland
and delivering an awareness raising session to the community.

This assessment compares the outcomes associated with these learning resources. In Section
6.3.1 the actions of the stakeholders were described, this included some discussion of whether
stakeholders had used the materials from the interventions. These findings are summarised here and the utility of the learning resources are compared in terms of the way stakeholders have used the materials and with whom. The assessment also provided an opportunity to establish whether the learning resources developed by the stakeholders during the SSWT Project (DP6.3) had greater utility than the generic resources provided to PSLP stakeholders.

Table 6.9 presents an overview of the materials from the interventions that stakeholders reported to have used since the intervention. This table also includes an overview of the way they reported to have used these materials.

The stakeholders indicated that main materials used were the PowerPoint slides and the DVD for the PSLP and SSWT stakeholders respectively. They reported having used these materials in the following ways:

- Self-study or reference material
- Used in presentations or lectures
- Shown to work colleagues, family, friends and at health centre
- Given to someone else

The PSLP government stakeholders primarily used the materials as a reference. These stakeholders commented:

I study the materials for myself; I don’t give them out to other people. I use them as a reference material for presentations that I give. I make my own version for my presentations, but I use the information from the PowerPoint slides for my presentation, they have the same meaning. (P29G-OASSI)

I have been using it as a reference in my work, but I haven’t shown it to other people. Everyone in the office has seen the slides, but I haven’t shared it with anyone else. It is a reference. (P25G-OASSI)
Table 6.9  Use of learning resources by stakeholders since the PSLP/SSWT Projects

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Two of the other government stakeholders had given the materials to someone else including a family member (P15G-OASSI) and a lecturer: “I have not used the 200 slides, but I gave them to one of my lecturers in Surabaya, he lectures on the environment” (PS21G-OASSI). Overall the government stakeholders had not widely utilised nor disseminated the workshop materials.

The PSLP stakeholders from academia also used the materials as a reference, but had made the most use of them in presentations and/or lectures. This included “information from the monograph” (P7A-OASSI) but in particular the slides:
“I put the materials into some subjects. I use the slide show” (PS8A-OASSI).

“I use the slides in my lectures. I use some of the slides that are suited to their studies. The students are really interested in the slides. By giving them the slides I hope they will give them to other students” (P7A-OASSI).

“For the lessons, I share it with the students just using the slides” (P3AN-OASSI).

Two stakeholders had used the eLearning package. An academic had used the eLearning “a little” herself and to “give background to my students” (P7A-OASSI), a government official had used the eLearning package on rainwater harvesting as an example “for a housing estate complex” this was used to illustrate “how to harvest rainwater, drainage and catchments” (P15G-OASSI). The other stakeholders commented that they had not “benefited from the eLearning” (PS8A-OASSI) and that they could “not use the eLearning because [their] computer is not up to date” (PS21G-OASSI).

For SSWT stakeholders the DVD of stakeholders constructing a wetland was the most widely utilised resource. The stakeholders from government and academia had shared this resource with “work colleagues” (S73G- and S70G-OASSI) at “15 PUSKESMAS” (PS21G-OASSI) and in lectures and presentations (PS8A- and S75A-OASSI). These stakeholders all commented that the DVD was useful for “convey[ing] to people about the wetland” (PS21G-OASSI) and as “proof about wetlands” (S70G-OASSI).

However, while many of the SSWT stakeholders had utilised the DVD, two stakeholders from the community thought that these resources were of limited use. For one stakeholder this was because she wanted “people to understand first by building a wetland straight away” (S68C-OASSI). As described above this stakeholder is demonstrating wetlands in an innovative way by building a miniature wetland using a “baby bath” (see § 6.3.1.3). The same stakeholder commented that “when you take the DVD the technology side is difficult”.

The other stakeholder remarked that “they are just one way of conveying the message. Talking is the most useful way” (PS43N-OASSI). However, the SSWT team leader revealed in his
interview that this stakeholder had found it difficult to explain wetland technology to people at the seminary where he has plans to build a wetland (§ 6.3.1.3) and had asked the SSWT team leader for assistance. In response to this request, the team leader “showed them the DVD and they said it was very clear now. At first they thought it was very difficult/complicated, after seeing the DVD they saw that it was quite clear. The steps can be seen” (I2-OASSI).

The other materials were not widely utilised. A stakeholder had used the “drama/song in the department” (P70G-OASSI) and one stakeholder said that she “especially” uses the “material prepared by [S70G]” (PS8A-OASSI) during the intervention in her lectures. This presentation was developed based on the materials provided during the workshop and was prepared in Indonesian and modified for the local context.

There were few outcomes associated with the learning resources from the PSLP Project. The PSLP stakeholders had made the most use of the PowerPoint slides in their presentations and lectures. This was consistent with the finding from Chapter Four that the slides would be useful because they could be “modified” (P15G-PSLP3SI). The materials had been shared with some work colleagues, but otherwise they had not been widely disseminated. The stakeholders had not used the eLearning widely despite having also been identified by stakeholders as one of the most useful components of the training package (§ 4.4.3.9). The outcome associated with the PSLP stakeholders supports the finding from Chapter Four that knowledge alone is not enough to facilitate action. It further highlights a limitation of the conventional paradigm which assumes that know-how can lead to change (Morgan 2002).

The assessment found that the DVD provided SSWT stakeholders with something to share with people. It also was a useful tool for demonstrating wetland technology. As a result it has been disseminated widely.

The Framework recommends that stakeholders are engaged in activities to develop their own learning resources (DP6.3). The resources developed by stakeholders during the SSWT workshop were not found to be more useful than any other resources. However, in Chapter Five it was explained that there was some indication that application of this design principle was
important for other outcomes; for example, motivating and empowering stakeholders to take action and improving the stakeholders’ ability to raise awareness (§ 5.6.4.2).

For both the PSLP and SSWT Projects the multimedia presentations were especially useful. A new Indonesian guideline has been added to the Framework:

- As part of the intervention develop and deliver multimedia resources such as PowerPoint slides and DVDs

6.3.2.4. Summary

The second part of the assessment considered the human, social and resource capacity developed through the PSLP and SSWT Projects. The assessment confirmed the findings from Chapter Four and Five. The main differences between the outcomes of the PSLP and SSWT Projects for each category of capacity were:

- **Human capacity**: both interventions facilitated the development of human capacity, in particular knowledge. However, SSWT stakeholders also developed the skills to raise awareness and construct wetlands. They were also motivated and empowered by their involvement in the intervention.

- **Social capital**: the interventions fostered new contacts for both PSLP and SSWT stakeholders. Whereas PSLP stakeholders had remained in contact through work, SSWT stakeholders had also formed friendships and new working relationships. They had also remained in contact with more stakeholders than PSLP stakeholders.

- **Resource capacity**: the PSLP Project training materials were primarily used as a reference material. The resources from the SSWT Project provided an example of wetland technology and were disseminated more widely.

The findings presented here confirm the findings presented in Chapter Five. The SSWT Project provided stakeholders with the knowledge, skills, resources, relationships and motivation to take
action. The findings from the second part of the assessment also indicate that the capacity outcomes of the SSWT Project were improved compared with the PSLP Project (RQ3.1).

6.4. Outcomes associated with intermediary stakeholders

As described in Section 6.2.2, the SSWT team leader, who is a Merdeka University and IEMT staff member, and who also participated in the PSLP Project, was interviewed as part of the assessment. This interview, as well as observations made by the researcher during the third stage of the research, provided an opportunity to assess any outcomes associated with the intermediary stakeholders including IEMT and IEMT’s staff.

Outcomes were identified in three areas:

1. Construction of wetlands
2. Awareness raising about wetlands
3. Research on wetlands

The IEMT staff member had built two wetlands at “Turen and Tumpang” local hospitals in conjunction with his staff. The first wetland was built after the PSLP Project and the second after the SSWT Project. The staff member commented that that the technical knowledge gained from the SSWT was valuable and that he had used this information to

...improve the wetland at Turen [location of a nearby hospital] ... when we run it the first time there were a lot of errors... I looked at the discussion with [the wetlands expert E3] and during the practical... I will also use that for the Tumpang [location of a nearby hospital] project [and with the proposed government project if S70G continues with that kind of plan. (I2-OASSI)]

IEMT staff had shown the wetlands at the local hospitals to other people. The staff member conveyed the following message to the researcher in an email after the outcomes assessment

Yesterday, I met [a person who works with the Environmental Services Program in Jakarta], he has close relation with Bappenas [the National Planning and
Development Agency] and PU Pusat [local Municipal Works department]. He's interested in wetlands at Tumpang and took a lot of pictures (yesterday afternoon we went to Tumpang). He will explain and show the pictures to the director of sanitation in PU, hopefully our type of wetland will spread across Indonesia. Who knows? Thanks to E3 and you for introducing the wetland technology in Malang, you have thrown the seed, see how it goes for the time of harvesting. (I2-OADE-30/05/08)

A further outcome was an interest in carrying out research on wetlands. A number of Merdeka University students are now also studying wetlands for their masters degree. The IEMT team member explained how he now has “five [masters] students doing wetlands… this is a new thing and normally a student doesn’t want to take a risk and choose a new topic, they try to avoid” (I2-OASSI). These students learnt about wetlands from the project “when I give lecture I mention the workshop, if you want to come feel free to come… and so they came to the project” before the project the students were “still looking and trying to understand what a wetland is… working at Passionis makes them know everything” (I2-OASSI).

Throughout the PSLP and SSWT Projects an IEMT staff member who supported both of these projects also expressed an interest in completing a masters degree on wetlands at Murdoch University. This staff member was in discussion with ETC about this possibility.

The SSWT team leader was also asked to comment on the benefits of being involved in the interventions. He commented that one of the benefits of his involvement was that he is now

...less technical than before, because as you know I try to convince people to raise awareness... this is a new thing for me... I feel that it is enjoyable rather than working with numbers or computer programs, before I really reluctant to work with lawyers, economics etc. now I enjoy working with them, life is not just about numbers and formulas. (I2-OASSI)

He also commented that “I think I will get other projects because of this second activity... people trust me, I was invited to give a talk after the workshop” (I2-OASSI).
Since the SSWT project, as described previously, the team leader had also remained in contact with a number of the stakeholders (see Table 6.8) and established an environment group with several SSWT stakeholders.

There is a clear indication of increased capacity in parts of IEMT related to their involvement in both the PSLP and SSWT Project, but in particular in relation to the latter. This included human, social and institutional capacity. The SSWT team leader/IEMT had:

- Developed skills and knowledge to improve wetlands
- Obtained new knowledge and understanding of awareness raising
- Attracted new research students
- Gained credibility which would potentially contribute to the possibility of new projects

Perhaps most importantly, the findings suggest that involvement in the SSWT Project had given the SSWT team leader an understanding and experience of capacity development based on the alternative paradigm. This experience had challenged his linear and more conventional thinking and contributed to changing and improving his practice. The researcher reflected, that during the SSWT Project the team leader remarked “I learn also from you, we don’t talk only sanitation, we talk also about the social aspect, people, culture, about other things outside the sanitation itself, and that make my mind broader. Now I can’t think of sanitation as just sanitation, you enrich me” (I2-SSWTSSIB).

6.5. Improving the Framework

The final part of the assessment aimed to identify ways that the Framework could be improved. It also provided an opportunity to verify the findings of stages one and two of the research (using data triangulation) with respect to the factors that impacted on the success of the projects and whether the Framework addressed these limitations.

The stakeholders were asked to comment on how the interventions could have been improved. Table 6.10 presents a summary of all the suggestions made by PSLP and SSWT stakeholders regarding ways to improve the respective interventions.
Table 6.10 illustrates that the stakeholders identified improvements relating to four aspects of the Framework:

1. Activity scope and objectives
2. Appropriate pedagogy
3. Language, interpretation and translation
4. Sustainability and ongoing support

The comments made by PSLP and SSWT stakeholders for the most part reiterated the findings presented in Chapters Four and Five. The PSLP stakeholders identified a need for practical activities and follow-up activities. The SSWT stakeholders thought the intervention could be improved if the wetland technology was applied, through broader subject coverage and if a bigger and more diverse target audience was involved in the activities. One PSLP stakeholder also that thought the PSLP Project could have been improved by inviting a more diverse audience. One stakeholder from each intervention identified problems relating to interpretation.

The stakeholders’ suggestions are summarised for the four components of the Framework in the following sections.
6.5.1 Activity scope and objectives

Although the SSWT Project was designed based on stakeholders’ need (refer to § 5.6.3) several SSWT stakeholders thought the intervention could be improved if there was broader subject coverage:

“Not just teach about sanitation/wetland, also about food handling and hygiene, about everything” (PS43N-OASSI).

“Do not start directly with the wetland. Start with the classification of waste. How to get society to not throw waste into the river. Little things that we can do towards improving a bad environment” (S75A-OASSI).

“I want the information to be increased, more information about different types of wastewater treatment, not just wetlands” (S72G-OASSI).

“Make it more comprehensive, sanitation is not only wastewater” (S70G-OASSI).

The PSLP Project had broader subject coverage, however it was remarked by a stakeholder that attended both projects “for the PSLP there wasn’t enough time, there was a lot of material and not enough time to absorb it” (PS21G-OASSI).

The Framework cannot easily address this suggestion. The ability to include broader subject coverage depends on the available time and resources. However, it is important to put the intervention into context (DP5.1) and as discussed in Chapter Five design the intervention to address stakeholder’s needs and existing capacity (DP4.1 and DP4.2).

The researcher reflected that the original SSWT proposal included a series of activities on different wastewater treatment systems. The funding for this proposal was sought from AusAID as a follow on to the initial PSLP Project. However the application was unsuccessful. The SSWT Project was a small targeted project with a small budget (AUS$17000). Due to limited resources the SSWT Project was scaled back to focus on wetlands and awareness raising which were identified as priorities in the needs assessment (see § 4.4.2.1).
6.5.2 Appropriate pedagogy

Stakeholders from the PSLP and SSWT Projects identified improvements related to the pedagogy of the projects. For PSLP stakeholders this involved making the intervention “more practical” (P7A-OASSI) and including “practical follow-up” (P29G-OASSI). It was commented that the PSLP Project was “mostly just theory, after the theory we need some practical” (P23G-OASSI) and that there needed to be “field examples so that the information/meaning is more tangible” (P29G-OASSI). One academic stakeholder indicated that they needed an example “in order to teach it” remarking “it would be a good strategy not to look at it and hear about it, but instead share a practical way to do it” (P3A-OASSI). These comments were consistent with the evaluation of phase three of the PSLP Project that the workshop did not adequately take into consideration adult learning theory and that a lack of practice impacted on the success of the PSLP Project (see § 4.4.3.4).

SSWT stakeholders did not identify the lack of practice as a limitation. The SSWT project was based on adult learning theory (DP5.1). The workshop was designed to: 1) activate the stakeholders’ prior experience of sanitation; 2) demonstrate the skills required to build a wetland; and, 3) provide stakeholders with an opportunity to apply those skills (Merrill 2002) and it achieved this. However, the SSWT stakeholders reiterated the comments made at the end of the workshop (§ 5.6.4.1) that the outcomes would be further improved if the learning cycle was complete and wetland technology was integrated into a real-world activity:

“We have to go for the real thing” (S75A-OASSI).

“I want it to actually be implemented, rather than do what we did in the program. The four day meeting had no meaning without action/implementation” (S68C-OASSI).

“Last time (the SSWT Project) was only a small wetland, need to make one that is bigger e.g., for an RT [neighbourhood association] it needs to be more applied” (S70G-OASSI).

Design principle 5.1 stipulates that the intervention should be based on adult learning theory. These findings suggest that although the SSWT Project was improved compared with the PSLP
Project, this design principle was not applied fully and that application of the design principle itself needs to be improved. Therefore, the Framework has not been modified.

6.5.3 Language
Translation was identified as a problem for one stakeholder from the PSLP Project and one from the SSWT Project. These stakeholders remarked “the language, some of the translation was lost, it felt like what the translator was saying was different to what was presented and that made me confused” (P29G-OASSI) and “there was a bit of difficulty with the translation; I couldn’t understand all of what [E3 and E6] were saying” (S73C-OASSI).

In the PSLP Project evaluation interpretation was identified as a factor that impacted on the intervention’s success (§ 4.4.3.8). To address this limitation, in the SSWT Project care was taken to ensure that the English presentations were interpreted by someone who understood the subject matter (DP7.1). However, interpreters were not available at all times during the workshop to facilitate communication between the wetlands expert, researcher and stakeholders. There were no other complaints from stakeholders about interpretation provided during the SSWT Project. However, these comments further highlight the importance of accurate interpretation.

6.5.4 Sustainability
PSLP and SSWT stakeholders identified areas of improvement that related to the sustainability of the interventions. The suggestions related to two areas: 1) audience for the interventions; and, 2) follow-up activities.

A small number of stakeholders from both interventions thought the interventions could be improved if “more people [were] invited to participate” (PS21G-OASSI), “that the technology is very useful, we should invite more people a long to learn about it” (S70G-OASSI) and that “it is hard to change people’s behaviour, there needs to be more people doing the program” (PS21G-OASSI). Several participants also felt that the interventions should involve a wider audience including the general public and policy makers:
“For the general public, not just people in the environmental field, the reason is that there needs to be broader environmental awareness” (PS43N-OASSI).

“If the policy makers knew about it, it would be easy for people at the bottom to implement. It would be better if policy/decision makers went to the program. They usually focus on high tech solutions that are expensive and there are problems with operations and maintenance” (S69GC-OASSI).

“Maybe if it is possible, not government only, but people from society so you get out to more people. You can’t always use that model [targeting government/decision makers]. After that level it stops. They don’t have any capacity. What you get from this level is bureaucracy and red tape” (P25G-OASSI).

A stakeholder also reiterated comments made at the end of the SSWT Project that property developers need to be made aware of wetlands in order for them to be implemented “it needs to be made more of the norm for Real Estate Indonesia” (PS8A-OASSI). This stakeholder suggested that the intervention may have been improved if property developers were also included in the target group.

The Framework specifies: 1) that stakeholders are selected on the basis that they are motivated and able to facilitate learning and change after the activity (DP3.1); and, 2) that key people in the community are engaged in the activities (IG2). The SSWT stakeholders selected according to this design principle have demonstrated that they are motivated and able to take action. However, the stakeholders’ comments highlight the importance of taking into consideration the scope for lasting change and widespread dissemination by involving a greater number of stakeholders as well as involving decision makers who are in a position to implement widespread change. No changes have been made to the Framework.

The stakeholders also thought that the interventions could be improved if the activities were “more regular… the PSLP was only a one time, one thing; it would be helpful if there was another one” (P29G-OASSI). A stakeholder who attended both the PSLP and SSWT Projects
suggested that stakeholders should “meet regularly, at least once a year, to promote the cooperation between Merdeka University and Murdoch University” (PS43N-OASSI).

The SSWT stakeholders also expressed a desire for activities to be ongoing. These stakeholders wanted to: 1) see the “the wetland afterwards” (PS8A-OASSI); 2) for the stakeholders “to meet again and go back and visit the wetland” (PS21G-OASSI); 3) “talk about what to do next”, “to exchange information and talk to different participants and know what they have been doing and the best way to do it so that people will understand” and “to learn from them [the stakeholders]” (S68C-OASSI); and, 4) “see the result” (PS43N-OASSI) and “know the results. I want to know the data. What is the water quality of the wetland effluent? If you know about the results then you can explain it to others because it is proof” (S69GC-OASSI).

The comments made by stakeholders reiterated earlier comments that there was an expectation that the SSWT team leader would coordinate ongoing activities, such as a network (§ 6.3.2.2). To address this limitation an additional design principle was added to the final Framework.

During the expert review additional design principles to facilitate network effectiveness were also identified and added to the Framework.

**6.5.5 Summary**

The outcomes assessment identified few improvements to the Framework. Instead, it confirmed the findings presented in Chapters Four and Five and also validated the design principles.

- The PSLP stakeholders confirmed the findings from Chapter Four, that a core limitation of the PSLP Project which was that it did not provide stakeholders with an opportunity to practice which affected learning and sustainable outcomes. The Framework addressed this limitation.

- The SSWT stakeholders restated the need to integrate the skills that they learn into real-world activities (the fourth distinct phase of learning (Merrill 2002)). This supports application of DP5.1 and the finding that when time and resources are available to include all four phases of learning in the intervention.
• It assessment findings indicated that establishing a mechanism for networking alone does not facilitate sustained interaction. There was an expectation from PSLP and SSWT stakeholders that the networks established during these interventions would be coordinated. Based on this finding and the literature regarding network effectiveness a new design principle (DP8.4) was added to the final Framework (§ 7.4).

• The SSWT stakeholders reiterated their suggestions that the SSWT Project could have been improved if there was wider subject coverage and a more diverse audience. However, as outlined in Chapter Five these suggestions are not easily addressed by the Framework and depend on the available resources.

6.6. Summary and discussion

The outcomes assessment sought to determine whether the outcomes of the SSWT Project which was delivered based on application of the Framework had improved outcomes compared with the PSLP Project (RQ3.1). The outcomes were compared in relation to the capacity developed through involvement in these interventions (RQ3.1a) and actions and intentions of stakeholders as a result of their involvement in the interventions (RQ3.1b). Through the assessment process it was found that the outcomes of the SSWT Project were improved compared with the PSLP Project. Compared with the PSLP stakeholders, the SSWT stakeholders:

• Demonstrated through their actions and intentions their ability to facilitate learning and change in sanitation (§ 6.3.1)

• Indicated that they had the knowledge, skills and motivation to take action (§ 6.3.2)

These outcomes are discussed further here in relation to the Framework:

• The Framework addressed a core limitation of the PSLP Project which was that the project did not respond to the identified need for awareness raising to improve the problems with sanitation in Indonesia. To SSWT Project was designed based on stakeholders’ needs (DP4.1) and focused on developing stakeholders’ capacity to raise awareness (IG3). The SSWT stakeholders have subsequently successfully engaged in awareness raising and widely disseminated what they learnt from the project.
• The SSWT stakeholders were carefully selected for improved outcomes. They were selected on the basis that they had the ability to facilitate learning and change after the intervention (DP3.1). The government officials from the SSWT were also carefully selected based on their motivation not position (DP3.4). The actions and intentions of the SSWT stakeholders were improved. Compared with the PSLP government officials, the SSWT government stakeholders had engaged in a range of activities and had well-established plans for constructing wetlands and conducting plant trials. All SSWT stakeholders had engaged in activities of some kind as a result of their involvement in the intervention.

• The SSWT Project addressed the pedagogical limitations of the PSLP Project; the program was based on adult learning principles (DP5.1) and in particular provided an opportunity for stakeholders to practice what they had learnt. In doing so the SSWT Project facilitated learning. The SSWT stakeholders had the knowledge, skills and resources to take action.

• The SSWT Project motivated and empowered stakeholders. A number of design principles contributed to this outcome:
  - Designing the intervention based on adult learning theory (DP5.1)
  - Delivering an intervention that fostered relationship building (DP8.3)
  - Develop learning resources and materials in conjunction with stakeholders as part of the program (DP6.3)
  - Delivery of the workshop in an environment conducive for learning (DP5.4)
  - Provision of opportunities for stakeholders to socialise (DP5.5)
  - Presence of media groups throughout the intervention (IG8)

While the Framework addressed many of the limitations of the PSLP Project and the outcomes of the SSWT Project were improved it is important to consider other factors that may have contributed to these outcomes. As Roche (2001 p.363) notes, "development and change are not ever solely the product of a managed process" such as a capacity development intervention. The Framework in some respects recognises this fact and aims to build on existing capacities.
and capitalise on contextual factors that will facilitate successful outcomes. For example, the Framework recommends that stakeholders are selected on the basis that they are motivated and able to take action (DP3.1).

It was also found that not all the factors impacting on the outcomes of a capacity development intervention can be addressed by the Framework. While the application of the Framework in the SSWT Project improved outcomes, this improvement is to some extent dependent on the available time, resources and ongoing support (§ 6.4.2.1).

6.7. Conclusions
The outcomes of the PSLP and SSWT Projects were assessed in this Chapter. The outcomes were assessed in relation to the outcomes and actions of stakeholders as a result of their involvement in the projects and the capacity developed through the projects. The outcomes assessment supported the finding from Chapter Five that the outcomes associated with the SSWT Project were improved compared with the PSLP Project (RQ3.1). The SSWT Project met the needs of the stakeholders, developed their capacity to facilitate learning (RQ3.1a), and facilitated ongoing action in the area of sanitation (RQ3.1b).

In Chapters Five and Six the Framework has been evaluated in the context in which it has been used. In order to validate the Framework for use in other contexts the Framework is evaluated by way of expert review in Chapter Seven.
Chapter 7. Expert Review

7.1. Introduction

The fourth and final stage of the research comprised of an expert review. Edelson (2002 p.116) explains that in design-based research “to be useful, lessons from design must apply beyond the specific context in which they were learned, and they must serve an audience beyond the designers themselves”. This research has shown that the Framework for Capacity Development improved the design, implementation and outcomes of the SSWT Project. However, this intervention was carried out in the same context as the PSLP Project and with the same practitioners (designers). An expert review was conducted to assess the utility of the Framework in other contexts and for other audiences. As outlined in Chapter Three the expert review was central to addressing threats to the pragmatic and external validity of the Framework (§ 3.8).

The review process sought to:

1. Obtain feedback on the design principles including suggestions for improvement.
3. Expand the Framework for Capacity Development by developing a heuristic for the impact and ease of applying specific design principles.

The review process and findings are presented in this Chapter. Finally, the revised and final Framework is presented in Section 7.4.

7.2. Overview of stage four of the research

The review process was guided by the aims described above and corresponding research questions for the fourth stage of the research:

RQ4.1 What is the utility of the Framework in terms of improving the design, implementation and outcomes of capacity development interventions?

RQ4.2 How can the Framework be refined and improved?
7.2.1. Research participants

Eleven people participated in the review. The reviewers were identified from the researcher’s existing network of colleagues and from recommendations from colleagues or other reviewers. The reviewers were selected on the basis that they had experience in the development industry, had engaged in capacity development and/or had knowledge of capacity development. An additional aim was to ensure that the group included individuals with experience in different sectors e.g., NGO, multilateral and bilateral international development/aid agencies. Individuals with experience in Indonesia and water and sanitation were also selected. The characteristics of the reviewers are summarised in Table 7.1

The group of reviewers included six individuals with experience in the NGO sector (e.g., Australian Volunteers International, Oxfam and World Vision). There were four reviewers with bilateral (e.g., AusAID) and or multilateral agency (e.g., UNDP and World Bank) experience, including one who had also worked at an NGO level. One reviewer was also a team member in the PSLP and SSWT Projects. This team member had implemented the SSWT Project using the Framework and including him in the review provided an opportunity to obtain feedback on the utility of the Framework compared with other experiences. In addition to their development industry experience, the group had a number of other roles (e.g., academic, engineer, researcher) and an array of specific expertise including management, psychology, education, project evaluation, sustainability, gender, politics and human resource management. Five reviewers had experience in Indonesia and three had specific expertise in sanitation. The reviewers included four females and seven males. The codes R1 to R11 are used as identifiers throughout the remainder of the Chapter. For clarity E3 is coded R7.
<table>
<thead>
<tr>
<th>Code</th>
<th>Gender</th>
<th>Sector</th>
<th>Roles</th>
<th>Expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>F</td>
<td>NGO</td>
<td>Australian Volunteers International</td>
<td>Water, health and sanitation, Indonesia</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Management, Psychology, Chemical Engineering</td>
</tr>
<tr>
<td>R2</td>
<td>F</td>
<td>NGO</td>
<td>Australian Volunteers International</td>
<td>Education, Curriculum development</td>
</tr>
<tr>
<td>R4</td>
<td>M</td>
<td>NGO and bilateral</td>
<td>Consultant, Academic</td>
<td>Project evaluation, Indonesia</td>
</tr>
<tr>
<td>R5</td>
<td>M</td>
<td>NGO and multilateral</td>
<td>Australian Volunteer International, United Nations Volunteer, Academic</td>
<td>Environment, Sustainability, Aid and development, Volunteering, Capacity development</td>
</tr>
<tr>
<td>R6</td>
<td>F</td>
<td>NGO</td>
<td>Academic, Policy advisor – Oxfam</td>
<td>Gender and development</td>
</tr>
<tr>
<td>R7/E3</td>
<td>M</td>
<td>Academic</td>
<td>Academic, Engineer, PSLP/SSWT team member</td>
<td>Water and sanitation</td>
</tr>
<tr>
<td>R8</td>
<td>M</td>
<td>Bilateral</td>
<td>Consultant – AusAID, Researcher</td>
<td>Human resource management, Indonesia, Interpretation and translation</td>
</tr>
<tr>
<td>R10</td>
<td>F</td>
<td>Multilateral</td>
<td>Program manager – World Bank</td>
<td>Water and sanitation, Indonesia</td>
</tr>
<tr>
<td>R11</td>
<td>M</td>
<td>Bilateral</td>
<td>Civil servant, PSLP manager – AusAID</td>
<td>Aid and development, Indonesia</td>
</tr>
</tbody>
</table>
7.2.2. Review process

The reviewers were provided with the revised Framework (Table 5.5) and a description of the research and review process. The reviewers then took part in the following:

1. **Questionnaire**: the reviewers completed a questionnaire designed to obtain their feedback on the ease and impact of applying the design principles. The results were used to develop a heuristic of the utility of specific design principles.

2. **Semi-structured interview**: the reviewers were interviewed after they had completed the questionnaire. The reviewers were asked to comment on the design principles and provide expert opinion on the Framework as a tool for improving capacity development. The reviewers were also asked to make suggestions for improving the Framework.

These steps are described in more detail in the following sections. The expert review methodology was described in Chapter Three (§ 3.4.4).

The review process focused on the generic design principles. The Indonesian guidelines were not included in the review, because they are culturally specific. Although several reviewers had Indonesian experience, the researcher did not have adequate prior knowledge of these reviewers to establish whether they could appropriately review this component of the Framework.

7.2.2.1. Part I: Design principle analysis

At the end of the SSWT Project the researcher reflected that it may not always be practicable or necessary to apply all the design principles in the Framework for improved outcomes (§ 5.7). To increase the utility of the Framework stage four of the research sought to develop a heuristic that could provide users of the Framework with a basis for prioritising application of the design principles. The heuristic would take into consideration both the impact and ease of applying the design principles to identify where the greatest improvements to capacity development interventions could be made.
Drawing from the literature on risk management the heuristic was based on qualitative analysis of risk. Qualitative risk analysis uses words or descriptive scales to describe two dimensions of risk (AS/NZS 4360 1999 p.14):

1. **Consequence**: the magnitude of potential consequences
2. **Likelihood**: the likelihood that those consequences will occur

The risks are then prioritised by combining these dimensions in a risk analysis matrix to determine whether the level of risk will be low (L), moderate (M), high (H) or extreme (E) (see Table 7.2).

### Table 7.2 Qualitative risk analysis matrix
From AS/NZS 4360 (2004)

<table>
<thead>
<tr>
<th>Likelihood</th>
<th>Insignificant</th>
<th>Minor</th>
<th>Moderate</th>
<th>Major</th>
<th>Catastrophic</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (almost certain)</td>
<td>H</td>
<td>H</td>
<td>E</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>B (likely)</td>
<td>M</td>
<td>H</td>
<td>H</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>C (moderate)</td>
<td>L</td>
<td>M</td>
<td>H</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>D (unlikely)</td>
<td>L</td>
<td>L</td>
<td>M</td>
<td>H</td>
<td>E</td>
</tr>
<tr>
<td>E (rare)</td>
<td>L</td>
<td>L</td>
<td>M</td>
<td>H</td>
<td>H</td>
</tr>
</tbody>
</table>

Key for level of risk: Low (L) Moderate (M) High (H) Extreme (E)

For the heuristic a modified matrix was developed for analysing the utility of each design principle in terms of improving capacity development practice (Table 7.3). The matrix takes into consideration two dimensions:

1. **Impact**: the impact that applying the design principle has on improving the practice and outcomes of a capacity development intervention
2. **Ease**: how easy it is to apply the design principle when implementing a capacity development intervention
These dimensions are combined using the qualitative risk analysis technique to determine whether a design principle has a very low (VL), low (L), moderate (M), high (H) or extreme (E) utility. The corresponding numbers can be used to calculate the mean utility (see Box 7a below).

Table 7.3 Utility analysis matrix

<table>
<thead>
<tr>
<th>Ease of application</th>
<th>Impact</th>
<th>Minor 1</th>
<th>Moderate 2</th>
<th>High 3</th>
<th>Major 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (extremely difficult)</td>
<td>VL (2)</td>
<td>VL (3)</td>
<td>L (4)</td>
<td>M (5)</td>
<td></td>
</tr>
<tr>
<td>2 (difficult)</td>
<td>VL (3)</td>
<td>L (4)</td>
<td>M (5)</td>
<td>H (6)</td>
<td></td>
</tr>
<tr>
<td>3 (moderately easy)</td>
<td>L (4)</td>
<td>M (5)</td>
<td>H (6)</td>
<td>E (7)</td>
<td></td>
</tr>
</tbody>
</table>

Key for utility: Very Low (VL) Low (L) Moderate (M) High (H) Extreme (E)

The matrix has been modified to include four categories instead of five for each dimension. According to the Australian and New Zealand Standard (AS/NZS 4360 1999 p.34) the number of categories should reflect the “needs and nature of the activity under study”. The researcher also considered that in the context of capacity development it would be difficult to distinguish between more than four levels of impact and ease.

The descriptors developed for each of the categories are presented in Tables 7.4 and 7.5. As discussed by Edwards and Bowen (2005 p.118) the descriptors are “important for meaningful interpretation and congruent understanding”.

Table 7.4 Qualitative measures of impact

<table>
<thead>
<tr>
<th>Level</th>
<th>Descriptor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Minor</td>
<td>Little improvement in capacity development process/outcomes</td>
</tr>
<tr>
<td>2</td>
<td>Moderate</td>
<td>Some improvements in capacity development process/outcomes</td>
</tr>
<tr>
<td>3</td>
<td>High</td>
<td>Many improvements in capacity development process/outcomes</td>
</tr>
<tr>
<td>4</td>
<td>Major</td>
<td>Substantive improvements in capacity development process/outcomes</td>
</tr>
</tbody>
</table>
Table 7.5 Qualitative measures of ease of application

<table>
<thead>
<tr>
<th>Level</th>
<th>Descriptor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Extremely difficult</td>
<td>Major effort required to apply the design principle</td>
</tr>
<tr>
<td>2</td>
<td>Difficult</td>
<td>Substantive effort required to apply the design principle</td>
</tr>
<tr>
<td>3</td>
<td>Moderately easy</td>
<td>Some effort required to apply the design principle</td>
</tr>
<tr>
<td>4</td>
<td>Very easy</td>
<td>Little or no effort required to apply the design principle</td>
</tr>
</tbody>
</table>

To complete the questionnaire and develop the heuristic:

1. The reviewers were provided with instructions for completing the analysis and a copy of the preliminary Framework for Capacity Development (Appendix O).
2. Based on their own experience of capacity development the reviewers were asked to assign rankings of one to four to each design principle for impact and ease using the qualitative descriptors provided.
3. The reviewers returned the completed questionnaire to the researcher prior to the interviews.

The final step of combining these dimensions to determine the utility of each design principle (Table 7.3) was completed by the researcher. Mean utility values are calculated for the design principles (refer to Box 7a § 7.3.2). It is important to note that in order to calculate this mean the scale for ease that was provided to the reviewers has been inverted. The data is presented using an inverted scale in this chapter. The results of part one of the review are presented in conjunction with the findings from the interviews and discussed in Section 7.3.1.3.

7.2.2.2 Part II: Interview

The reviewers were interviewed in the second part of the review. The interviews were carried out by the researcher by telephone or face-to-face, depending on the location of the reviewer. The interviews were semi-structured and utilised an interview guide that included nine questions (Table 7.6).
Table 7.6  Design principle analysis: interview schedule

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<thead>
<tr>
<th>No.</th>
<th>Question</th>
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<tbody>
<tr>
<td>1</td>
<td>How do you define Capacity Development?</td>
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<tr>
<td>2</td>
<td>What kinds of Capacity Development activities have you been involved in?</td>
</tr>
<tr>
<td>3</td>
<td>What are the approaches that you’ve used?</td>
</tr>
<tr>
<td>4</td>
<td>What has your role been?</td>
</tr>
<tr>
<td>5</td>
<td>What has your experience been? Positive/Negative?</td>
</tr>
<tr>
<td>6</td>
<td>Discussion about the Framework based on reviewers comments/rankings</td>
</tr>
<tr>
<td>7</td>
<td>What is your opinion of the Framework?</td>
</tr>
<tr>
<td>8</td>
<td>Many of the principles are widely known even so my experience/observation is that many things aren’t implemented, why do you think that is?</td>
</tr>
<tr>
<td>9</td>
<td>From your experience what else would you include in the Framework?</td>
</tr>
</tbody>
</table>

These questions were designed to establish: the reviewer’s understanding of capacity development and their experience in the development industry as the basis for understanding their opinions and responses to the Framework; the reviewers’ feedback on specific design principles depending on the rankings that they had provided for impact and ease and/or according to their interest; and, their overall opinion of the Framework including what else could be added to the Framework. Question eight was included in the Framework to ascertain reviewer’s opinion regarding the barriers to changing practice, however due to time constraints this question was not included in the majority of the interviews.

7.3. Review findings

The review findings are presented in three parts:

1. Improvements to the Framework
2. Utility of the design principles
3. Overall utility of the Framework

The reviewers’ development experience is available on the raw data CD (ERQSSI-Appendix A).

7.3.1. Improvements to the Framework

The reviewers provided a range of suggestions regarding ways to improve the Framework. This included: general comments regarding ways to improve the Framework; additions to the Framework; feedback on individual design principles; and, ratings for impact and ease that combined with the comments provided the basis for revising and refining the design principles.
The suggested improvements and revisions to the Framework are presented here in each of these areas. The feedback and suggestions made by reviewers are incorporated in the final version of the Framework for Capacity Development in Section 7.4.

7.3.1.1. General comments

The reviewers made a number of general comments about improving the Framework relating to the language used, format and presentation of the Framework:

- There were suggestions that the language used in the Framework “needs greater clarity” (R6), that it was not consistent and “there were no definitions” (R10).
- There were concerns that it was difficult “capturing the depth of what you want without being too complicated” (R5). The same reviewer suggested the use of symbols “that provided a mental picture of each of your eight things [Framework components] that just captured a sense of it and had some of the nuances” (R5).
- It was suggested that the Framework be modified to include “some clear statements for each of the [eight] key areas and then have the design principles sit behind it… I was put off at first by the amount of text and levels” (R4).
- One reviewer commented that a “[thesis] is just an academic piece of research, you need to think about how you can turn it into something that can be more widely used… it needs to be more sexy” (R1).

Throughout the review process the researcher also reflected that the Framework could be improved by including an introductory note to the Framework that described the target audience for the Framework and how it could be used.

The Framework has been revised to include the following:

- An introductory note for the Framework
- Revised headings for each of the eight sections
- Consistent terminology, and definitions where necessary
The Framework has not been altered to make it something that “can be more widely used” (R1), nor have symbols been added to each of the eight sections. The suggestion that the Framework be further developed so that it can be more widely used is included in the section on recommendations for future work (§ 8.4).

7.3.1.2. Additions to the Framework

While a number of reviewers commented that the Framework “covered a lot of the issues” (R10), that “it is a reasonably comprehensive list” (R3) and that it “covered all the bases” (R11), others made specific suggestions regarding design principles that could be added, such as:

“1.0 define capacity building, develop an agreed upon definition” (R1).

“Tempted to add, discuss cross-project information sharing” (R8).

Based on experience with the PSLP and SSWT Projects as well as understanding of the ambiguous nature of capacity development the researcher reflected that defining capacity development was important. The researcher also reflected on the potential benefits of cross-project information sharing which is linked to building on existing capacity. In phase two of the PSLP Project stakeholders presented information about two local projects that were ongoing: 1) the water supply for low income communities (WSLIC) project funded by the World Bank; and, 2) networking for water quality monitoring project implemented by a local NGO. In addition, at the same time the PSLP and SSWT Projects were being carried out, USAID was engaged in a five year program in East Java (including Malang) on water and sanitation. There could have been considerable benefits from working with or sharing information with these groups. Two new design principles have been added to the Framework:

- Define capacity development for the purposes of the intervention
- Identify any existing interventions (in the sector/local context) that might be complementary or provide opportunities for cross-intervention learning
In addition, several of the reviewers raised the subject of incorporating in the Framework something that captured the understanding that capacity development involves two way learning, power dynamics and respect and empathy for each other:

“Something that requires the great white experts to identify the lacks in their knowledge, how they are going to remedy it so that they see themselves as learners in the process, so that there is specific encouragement to do that” (R2).

“Something about power and not exploiting it” (R7).

“The other thing about capacity development [it is] fundamental that it is two-way learning. For me, a fundamental part has to be learning and change on both sides, pretty much impossible to do capacity development if there isn’t learning and change on both sides” (R5).

“Respect for participants, respect for indigenous knowledge, learning at the same time as the other people, co-learning…see[ing] the recipient as [having] something to offer you then respect comes naturally” (R1).

“I think people have a big problem with empathy, what I would be trying to do is empathise with the other person’s position and where they are coming from. Doing programs where you get people to try and empathise, recognise that we could see that picture two different ways” (R8).

“It’s not about Australians not knowing better, it is about intercultural exchange the outsiders bring a perspective that the insiders don’t have. There is a role for people to go to each others places… the outsider and insider build a relationship. The insider becomes a bit of a misfit and the outsider becomes less of a misfit. It is a symbiotic relationship that enables new possibilities to open up. The outsider couldn’t say those things before, the insider couldn’t become the change agent without some kind of input from the outsider” (R4).

The reviewers’ comments reflect the core principles of capacity development based on the alternative paradigm. Given these comments the core principles of capacity developed as characterised in Chapter Two (e.g., endogenous, reciprocal, respectful, considered and
sustainable) are included in the Framework as overarching concepts. A new design principle (DP1.2) in the final Framework also recommends that stakeholders discuss these.

Many of the stakeholders’ comments also reiterated the recursive nature of the capacity development process (§ 1.3.2). To account for this the Framework has been revised to use terminology that recognises that the design principles may be appropriate at different levels (e.g., intervention and activity) and for both primary and intermediary stakeholders.

7.3.1.3. Revising and refining design principles

In this section, the results of the design principle analysis provide a focal point for discussion about the impact and ease of applying the design principles. At the same time the reviewers’ comments about the appropriateness of each design principle are discussed and the revisions made to the design principles based on reviewers’ feedback are described.

For each design principle, the results of the design principle analysis are presented in a utility matrix (Table 7.3). The numbers presented in the matrix represent the number of reviewers that provided that ranking. Shading is used to illustrate whether reviewers’ responses were similar or dissimilar. It is important to note that not all reviewers provided rankings for every design principle. Reviewers also occasionally split their response between two rankings. These latter responses are incomplete and are not included in this analysis. The reader may wish to refresh his/her recall of the meanings of the utility codes from page 266.

Team member selection

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<td>2 (Moderate)</td>
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Design principle 1.1 was included in the Framework to emphasise that personalities can impact on the success of a capacity development intervention and that this should be considered when
selecting team members. There was a high degree of agreement among reviewers. This design principle was seen as having a major impact, but it is relatively difficult to implement. The reviewers commented that “personalities are just so important” (R11), “personalities [and] relationships are far more important than other items that you’ve got there” (R8) and “when you see good capacity development, personality is right there on both sides” (R5). The reviewers also reflected that taking into consideration personality is “difficult to do” (R8). Reviewers commented that “selection is often out of our control” (R4) and it also depends on “numbers, locations, [the] group of people you have to select from and timing” (R2), but if you “can take into account personality as part of the selection process, this a good point to put in there” (R11).

The reviewers made few suggestions for revising DP1.1. One reviewer felt that there are “two different concepts in the one criterion [personality and skills] so better to split them” (R2). Taking into consideration the reviewers’ comments DP1.1 has been split into two design principles:

- Select team members who have the personalities and interpersonal skills to be culturally sensitive and to develop working relationships based on mutual understanding and trust.
- Select team members with the requisite skills, including pedagogical expertise to deliver the intervention effectively.

The first of these design principles also makes reference to the importance of team members’ having the interpersonal skills to be culturally sensitive. This is based on feedback provided by reviewers in relation to DP2.5.

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<th>DP 1.2 Where possible work with individuals with whom there is an existing relationship</th>
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<td>Ease of application</td>
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The recommendation that team members be selected on the basis of existing relationships was included in the Framework to provide people working on short-term projects with a basis for trust and a shortcut to achieving the potential benefits that relationships can have on capacity development processes and outcomes. The reviewers provided diverse responses regarding
the impact and ease of applying this design principle. The majority of reviewers indicated that it would have a moderate impact, but there was no agreement about the ease of applying this design principle. According to the reviewers, DP1.2 ignored the negative aspects of working with people that you know. The reviewers recognised that relationships “can be beneficial” (R6) and that “they are important” (R8). One reviewer who felt that relationships could have a major impact commented that there are examples where aid “worked best” when it “built on existing relationships” (R5). At the same time reviewers highlighted some of the negative aspects of putting together a team based on existing relationships:

There are “nuances… it depends on the nature of existing relationships, they might be paternalistic and dependent or they may be genuine” (R5).

Working with the same people “can cause too much group think” (R1) and “set thinking” (R6), sometimes you want the “fresh blood” (R8).

“It can block other stakeholders from getting involved” (R9).

The researcher reflected that during the SSWT Project there were considerable benefits to working with people based on a prior relationship. While these benefits were potentially contingent on applying other design principles i.e., relating to personalities (DP1.1) and cross-cultural competence (DP2.4), applying this design principle, in particular for a short-term intervention may be advantageous. The reviewers made no specific recommendations for revising DP1.2. However, to take into account their comments regarding the potentially negative aspects of working with people with whom there is an existing relationship this design principle has been revised:

- For short-term interventions consider working with individuals with whom there is an existing relationship
**Intervention management and planning**

**DP 2.1** Facilitate ownership, commitment and motivation to the intervention by involving team members in all stages of the design, planning, implementation and management of the intervention and providing in-country team members with appropriate and agreed upon incentives

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<th>Ease of application</th>
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<th>3 (High)</th>
<th>4 (Major)</th>
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<td>1 (extremely difficult)</td>
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<td>L:2</td>
<td>M:4</td>
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Eight out of the nine reviewers indicated that applying this design principle would have a high or major impact, but six of these also thought that it was extremely difficult to achieve. Other reviewers thought that applying this design principle was moderately easy or difficult to do.

Reviewers commented that including project members in all aspects of project planning and management “is nice in theory” (R1), but that it is often “not possible” (R11) and as a result “ownership will vary across team members” (R1).

The reviewers also made comments that highlight the donor constraints to facilitating local ownership. They remarked that “clients provide briefs that are already finalised” (R1) and “the design can be done by people that have nothing to do with the implementation process” (R11).

This illustrates that while the rhetoric in the development industry recognises that capacity development is an “endogenous process” (Proksch and Kampffmeyer 2007 p.25) the conventional development paradigm and result-based management approach that the industry subscribes to makes it difficult to ensure that an intervention is based on local agendas.

Two reviewers also identified some of the practical difficulties associated with applying this design principle, commenting that “the short-term nature of the consultancy means that staff may not be involved for the duration of the project” (R8) and that “different team members arrive at various times in the process” (R1).

Several reviewers also thought that DP2.1 included “two different concepts” (R1) and that it could be “separated into two parts” (R2): 1) involvement in all aspects of project planning and management which relates to facilitating ownership and intrinsic motivation; and, 2) fair payment and the provision of incentives which relates to extrinsic motivation.
To incorporate the reviewers' comments three new design principles replace DP2.1:

- Facilitate stakeholders' ownership over the capacity development process by enabling and encouraging them to engage and provide input into the design, planning, implementation and management of the intervention
- Develop a method of inducting any new team member and fostering ownership throughout the intervention
- Provide in-country team members with appropriate, equitable and agreed upon payments or incentives that are established at the outset of the intervention

**DP 2.2 Take steps to secure an appropriate level of institutional support**

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<th>Ease of application</th>
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<td>3 (moderately easy)</td>
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The reviewers' indicated that applying this design principle was difficult, but that it can have a major impact on the intervention. No specific comments were made about taking steps to secure an appropriate level of institutional support. No change has been made to DP2.2.

**DP 2.3 Manage finances in an open and transparent manner**

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The reviewers had diverse views regarding whether the impact of applying DP2.3 would be minor, moderate, high or major. However, the majority indicated that it “shouldn't be hard” (R7) to implement. Those who thought it was very easy explained that it was not an issue in their work due to:

“Systems/protocols that can be shared with people” (R3).

“Financial controls” (R6).
“Capacity building to get the financial systems right” (R6).

“Accounts officer for medium or bigger projects” (R9).

During the PSLP Project the financial management was not transparent and this was problematic. Two reviewers who had lived and worked in Indonesia shared similar experiences. However, another reviewer who had experienced working in a corrupt environment commented that in those situations it was important to establish “rules at the outset” (R1). Another reviewer commented that in those circumstances it was important to “acknowledge local circumstances” and also felt that it was important to consider “equity in the project” (R8).

Depending on how the Framework is used, DP2.3 could provide team members with an opportunity to discuss what it means to manage finances in an open and transparent manner. In particular this could provide an opportunity to discuss local constraints to being open and transparent and how finances can be managed in a way that is acceptable to all the team members. DP2.3 has not been modified, but the word equitable has been included in DP2.1 which deals with in-country team members’ payments and incentives, and an additional design principle has been added to the Framework to reflect what already seems to be accepted practice:

- Develop a system for managing finances at the outset of the intervention

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<th>DP 2.4 Develop the capacity of all team members to be culturally competent</th>
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The majority of reviewers indicated that developing the capacity of team members to be culturally competent could have high or major impact on the capacity development process and many of the reviewers also thought that this would be moderately easy to achieve. However, one reviewer who thought it would be more difficult remarked:
…some people are culturally sensitive or have personality traits which enable them
to become/be culturally sensitive… it is not something if you are planning a project
that you can do to change people’s intrinsic capability… intrinsic personality traits
need to be there to start with. (R3)

The same reviewer also reflected that his own organisation met yearly for a “review and
learning” and that last time this included a day on culture during which he had an opportunity to
“see how big the gaps are [between different cultures], you sort of know it, but you don’t
appreciate that”. This suggested that while it may be difficult to develop cultural competency,
team members and particularly those who are culturally sensitive might still benefit from efforts
to develop cultural competency and learning about cultural differences.

One reviewer felt strongly that the issues were not “confined to culture, in fact it really annoys
me when there is so much focus on cultural differences” (R6). According to this reviewer “there
are a whole lot of other things in the mix” including politics, class divisions and history, and that
without this knowledge “a whole lot is being missed”. This reviewer drew a distinction between
understanding cultural differences (i.e., the behaviour, beliefs, norms and values that provide
the basis for how people act (Trompenaars 1993)) and local contextual factors, and, the
importance of understanding both. This reviewer also raised concerns that in the development
industry “if you can list a long list of the countries [on your CV] that’s better” people may gain
“valuable insights from learning about different countries, but they don’t have the knowledge of
some of the political issues, the history” (R6). Related to this, another reviewer commented that
there was often a false assumption “that if you can [speak the local language or have worked in
the country] somehow you are culturally competent” (R8).

To accommodate the points raised by the reviewers the importance of interpersonal skills
required to be culturally sensitive has been added to DP1.1. In addition, DP2.4 has been
replaced with two new principles that emphasise the importance of learning about the local
context as well as cultural differences. The second of these design principles is intended to
reflect the importance of external and in-country team members learning about cultural
differences. The new design principles are:
• Develop team members’ understanding of the local context and how this might impact on the capacity development process and intervention
• Develop team members’ understanding of cultural differences, in particular those that might impact on the team’s working relationship and the delivery of the intervention

### DP 2.5 Incorporate professional development activities that foster team building and appropriate management practices

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The reviewers’ rankings indicated that this design principle would have a high or major impact on a capacity development intervention and that this was relatively easy to do. One reviewer felt that ‘professional development’ has a “particular connotation” and that it might be more appropriate to just use “activities” (R2). The phrase ‘professional development’ has been omitted from DP2.5.

### DP 2.6 Encourage team members to work collaboratively and be reflective

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The reviewers expressed agreement that encouraging team members to work collaboratively and be reflective would have a positive impact on the process of developing capacity, but that it was difficult to do. Reviewers’ comments that “people are focused on tasks/timelines, many people aren’t reflective by nature” (R1) and “you are dealing with personalities, people with very different backgrounds. Could work well, could be a clash of heads” (R8). This finding was consistent with the literature as discussed below.

As outlined in Chapter Two people often lack the skills, space and time to be reflective (Pasteur and Scott-Villiers 2006). However, the inability of practitioners to reflect is thought to contribute to continued thinking based on the conventional development paradigm, a persistence of flawed approaches and an inability to learn from experience and improve practice (Cassen and...
Although DP2.6 maybe difficult to apply, reflective practice is important for improving practice. It is also important for delivering interventions based on adult learning theory as this is based on a reflective process. Pasteur (2006) suggests that for reflective practice to become commonplace, time needs to be allocated to being reflective and people need to develop the skills to be reflective. Pasteur (2006) also highlights the importance of relationships and trust. Consistent with the literature on effective teamwork, trust enables people to take risks in offering feedback and expose uncertainty (Lencioni 2005; Pasteur 2006). Given the potential benefits of collaborative and reflective practice no change has been made to DP2.6.

**Stakeholder selection and engagement**

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There was a strong consensus from the reviewers that selecting stakeholders with the motivation and ability to facilitate learning and change after completion of the activity would have a major impact. As remarked by one reviewer it is “crucially important… [if] the wrong people [are involved], the whole investment fails” (R11). However, the reviewers had diverse opinions regarding the ease of applying DP3.1. The selection of stakeholders based on this design principle was thought to be “contextually dependent” and one reviewer cited examples where selecting for motivation could be problematic, for example:

- When the motivated participant was “not well regarded by the rest of the managers” which impacted negatively on their motivation (R3)
- When the manager wants the “good staff to stay and work with them” (R3)

In spite of the potential difficulties associated with applying DP3.1, based on the experience of the SSWT Project and according to expert opinion if this can be achieved it can have a major impact on the intervention. No change has been made to DP3.1.
**DP 3.2 Establish a culturally appropriate method of stakeholder engagement**

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According to the majority of the reviewers, selecting stakeholders using a culturally appropriate method of engagement can have a high or major impact on the intervention. They also indicated that this ranged from moderately easy to difficult to do. There were no specific comments regarding this design principle. However, in light of comments that the Framework overemphasised culture and ignored other aspects of the local context (see DP2.4) DP3.2 has been revised so that ‘locally appropriate’ replaces ‘culturally appropriate’:

- Establish a locally appropriate method of engaging stakeholders

**Activity scope and objectives**

**DP 4.1 Develop the program of activities based on stakeholder need**

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From the alternative paradigm perspective, a core principle of capacity development is that it is an endogenous process based on locally driven agendas (Bolger 2000; Proksch and Kampffmeyer 2007). Consistent with this, the reviewers thought that developing the program of activities based on stakeholder need was important and that it could have a major impact on capacity development processes and outcomes. Reviewers provided diverse responses regarding the ease of applying this design principle, noting that how easy it was to apply could depend on whether the brief for an intervention was detailed or more open. It was commented that you “may be constrained, by the brief” (R1). Similar to DP2.1, these comments highlight the donor constraints to reintegrating the alternative paradigm into practice and is consistent with claims that donors often determine the needs (Lipson and Warren 2006). However, according to
another reviewer even when there is a brief that is “preset [it is] easy to walk outside the box and have a go at meeting the real needs” (R4).

One reviewer talked about the importance of institutional needs, in addition to stakeholders’ needs, commenting that “building individual capacity won’t work if they are tied up in [bureaucracy]” (R11). In the PSLP Project it was observed that the capacity of IEMT project members to facilitate learning and change after the intervention was limited by their institutional capacity, but as this related to institutional capacity it did not seem to fit in the context of the framework which specifically focuses on developing individual capacity (§ 1.3.3). No change has been made to DP4.1.

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**DP 4.2 Develop a program that builds on the existing capacities of the stakeholders**

One of the core principles of capacity development based on the alternative paradigm is that the process recognises and builds on the existing capacities of the local stakeholders (Eade 1997; Bolger 2000; Lopes and Theisohn 2003). The reviewers’ responses were in accord with this thinking indicating that applying DP4.2 could have a high or major impact. It was remarked by one reviewer “the program’s got to be pitched at the existing capacity…it is crucially important to start off from where the counterparts you are targeting are at” (R11). The application of DP4.2 was considered moderately easy to apply by most of the reviewers, although several indicated that it could be more difficult. Of those who thought it could be difficult one reviewer commented that in his experience it was something that he had to “keep hammering” (R11) suggesting that while it might be easy to do, it is not something that is always taken into consideration. Another reviewer commented that “you carry out a logframe you already have a fixed set of things you can do... not much flexibility to change” (R9). As outlined in Chapter Four the logframe approach is tied with the conventional paradigm. Alternative approaches to designing and managing interventions are required to facilitate capacity development practice based on the alternative paradigm (Chambers et. al, 2002; Eyben 2000 cited in Pasteur 2006). While there are challenges to applying this design principle, building on the existing capacity of local
stakeholders is a central premise of capacity development based on the alternative paradigm. No change has been made to DP4.2.

Appropriate pedagogy

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The majority of the reviewers indicated that they thought designing activities according to adult learning principles could have a high impact on the intervention and was moderately easy or very easy to do. Two reviewers felt it would only have a moderate impact. One of these reviewers, whose area of expertise is education, commented

*I think effective pedagogy is important, I really really believe in interactive participative learning centred constructivist education… [but] if you’ve got the right participant, they are going to learn because they want to learn… [people] have the capacity to learn in spite of the terrible teaching we might endure.* (R2)

This reviewer also raised another issue, that the impact might not be so great for people that have not had “experiences of education that are different to what we [they] are used to” (R2). This relates to the comment of another reviewer who remarked that “this may be culturally inappropriate unless [there is] compromise to fit tradition and adult learning principles” (R5).

Given that the majority of reviewers thought this design principle could have a major impact, and that this was consistent with the literature (World Bank 2008), as well as experience of the SSWT Project, no change has been made to this design principle. However, the reviewers’ comments raise the question whether adult learning theory is cross-culturally appropriate and if it is not whether there are implications for capacity development which is consistent with many adult learning principles. These questions could not be answered in the context of this research, but have been included in the recommendations for further work.
**DP 5.2 Ensure that the overall approach includes delivery methods that are locally and culturally appropriate**

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In general, ensuring that the overall approach includes delivery methods that are locally and culturally appropriate was thought to have a high or impact and that it was moderately easy to somewhat difficult to do. The reviewers did not make any specific comments about DP5.2 and this principle has not been revised.

**DP 5.3 Ensure the venue for the activity is an environment conducive for learning**

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The reviewers had a diverse range of opinions regarding the impact that an appropriate learning environment could have on an intervention. Overall, there was an indication that this would have a positive impact, but there was a fairly even split as to whether this would be moderate, high or major. The reviewers did not make any specific comments about the content of DP5.3 and there was no relationship between the rankings and the reviewers’ background or experience so it is not possible to ascertain the reason for this. There was general agreement that applying this design principle was easy to do.

The only comment made about DP5.3 suggested that there needed to be clarification about the “environment” referred to and whether this was the “workshop/training” environment or the “office environment” (R9). DP5.3 has been reworded:

- Ensure learning activities take place in environments that are conducive for learning
DP 5.4 Provide stakeholders with opportunities to socialise with each other

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The reviewers had diverse opinions about the impact and ease of providing stakeholders with opportunities to socialise with each. However, overall they agreed that it would have a worthwhile positive impact. There was one reviewer who highlighted the benefits of socialising, not only for primary stakeholders, but also for the team members remarking “how little time people get together as a team” (R8). A reviewer commented that in addition to socialising there could be benefits from “team work, leadership programs, physical activities, team building” (R8). The importance of team building for capacity development is highlighted in DP2.6. Design principle 5.4 has been modified slightly to acknowledge that socialising can be beneficial for ‘all’ stakeholders and repositioned in the Framework to emphasise this point.

- Provide all stakeholders with opportunities to socialise with each other

DP 5.5 Evaluate the learning activities and use the findings to inform the design of future activities

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The majority of reviewers agreed that using evaluation findings to inform the design of future activities could have a high or major impact. There was less agreement about how easy it was to apply this design principle, although in general it was considered relatively easy to do.

A reviewer with expertise in project evaluation talked about evaluating the intervention as a whole which highlighted the importance of not only evaluating specific activities but the entire intervention. This reviewer also commented on the challenging nature of evaluation especially in countries like Indonesia. He remarked that “you have to work at it really really hard, so that it becomes like a mantra. This is about you learning, not me judging” you also “need to prepare
people ahead" for the evaluation and take into consideration that for them it is often about
“getting the tick from donors, and that if you can add something to that you’ve done a good job” (R4).

Taking into consideration the importance of evaluation at the intervention and activity level, DP5.5 has been modified and a new design principle pertaining to evaluation is included in the Framework:

- Discuss and agree upon the importance of evaluation for monitoring and improving the entire intervention and develop an evaluation plan accordingly
- Evaluate the learning activities and use the findings to improve the activity and/or inform the design of future activities

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The reviewers thought that challenging assumptions about appropriate pedagogy would have a high or major impact on capacity development interventions, as noted by one reviewer “there’s a big danger in making things appropriate all the time maybe that is part of the problem” (R8). However, this was thought to be difficult to do and several reviewers raised concerns:

“Many people are not comfortable with reflection and just want to get on with it, citing deadlines and pressure of work” (R1).

“If you try to jump too far out of the box it falls apart, it becomes un-cultural” (R4).

“This can be seen as pushy” (R5).

“This can be culturally inappropriate” (R5).
According to these reviewers the design principle needed to incorporate some of the “nuance of how we do it [challenge assumptions]” with the suggestion that the “trick is to help them to be questioning their own frameworks and assumptions” (R4).

The reviewers’ comments are related to concern raised regarding difficulties encouraging people to be reflective (DP2.2). However, as described above reflective practice is increasingly being seen as important for improving practice. During the SSWT Project it was observed that there were benefits associated with challenging peoples’ assumptions about appropriate pedagogy (§ 5.6.4.4). To account for the reviewers’ concerns DP5.6 has been revised, the language has been modified to emphasise the importance of questioning or reflecting upon assumptions as opposed to challenging people which is inconsistent with the respectful and reciprocal nature of the alternative paradigm:

- Question assumptions about appropriate pedagogy to ensure that the intervention does more than replicate what people are familiar with

Learning resources and materials

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Instead of drawing entirely on generic resources, as was the case in the PSLP Project, DP 6.1 emphasises the importance of making use of local learning resources which are contextually relevant and available in the local language. The reviewers were divided as to whether this would have a moderate, high or major impact on an intervention and whether it was moderately easy or difficult to implement.

It is not clear why the reviewers’ opinions regarding impact differed. There was no relationship between the rankings and reviewers’ development experience. Of the reviewers that did comment on this design principle one remarked that sometimes “what’s available is not very
Another felt there needed to be clarification as to whether this design principle only applied to learning resources or “other kinds of resources” as well. Design principle 6.1 has been revised to clarify that the emphasis is on learning resources and materials:

- Make use of locally available learning resources and materials where possible

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The reviewers indicated that ensuring that generic materials are modified so that they are locally appropriate would have a high or major impact on capacity development interventions. One reviewer commented, I have “seen that [the use of materials that haven’t been modified for the local environment] many times and it is really pointless” (R8). The application of DP6.2 was thought by most reviewers to be moderately easy to do. No changes have been made to DP6.2.

Design principle 6.3 was seen as having a high impact, but reviewers were divided as to whether this design principle was moderately easy or difficult to apply. It was recognised that DP6.3 relates to ownership which is “crucial to sustainability” (R11). A reviewer commented that it is “important to set a process and a timeframe” (R1) for developing these resources. It was also remarked that the primary stakeholders “may not be the best people” to develop the resources but that they should be developed with “somebody that has local knowledge” (R2).
Taking into consideration the suggestion that someone with local knowledge should develop the resources and that the primary stakeholders may not be the best people DP6.3 has been rearticulated:

- Develop learning resources and materials in conjunction with local stakeholders

Language and translation

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For the PSLP and SSWT Projects there were problems with the quality and availability of interpreters which impacted negatively on the team members’ ability to engage with the stakeholders and learning outcomes. The reviewers recognised that ensuring that proficient translators and interpreters are used during an intervention can have a high or major impact on the intervention. One reviewer, who is bilingual commented that “by far not enough attention is given to” the subject of interpretation and translation and that there would be a “much bigger impact if they employed certified interpreters/translators who are familiar with the subject matter” (R8). The reviewers had diverse opinions regarding whether DP7.1 was easy, moderately easy or difficult to apply although one reviewer with experience in a range of countries commented that appropriate translators/interpreters are “not always easy to find” (R3).

Several participants commented that DP7.1 implied that the team members “cannot know [the local] language” (R5) and also commented that it inferred that the intervention would not be delivered in the local language. The reviewers emphasised the importance of “do[ing] it [the intervention] in the language of the [target] group” (R2) delivered by people who are “fluent in the language [of the stakeholders] they are attempting to influence” (R3). As described by one reviewer, in Indonesian “everything that is done in English is foreign, they [the local stakeholders] have no ownership over the process” (R10). Several reviewers suggested that an additional design principle be added to this section which specified that the intervention should
be delivered in the language of the local stakeholders. DP7.1 has not been changed. Although there may be practical difficulties applying it, the following design principle has been added to the Framework:

- Deliver the intervention in the language of the local stakeholders

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<tr>
<th>DP 7.2 Make language tuition available to all team members</th>
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The reviewers provided diverse responses for the impact and ease of providing team members with language lessons (DP7.2). The reviewers’ comments reflected this diversity. One reviewer felt that “not having the language can be a major barrier” and that the provision of language lessons was a “great idea” (R1). Other reviewers commented that it is not possible to “learn the language for particular projects” (R3), that it was not the “biggest hindrance” (R8), that “it would not make a really good impact” (R9) and that “listening sometimes happens better even with someone that doesn’t have the language than someone with the language… if you’ve got the relationships stuff, in terms of good will sensitivity, listening skills you’ll often find ways around [not speaking the language]” (R5).

There was no discernible relationship between the reviewers’ experience and impact rating, although two of the reviewers who had volunteered for one to seven years had learnt the local language and thought this could have a major impact. Given the diverse range of responses and the potential the benefits to learning the local language no change has been made DP7.2.

Sustainability and ongoing support

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<th>DP 8.1 Include a budget line or develop a self-funding mechanism to support activities beyond the timeframe of the intervention</th>
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The reviewers agreed that ongoing funding is important for sustainability and that including a budget line or self-funding mechanism could have a high or major impact. However, several reviewers also commented that sustainability is not "related to self-funding only" (R1) and in the opinion of one reviewer “if it is sustainable, it wouldn’t be relying on funding” (R8).

The reviewers had varying views about the ease of applying this principle, with an almost even spread between moderately easy, difficult and extremely difficult. The reviewers from the World Bank and UNDP both thought this would be extremely difficult, perhaps due to institutional constraints associated with making funding available after the completion of an intervention. The civil servant from AusAID may have had similar experience, also ranking this as difficult. The remaining reviewers were found in each category which suggests that application of the design principle depends on the situation and funding arrangements. In spite of the potential constraints, applying this design principle can have considerable benefits and is consistent with claims that capacity development requires a long term investment (Eade 1997; Bolger 2000; Lopes and Theisohn 2003). No change has been made to DP8.1.

DP 8.2 Establish mechanisms for networking

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Design principle 8.2 stipulates that as part of an intervention, mechanisms for networking should be established. Networks are a tool that can be used deliberately to facilitate sociability for the purposes of creating social capital (Portes 1998 see § 2.4.4.1). The application of this design principle was thought to have a major or high impact. The reviewers provided diverse responses regarding the ease of applying this principle although most indicated that it was easy or moderately ease to apply.

Several reviewers thought that the principle required clarification. In the interview a reviewer asked “how do 8.2 and 8.3 differ?” (R1). The researcher explained to the reviewer that DP8.2 is more about what happens after the intervention and the development of a formal structure that can be used to deliberately facilitate sociability and/or networking whereas DP8.3 is about
building relationships within the timeframe of the project to facilitate among other things a social network or perhaps the incentive to stay in touch. Another reviewer commented that network is a “western concept, here [in Indonesia] everything happens through relationships”.

For clarification DP8.2 has been revised, the revisions also take into account the literature based finding that network effectiveness depends on the members having ownership over the development of the network (Taschereau and Bolger 2006):

- Encourage and support stakeholders to develop a network as the basis for ongoing collaboration

As outlined in Chapter Six an additional design principle was added to the Framework: Identify and provide support to a network leader and/or facilitator. The outcomes assessment and expert review were carried out simultaneously and for this reason this design principle was not included in the review process.

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<tr>
<th>DP 8.3 Develop a program that fosters relationship building</th>
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In general the reviewers indicated that developing a program that fosters relationship building could have a high or major impact on an intervention. The responses were mixed as to whether DP8.3 was easy to implement, but the majority indicated that it was easy or moderately easy. According to one reviewer who thought it was very easy “it is easy to create a space [for relationships to develop], but you cannot create [lasting] relationships, they grow out of their need and energy” and if there are “transactions to make”. These comments reflect Taschereau and Bolger’s (2006) findings that the formation of a network is enabled when a problem can be better addressed via the joint action of a network and when member’s benefit from involvement in the network. Pre-existing relationships are also seen as important for enabling network formation (ibid.). Design principle 8.3 has not been deleted from the Framework. However, DP8.3 alone may not create a need for ongoing transactions.
Based on earlier feedback two new design principles have already been added to the final framework: 1) encourage and support stakeholders in the formation of a network; and, 2) and identify and support a network leader and/or facilitator (§ 6.3.2.2). An additional design principle has also been added:

- Develop an intervention that facilitates ongoing transactions between stakeholders

### 7.3.2. Utility of the design principles

The ease and impact of applying the design principles were discussed in the previous section. The ease and impact ratings were combined to derive an overall utility rating for individual design principles for improving capacity development practice. The steps used to establish these ratings are presented in Box 7a. The utility ratings for each design principle are presented in Table 7.7 as means and descriptors.

The utility ratings indicate that all the design principles were useful for improving capacity development practice. On average, the reviewers considered that one design principle had extreme utility, 20 design principles had a high utility and five had moderate utility. The high utility ratings were consistent with the stakeholders’ comments about the overall utility of the Framework (§ 7.3.3).

The design principle rated as having extreme utility recommends providing stakeholders with opportunities to socialise (DP5.4). This is consistent with growing claims regarding the importance of relationships for capacity development (Eyben 2006; Pasteur and Scott-Villiers 2004) and the relative ease of applying this principle. The design principles that received moderate ratings reflect the comments made by the reviewers presented in the previous section. All these design principles except for one were thought to have a high impact, but reviewers either thought that they were difficult to apply (e.g., DP2.6) or provided diverse responses regarding their impact (e.g., DP7.2). One design principle that advocates working with individuals with whom there is an existing relationship (DP1.2) was thought to only have a moderate impact. Reviewers provided a number of comments about this principle suggesting that it ignored the potential negative aspects of working with people based on existing relationships. This design principle was modified slightly based on the feedback provided.
Box 7a Utility ratings

Reviewers provided impact and ease rankings for each design principle on a scale of one to four. To calculate the utility mean and establish the utility rating for each design principle:

1. A utility sum was calculated by adding together the rankings for impact and ease provided by a reviewer. This was completed for each reviewer. Example: 2 (impact) + 4 (ease) = 6 (utility sum). Each sum corresponds with the values presented in Table 7.3.

2. Each utility sum was assigned a utility value. This was completed using Table I. Example: utility sum 6 returns a utility value 4.

3. To calculate the mean utility score the ‘utility value’ for each reviewer was added together and divided by the number of reviewers who provided rankings.

4. A qualitative descriptor was assigned to the average utility score using Table II. Example: a mean of 3.7 returns the descriptor highs.

<table>
<thead>
<tr>
<th>Utility Sum</th>
<th>Utility Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>7 &amp; 8</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mean</th>
<th>Qualitative Descriptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 1.49</td>
<td>Very Low (VL)</td>
</tr>
<tr>
<td>1.5 – 2.49</td>
<td>Low (L)</td>
</tr>
<tr>
<td>2.5 – 3.49</td>
<td>Moderate (M)</td>
</tr>
<tr>
<td>3.5 – 4.49</td>
<td>High (H)</td>
</tr>
<tr>
<td>4.5 – 5</td>
<td>Extreme (E)</td>
</tr>
<tr>
<td>#</td>
<td>Design Principle</td>
</tr>
<tr>
<td>----</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td><strong>Team member selection</strong></td>
</tr>
<tr>
<td>1.1</td>
<td>When selecting team members take into consideration not only the requisite skills (technical, pedagogical and cultural) but also personalities and the potential for developing working relationships based on mutual understanding and trust</td>
</tr>
<tr>
<td>1.2</td>
<td>Where possible work with individuals with whom there is an existing relationship</td>
</tr>
<tr>
<td>2</td>
<td><strong>Intervention planning and management</strong></td>
</tr>
<tr>
<td>2.1</td>
<td>Facilitate ownership, commitment and motivation to the intervention by involving team members in all stages of the design, planning, implementation and management of the intervention and providing in-country team members with appropriate and agreed upon incentives</td>
</tr>
<tr>
<td>2.2</td>
<td>Take steps to secure an appropriate level of institutional support</td>
</tr>
<tr>
<td>2.3</td>
<td>Manage finances in an open and transparent manner</td>
</tr>
<tr>
<td>2.4</td>
<td>Develop the capacity of all project members to be culturally competent</td>
</tr>
<tr>
<td>2.5</td>
<td>Incorporate professional development activities that foster team building and appropriate management practices</td>
</tr>
<tr>
<td>2.6</td>
<td>Encourage team members to work collaboratively and be reflective</td>
</tr>
<tr>
<td>3</td>
<td><strong>Stakeholder selection and engagement</strong></td>
</tr>
<tr>
<td>3.1</td>
<td>Select stakeholders who have the motivation and ability to facilitate learning/change after completion of the activity</td>
</tr>
<tr>
<td>3.2</td>
<td>Establish a culturally appropriate method of stakeholder engagement</td>
</tr>
<tr>
<td>4</td>
<td><strong>Activity scope and objectives</strong></td>
</tr>
<tr>
<td>4.1</td>
<td>Develop the program of activities based on participant need</td>
</tr>
<tr>
<td>4.2</td>
<td>Develop a program that builds on the existing capacities of participants</td>
</tr>
</tbody>
</table>
Table 7.7  Design principle analysis: impact, ease and utility ratings (continued)

<table>
<thead>
<tr>
<th>#</th>
<th>Design Principle</th>
<th>IMPACT</th>
<th>EASE</th>
<th>UTILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>Mean</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Descriptor</td>
<td>Descriptor</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td><strong>Appropriate pedagogy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1</td>
<td>Design activities based on adult learning principles</td>
<td>3.00</td>
<td>High</td>
<td>3.36</td>
</tr>
<tr>
<td></td>
<td>5.2 Ensure the overall approach includes delivery methods that are locally and</td>
<td>3.36</td>
<td>High</td>
<td>2.68</td>
</tr>
<tr>
<td></td>
<td>culturally appropriate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.3</td>
<td>Ensure the venue for the activity is an environment conducive for learning</td>
<td>2.91</td>
<td>High</td>
<td>3.09</td>
</tr>
<tr>
<td>5.4</td>
<td>Provide stakeholders with opportunities to socialise with each other</td>
<td>3.00</td>
<td>High</td>
<td>3.64</td>
</tr>
<tr>
<td>5.5</td>
<td>Evaluate the learning activities and use the findings to inform the design of</td>
<td>3.36</td>
<td>High</td>
<td>3.09</td>
</tr>
<tr>
<td></td>
<td>future activities</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5.6</td>
<td>Constantly challenge assumptions about appropriate pedagogy to ensure that</td>
<td>3.36</td>
<td>High</td>
<td>2.27</td>
</tr>
<tr>
<td></td>
<td>the program does more than replicate what people are familiar with</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td><strong>Learning resources and materials</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.1</td>
<td>Make use of locally available resources and materials</td>
<td>3.00</td>
<td>High</td>
<td>2.73</td>
</tr>
<tr>
<td>6.2</td>
<td>Ensure that any generic materials are modified for the local environment and</td>
<td>3.45</td>
<td>High</td>
<td>2.82</td>
</tr>
<tr>
<td></td>
<td>that this goes beyond translation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.3</td>
<td>Develop learning resources and materials in conjunction with stakeholders as</td>
<td>3.09</td>
<td>High</td>
<td>2.64</td>
</tr>
<tr>
<td></td>
<td>part of the program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td><strong>Language and translation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.1</td>
<td>Employ proficient interpreters and translators who are familiar with the subject</td>
<td>3.55</td>
<td>Major</td>
<td>2.64</td>
</tr>
<tr>
<td></td>
<td>matter in order to minimise the barrier language can have on the intervention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.2</td>
<td>Make language tuition available to all team members</td>
<td>2.50</td>
<td>High</td>
<td>3.40</td>
</tr>
<tr>
<td>8</td>
<td><strong>Sustainability and ongoing support</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.1</td>
<td>Include a budget line or develop a self-funding mechanism to support activities</td>
<td>3.45</td>
<td>High</td>
<td>1.95</td>
</tr>
<tr>
<td></td>
<td>beyond the timeframe of the intervention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.2</td>
<td>Establish mechanisms for networking</td>
<td>3.32</td>
<td>High</td>
<td>2.91</td>
</tr>
<tr>
<td>8.3</td>
<td>Develop a program that fosters relationship building</td>
<td>3.32</td>
<td>High</td>
<td>2.80</td>
</tr>
</tbody>
</table>
As outlined in Section 7.2.2.1 the design principle analysis was included in the review to develop a heuristic that would provide users of the Framework with a guide to prioritising application of the design principles, based on their utility. However, given the large number of principles ranked highly this may not provide users with enough information to prioritise their application. There was also some indication that the rankings would vary depending on the context. The reviewers commented that “the impact/ease, most of them are really context specific” (R3) and noted in the questionnaire that the ranking “depends on the context” (R5). For these reasons the rankings provided by the reviewers are not included in the final version of the Framework. However, the utility analysis tool is included in the Framework. Users of the Framework could complete the analysis in order to assess the ease, impact and utility of applying the design principles in a specific context. The analysis may also provide a basis of discussion regarding planning, implementation, management and monitoring of an intervention.

7.3.3. Overall utility of the Framework

The reviewers were asked their opinion of the Framework in general and whether they thought it would be a useful tool for capacity development practitioners. The majority of the reviewers responded positively, commenting:

“Great, lots of good stuff in it, nothing in there that I thought I don’t think so. All very sound”. (R2).

“I didn’t disagree with much that was in there. I would tend to use it as a checklist” (R3).

“It makes sense to me” (R4).\(^1\)

“I think that it is good” there is some difficulty “capturing the depth” while at the same time ensuring that it is “user friendly” and “congruous with your philosophy of capacity development” (R5).

“I’m sure that it would be better than what is happening now” (R6).

\(^1\) This reviewer also suggested simplifying the Framework (refer to § 7.3.1.1).
“Good. Like a checklist of things that you should think about, and yeah these things are all things that are important. I like to think I would kind of organically do it, but you may not”. (R7).

“It’s good… I had an affinity with it straight away” (R8).

“A really, really good tremendously handy checklist… great to have a check sheet so that you don’t forget something, so that you can brief someone. This is really valuable, a great thing” (R11).

Two reviewers with experience with multilateral agencies who had less positive remarks:

“If you talk to the practitioners, it is not a new thing” (R9).

“You provide a broad framework, but what is the most important thing” (R9).

“My gut feeling is that it is more an academic exercise” (R10).

There are several ways this feedback can be interpreted. It may be the case that these practitioners already engage in capacity development from the perspective of the alternative development paradigm. In this case, these comments indicate that the Framework may be more useful for practitioners who are new to capacity development or whose current practice is more conventional (e.g., like the PSLP team members).

Alternatively, these comments may highlight a misconception that knowing about these things means that they are being applied. The development industry is widely criticised for not learning from experience and for the continued use of flawed approaches even when learning has taken place (Cassen and Associates 1994; Postma 1998; Berg 2000).

7.4. The Framework for Capacity Development

The Framework has been revised based on the review findings. The final Framework for Capacity Development is presented in Box 7b.
THE FRAMEWORK FOR CAPACITY DEVELOPMENT

The Framework for Capacity Development is a tool for improving the processes and outcomes of a capacity development intervention. The Framework includes four components:

1. **Core principles**: principles of capacity development that underpin the Framework.

2. **Design Principles**: principles for the design of a capacity development intervention.

3. **Indonesian Specific Guidelines**: guidelines for the delivery of capacity development interventions in Indonesia.

4. **Utility Analysis Tool**: a tool to assess the ease, impact and utility of applying the design principles in a specific context.

The Framework may be useful for anyone engaged in a capacity development. The Framework has been developed to provide specific guidance regarding the design of capacity development interventions. However, it may also be useful as a discussion tool, checklist or evaluation framework.
1. CAPACITY DEVELOPMENT CORE PRINCIPLES

Developing capacity involves more than blindly applying the design principles and guidelines presented in this Framework. Five overarching principles underpin the Framework.

Capacity development:

1. Is an endogenous process* that responds to locally driven agendas.
2. Builds on existing capacities and is grounded in the local cultural context.
3. Requires that stakeholders engaged in the process are cognisant of power differentials, committed to two-way learning and equitable partnerships.
4. Requires that stakeholders engaged in the process have empathy and respect for each other.
5. Requires that stakeholders engaged in the process are committed to reflecting, learning and continually improving their practice.

2. DESIGN PRINCIPLES

There are 36 design principles in this Framework related to the following eight areas. The complete set of principles is presented in Table A.

1. Establishing a common understanding of capacity development
2. Identifying and engaging stakeholders
3. Establishing the scope and objectives of the intervention
4. Planning, managing and evaluating the intervention
5. Facilitating learning and change
6. Identifying and developing local learning resources and materials
7. Taking into account issues relating to language, translation and interpretation
8. Fostering sustainability and providing ongoing support

* The process is strongly led from within a country with donors and intermediary stakeholders playing a supporting role (OECD/DAC 2005).
<table>
<thead>
<tr>
<th>#</th>
<th>DESIGN PRINCIPLE</th>
<th>IMPACT</th>
<th>EASE</th>
<th>UTILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Establishing a common understanding of capacity development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Define capacity development for the purposes of the intervention</td>
<td></td>
<td></td>
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<tr>
<td>1.2</td>
<td>Discuss the core principles of capacity development that support the Framework</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Identifying and engaging stakeholders</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2.1</td>
<td>Select team members who have the personalities and interpersonal skills to be culturally sensitive and to develop working relationships based on mutual understanding and trust</td>
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</tr>
<tr>
<td>2.2</td>
<td>Engage with stakeholders that have the motivation and ability to facilitate learning/change after completion of the activity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3</td>
<td>Establish a locally appropriate method of engaging the stakeholders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Establishing the scope and objectives of the intervention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>Develop the intervention based on stakeholder need</td>
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<tr>
<td>3.2</td>
<td>Develop an intervention that builds on the existing capacities of stakeholders</td>
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</tr>
<tr>
<td>3.3</td>
<td>Identify any existing interventions (in the sector/local context) that might be complementary or provide opportunities for cross-intervention learning</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4</td>
<td>Planning, managing and evaluating the intervention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>Facilitate stakeholders’ ownership over the process by enabling and encouraging them to engage and provide input into the design, planning, implementation and management of the intervention</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>4.2</td>
<td>Develop a method of inducting any new team members and fostering their ownership over the process throughout the intervention</td>
<td></td>
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</tr>
<tr>
<td>4.3</td>
<td>Provide in-country team members with appropriate, equitable and agreed upon payments or incentives that are established at the outset of the intervention</td>
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<tr>
<td>4.4</td>
<td>Encourage team members to work collaboratively and be reflective</td>
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<tr>
<td>4.5</td>
<td>Take steps to secure an appropriate level of institutional support</td>
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</tr>
<tr>
<td>4.6</td>
<td>Develop a system for managing finances at the outset of the intervention</td>
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<tr>
<td>4.7</td>
<td>Manage finances in an open and transparent manner</td>
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<tr>
<td>4.8</td>
<td>Develop team members understanding of the local context (e.g., society, politics, culture and history) and how this might impact on the capacity development process and intervention</td>
<td></td>
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</tr>
<tr>
<td>4.9</td>
<td>Develop team members understanding of cultural differences, in particular those that might impact on the teams working relationship and the delivery of the intervention</td>
<td></td>
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<tr>
<td>4.10</td>
<td>Incorporate activities that foster team building and appropriate management practices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.11</td>
<td>Discuss and agree upon the importance of evaluation for monitoring and improving the intervention and develop an evaluation plan accordingly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Facilitating learning and change</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1</td>
<td>Design activities based on adult learning principles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.2</td>
<td>Ensure the methods used to develop capacity are locally and culturally appropriate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.3</td>
<td>Ensure learning activities are delivered in an environment that is conducive for learning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.4</td>
<td>Provide stakeholders with an opportunity to socialise with each other</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5.5</td>
<td>Question assumptions about appropriate pedagogy to ensure that the intervention does more than what people are familiar with</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5.6</td>
<td>Evaluate the learning activities and use the findings to improve the activity and/or inform the design of future activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Identifying and developing local learning resources and materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.1</td>
<td>Make use of locally available learning resources and materials</td>
<td></td>
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<tr>
<td>6.2</td>
<td>Ensure that any generic learning resources and materials are modified for the local environment and that this goes beyond translation</td>
<td></td>
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</tr>
<tr>
<td>6.3</td>
<td>Develop learning resources and materials in conjunction with local stakeholders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Taking into account issues relating to language, translation and interpretation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.1</td>
<td>Employ proficient translators and interpreters who are familiar with the subject matter in order to minimise the barrier language can have on the intervention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.2</td>
<td>Deliver the intervention in the language of the local stakeholders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.3</td>
<td>Make language tuition available to all team members</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Fostering sustainability and providing ongoing support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.1</td>
<td>Include a budget line or develop a self-funding mechanism to support stakeholders beyond the timeframe of the intervention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.2</td>
<td>Develop an intervention that fosters relationship building</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.3</td>
<td>Encourage and support stakeholders to develop a network</td>
<td></td>
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</tr>
<tr>
<td>8.4</td>
<td>Identify and support a network coordinator/leader to coordinate ongoing networking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.5</td>
<td>Develop an intervention that facilitates ongoing transactions between stakeholders</td>
<td></td>
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</tr>
</tbody>
</table>
3. INDONESIAN GUIDELINES

Nine Indonesian Guidelines are included in the Framework (Table B). These guidelines were developed based on the experience of two capacity development interventions carried out in Indonesia. These provide specific guidance regarding developing Indonesian capacity.

<table>
<thead>
<tr>
<th>#</th>
<th>INDOONESIAN GUIDELINES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ensure that team members understand what a needs assessment is and how these results will shape the intervention</td>
</tr>
<tr>
<td>2</td>
<td>Involve stakeholders who are key people in the community i.e., respected leaders, elders, religious leaders and government officials</td>
</tr>
<tr>
<td>3</td>
<td>Demonstration projects are appropriate for developing Indonesian capacity in water and sanitation</td>
</tr>
<tr>
<td>4</td>
<td>Develop stakeholders’ ability to raise awareness</td>
</tr>
<tr>
<td>5</td>
<td>Develop a program that accommodates local customs such as prayer times</td>
</tr>
<tr>
<td>6</td>
<td>Ensure that stakeholders are provided with a certificate of attendance</td>
</tr>
<tr>
<td>7</td>
<td>Never surprise a Javanese</td>
</tr>
<tr>
<td>8</td>
<td>Involving media in the activities can add credibility and contribute to greater awareness</td>
</tr>
<tr>
<td>9</td>
<td>As part of the intervention develop and deliver multimedia resources such as PowerPoint slides and DVDs</td>
</tr>
</tbody>
</table>

4. UTILITY ANALYSIS TOOL

The utility analysis tool is a tool that can be used to assess the ease, impact and utility of applying the design principles in a specific context. It may be useful for planning an intervention and understanding the context in which it takes place.

The analysis is completed by ranking the design principles in two areas:

1. **Impact:** the impact that applying this design principle is likely to have on the process and outcomes of your intervention.

2. **Ease:** how easy it is to apply the design principle to your intervention.

These rankings can be entered into the columns in Table A. These rankings are then combined to assess the overall utility of the design principle in terms of improving the practice and outcomes of your intervention. Instructions for completing the utility assessment are provided below.
INSTRUCTIONS FOR COMPLETING THE UTILIY ANALYSIS

Step 1: using the qualitative descriptors in Tables C and D for each design principle assign rankings of 1 – 4 for impact and ease. Enter these rankings in the columns provided in Table A.

Table C: Qualitative measures of impact

<table>
<thead>
<tr>
<th>Level</th>
<th>Descriptor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Minor</td>
<td>Little improvement to the capacity development intervention</td>
</tr>
<tr>
<td>2</td>
<td>Moderate</td>
<td>Some improvements to the capacity development intervention</td>
</tr>
<tr>
<td>3</td>
<td>High</td>
<td>Many improvements to the capacity development intervention</td>
</tr>
<tr>
<td>4</td>
<td>Major</td>
<td>Substantive improvement to the capacity development intervention</td>
</tr>
</tbody>
</table>

Table D: Qualitative measures of ease of application

<table>
<thead>
<tr>
<th>Level</th>
<th>Descriptor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Extremely difficult</td>
<td>Major effort required to apply the design principle</td>
</tr>
<tr>
<td>2</td>
<td>Difficult</td>
<td>Considerable effort required to apply the design principle</td>
</tr>
<tr>
<td>3</td>
<td>Moderately easy</td>
<td>Some effort required to apply the design principle</td>
</tr>
<tr>
<td>4</td>
<td>Very easy</td>
<td>Little or no effort required to apply the design principle</td>
</tr>
</tbody>
</table>

Step 2: Combine your rankings for impact and ease in the matrix provided in Table E to determine whether the utility of the design principles is low, moderate, high or extreme.

Table E: Utility analysis matrix

<table>
<thead>
<tr>
<th>Ease of application</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minor 1</td>
</tr>
<tr>
<td>1 (extremely difficult)</td>
<td>VL (2)</td>
</tr>
<tr>
<td>2 (difficult)</td>
<td>VL (3)</td>
</tr>
<tr>
<td>3 (moderately easy)</td>
<td>L (4)</td>
</tr>
</tbody>
</table>

Key for utility: Very Low (VL) Low (L) Moderate (M) High (H) Extreme (E)
7.5. Summary and conclusions

The overarching aim of the expert review was to assess the usefulness of the design principles for improving capacity development practice in other contexts, or in other words, the pragmatic and external validity of the Framework. The review process was guided by two research questions that sought to establish the utility of the Framework for improving capacity development practice (RQ4.3) and ways to improve the Framework (RQ4.4).

The results presented here indicate that the design principles are indeed useful for designing capacity development interventions in other contexts (RQ4.3). The reviewers were from diverse backgrounds which suggests that these findings are pertinent for a wide range of users. The reviewers’ overall comments regarding the utility of the Framework were positive (§ 7.3.3). Of the 26 original design principles, reviewers identified that:

- One design principle had extreme utility
- 20 design principles had a high utility
- Six design principles had a major impact
- 19 design principles had a high impact

The reviewers provided feedback that led to improvements to the Framework, but no design principles were deleted through the review process.

The reviewers provided suggestions regarding the format, presentation and language of the Framework and specific guidance regarding ways to refine the design principles.

The final Framework includes 36 design principles. The reviewers identified some preliminary design principles that had imprecise wording and contained multiple concepts. The reviewers also identified some aspects not covered by the Framework (e.g., defining capacity development for the purposes of the intervention (DP1.1) and promoting cross-intervention learning (DP3.3)). Eight design principles were revised based on this feedback and nine new design principles were added. To assist users of the Framework, the core principles of capacity development based on the alternative paradigm have been added to the Framework as
overarching concepts. The structure of the Framework has been modified to better reflect the recursive nature of capacity development. The recursive nature of the capacity development process was highlighted in Chapter One (§ 1.3.2 and Figure 1.1). Capacity development is a process that involves both primary and intermediary stakeholders learning and changing, and therefore many of the design principles are applicable to both of these groups. The language has also been clarified and it has been made more neutral so that it is consistent with the core principles. The final version of the Framework also includes the utility analysis tool to support stakeholders in planning their intervention and understanding the context.

The review findings indicate that the Framework could assist practitioners in delivering practice based on the alternative paradigm. To this end, the Framework has a number of potential applications:

- As a tool to support practitioners in planning and designing capacity development interventions.
- As the basis for evaluating capacity development interventions.
- For professional development of experienced capacity practitioners to encourage learning and reflection.
- As a discussion tool for practitioners with more ‘conventional’ experience to encourage them to question their practice.
- As a tool for novice practitioners to support them in the delivery of capacity development interventions based on the alternative paradigm.

Application of the Framework in different contexts is recommended to further improve and validate it (§ 8.5).
Chapter 8. Summary, conclusions and recommendations

8.1. Introduction

Chapter One indicated the existence of a world wide water and sanitation crisis. Recent assessments indicate that 884 million people do not have access to safe drinking water and 2.5 billion people lack basic sanitation (WHO and UNICEF 2008). Since 1990 this situation has improved for 2.7 billion people (UN 2008). However, estimates indicate that if trends since 1990 continue, target 7C of the seventh Millennium Development Goal (MDG) which aims to halve by 2015 the proportion of people without access to safe drinking water and basic sanitation is unlikely to be met (UN 2008; WHO and UNICEF 2008).

Capacity development is now widely recognised as fundamental if individuals, groups, organisations and societies are to respond to development challenges such as those pertaining to water and sanitation, and for achieving the MDGs. However, despite widespread agreement regarding the importance of capacity development, capacity development has been criticised extensively. Criticisms include that the phrase is ambiguous, that efforts have been ineffective and that there has been inadequate theory to support practice. In response to these criticisms theory has emerged in the form of core principles and good practice guidelines. This theory is based on a renewed understanding that an alternative development paradigm is at the core of capacity development. According to this paradigm capacity development practice can be characterised as endogenous, reciprocal, respectful, considered, contextual and sustainable. Yet, although there has been a transformation in thinking, much of the development industry is entrenched in existing practices based on a conventional development paradigm, and there remains a gap between the theory that is espoused and capacity development in practice.

Currently, the development industry is in transition. This transition is necessary and unavoidable if the development challenges faced by billions of people are to be addressed. This research sought to identify ways to facilitate this transition and close the gap between theory and practice, by interrogating capacity development interventions and developing a Framework that facilitates the design of capacity development interventions based on the alternative paradigm.
This research was guided by the overarching research question "how can capacity development practice be improved"? In answering this question, the research had two main aims: 1) to explore the processes and outcomes of capacity development interventions in order to further understand the complexity associated with delivering capacity development interventions; and, 2) to identify ways to improve the process by integrating thinking about capacity development based on the alternative development paradigm into practice.

In the following sections: the overall findings of the research are summarised with reference to the research questions; the contributions to understanding and experience arising from this research are presented; the broader implications of this research are reported; and, recommendations for further work are made. Consideration is also given to the legitimacy of the research.

8.2. Summary of the research findings

A design-based research methodology was used to develop, apply and evaluate a Framework for Capacity Development. The Framework was developed to support practitioners in improving their capacity development practice and in doing so facilitate the delivery of capacity development interventions based on the alternative paradigm.

The research focused specifically on capacity development interventions that: include non-formal training and awareness raising; aim to develop individual capacity; and, are for a fixed and short-term. Two capacity development interventions, the Public Sector Linkages Program (PSLP) Project and Sustainable Sanitation and Wetland Technology (SSWT) Project, provided the context for developing the Framework and improving practice. These projects aimed to develop capacity in water and sanitation in Indonesia.

The study included four stages:

1. **PSLP Case**: inquiry into the PSLP Project to explore the factors impacting on the success of capacity development interventions to inform the development of a preliminary Framework for Capacity Development for improving practice.
2. **SSWT Case:** implementation of a second intervention, the SSWT Project, based on application of the preliminary Framework and analysis and evaluation of the preliminary Framework in order to validate and improve it.

3. **Outcomes Assessment:** assessment of the outcomes of the PSLP and SSWT Projects to evaluate whether application of the Framework to the SSWT Project led to improved outcomes compared with the PSLP Project.

4. **Expert Review:** review of the Framework by expert practitioners in order to further validate and assess the utility of the Framework as a tool for improving capacity development practice.

These stages are summarised in the following sections with reference to the research questions and main findings.

**8.2.1. PSLP Case**

In the first stage of the research, inquiry into the PSLP Project provided the basis for understanding and exploring the factors that impact on the success of capacity development practice. This inquiry was guided by the research question (RQ1.1) "what factors impacted on the success of the PSLP Project"? It also sought to establish whether the project met the stakeholders’ needs (RQ1.1a) and facilitated learning beyond the timeframe of the intervention (RQ1.1b). These questions correspond with the three criteria used in this research as the basis for judging the success of a capacity development intervention. An improved or ‘successful’ capacity intervention: 1) better meets the needs of the stakeholders; 2) enables stakeholders to facilitate change and learning; and, 3) develops capacity that leads to sustained action beyond the timeframe of the intervention (§ 1.2).

The PSLP Project was carried out over one year and included: a joint ETC-IEMT workshop; needs assessment interviews; and, a seminar on water and sanitation. The project culminated in a training-of-trainers workshop designed to develop local capacity in sanitation.

Thirty-three factors were identified as impacting on the success of the PSLP Project (§ 4.4.3.10). Of these, six factors impacted positively on the project and 27 had a negative impact. Consideration of these factors, the research questions and three criteria used to judge the
‘success’ of a capacity development intervention indicated that the PSLP Project had limited success. The project did not meet the needs of the stakeholders (success criterion one), develop their capacity to facilitate learning and change in the area of sanitation (success criterion two) or facilitate sustainable outcomes (success criterion three).

Comparison of the factors impacting on the success of the PSLP Project and core characteristics of the alternative paradigm identified from the literature (§ 2.4) indicated that an underlying limitation of the PSLP Project was that it was based on the conventional paradigm (§ 4.5). To address this limitation and support practice based on the alternative paradigm a preliminary Framework for Capacity Development was developed.

The factors impacting on the success of the PSLP Project and literature based findings were used to derive 22 design principles and six Indonesian guidelines for improving capacity development practice. These were incorporated in the preliminary Framework (Table 4.10). The design principles provide specific design guidance for delivering capacity development based on the alternative paradigm. The guidance relates to eight areas:

1. **Team member selection**: selecting team members taking into account the skills, personalities and relationships required to implement the project collaboratively.
2. **Intervention planning and management**: developing a shared understanding of appropriate institutional arrangements, planning procedures and management practices.
3. **Stakeholder selection and engagement**: engaging with stakeholders that are motivated and able to facilitate learning and change.
4. **Activity scope and objectives**: designing interventions that respond to local needs and existing capacities.
5. **Appropriate pedagogy**: making use of appropriate methods and designing activities based on adult learning theory.
6. **Learning resources and materials**: utilising resources that are available locally or developed as part of the intervention.
7. **Language and translation**: minimising the impact of language barriers on the process.
8. **Sustainability and ongoing support**: supporting sustainable outcomes through funding, networks and relationships.

Six Indonesian guidelines provide direction for developing capacity in Indonesia.

### 8.2.2. SSWT Case

The preliminary Framework for Capacity Development was applied to the SSWT Project in the second stage of the research. Inquiry into the SSWT Project provided an opportunity to further advance understanding of the factors impacting on the success of capacity development practice, and in particular the SSWT Project, (RQ2.1); evaluate the Framework to establish whether the SSWT Project was improved compared with the PSLP Project (RQ2.2); and, to refine and improve the Framework (RQ2.3).

The SSWT Project included a single activity, a workshop. Objectives of the workshop included developing stakeholders’ ability to raise awareness and providing them with practical skills for building a wetland for treating wastewater.

The evidence presented in Chapter Five indicated that the SSWT Project was successful in many ways, identifying a range of factors that contributed to this success:

- It was implemented by a team that had a trusting relationship as well as the expertise, personalities and cultural competency to work effectively as a team (§ 5.6.1).
- It was well planned, managed and implemented by a team that had joint ownership over the process (§ 5.6.1).
- It engaged with stakeholders that were motivated, willing and able to take action beyond the timeframe of the project (§ 5.6.2).
- It responded to stakeholders’ needs (§ 5.6.3).
- It incorporated activities that were based on adult learning theory and utilised appropriate methods (§ 5.6.4).
- It provided stakeholders with an opportunity to practice learned skills including the construction of a wetland and delivery of an awareness raising session (§ 5.4).
• It maximised the opportunities for socialising and relationship building to support learning and sustainable outcomes (§ 5.6.4.3).

The SSWT Project largely achieved the three success criteria. The SSWT Project responded to stakeholders’ needs, developed their capacity to facilitate learning and developed their capacity to facilitate ongoing action and change (§ 5.7). Applied to the SSWT Project the Framework for Capacity Development facilitated the delivery of a successful intervention based on the alternative paradigm. The Framework addressed many of the limitations of the PSLP Project and consequently the SSWT Project was improved compared with the PSLP Project.

Application and analysis of the Framework also resulted in improvement of the Framework through the addition of four new design principles and two new Indonesian guidelines (the revised Framework is presented in Table 5.5). At the same time the SSWT Project highlighted that success may not be contingent on application of the complete Framework and that it may not always be practicable or necessary to apply all the design principles for improved outcomes. This led to the development of a heuristic to provide users of the Framework with guidance for prioritising application of the design principles. The heuristic was developed and assessed as part of the expert review in Chapter Seven.

8.2.3. Outcomes Assessment

An outcomes assessment was carried out in the third stage the research to inquire into the longer-term outcomes of both projects and to establish whether application of the Framework to the SSWT Project led to improved longer-term outcomes compared with the PSLP Project (RQ3.1). To answer this question the assessment also sought to establish whether the projects developed capacity that could be used to facilitate learning and change in sanitation (RQ3.1a) and whether the projects facilitated ongoing action in the area of sanitation (RQ3.1b).

The assessment took place 24 months after the PSLP Project and eight months after the SSWT Project. The assessment compared the actions and intentions of the SSWT and PSLP stakeholders as a result of their participation in the projects and the capacity (e.g., human, social, resources and institutional) developed by the projects.
The SSWT stakeholders had engaged in activities and had intentions relating to sanitation that were directly attributable to the SSWT Project. They had explicit intentions to build wetlands at a local seminary, at a school, for hotels and with local communities. Several stakeholders also had intentions to carry out further research on wetlands and their application in Indonesia. Many of the SSWT stakeholders had also engaged in activities to raise awareness of wetlands with diverse audiences including parishioners, local villages, colleagues, students, friends, family and neighbours. In delivering these activities, a DVD produced as part of the SSWT Project demonstrating wetland technology had been disseminated widely.

The assessment indicated that the SSWT Project, delivered in accordance with the Framework, contributed to these outcomes in a range of ways. The project developed the stakeholders’:

- **Human capacity**: the project increased stakeholders’ knowledge of wetlands and awareness raising and developed their skills to raise awareness and construct wetlands. More importantly, the project motivated and empowered stakeholders to use this knowledge to facilitate learning to take action (§ 6.3.2.1).

- **Social capital**: the project facilitated the development of relationships between stakeholders including new friendships and working relationships (§ 6.3.2.2).

- **Resource capacity**: the project produced resources that were useful for awareness raising (§ 6.3.2.3).

In contrast, for PSLP stakeholders there was limited action or longer-term outcomes as a result of their involvement in the project (§ 6.3.2.4). The PSLP Project provided stakeholders with knowledge of sanitation (human capacity), but this did not facilitate action and was only of limited use in their ongoing activities. A training-of-trainers package provided as part of the project (resource capacity) was principally used as a reference material. Some stakeholders had remained in contact (social capital), but their involvement was limited.
The outcomes assessment findings supported the finding from Chapter Five that the outcomes associated with the SSWT Project were improved compared with the PSLP Project. The SSWT Project developed stakeholders’ capacity to facilitate learning and change (RQ3.1a) and take ongoing action in the area of sanitation (RQ3.1b).

There was also some indication that the SSWT Project developed intermediary stakeholders’ understanding and experience of capacity development based on the alternative paradigm (§ 6.4). This suggests that the Framework is a potentially useful tool for developing practitioners’ capacity to deliver projects aligned with the alternative paradigm.

8.2.4. Expert Review

An expert review was carried out in the final stage of the research, to assess the utility of the Framework for improving the process and outcomes of capacity development interventions in other contexts and for other audiences (RQ4.1). The review also sought to identify ways to further refine and improve the Framework (RQ4.2).

The assessment considered the overall utility of the Framework as well as the utility of individual design principles for improving capacity development practice. To assess the utility of the design principles the reviewers ranked each principle in terms of both their impact on improving capacity development practice and on their ease of application. These rankings were combined using a qualitative risk analysis technique to determine the utility of each design principle for improving capacity development practice (§ 7.2.2.1). The reviewers identified one design principle as having extreme utility, 20 as having a high utility and five moderate utility (Table 7.7). The results of the analysis indicated that the all design principles would usefully contribute to improving capacity development practice.

The reviewers’ comments supported this finding. Overall the reviewers’ indicated that the Framework was a useful tool for capacity development practitioners, for improving both their practice and the outcomes of capacity development interventions (§ 7.3.3). The reviewers also suggested a number of improvements to the Framework.
The expert review represented the final step in the evolution of the Framework. The reviewers’ commented on the language, format and presentation of the Framework. The feedback provided by reviewers led to the inclusion of several new design principles, revision of existing design principles, restructuring of the Framework to reflect the recursive nature of the capacity development process and the addition of the core principles of capacity development to convey the overarching characteristics of the alternative paradigm (§ 7.3.1). The utility analysis tool was also added to the Framework as an instrument that could support project planning and facilitate reflective practice (§ 7.3.2). The final version of the Framework (§ 7.4) includes four components:

1. **Core principles** of capacity development that underpin the Framework.
2. **Design principles** for the design of capacity development interventions.
3. **Indonesian guidelines** for the design of capacity development interventions in Indonesia.
4. **Utility analysis tool** to assess the utility of the design principles in a particular context and prioritise their application.

### 8.3. Legitimacy of the research

Reliability and validity are key constructs for verifying conclusions about research. Chapter Three introduced the types of reliability and validity relevant to the conclusions made in this research including: descriptive validity, interpretive validity, theoretical validity, external validity and pragmatic validity (§ 3.8). This section discusses each of these to highlight how potential threats to reliability and validity were addressed and identifies potential limitations of the research.

#### 8.3.1. Reliability

Reliability is concerned with what is sometimes described as ‘quality control’ or whether the research has “been carried out with reasonable care” (Miles and Huberman 1994 p.278). The reliability of the research was established through two techniques: an audit trail and careful description.

To provide an audit trail, all data sources were assigned a unique identifier which can be used to access the raw data. An example code is I2-PSLP2SSI; this code provides the following
information: I2 is the research participant from whom the data was collected; PSLP2 indicates that the data was collected in the second phase of the PSLP Project; and, SSI indicates that the data was collected using a semi-structured interview. The raw data is located in Appendix A on a DVD. The data can be accessed by clicking on the appropriate code on the index page provided.

Careful description was used throughout the research to describe the research process in detail. This was used to highlight the level of care taken in implementing this research. This included: descriptions of the data analysis procedures (§ 3.7); research matrices that demonstrate the data was collected across appropriate timeframes and settings, and using appropriate methods to answer the research questions (Tables 4.2 and 5.4); and, the presentation of the research instruments (e.g., Table 6.1 and Appendix D).

Strategies used to address potential threats to validity (e.g., triangulation) were also used to establish the reliability of this research. The following sections discuss triangulation further.

8.3.2. Descriptive validity

Descriptive validity relates to the accuracy of descriptions provided based on the data collected (Maxwell 2002) from interviews, questionnaires and observation in this research. In stages one, two and three of the research, the main threats to the descriptive validity of the research were problems related to language and translation, and transcription errors.

In stage one of the research interviews and questionnaires aimed at primary stakeholders were delivered in Indonesian. The interview schedules and questionnaires were initially developed in English and then revised based on feedback from the Indonesian team members. The interviews were conducted and manually transcribed by an Indonesian National. The transcripts were subsequently translated by a third party and/or the interviewer. The interviews carried out in Indonesian were not interpreted for the researcher. As outlined in Chapter Four there were a number of difficulties employing professional interpreters (§ 4.4.3.8).

There were a number of potential limitations of this process. These data collection instruments were not back translated (§ 3.6.1.1) which may have affected the accuracy of the translation.
lack of interpretation meant that the researcher was unable to verify the descriptive validity of the transcripts. A voice recorder was not used in stage one of the research on the advice of team members who felt that using such a device could affect the way stakeholders’ responses (e.g., cause reactivity § 3.5.2.1). However, triangulation was used to improve the descriptive validity of the data obtained from these research instruments. For example to establish the stakeholders’ training priorities they were asked what their priorities were in each of the needs assessment interviews, seminar activity and seminar evaluation questionnaire. This process established that water and sanitation technology, sustainable sanitation, water conservation and rainwater harvesting were priorities (§ 4.4.2.1).

Given the difficulties with translation in the first stage of the research, in the second stage the researcher relied on a questionnaire to obtain feedback from stakeholders. This questionnaire was not developed using back translation. However, the questionnaire was translated into Indonesian by the SSWT team leader and the researcher and team leader discussed the translation of this questionnaire prior to the workshop (SSWTO-14/06/07). Data triangulation was used to support the data collected from the questionnaire. For instance, stakeholders commented that they were comfortable with their role in the workshop (§ 5.6.4.4), this was verified by team members were also asked to comment on whether they thought stakeholders were comfortable and happy with their role in the workshop (§ 5.6.4.4).

For the outcomes assessment, based on the experience gained in stages one and two of the research, strategies for dealing with language and translation issues were improved. The interview questions were developed using back translation. The SSWT team leader translated the English questions into Indonesian, the interpreter, an Australian national, translated them back into English. The Indonesian questions were then revised in discussion with the team leader, interpreter, interviewer and researcher to ensure that they accurately conveyed their intended meaning.

The interviews were conducted by an Indonesian national. The interviews were simultaneously interpreted for the reviewer. This meant that the reviewer was able to ask clarificative questions and improve the descriptions provided. The interviews were transcribed manually in English based on the interpretation. The interviews were also recorded using a voice recorder in case
the manual transcripts required verification. Based on observations in stage one of the research and discussion with the interviewers the researcher decided that using a voice recorder would be appropriate.

Triangulation was also used establish descriptive and interpretive validity in stage three of the research. This is described further in the section on interpretive validity.

All other interviews carried out in the research, included phase four were conducted in English by the researcher. The researcher manually transcribed these interviews. Interviews with team members carried out in stages two and three were recorded with a voice recorder. A recording device was not used when the interviews were unstructured and informal or when the background noise level affected the quality of the recording. Informal and unstructured interviews were recorded in the researcher’s field notes. A device was not used for the expert review as many of the interviews took place via telephone.

The researcher was a participant-as-observer in stages one and two of the research and made observations in stage three. These observations were recorded in field notes (Appendix A). Some of these observations were used to provide descriptions that support claims regarding factors impacting on the success of the project and answer research questions. For example, in stages one and two of the research the researcher describes the meeting rooms (§ 4.4.3.4 and § 5.6.4.2) and in stage two the research describes the enthusiasm of the SSWT stakeholders (§ 5.4). The accuracy of these descriptions was verified using data triangulation using data sources such as photographs (Figure 4.1 - § 4.4.3.4 and Figure 5.1 - § 5.6.4.2) and DVDs (§ 5.4).

8.3.3. Interpretive validity

Interpretive validity is concerned with the accuracy of the interpretation of participants’ perspectives. In the context of this research this included perspectives regarding the needs of the stakeholders, factors impacting on the success of the PSLP and SSWT projects, stakeholders’ and team members’ opinions of the activities and projects, the outcomes of both projects and the utility of the Framework. Researcher bias, respondent bias and reactivity were the central threats to the interpretive validity of this research. Additional threats included
difficulties relating to translation and interpretation as discussed above. A range of strategies were used to establish the interpretive validity of this research, including triangulation and prolonged involvement.

**Stage One: PSLP case**

The main aim of stage one of the research was to identify the factors that impacted on the success of the PSLP Project and identify improvements. Stakeholders’ and team members’ opinions of the project and activities contributed to the identification of these factors. The main data collection methods were interviews, questionnaires and observations.

Data triangulation was the main strategy used to address potential threats to the interpretive validity of stage one of the research. For example, demonstration projects were identified as an appropriate method for developing stakeholders’ capacity. This conclusion was based on data collected in phases one, two and three. In phase one an Indonesian team leader commented that delivering a demonstration project would be appropriate (§ 4.4.1.3). In the second phase in the seminar evaluation questionnaire demonstration projects were ranked the preferred method for delivering services and/or training to the stakeholders (Appendix F). This data was further triangulated with the workshop evaluation questionnaire and stakeholder interviews in phase three. Stakeholders identified the lack of practice as a limitation of the workshop (§ 4.4.3.3).

There was some indication that prolonged involvement also improved the interpretive validity of the data collected from Indonesian team members in the final phase of the project. In the interview carried out after the project two team members shared their frustrations about the financial management of the project and management style of the team leader (§ 4.4.3.6).

An additional strategy used to establish interpretive validity was researcher reflexivity. The use of researcher reflexivity is discussed in the section on theoretical validity.

**Stage Two: SSWT case**

The second stage of the research sought to identify and understand the factors impacting on the success of the SSWT Project, compare the process and outcomes of the project with the PSLP
Project and identify ways to improve the Framework. Achieving these aims involved interpreting data collected from interviews, questionnaires and observations.

In stage two, reactivity and respondent bias were potential threats to the interpretive validity of data obtained from team members. Triangulation was one strategy used to address these threats. For example, the responses from the team leader and wetlands expert regarding problems implementing the project were cross-checked (§ 5.6.1.1). The team leaders’ comments about the appropriateness of the financial management of the project were triangulated with the researchers’ own observation and experience (§ 5.6.1.3).

A second strategy was prolonged involvement. The researcher had worked with these team members for two years. During the SSWT Project the team leader openly commented on the project and freely discussed the positive or negative aspects of the project. When asked about cross-cultural challenges working on the project, the SSWT team leader candidly remarked that “some people think you [the researcher] are a bit strict” (I2-SSWTSSIB)). He also openly exposed his uncertainty about the design of the project commenting that “we really put ourselves at risk” (I2-SSWTSSIB) (see § 5.6.1.1).

Data collected from a workshop evaluation questionnaire, completed by stakeholders, was used to make judgements about the success of the project and identify ways to improve the project and Framework. The interpretation made based on this data was triangulated with documentation. In particular, the two DVDs produced as part of the workshop (SSWTFI- and SSWTF2-Appendix A) provided video evidence of the success of the workshop (§ 5.5). Some information obtained regarding improving the workshop was also triangulated with data collected in the outcomes assessment. SSWT stakeholders reiterated their suggestions that the intervention could be improved if wetland technology was applied (§’s 5.6.4.1 and 6.5.2).

**Stage Three: Outcomes assessment**

For the outcomes assessment, interpretive validity relates to interpretation of:

- The outcomes of the projects based on the responses provided by stakeholders.
- The stakeholders’ perspectives regarding how the projects could be improved.
Interviews were the main data collection method used in the outcomes assessment. A range of strategies were used to address potential threats to the interpretive validity of this data. As described above the translation and interpretation arrangement were improved in stage three. The interview schedule was back translated and the interviews were simultaneously interpreted for the researcher. This meant that the researcher could ask clarificative questions to improve understanding of the stakeholders’ response and perspectives. For example, stakeholders from government who shared intentions to construct wetlands were asked whether they had funding for this activity (§ 6.3.1.1).

Triangulation was used to verify the claims made by stakeholders about the outcomes of the projects. This included:

- **Data triangulation:** cross-checking with documentation such as site plans for wetland construction (§ 6.3.1.3).

- **Observer triangulation:** cross-checking with the team leader. SSWT stakeholders indicated that they were in contact with the team leader. The team leader verified this claim in an email to the researcher (§ 6.3.2.2). The interviewer also provided feedback on the stakeholders’ responses and whether based on non-verbal cues or cultural norms the stakeholders had misrepresented their actions or intentions. Academic stakeholders who participated in the PSLP Project indicated that they would like to construct a wetland and carry out research on wetlands. However, the interviewer indicated that these responses were ambiguous and unlikely (§ 6.3.1.2).

- **Redundant questions:** cross-checking with similar questions asked in the interview. Stakeholders were asked two questions that provided them with opportunities to describe the activities they had been involved in since the workshop. They were asked if they had been involved in activities relating to sanitation since the projects, they were also asked if they had been involved in any awareness raising activities. A second example is that stakeholders were asked if they had used anything they learnt from the project in the sanitation and/or awareness raising activities they had been involved in, they were then asked if the had used any materials from the project (refer to Table 6.1).
A limitation of the outcomes assessment was that while it took place 24 months after the PSLP Project, it was only eight months after the SSWT Project. For SSWT stakeholders this may not have been enough time for them to take action. Consequently, many SSWT stakeholders reported on their intentions. However, as described above triangulation was used to address this threat.

**Stage Four: Expert review**

The expert review sought to obtain expert opinion on: the utility of the Framework as a tool for improving capacity development practice; impact of applying the design principles for improving capacity development practice; ease of applying the design principles; and, ways to improve the Framework. To facilitate accurate interpretation of this data the expert review combined interviews and questionnaires. The semi-structured interviews were used to improve understanding of the reviewers’ responses to the questionnaire. The interview structure also made it possible to clarify the feedback provided by the reviewers. The reviewers were asked to comment on the Framework based on the rankings provided (Appendix O).

Reactivity and respondent bias were potential threats to the interpretive validity of the expert review. Given that reviewers were only interviewed once it was difficult to minimise these, but there was no obvious reason why the reviewers would present a biased response.

A further factor that potentially affected the findings from the expert review was that the review was carried out simultaneously with the outcomes assessment. Consequently, one design principle derived from the outcomes assessment was not included the review. The design principle not included in the review recommends identifying and supporting a network leader to facilitate sustainable outcomes (DP8.4). However, the review findings supported the inclusion of this design principle (§ 7.3.1.3). The reviewers’ feedback also led to the development of new design principles relating to improving sustainable outcomes. These design principles recommend encouraging stakeholders to develop a network (DP8.3) and developing an intervention that facilitates ongoing transactions between stakeholders (DP8.5).
8.3.4. Theoretical validity

Theoretical validity is concerned with the accuracy of theories developed through the research. The main theories developed through this research were the design principles and Framework for improving capacity development practice. These theories were developed through the following process:

- **PSLP case:** Stage one of the research explored the factors impacting on the success of the PSLP Project. These factors were identified through systematic analysis and evaluation of each phase of the PSLP Project. The factors identified in stage one were used to derive the design principles and develop the preliminary Framework for Capacity Development.

- **SSWT case:** In the second stage of the research, the SSWT Project was designed and implemented using the preliminary Framework. Inquiry into the project sought to identify the factors impacting on the success of the SSWT Project and to ascertain whether the Framework improved capacity development practice. Through this process the preliminary Framework was also refined and improved.

A potential limitation of the theories developed in stage two of the research was that the inquiry was guided by a priori factors based on the preliminary Framework. Emphasis on the Framework may have reduced the opportunities for understanding and identifying factors that impacted on the success of the project not covered by the Framework. However, while the inquiry was guided by the Framework, the questions posed to stakeholders and team members in interviews and questionnaires provided scope for identifying other factors. For instance, in the workshop evaluation questionnaire stakeholders were asked to comment on whether there was something really important was missing from the project and what other items of issues should be considered (see Appendix K).

- **Outcomes assessment:** The outcomes assessment carried out in the third stage sought to assess whether there were positive longer-term outcomes associated with the SSWT Project and whether the outcomes were improved compared with the PSLP Project. These
findings were used to verify theories developed in stage two of the research regarding the success of the SSWT Project. At the end of stage two there was some indication that the SSWT Project had developed stakeholders’ capacity to take action in the area of sanitation (§ 5.5). In stage three SSWT stakeholders confirmed that they had intentions or had taken actions such as making plans to construct a wetland (§ 6.3.1.4).

- **Expert review:** The Framework, as a theory for improving capacity development was further validated in stage four and improved through this process. The results of the review supported findings from stages two and three that the Framework was a useful tool for improving practice (§ 7.3.3).

The research methodology was the principal strategy used to address potential threats to the validity of theories developed in this research (i.e., design principles and Framework). A design-based research methodology supports the development of theories for improving processes and practice through iterative phases of analysis, development, testing and evaluation, and synthesis and refinement. This study included four iterations that incorporated some or all these phases (refer to Figure 3.2).

Additional strategies used to address potential threats to the theoretical validity of the research were triangulation and researcher reflexivity. Stakeholders and team members’ opinions of the projects were used to support theory development. The use of interviews, questionnaires, documentation and observation provided a triangulated perspective. An example is that in the second phase of the PSLP Project the researcher lived and worked in Indonesia and was able to combine observations about the process of engaging stakeholders (PSLPO) with interview data collected from team members at end of the project about why this was successful (refer to Appendix I). The theories developed in stages one and two of the research were further triangulated using data collected in subsequent stages. For example, the understanding that a lack of practical activities impacted negatively on the success of the PSLP Project was identified in stage one of the research (§ 4.4.3.4). In stage two, stakeholders who attended both projects confirmed that this was a limitation of the PSLP Project (§ 5.5). The outcomes assessment supported these findings (§ 6.5.2).
Researcher reflexivity was also used to question assumptions regarding factors impacting on the project and disclose any preconceptions or biases. The researcher’s reflections were recorded in a field notes during stage one, two and three of the research (see PSLPO, SSWTO and OAO on Appendix A). Some of these reflections were presented in boxes in Chapter Four (Boxes 4a and 4b). The reflections were also used to develop design principles (e.g., DP5.1) based on experience applying the Framework and difficulties delivering an intervention based on adult learning theory without challenging team members’ assumptions about appropriate pedagogy (§ 5.6.4.4). An example of a reflective and/or dialogic field note is presented in Box 8a.

**Box 8a: Reflective/dialogic field note**

Yesterday, the workshop program that was “corrected” (I hope this was a language issue and he didn’t actually think that he was correcting the program) clashes considerably with my idea for a new model for developing capacity… the program is presentation based and expert driven, the participants do not have an opportunity to construct the wetland and the opportunity that they have to practice raising awareness has become experimental insofar as I2 has them trialling different modes of awareness raising. All and all the increase in the size of the project has impacted on the opportunities to be creative and flexible... I wonder if I2 realises that by increasing the number of participants he is increasing the risk i.e., if the project fails and this is what is making him more conservative or whether… he really doesn’t believe there is an appropriate alternative, that the participants aren’t capable of engaging in a more interactive way… I also wonder how much of this is a reflection of I2’s linear/scientific way of thinking, as E1 nods approvingly about the increase in the number of wetlands and participants [while] speaking of controls. (SSWTO-30/04/07)

8.3.5. External and pragmatic validity

External validity relates to the generalisability of the Framework for Capacity Development. The Framework was developed and applied in Indonesia. While the evidence quite strongly indicates
that the Framework improved the process and practice of developing capacity on sanitation in Indonesia, it has not been applied in a different context. In addition, the Framework has not been applied by users who were not involved in its development.

However, expert review was used as a strategy to address threats to external and pragmatic validity. The review process sought to gather expert opinion on the utility of the Framework. The review was completed by individuals from diverse backgrounds with a range of development experience including with bilateral agencies, multilateral agencies and NGOs (§ 7.2.1) and in different contexts and sectors. Although the reviewers did not directly apply the Framework, the review findings (§ 7.3.3) suggest that the Framework was useful (e.g., had pragmatic validity). The majority of reviewers thought the Framework would be a useful tool for capacity practitioners (§ 7.3.3). The comments made by reviewers resulted in the refinement of several design principles, but did not lead to any of the preliminary design principles being deleted. The reviewers identified 20 out of the 26 preliminary design principles as having a high utility for improving capacity development practice (§ 7.3.2). Given that the majority of reviewers indicated that the Framework was useful for improving capacity development practice the findings suggest that the Framework is pertinent for a wide range of users and in different contexts (e.g., external and pragmatic validity). However, further application of the Framework in different contexts is required to strengthen this finding. To further improve the generalisability and utility of the Framework recommendations for ongoing application and improvement of the Framework in different contexts is recommended (see § 8.6).

8.3.6. Challenges

The preceding sections have highlighted the range of strategies used to establish reliability and validity in this research, including triangulation, prolonged involvement, an audit trail and researcher reflexivity. This discussion has demonstrated that this was a robust study with relatively high reliability and validity. Consideration of the reliability and validity in this research indicates that there were some challenges. Issues relating to language and translation were the main issues. However, through the stages of the research the translation was improved and the validity of the results was verified by various forms of triangulation.
The difficulties relating to translation are consistent with the challenges to implementing the projects. As outlined in Chapters Four and Five there were challenges to employing professional translators and interpreters. Consequently, the final Framework for Capacity Development includes three design principles to address some of these challenges (DP’s 7.1, 7.2 and 7.3). An additional factor was a lack of resources to fund a secondary translator/interpreter that could provide simultaneous interpretation and/or verify the translation provided. These difficulties highlight the challenges of conducting cross-cultural research and potential constraints to carrying out research into practice.

8.4. Outcomes of the research

The Framework for Capacity Development is the main outcome of this research. The Framework integrates diverse ideas regarding core principles and good practice guidelines from the alternative paradigm perspective. The Framework provides specific design guidance regarding capacity development practice. The contributions to understanding and experience arising from the development of the Framework include:

- Synthesis of the literature culminating in the characterisation of capacity development based on the alternative paradigm as endogenous, reciprocal, respectful, considered, contextual and sustainable.
- Delivery of an effective capacity development intervention that demonstrated the benefits of applying the Framework for Capacity Development for improving the process and outcomes of capacity development interventions and assisting practitioners in closing the gap between theory and practice.
- Expert feedback which indicates that the Framework for Capacity is a useful tool for improving capacity development practice.
- Development of an understanding of the synergy between capacity development based on the alternative paradigm and adult learning theory as well as the importance of adult learning theory for improving capacity development outcomes.
- Development of an understanding of the importance of leadership and teamwork for capacity development outcomes.
- Development of an understanding of the relationship between capacity development theory based on the alternative paradigm and improved capacity development practice.
Overall the outcomes of the research indicate that the practice of capacity development can be improved through practice based on the alternative paradigm. The Framework for Capacity Development is a tool that can support this practice and encourage practitioners to close the gap between theory and practice. However, as discussed in the previous section, further work is required to determine the generalisability of the research and support these findings.

8.5. **Broader implications of the research findings**

The Framework is a tool design to facilitate the delivery of capacity development interventions based on the alternative paradigm. It was found to be useful for developing capacity in sanitation in Indonesia. While further work is required to strengthen the generalisability of the Framework, it is a potentially useful tool for a range of audiences associated with the development industry to improve capacity development practice. The Framework can be applicable to the following audiences:

- Donors
- Practitioners/Intermediary stakeholders
- Primary stakeholders
- Educators

The application and utility of the framework in these contexts is discussed below.

**Donors**

Donors are largely responsible for distributing the US$15 billion spent on capacity development annually. Without their support it will be difficult to deliver capacity development interventions of the type investigated in this research (§ 1.3.3) based on the alternative paradigm. The Framework provides donors with a potentially useful tool for ensuring that their practice is aligned with the alternative paradigm and that the money is spent effectively. This could be achieved by using the Framework as a selection tool, monitoring and evaluation tool and/or as a training tool.

While donors typically have selection criteria, there is some indication that current selection criteria are underpinned by conventional thinking (§ 4.4.3.10). Realigning these criteria using the
Framework provides donors with an opportunity to reassess whether the rhetoric of endogenous, reciprocal, respectful, considered, contextual and sustainable capacity development practice is a reality.

Using the Framework as an evaluation and monitoring tool provides a further opportunity to assess whether the theory espoused is being implemented. The Framework could readily be adapted as a tool for monitoring and evaluation that would support ongoing improvement and learning about capacity development.

More widespread learning about capacity development could also be facilitated through use of the Framework as a training tool for individuals whose projects are funded or for donor agency staff. As a training tool the Framework could encourage people to question their own practice (DP’s 1.1, 1.2, 4.4 and 5.5), recognise any gaps between the theory espoused and theory in practice and support them in delivering capacity development practice based on the alternative paradigm.

Practitioners/intermediary stakeholders
Currently, some practitioners operate from the perspective of the alternative paradigm. However, for others there are constraints to doing so. These include: donor restrictions; difficulties learning, reflecting and improving on practice; and, a lack of experience and/or understanding of practice based on the alternative paradigm. Although donor restrictions may be difficult to address, the Framework provides practitioners with a practical mechanism for responding to many of these challenges.

The Framework provides guidance on all aspects of capacity development process. It systematically addresses the planning (e.g., 2.1 and 1.1), design (DP’s 3.1, 3.3 and 3.3), management (e.g., DP’s 4.6, 4.9 and 4.10) and evaluation of a project (e.g., DP’s 4.11 and 5.6). Consequently, it may be useful in the proposal writing stage, for ongoing management, evaluation or throughout the life of the project. Application of the Framework itself may ensure clarity of goals, roles and processes contributing to effective teamwork (DP’s 4.1 and 4.10). Its application may also facilitate co-ownership of the project and assist practitioners is fleshing out
some of the rhetoric of partnerships to ensure equitable working arrangements, co-learning and respect for one another (DP 4.4).

Through application of the Framework practitioners are also encouraged to reflect and learn from their practice (e.g., DP’s 1.2 and 4.4). However, the Framework could also purposefully be used as a tool to facilitate reflective practice to support people working together on a project to question assumptions about theory and practice.

The Framework provides practitioners with an opportunity to develop experience based on the alternative paradigm. This may be useful to practitioners entrenched in the conventional development paradigm. However, it may be especially useful for novice capacity development practitioners and practitioners that infrequently engage in capacity development.

Primary stakeholders
The Framework was developed to support practitioners in aligning their practice with the alternative paradigm. However, there are a number of potential benefits to sharing the Framework with primary stakeholders:

- If the Framework is only accessible to practitioners it ignores the endogenous element of the alternative paradigm. Joint application of the Framework to the design and delivery of an intervention provides an opportunity to foster local ownership over the process.
- A shift in stakeholders’ expectations regarding capacity development practice might be desirable if prior experience of capacity development was aligned with the conventional paradigm. The Framework could be used to encourage stakeholders to shift expectations in line with the alternative paradigm (DP1.2).
- For practice to change primary stakeholders need to hold practitioners accountable to deliver interventions aligned with the alternative paradigm. The Framework could be used as an accountability tool.
Educators

The previous sections have already alluded to the potential utility of the Framework as a training tool within donor agencies and as a tool to facilitate reflective practice among practitioners. The Framework may also be of use to formal education institutions. The Framework could be incorporated into university course offerings in international development to ensure the next generation of practitioners understand the theory and practice of the alternative paradigm. The Framework could also form the basis of a professional development series responding to claims that professional development of capacity development practitioners is required (James and Hailey 2007).

8.6. Recommendations for further work

Given the interdisciplinary nature of this study and the complexity of capacity development some areas of inquiry were beyond the scope of the research. In addition, the final version of the Framework has not been applied in practice. In order to further improve the Framework and strengthen the finding that application of the Framework for Capacity Development improves the process and outcomes of capacity development interventions further research is required. The following recommendations for further work can be made:

- Application and evaluation of the Framework in other contexts and with other users, and refinement of the Framework based on improved understanding and experience.
- Expansion of the Framework based on expert feedback to include symbols, explanations and supporting documentation to facilitate understanding of the design principles and its uptake.
- Consideration of the relationship between adult learning theory and capacity development based on the alternative paradigm to further explore synergies and opportunities for cross-learning.
- Consideration of the cross-cultural appropriateness of adult learning theory and implications for capacity development if adult learning theory is culturally inappropriate.
- Consideration of the barriers to applying the Framework.
- Application of a design-based research methodology to further studies of capacity development in order to understand the potential benefits of this methodology for improving capacity development.
8.7. Final remarks

The development industry is in transition. Currently capacity development practice based on the alternative paradigm is espoused by many, but much practice is more conventional. While this transition is necessary if the development challenges faced by billions of people are to be addressed, paradigms are hard to change. The conventional paradigm pervades industry practices, practitioners’ experience and stakeholders’ expectations. What is more capacity development is a complex process. The Framework for Capacity Development integrates ideas from diverse disciplines to provide a foundation for managing this complexity. This research has also highlighted the potential utility of design-based research for improving capacity development theory and practice. While the Framework for Capacity will not change the paradigm, the Framework is a tool that can contribute to improvements in capacity development practice and help close the gap between theory and practice.
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A RAW DATA DVD

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* Indicates that voice recordings are also available for these data sources
23 March 2006

Prof Goen Ho
School of Environmental Science

Dear Goen,

Thank you for addressing the conditions placed on the application to the Murdoch University Human Research Ethics Committee (HREC), 2005/225- Institutional strengthening to improve capacity in water and sanitation: governance and delivery of technology and services”.

This Application now has outright approval.

The Murdoch University HREC is conducted under the auspices of the NHMRC’s National Statement on the Ethical Conduct of Research Involving Humans. If you have any questions please do not hesitate to contact this office at any time.

Wishing you all the best for a successful study.

Yours sincerely

Lynne Miles
Human Ethics Officer, Research Ethics Office

cc Dr Rob Phillips - Teaching and Learning Centre
Ms Davina Boyd
School of Environmental Science
Physical Sciences Building, Km: 1.13
C ACTIVITY 1: WORKSHOP EVALUATION QUESTIONNAIRE

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<td>Evaluation Questionnaire</td>
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JOINT IEMT-ETC WORKSHOP Evaluation Questionnaire

1. General evaluation

Please apply the following score
1. Poor
2. Passable
3. Good
4. Very Good
5. Excellent

and circle appropriate figure

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2. Please give more detailed comments/opinions on the following:

2.1 The value of the workshop to you

2.2 The duration of the workshop

2.3 The best issues of the workshop

2.4 Was there something really important missing?

2.5 What further items or issues should we consider?

2.6 What method of session presentation would you like better?

3. Please comment on each session and or individual item of the workshop

Day 1
Day 2
Day 3
Day 4
Day 5

4. Any other comments you wish to make
### D ACTIVITY 2A: NEEDS ASSESSMENT INTERVIEW SCHEDULE

<table>
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</table>

1a/b  From your experience, what are the main areas of concern or problems with water and sanitation in Indonesia (particularly in your local area)? What do you think are some of the reasons for these problems?

1a/b  Menurut pengalaman (pendapat) Bapak/Ibu/Saudara, permasalahan apa yang paling penting terkait dengan air bersih dan sanitasi di Indonesia? Mengapa?

Translation  In your experience (opinion), what are the most important problems concerning clean water and sanitation in Indonesia? Why?

2  What kind of activities, information and training in water and sanitation do you think would be useful?

2  Menurut Bapak/Ibu/Saudara kegiatan apa yang diperlukan untuk mengatasi masalah air bersih dan sanitasi?

Translation  What actions do you think need to be taken in order to overcome the water and sanitation problems?

3a  Do you know what information and communication technologies (ICT) are?

3a  Apakah Bapak/Ibu/Saudara megerti tentang Teknologi Komunikasi dan Informasi?

Translation  Do you know what information and communication technologies (ICT) are?

3b  (if yes to 3.a) How useful do you think it would be to use ICT to deliver information, training and other services?

3b  Jika ya, menurut Bapak/Ibu/Saudara apa manfaatnya (dalam hal informasi, pelatihan, dll)?

Translation  If yes, what is their usefulness (in relation to obtaining information, training etc.)?

4  Specifically in terms of training in water and sanitation, on what subjects/topics do you think training would be useful?

4  Menurut Bapak/Ibu/Saudara, terkait dengan pelatihan air bersih dan sanitasi, topic apa yang sesuai dengan kebutuhan saat ini?

Translation  What do you think are the topics appropriate to the present needs in relation to water and sanitation training?

5  Are you familiar with the concepts of sustainable sanitation, wastewater reuse, water demand management/water conservation and rainwater harvesting?

5  Apakah Bapak/Ibu/Saudara mengenal dengan baik prinsip dasar mengenai sanitasi berkelanjutan, daur ulang air kotor, pengelolaan kebutuhan air bersih dan permanfaatan air hujan?

Translation  Are you familiar with the basic principles of sustainable sanitation, water reuse, water demand management and rainwater harvesting?

6  Do you think training in these areas would be beneficial?

6  Menerut Bapak/Ibu/Saudara, apakah pelatihan dengan topik-topik di atas bermanfaat?

Translation  Do you think that training packages with such topics as above will be beneficial?

7  Many people internationally have made a connection between poor sanitation and (endemic) diseases, public health costs and environmental degradation. Are you aware of this connections and do you agree with the view of these people?

7  Secara umum orang menganggap bahwa topik-topik di atas adalah penting. Bagaimana menurut Bapak/Ibu/Saudara pernyataan mereka itu?

Translation  Generally people think that these topics are important. What do you think of their opinion?

8a  Are you familiar with the concept of capacity building, and if so, what does capacity building mean to you?

8a  Apakah Bapak/Ibu/Saudara mengenai dengan baik pengertian peningkatan
<table>
<thead>
<tr>
<th></th>
<th>kapasitas? Menurut Bapak/Ibu/Saudara apakah arti peningkatan kapasitas itu?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Translation</td>
<td>What do you think is the meaning of capacity building?</td>
</tr>
<tr>
<td>8b</td>
<td>What kind of capacity building activities are you aware of (in Indonesia and in general)?</td>
</tr>
<tr>
<td>Translation</td>
<td>What type of activities are linked with capacity building (can you give examples of capacity building activities that you know about in Indonesia)?</td>
</tr>
<tr>
<td>9</td>
<td>What would you consider to be a good outcome of the project, for instance what do you hope to achieve?</td>
</tr>
<tr>
<td>Translation</td>
<td>What do you think would be a good result from these activities? What do you hope to achieve through attending these activities?</td>
</tr>
<tr>
<td>10</td>
<td>What contribution do you think you (individually or your organisation) will be able to make to water and sanitation issues in Indonesia due to your involvement in this project?</td>
</tr>
<tr>
<td>Translation</td>
<td>What contribution can you (individually or collectively) give to overcome the problems of clean water and sanitation in Indonesia based on your own involvement in this activity?</td>
</tr>
<tr>
<td>11</td>
<td>In your opinion what factors might contribute to the success or failure of this project?</td>
</tr>
<tr>
<td>Translation</td>
<td>What factors do you think will support the success or the failure of this project?</td>
</tr>
</tbody>
</table>
## E ACTIVITY 2A: NEEDS ASSESSMENT INTERVIEW SCHEDULE

<table>
<thead>
<tr>
<th>No.</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>From your experience, what are the main areas of concern or problems with water and sanitation in Indonesia?</td>
</tr>
<tr>
<td>1b</td>
<td>What do you think are some of the reasons for these problems?</td>
</tr>
<tr>
<td>2</td>
<td>In your opinion, what factors contribute to and limit the success of capacity building initiatives (like this one)?</td>
</tr>
<tr>
<td>3</td>
<td>What methods are currently available for capacity building?</td>
</tr>
<tr>
<td>4</td>
<td>Looking specifically at ICT, how useful do you thing ICT is for CB in Indonesia? What factors do you think contribute to and limit the effectiveness of capacity building using ICT?</td>
</tr>
<tr>
<td>5</td>
<td>In your opinion, what are the objectives of the PSLP project and programme of activities?</td>
</tr>
<tr>
<td>6</td>
<td>Who is the target audience for the projects activities?</td>
</tr>
<tr>
<td>7</td>
<td>What are the specific capacities that the PSLP project aims to develop in this audience?</td>
</tr>
<tr>
<td>8</td>
<td>What do you think the needs are of the target audience?</td>
</tr>
<tr>
<td>9</td>
<td>As you know sustainable sanitation, rainwater harvesting, water conservation and water reuse have been identified as key topics for training by experts Do you agree that these are priority areas?</td>
</tr>
<tr>
<td>10</td>
<td>What would you consider to be a successful outcome of the PSLP project?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage</th>
<th>Activity</th>
<th>Instrument</th>
<th>Participants</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage One</td>
<td>Needs Assessment</td>
<td>Structured Interview</td>
<td>Team Members</td>
<td>English</td>
</tr>
</tbody>
</table>
F ACTIVITY 2B: SEMINAR EVALUATION QUESTIONNAIRE

<table>
<thead>
<tr>
<th>Stage</th>
<th>Activity</th>
<th>Instrument</th>
<th>Participants</th>
<th>Language</th>
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</thead>
<tbody>
<tr>
<td>Stage One</td>
<td>Seminar</td>
<td>Evaluation Questionnaire</td>
<td>Stakeholders</td>
<td>English &amp; Indonesian</td>
</tr>
</tbody>
</table>

**WATER AND SANITATION IN INDONESIA: ASSESSING THE NEEDS**
Seminar Evaluation Questionnaire/Angket Evaluasi Seminar

1. General evaluation
1. Evaluasi secara umum

Please apply the following score and circle the appropriate figure
Pilihlah dengan melingkari score, menurut penilaian saudara

1. Poor/Kurang
2. Passable/ Cukup
3. Good/ Baik
4. Very Good/Sangat Baik
5. Excellent/ Sempurna

<table>
<thead>
<tr>
<th>General aspect</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
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</thead>
<tbody>
<tr>
<td>Overall benefit of the seminar</td>
<td></td>
<td>2</td>
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<td>17</td>
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<tr>
<td>Manfaat seminar secara keseluruhan</td>
<td></td>
<td>3</td>
<td>12</td>
<td>15</td>
<td>1</td>
<td><strong>3.5</strong></td>
</tr>
<tr>
<td>Usefulness of the presentations</td>
<td></td>
<td>6</td>
<td>11</td>
<td>12</td>
<td>1</td>
<td><strong>3.3</strong></td>
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<tr>
<td>Manfaat dari presentasi yang dilakukan</td>
<td></td>
<td>4</td>
<td>14</td>
<td>9</td>
<td>1</td>
<td><strong>3.3</strong></td>
</tr>
<tr>
<td>Sharing of needs regarding water and sanitation</td>
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<td>18</td>
<td>8</td>
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<tr>
<td>Diskusi akan kebutuhan air dan sanitasi</td>
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<td>Planning for future activities</td>
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<td>Perencanaan kegiatan berikutnya</td>
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</tbody>
</table>
2. Training priorities
2. Prioritas Pelatihan

Please apply the following score and circle the appropriate figure
Pilihlah dengan melingkari score, menurut penilaian saudara

1. A low priority/Prioritas rendah
2. A medium priority/Prioritas menengah
3. A high priority/Prioritas tinggi
4. The highest priority

<table>
<thead>
<tr>
<th>Training topic</th>
<th>1</th>
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<th>3</th>
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<td>Water conservation Pelatihan tentang konservasi air</td>
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</tr>
<tr>
<td>Sustainable sanitation Pelatihan tentang sanitasi yang berkelanjutan</td>
<td>2</td>
<td>1</td>
<td>25</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Wastewater reuse Pelatihan tentang penggunaan ulang air yang telah dipakai</td>
<td>3</td>
<td>6</td>
<td>17</td>
<td>3</td>
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<tr>
<td>Rainwater harvesting Pelatihan tentang pemanfaatan air hujan</td>
<td>3</td>
<td>8</td>
<td>14</td>
<td>4</td>
<td>2.7</td>
</tr>
</tbody>
</table>

3. Appropriate methods for delivering training and services to you
3. Metode yang menurut Anda sesuai untuk digunakan dalam pelatihan nantinya

Please apply the following score and circle the appropriate figure
Pilihlah kriteria di bawah ini untuk mengisi score sesuai dengan pendapat Anda
1. Not good/Tidak baik
2. Passable/Agak baik
3. Good/Baik
4. Very good/Sangat baik
5. Excellent/Sempurna

<table>
<thead>
<tr>
<th>Method</th>
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<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
</tr>
</thead>
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<td>Demonstration project Projek fisik percontohan</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Training Pelatihan</td>
<td>1</td>
<td>8</td>
<td>18</td>
<td>3</td>
<td>3.8</td>
<td></td>
</tr>
<tr>
<td>Computer based/online learning Computer based / online learning</td>
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<td>10</td>
<td>13</td>
<td>6</td>
<td>3.8</td>
<td></td>
</tr>
<tr>
<td>Networking Jaring</td>
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<td>13</td>
<td>11</td>
<td>5</td>
<td>3.7</td>
<td></td>
</tr>
<tr>
<td>Learning by simulation Belajar dengan simulasi</td>
<td>2</td>
<td>10</td>
<td>14</td>
<td>5</td>
<td>3.7</td>
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<td>Information sharing Sharing informasi</td>
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<td>14</td>
<td>13</td>
<td>3</td>
<td>3.6</td>
<td></td>
</tr>
<tr>
<td>University short course Kurus singkat di Perguruan Tinggi</td>
<td>4</td>
<td>12</td>
<td>10</td>
<td>3</td>
<td>3.4</td>
<td></td>
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<tr>
<td>Seminar</td>
<td>5</td>
<td>17</td>
<td>7</td>
<td>1</td>
<td>3.1</td>
<td></td>
</tr>
</tbody>
</table>
4. Appropriate modes of communication on water and sanitation for you
4. Cara komunikasi yang tepat dalam mendiskusikan tentang air bersih dan sanitasi dengan Anda

Please apply the following score and circle the appropriate figure
Pilihlah kriteria di bawah ini untuk mengisi score sesuai dengan pendapat Anda
  1. Not good/Tidak baik
  2. Passable/Agak baik
  3. Good/Baik
  4. Very good/Sangat baik
  5. Excellent/Sempurna

<table>
<thead>
<tr>
<th>Mode of communication</th>
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<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
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<tbody>
<tr>
<td>Face to face</td>
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<td></td>
<td>7</td>
<td>16</td>
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<td>Tatap muka</td>
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<tr>
<td>Printed materials</td>
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<td>11</td>
<td>13</td>
<td>4</td>
<td></td>
<td>3.6</td>
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<td>Materi tertulis</td>
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<td>Website</td>
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<td>SMS</td>
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<tr>
<td>Teleconference</td>
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<td>11</td>
<td>14</td>
<td>1</td>
<td>1</td>
<td>2.7</td>
</tr>
</tbody>
</table>

5. Are you aware of any existing training materials on water and sanitation in Bahasa Indonesia?
5. Apakah anda pernah mengetahui materi pelatihan di bidang air bersih dan sanitasi dalam bahasa Indonesia?

Yes/Ya [ ] No/Tidak [ ]

If yes, please provide details.
Kalau ya, Jelaskan

6. Any other comments you wish to make
6. Mohon memberikan tanggapan lain yang Anda anggap diperlukan

THANK YOU FOR YOUR ASSISTANCE!
TERIMA KASIH ATAS BANTUAN ANDA!
## G Activity 3: Interview Schedule

<table>
<thead>
<tr>
<th>Stage</th>
<th>Activity</th>
<th>Instrument</th>
<th>Participants</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage One</td>
<td>TOT Workshop Final Day</td>
<td>Semi-structured interview</td>
<td>Stakeholders</td>
<td>English &amp; Indonesian</td>
</tr>
</tbody>
</table>

1. What do you think is needed to improve water and sanitation in Indonesia?
   - Apa yang anda kira dibutuhkan untuk memingkatkan air dan sanitasi, di Indonesia di tempat anda bekerja?

2. Specifically, what do you need so that you can contribute to improving water and sanitation in Indonesia?
   - Secara khusus, apa yang anda gutuhkan sehingga anda dapat menyumbangkan sesuatu untuk air dan sanitasi di Indonesia di tempat anda berkerja

3. What action related to water and/or sanitation would you like to be part of after this workshop?
   - Kegiatan apa yang berhubungan dengan air dan sanitasi yang anda ingin lakukan setelah lokakarya?

4. Of the materials on sustainable sanitation presented to you, what do you think will be most useful in the future?
   - Dari materi-materi tentang kesinambungan sanitasi yang tilah di presentaskikan pada anda, materi apa yang paling berguna pada masa yang akan datang?
H ACTIVITY 3: WORKSHOP EVALUATION QUESTIONNAIRE

<table>
<thead>
<tr>
<th>Stage</th>
<th>Activity</th>
<th>Instrument</th>
<th>Participants</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage One</td>
<td>TOT Workshop</td>
<td>Evaluation Questionnaire</td>
<td>Stakeholders</td>
<td>English &amp; Indonesian</td>
</tr>
</tbody>
</table>

SUSTAINABLE SANITATION IN INDONESIA/
SANITASI BERKELANJUTAN DI INDONESIA
Workshop Evaluation Questionnaire/Angket Evaluasi Lokakarya

1. General evaluation
1. Evaluasi Umum

Please apply the following score and circle the appropriate figure
Beri tanda pada kotak yang sesuai

1. Poor/Buruk
2. Passable/Cukup
3. Good/Baik
4. Very Good/Sangat Baik
5. Excellent/Sempurna

<table>
<thead>
<tr>
<th>General aspect</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
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</thead>
<tbody>
<tr>
<td>Overall benefit of the workshop</td>
<td>10</td>
<td>20</td>
<td>3</td>
<td></td>
<td></td>
<td>3.8</td>
</tr>
<tr>
<td>Understanding issues in sustainable sanitation</td>
<td>4</td>
<td>14</td>
<td>11</td>
<td>4</td>
<td></td>
<td>3.5</td>
</tr>
<tr>
<td>Achieving the purpose of the workshop</td>
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<td>13</td>
<td>1</td>
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<td>3.3</td>
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<tr>
<td>Understanding issues in eLearning</td>
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<td>16</td>
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<td>3.3</td>
</tr>
<tr>
<td>Planning for subsequent activities</td>
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<tr>
<td>Organisation of the workshop</td>
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<td>20</td>
<td>6</td>
<td>1</td>
<td></td>
<td>3.1</td>
</tr>
</tbody>
</table>

2. Please give more detailed comments/opinions on the following:
2. Beri pendapat atau komentar yang lebih rinci mengenai hal-hal berikut ini:

2.1 The value of the workshop to you
2.1 Nilai lokakarya bagi Anda

2.2 The duration of the workshop
2.2 Durasi (alokasi waktu) lokakarya

2.3 The best issues of the workshop
2.3 Isu-isu yang paling baik dalam lokakarya

2.4 Was there something really important missing?
2.4 Apakah ada hal-hal yang penting yang terlewat?

2.5 What further items or issues should we consider?
2.5 Isu-isu atau hal-hal apalagi yang harus dipertimbangkan untuk dibicarakan?
3. Please indicate:
3. Tunjukkan:

a) How useful each session of the workshop was on a scale from – 1 = not useful to 5 = very useful (PART A RESULTS APPEAR BELOW)

b) Whether you would have preferred a different delivery method (NOT TRANSLATED)

<table>
<thead>
<tr>
<th>Session Sesi Lokakarya</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
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</thead>
<tbody>
<tr>
<td>SuSAN eLearning module</td>
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<td>Water and sanitation regulations in Indonesia Regulasi pengolahan limbah cair</td>
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<td>16</td>
<td>14</td>
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<td>Water pollution and its control Isu sanitasi dan air Polusi air dan pengawasannya</td>
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<td>3</td>
<td>18</td>
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<tr>
<td>Wetland technology Teknologi tanah basah buatan</td>
<td>5</td>
<td>16</td>
<td>11</td>
<td></td>
<td></td>
<td>4.2</td>
</tr>
<tr>
<td>Workshops developing action plans Lokakarya-lokakarya untuk pengembangan rencana-rencana tindakan (action plans)</td>
<td>7</td>
<td>12</td>
<td>13</td>
<td></td>
<td></td>
<td>4.2</td>
</tr>
<tr>
<td>Capacity building concept Konsep pengembangan kemampuan (capacity)</td>
<td>6</td>
<td>18</td>
<td>9</td>
<td></td>
<td></td>
<td>4.1</td>
</tr>
<tr>
<td>Sustainable sanitation 2 Sanitasi yang berkelanjutan 2 (I2)</td>
<td>9</td>
<td>13</td>
<td>11</td>
<td></td>
<td></td>
<td>4.1</td>
</tr>
<tr>
<td>Learning and training in the 21st century Kuliah Tamu: pembelajaran dan pelatihan abad dua puluh satu</td>
<td>1</td>
<td>8</td>
<td>19</td>
<td>5</td>
<td></td>
<td>3.8</td>
</tr>
<tr>
<td>Community awareness, technology and sustainable development Kesadaran masyarakat, teknologi dan pengembangan/pembangunan yang berkelanjutan</td>
<td>3</td>
<td>13</td>
<td>12</td>
<td>4</td>
<td></td>
<td>3.5</td>
</tr>
<tr>
<td>Concept of gender and law enforcement Konsep gender dan penegakan hukum dibidang lingkungan</td>
<td>4</td>
<td>12</td>
<td>12</td>
<td>5</td>
<td></td>
<td>3.5</td>
</tr>
</tbody>
</table>
4. eLearning

What do you think of the eLearning package(s)?
Bagaimana pendapat Anda tentang paket-(paket) e-learning?

Can you suggest any ways to improve the eLearning package(s)?
Dapatkah Anda menyarankan penyempurnaan paket-(paket) e-learning?

How will you make use of these package(s) after the workshop?
Bagaimana Anda akan memanfaatkan paket-(paket) tersebut setelah lokakarya ini?

5. Any other comments you wish to make
5. Komentar-komentar lain yang ingin Anda sampaikan

THANK YOU FOR YOUR ASSISTANCE!
TERIMA KASIH ATAS BANTUAN ANDA!
<table>
<thead>
<tr>
<th>Stage</th>
<th>Activity</th>
<th>Instrument</th>
<th>Participants</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage One</td>
<td>After TOT Workshop</td>
<td>Semi-structured interview</td>
<td>IEMT Team Members</td>
<td>English</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topics</th>
<th>Possible questions and sub-topics</th>
</tr>
</thead>
</table>
| Workshop                     | • Overall impression  
• Any problems  
• Suggestions for improvements |
| Capacity building             | • Whose (individual, institution, society)  
• Barriers  
• Learning organisation  
• Communication  
• Collaboration  
• Transparency |
| Institutional problems        | • Barriers to the project |
| Stakeholder commitment and numbers | • No problem, why? |
| Future projects/second PSLP   | • What would you like?  
• What would you do differently in terms of management, planning etc.? |
| eLearning                     | • How do you think this was received by the participants? |
| Management                    | • Leadership  
• Problems |
<p>| Gender                        | • Roles |</p>
<table>
<thead>
<tr>
<th>Factor impacting on success</th>
<th>Assumptions regarding good practice</th>
<th>Substantive/Procedural Number</th>
<th>Design principle</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Team member selection</strong></td>
<td><strong>The relationship between IEMT and ETC team members</strong>&lt;br&gt;Personalities – Box 4b, section on culture and ‘complaints’ about the leader</td>
<td>Requires stakeholders to have attitudes that support endogenous, reciprocal and respectful practice</td>
<td>P 1.1 When selecting team members take into consideration not only the requisite skills (technical, pedagogical and cultural) but also personalities and the potential for developing working relationships based on mutual understanding and trust</td>
</tr>
<tr>
<td><strong>2. Intervention planning and management</strong></td>
<td><strong>The relationship between IEMT and ETC team members</strong></td>
<td>P 1.2 Consider working with people with whom there is an existing relationship</td>
<td></td>
</tr>
<tr>
<td>Not involving IEMT team members in the project design</td>
<td>Acknowledges potential issues relating to power, participation and ownership</td>
<td>P 2.1 Facilitate ownership, commitment and motivation to the intervention by involving team members in all stages of planning, implementation and management of the intervention and providing in-country team members with incentives and fair reward for their involvement</td>
<td></td>
</tr>
<tr>
<td>Not discussing payment and incentives for IEMT team members at the outset of the project</td>
<td>Difficulties working collaboratively&lt;br&gt;Encourages practitioners to work collaboratively and be reflective</td>
<td>P 2.2 Encourages practitioners to work collaboratively and be reflective</td>
<td></td>
</tr>
<tr>
<td>Difficulties working collaboratively</td>
<td>Involves learning from experience&lt;br&gt;Encourages practitioners to be reflective</td>
<td>P 2.3 Take steps to secure an appropriate level of institutional support</td>
<td></td>
</tr>
<tr>
<td>Institutional support</td>
<td>A lack of transparency and clarity regarding financial management of the project</td>
<td>P 2.4 Manage the finances in an open and transparent manner</td>
<td></td>
</tr>
<tr>
<td>The adequacy of the project planning</td>
<td>Involves learning about cultural differences and how they impact on working relationships</td>
<td>P 2.5 Develop the capacity of all team members to be culturally competent</td>
<td></td>
</tr>
<tr>
<td>Difficulties associated with planning due to cultural differences and a lack of commitment</td>
<td>Teamwork and team building are important for effective capacity development</td>
<td>P 2.6 Incorporate professional development activities that foster team building and appropriate management practices</td>
<td></td>
</tr>
<tr>
<td>Factor impacting on success</td>
<td>Assumptions regarding good practice</td>
<td>Substantive/Procedural Number</td>
<td>Design principle</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------</td>
<td>------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>3. Stakeholder selection and engagement</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effective and culturally appropriate engagement of stakeholders</td>
<td></td>
<td>P</td>
<td>Establish a culturally appropriate method of stakeholder engagement</td>
</tr>
<tr>
<td>Not selecting stakeholders with the ability to take action after the workshop</td>
<td></td>
<td>P</td>
<td>Select stakeholders that have the motivation and ability to facilitate/learning and change after the completion of the intervention</td>
</tr>
<tr>
<td>Not developing the intervention in response to the stakeholders who demonstrated a commitment to facilitating learning and change after the intervention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4. Activity scope and objectives</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not delivering activities based on stakeholders needs and capacity</td>
<td>Requires an understanding of the local context Involves delivering interventions based on needs and builds on existing capacity</td>
<td>P</td>
<td>Develop the program of activities based on stakeholders’ needs</td>
</tr>
<tr>
<td><strong>5. Appropriate pedagogy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not designing the workshop based on adult learning theory</td>
<td>Is consistent with adult learning theory</td>
<td>S</td>
<td>Develop activities based on adult learning principles</td>
</tr>
<tr>
<td>Utilising inappropriate methods for learning and/or sustainable outcomes</td>
<td></td>
<td>S</td>
<td>Ensure the overall approach includes delivery methods that are locally and culturally appropriate</td>
</tr>
<tr>
<td>Not delivering the workshop in an appropriate learning environment</td>
<td></td>
<td>S</td>
<td>Ensure the venue for the activity is an environment conducive for learning</td>
</tr>
<tr>
<td>Not providing stakeholders with an opportunity to socialise</td>
<td></td>
<td>S</td>
<td>Provide stakeholders with an opportunity to socialise with each other</td>
</tr>
<tr>
<td><strong>6. Learning materials</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not providing stakeholders with materials that were customised for the local context</td>
<td></td>
<td>S</td>
<td>Make use of locally available resources and materials</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S</td>
<td>Ensure that any generic learning materials are modified for the local environment and that this goes beyond translation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S</td>
<td>Develop learning resources and materials in conjunction with stakeholders as part of the intervention</td>
</tr>
<tr>
<td><strong>7. Language and interpretation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not utilising interpreters that were proficient and familiar with the subject matter</td>
<td></td>
<td>P</td>
<td>Employ proficient interpreters who are familiar with the subject matter in order to minimise the barrier language can have on the intervention</td>
</tr>
</tbody>
</table>
### 8. Sustainability

**Factor impacting on success**  
Not taking into consideration the sustainability of the project

**Assumptions regarding good practice**  
Facilitates the development of social capacity which is important for sustainable outcomes

**Substantive/Procedural Number**  
S 8.1

**Design principle**  
Develop a program that fosters relationship building

---

**Factor impacting on success**  
Not having funding available to support ongoing action and activities.

**Assumptions regarding good practice**

**Substantive/Procedural Number**  
S 8.2

**Design principle**  
Budget a small sum to support activities beyond the timeframe of the intervention

---

**Factor impacting on success**  
A lack of organisational capacity

**Assumptions regarding good practice**

**Substantive/Procedural Number**  
S 8.3

**Design principle**  
Establish mechanisms for networking

---

### Guidelines

**Involving key people in the community**

**Assumptions regarding good practice**

**Substantive/Procedural Number**

**Design principle**

---

**Failing to accurately assess local needs and build ownership through the needs assessment process**

**Assumptions regarding good practice**

**Substantive/Procedural Number**

**Design principle**

---

**Not discussing the concept of needs assessment and agreeing on how the results would be used to inform decision making**

**Assumptions regarding good practice**

**Substantive/Procedural Number**

**Design principle**

---

**Not using a demonstration project**

**Assumptions regarding good practice**

**Substantive/Procedural Number**

**Design principle**

---

**Implementing activities that did not develop the capacity, in particular skills, that stakeholders needed to facilitate learning and change, in particular awareness raising**

**Assumptions regarding good practice**

**Substantive/Procedural Number**

**Design principle**

---

**Not accommodating local customs**

**Assumptions regarding good practice**

**Substantive/Procedural Number**

**Design principle**

---
## K WORKSHOP EVALUATION QUESTIONNAIRE

<table>
<thead>
<tr>
<th>Stage</th>
<th>Activity</th>
<th>Instrument</th>
<th>Participants</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage Two</td>
<td>End of SSWT Project</td>
<td>Evaluation Questionnaire</td>
<td>Stakeholders</td>
<td>English &amp; Indonesian</td>
</tr>
</tbody>
</table>

### Sustainable Sanitation and Wetland Technology
Sanitasi Berkelanjutan dan Pembuatan Taman Tanaman Air
Workshop Evaluation Questionnaire
Angket Evaluasi Lokakarya

#### 1. General Evaluation
1. Evaluasi Umum
Please mark the appropriate box
Beri tanda pada kotak yang sesuai

<table>
<thead>
<tr>
<th>Benefit/Utility</th>
<th>Poor/Burup</th>
<th>Passable/Cukup</th>
<th>Good/Baik</th>
<th>Very Good/Sangat Baik</th>
<th>Excellent/Sempurna</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall benefit of the workshop</td>
<td>1</td>
<td>1</td>
<td>11</td>
<td>1</td>
<td>3.9</td>
<td></td>
</tr>
<tr>
<td>Achieving the purpose of the workshop</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>1</td>
<td>3.9</td>
<td></td>
</tr>
<tr>
<td>Knowledge of sustainable sanitation</td>
<td>1</td>
<td>7</td>
<td>5</td>
<td>1</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td>Knowledge of constructed wetlands</td>
<td>1</td>
<td>3</td>
<td>10</td>
<td>3.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of approaches for awareness raising*</td>
<td>5</td>
<td>8</td>
<td>1</td>
<td>3.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utility of the resources developed*</td>
<td>1</td>
<td>7</td>
<td>6</td>
<td>3.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organisation of the workshop</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>3.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Incorrectly translated – data not used

#### 2. Please give more detailed comments/opinions on the following:
2. Beri pendapat atau komentar yang lebih rinci mengenai hal-hal berikut ini:

2.1 The value of the workshop to you
2.1 Nilai lokakarya bagi Sdr/i

2.2 The duration of the workshop
2.2 Durasi (alokasi waktu) lokakarya

2.3 The best issues of the workshop
2.3 Isu-isu yang paling baik dalam lokakarya

2.4 Was there something really important missing?  
2.4 Apakah ada hal-hal yang penting yang terlewat?

2.5 What further items or issues should we consider?  
2.5 Isu-isu atau hal-hal apalagi yang harus dipertimbangkan untuk dibicarakan?

3. Please give more detailed comments/opinions on the following: 
3. Beri pendapat atau komentar yang lebih rinci mengenai hal hal berikut ini:

3.1 How did or didn’t the workshop meet your expectations? 
3.1 Apakah kegiatan dalam lokakarya yang suah/belum memenuhi harapan Sdr/i?

3.2 What did you like the most/least about the delivery methods? 
3.2 Cara penyampaian yang mana yang paling Sdr/I sukai/tidak sukai?

3.3 How did you feel about your role in the workshop; were you comfortable, did you feel engaged, was it challenging, too challenging? 
3.3 Bagaimana perasaan Sdr/I selama mengikuti lokakarya: apakah nyaman, bias terlibat aktif, sukar (merupakan tantangan), sangat menantang?

3.4 How did you feel about the facilitator’s role in the workshop? 
3.4 Bagaimana pendapat Sdr/I mengenai para fasilitator pada lokakarya ini?

3.5 How did you feel about the opportunities in the workshop to practice what you learnt? 
3.5 Bagaimana pendapat Sdr/I mengenai kesempatan mempraktekkan pengetahuan yang Sdr/I peroleh melalui lokakarya ini?

3.6 What are three messages/facts about sanitation that you would tell someone else about? 
3.6 Pesan-pesan apa (3 hai) yang berkaitan dengan sanitasi yang bias Sdr/I tularkan kepada orang lain/pihak lain?

3.7 How you will use what you have learnt during this workshop? 
3.7 Bagaimana Sdr/I akan memanfaatkan yang telah dipelajari dalam kehidupan nyata?

4. Any other comments you wish to make: 
4. Komentar-komentar lain yang ingin Sdr/I sampaikan:

THANK YOU FOR YOUR ASSISTANCE! 
TERIMA KASIH ATAS PARTISIPASI ANDA!
L GETTING TO KNOW YOU QUESTIONNAIRE

<table>
<thead>
<tr>
<th>Stage</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Stage Two SSWT Project</td>
<td>Day One SSWT Workshop</td>
<td>Questionnaire</td>
<td>Stakeholders</td>
<td>English &amp; Indonesian</td>
</tr>
</tbody>
</table>

Sustainable Sanitation and Wetland Technology
Getting to know you

1. What are three things that you would like to learn/gain from this workshop?

| Translated by Team Leader | Mohon disebutkan, tiga hal apakah yang ingin pelarji/peroleh dari lokakarya ini? |
| Translated by Team Leader | Please mention three things you wish/want to learn or gain from this workshop? |

2. How would you describe sustainable sanitation?

| Translated by Team Leader | Menurut Sdr/I apakah pengertian sanitasi yang berkelanjutan itu? |
| Translated by Team Leader | According to you, what is the meaning of sustainable sanitation? |

3. What kind of activities for raising awareness (e.g., about the environment) have you been involved in previously?

| Translated by Team Leader | Aktivitas apa saja dalam meningkatkan kepedulian masyarakat (misalnya tentang lingkungan) yang pernah Sdr/I lakukan sebelumnya? |
| Translated by Team Leader | What kind of awareness raising activities (e.g., about the environment) which you have done before? |

4. What kind of activities relating to sanitation have you been involved in previously?

| Translated by Team Leader | Aktivitas apa saja yang berhubungan dengan sanitasi yang pernah Sdr/I ikuti sebelumnya? |
| Translated by Team Leader | What kind of activities related to sanitation which you ever done before? |

5. After the workshop how do you think you will be able to use what you have learnt?

| Translated by Team Leader | Setelah mengikuti lokakarya ini, apa yang Sdr/I pikirkan yang mungkin dapat diterapkan dari hal yang telah Sdr/I pelarjari? |
| Translated by Team Leader | After you go from this workshop what do you think is possible to apply from the things you have learnt? |

6. Who are you most likely to share what you have learned from this workshop with e.g., local community groups, colleagues, school children, family?

| Translated by Team Leader | Siapakah yang paling memungkinan bagi Sdr/I dalam membagikan pengetahuan/ketrampilan yang telah Sdr/I dapatkan dari lokakarya ini (misalnya komunitas masyarakat sekitar tempat tinggal Sdr/I, kampus, kantor, sekolah, keluarga)? |
| Translated by Team Leader | Who is the most possible for you in sharing the knowledge/skill which you gain from the workshop, community near where you live, office, school children, family? |
I. What is a constructed wetland?

- A constructed wetland is simply a hole in the ground, lined (for example with plastic) to stop water loss, filled with a media (such as gravel) and planted with reeds which grow hydroponically.
- As wastewater enters one end of the wetland – it pushes treated water out the other end.
- The plants pump oxygen to their roots which allows bacteria to survive and live on the roots – these bacteria consume the nutrients and pollutants in the wastewater. Other bacteria also grow on the media (e.g., gravel).
- The longer the wastewater is in the wetland and the further it has to travel – the more treatment it receives, and the higher the quality of the outflowing water.
- The wetland can be used to treat wastewater from the kitchen, laundry, bathroom (= greywater) and/or toilet (=blackwater).
- Treating wastewater from the kitchen, bathroom and laundry only (greywater) is easier, however it tends to be nitrogen poor and carbon rich, therefore if you can introduce nitrogen (ammonia-salt based detergent, urine etc.) the plants will thrive.
- Use biodegradable products wherever possible and avoid too much chlorine.
- Always keep the water level in the wetland at least 75mm below the surface: 1) to stop mosquito breeding; 2) to stop children and animals touching the water; and, 3) to stop odours.

II. Design

- The wetland should generally be longer than it is wide e.g. W:L of 1:1 to 1:5.
- The size of the wetland depends on the volume of wastewater. Normally, you want the wetland to retain the wastewater for at least 5 to 7 days.
- If gravel is used to fill the wetland at least half of the volume is ‘lost’. If you use chopped up plastic bottles this isn’t the case, therefore the wetland can be much smaller to treat the same volume of wastewater (but a lot more work!).
- The depth of the wetland should be no deeper than 60cm as the plant roots will not go that deep.
- A settling or septic tank is needed to stop solids and grease from entering the wetland otherwise they will clog it up.

III. Materials

- **Liner**: prefabricated tub, plastic or cement.
- **Media**: gravel (diameter 10-20mm^1^), plastic bottles, polystyrene.
- **Plumbing**: PVC pipe for inlets and outlets.
- **Settling/septic tank**: concrete or plastic tank.
- **Plants**: local wetland sedges and reeds.

IV. Location

The wetland should:

- Be located downhill from the settling/septic tank.
- Receive plenty of sunlight for reed and plant growth.
- Be as far away from trees as possible to stop tree roots penetrating the lining of the wetland over time.

---

^1^ If the gravel used is too fine, there is a high risk that it will clog with solids over time. However, if it is too coarse, plant growth will be poor and it is likely that treatment performance will suffer.
V. Construction

1. **Dig the hole**: the hole should be no deeper than 60cm. Walls can be vertical or sloped. Make sure that there are no rocks, sticks or roots that can puncture the plastic.

2. **Line the hole**: the liner is ideally made up of three layers 1) on the bottom a geotextile (e.g., carpet); 2) in the middle two layers of heavy duty plastic sheeting (each should be in one piece); and, 3) a top layer of geotextile material or 2 inches of soil.

3. **Determine the level of the outlet**: the outlet can either be a slotted pipe surrounded by larger rocks or a shallow gravel filled drain. Make certain that the outlet is at least 75mm below the surface of the wetland.

4. **Install the inlet pipe**: position the slotted inlet pipe and surround it with larger rocks; this avoids clogging by roots at the inlet.

5. **Fill the wetland**: fill the wetland with the media and then fill it up with freshwater.

6. **Prepare the plants**: when you dig up the plants try to get as much of the rootball as possible, and leave as much of the soil behind as possible. Prune the reeds heavily ready for transplanting.

7. **Plant the reeds in the wetland**: dig a shallow hole in the surface of the wetland and place the reeds’ rootball into it, backfill leaving the stem and leaves sticking up. Plant 4-5 plants every square metre.

8. **Start using the wetland**: after two weeks allow wastewater to enter the wetland.

WHERE WILL THE TREATED WATER GO?
It could go to a pond, garden or back into the creek. If the treated water goes to a pond it is possible to install a diversion with a valve. This could be used to irrigate, for example a vegetable patch, in the dry season.

VI. Maintenance

- Desludge the settling/septic tank as necessary to stop solids blocking up the inlet pipe.
- From time to time you may also need to trim the reeds.

IMPORTANT THINGS TO REMEMBER!

- Always make sure that the outlet is at least 75mm below the top of the wetland so that the water level is always below the top.
- Make sure that the plastic liner does not get any holes in it: remove all the sharp rocks, roots, branches etc. Wear bare feet!
- Use full sheets of plastic to line the wetland; do not join sheets with tape or glue.
- Make sure the wetland receives plenty of sunlight year round and install your wetland as far away from trees as possible.
- Have raised edges so that rainwater does not run across the ground and flood the wetland.
### N Fold Out Version of the Framework

<table>
<thead>
<tr>
<th>DP</th>
<th>Design Principle</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>Team member selection</td>
</tr>
<tr>
<td>1.1</td>
<td>When selecting team members take into consideration not only the requisite skills (technical, pedagogical and cultural) but also personalities and the potential for developing working relationships based on mutual understanding and trust</td>
</tr>
<tr>
<td>1.2</td>
<td>Where possible work with individuals with whom there is an existing relationship</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>Intervention planning and management</td>
</tr>
<tr>
<td>2.1</td>
<td>Facilitate ownership, commitment and motivation to the intervention by involving team members in all stages of the design, planning, implementation and management of the intervention and providing in-country team members with appropriate and agreed upon incentives</td>
</tr>
<tr>
<td>2.2</td>
<td>Take steps to secure an appropriate level of institutional support</td>
</tr>
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<td>2.3</td>
<td>Manage finances in an open and transparent manner</td>
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<td>2.4</td>
<td>Develop the capacity of all project members to be culturally competent</td>
</tr>
<tr>
<td>2.5</td>
<td>Incorporate professional development activities that foster team building and appropriate management practices</td>
</tr>
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<td><strong>3</strong></td>
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</tr>
<tr>
<td>8.3</td>
<td>Develop a program that fosters relationship building</td>
</tr>
<tr>
<td><strong>IG</strong></td>
<td>Indonesian Guidelines</td>
</tr>
<tr>
<td>1</td>
<td>Ensure that team members understand what a needs assessment is and agree upon how these results will be used to shape the intervention</td>
</tr>
<tr>
<td>2</td>
<td>Involve stakeholders who are key people in the community i.e., respected leaders, elders, religious leaders and government officials</td>
</tr>
<tr>
<td>3</td>
<td>Develop stakeholders’ capacity to raise awareness of sanitation issues in Indonesia</td>
</tr>
<tr>
<td>4</td>
<td>Demonstration projects are appropriate for developing Indonesian capacity in sanitation</td>
</tr>
<tr>
<td>5</td>
<td>Develop a program that accommodates local customs such as prayer times</td>
</tr>
<tr>
<td>6</td>
<td>Provide stakeholders with a certificate of attendance for their involvement in the intervention</td>
</tr>
</tbody>
</table>
Dear Reviewer,

I am currently in the final stages of my PhD on capacity development. The aims of my research are to improve and further understand the practice of developing capacity in the area of sanitation in Indonesia.

My research has involved qualitative analysis of two capacity development initiatives carried out collaboratively by staff from Murdoch University, Western Australia and Merdeka University, Indonesia. These initiatives were short-term projects that focused on developing the capacity of individuals from local government, academia, NGOs and community based organisations. The project involved non-formal training and awareness raising in the areas of water and sanitation.

Through this research a Framework for Capacity Development has been developed. The Framework consists of a series of design principles for the design of capacity development activities. The Framework also includes a guide as to the ease of applying the design principles, their impact and their overall utility for improving capacity development.

I would like to invite you to formally review this Framework. The purpose of this review is to validate the Framework. The review will involve a 45min-1hour face to face or telephone interview with me. The complete details of the Framework and review process are provided in the attachment. If you accept this invitation your input will be used to validate and improve the Framework. All interview data will be strictly confidential. The research outcomes will be made available to you at the end of the study.

In accordance with Murdoch University's Human Research Ethics Policy I am required to obtain consent from you for your involvement in the research. Therefore, if you respond positively to this invitation, I would appreciate if you could include a brief statement indicating that you understand the purpose of the research and agree to participate.

The interviews will take place during the 1st – 11th April 2008.

I look forward to hearing from you soon.

Also, if you have any colleagues who you think might be interested in participating in this review please let me know.

Kind regards,
[The Researcher]
The Framework for Capacity Development

The Framework for Capacity Development (Table 1) is intended to provide capacity development practitioners with design principles and guidelines that facilitate the delivery of capacity development initiatives that:

- Better meet the needs of the stakeholders.
- Enable stakeholders to facilitate change and learning after the initiative.
- Develop capacity that leads to sustained action beyond the timeframe of the initiative.

The Framework for Capacity Development comprises of eight components as follows:

1. Project team member selection
2. Project management and planning
3. Participant selection and engagement
4. Activity scope and objectives
5. Appropriate pedagogy
6. Learning resources and materials
7. Language and translation
8. Sustainability and ongoing support

For each of the eight components there are corresponding design principles. The design principles provide criteria for the design of capacity development activities. In addition, the complete Framework includes Indonesian specific guidelines; however, these are not included in the review.

The Framework also includes a guide for the following:

1. **Impact**: the impact that applying this design principle has on improving the practice (process) and outcomes of the capacity development initiative.
2. **Ease**: how easy it is to apply the design principle when implementing capacity development initiatives.
3. **Utility**: the overall utility of the design principle in terms of improving the practice and outcomes of the capacity development initiative when taking into consideration the impact of the design principle and ease of applying the design principle.

In reviewing this framework, I would like you to estimate the impact and ease of each principle.
### Table 1: Framework for Capacity Development

<table>
<thead>
<tr>
<th>#</th>
<th>Design Principle</th>
<th>Impact</th>
<th>Ease</th>
<th>Utility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Team member selection</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>When selecting team members take into consideration not only the requisite skills (technical, pedagogical and cultural) but also personalities and the potential for developing working relationships based on mutual understanding and trust</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>Where possible work with individuals with whom there is an existing relationship</td>
<td></td>
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<tr>
<td>1.3</td>
<td>Select team members, in particular technical experts, that have an understanding of the development context</td>
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<tr>
<td>2</td>
<td><strong>Intervention planning and management</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2.1</td>
<td>Facilitate ownership, commitment and motivation to the intervention by involving team members in all stages of the design, planning, implementation and management of the intervention and providing in-country team members with appropriate and agreed upon incentives</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2.2</td>
<td>Encourage team members to work collaboratively and be reflective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3</td>
<td>Take steps to secure an appropriate level of institutional support</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2.4</td>
<td>Manage finances in an open and transparent manner</td>
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<td></td>
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<tr>
<td>2.5</td>
<td>Develop the capacity of all project members to be culturally competent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.6</td>
<td>Incorporate professional development activities that foster team building and appropriate management practices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td><strong>Stakeholder selection and engagement</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>Select stakeholders that have the motivation and ability to facilitate learning/change after completion of the activity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.2</td>
<td>Establish a culturally appropriate method of stakeholder engagement</td>
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</tr>
<tr>
<td>3.3</td>
<td>Include more women than men in the group of stakeholders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.4</td>
<td>Select local government stakeholders based on their motivation not position</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td><strong>Activity scope and objectives</strong></td>
<td></td>
<td></td>
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<tr>
<td>4.1</td>
<td>Develop the program of activities based on participant need</td>
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<td>4.2</td>
<td>Develop a program that builds on the existing capacities of participants</td>
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</tr>
<tr>
<td>5</td>
<td><strong>Appropriate pedagogy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1</td>
<td>Design activities according to adult learning principles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.2</td>
<td>Ensure the overall approach includes delivery methods that are locally and culturally appropriate</td>
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</tr>
<tr>
<td>5.3</td>
<td>Constantly challenge assumptions about appropriate pedagogy to ensure that the program does more than replicate what people are familiar with</td>
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</tr>
<tr>
<td>5.4</td>
<td>Ensure the venue for the activity is an environment conducive for learning</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5.5</td>
<td>Be flexible and provide opportunities for feedback in the program to accommodate a learner centred approach</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5.6</td>
<td>Provide stakeholders with opportunities to socialise with each other</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5.7</td>
<td>Evaluate the learning activities and use the findings to inform the design of future activities</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>6</td>
<td><strong>Learning resources and materials</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.1</td>
<td>Make use of locally available resources and materials</td>
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</tr>
<tr>
<td>6.2</td>
<td>Ensure that any generic materials are modified for the local environment and that this goes beyond translation</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>7.2</td>
<td>Make language tuition available to all team members</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td><strong>Sustainability and ongoing support</strong></td>
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<tr>
<td>8.1</td>
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<tr>
<td>8.2</td>
<td>Establish mechanisms for networking</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>8.3</td>
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<td></td>
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</tr>
</tbody>
</table>

Notes: 1) Four design principles are presented in italics. These principles were included in the review. However, subsequent analysis of the factors impacting on the success of the PSLP and SSWT Projects resulted in these not being included in the preliminary version of the Framework. 2) In the preliminary Framework reviewed the word project member replaced team member and similarly participant was used instead of stakeholder. Through evolution of the project the language has changed. The version of the Framework reviewed did not accurately reflect this evolution.
The Review Process

PART 1: DESIGN PRINCIPLES ANALYSIS

This step is to be completed prior to the interview.

Using the qualitative descriptors provided in Tables 2 and 3 for each design principle please assign rankings of 1 – 4 for the following, based on your experiences in capacity development:

1. **Impact**: the impact that applying this design principle has on improving the practice (process) and outcomes of the capacity development initiative.

2. **Ease**: how easy it is to apply the design principle when implementing capacity development initiatives.

**Table 2**: Qualitative measures of impact

<table>
<thead>
<tr>
<th>Level</th>
<th>Descriptor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Minor</td>
<td>Little improvement in capacity development process/outcomes</td>
</tr>
<tr>
<td>2</td>
<td>Moderate</td>
<td>Some improvements in capacity development process/outcomes</td>
</tr>
<tr>
<td>3</td>
<td>High</td>
<td>Many improvements in capacity development process/outcomes</td>
</tr>
<tr>
<td>4</td>
<td>Major</td>
<td>Substantive improvement in capacity development process/outcomes</td>
</tr>
</tbody>
</table>

**Table 3**: Qualitative measures of ease of application *

<table>
<thead>
<tr>
<th>Level</th>
<th>Descriptor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very easy</td>
<td>Little or no effort required to apply the design principle</td>
</tr>
<tr>
<td>2</td>
<td>Moderately easy</td>
<td>Some effort required to apply the design principle</td>
</tr>
<tr>
<td>3</td>
<td>Difficult</td>
<td>Considerable effort required to apply the design principle</td>
</tr>
<tr>
<td>4</td>
<td>Extremely difficult</td>
<td>Major effort required to apply the design principle</td>
</tr>
</tbody>
</table>

Please enter your rankings into Table 1 and return this to me by email before the interview.

I will combine your rankings for ease and impact using the matrix provided in Table 4 to determine whether the utility of the design principle will be low, moderate, high or extreme.

**Table 4**: Utility matrix *

<table>
<thead>
<tr>
<th>Ease of application</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minor 1</td>
</tr>
<tr>
<td>1 (very easy)</td>
<td>H</td>
</tr>
<tr>
<td>2 (moderately easy)</td>
<td>M</td>
</tr>
<tr>
<td>3 (difficult)</td>
<td>L</td>
</tr>
<tr>
<td>4 (extremely difficult)</td>
<td>L</td>
</tr>
</tbody>
</table>

PART II: INTERVIEW

During the interview I will ask you about your experience and opinion of capacity development. I will also talk to you about the Framework and the rankings you assigned to each of the design principles.

If you have any questions about this part of the review process, please contact me.

* The scale for ease is inverted in Chapter Seven. This was necessary in order to calculate a mean.