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Design principles for authentic learning of English as a foreign language

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Abstract

Knowledge obtained in higher education through decontextualised tasks and activities often remains ‘inert’ and learners cannot readily transfer understanding to novel contexts. Nowhere is this more evident than in learning a foreign language. Typical language interaction exercises in class do not mirror real-life language use and such activities may have negative effects on students’ development of robust knowledge. This paper describes a design-based research study that investigated the use of an authentic e-learning environment in a course of English language at a university preparatory school. The findings suggest that the use of critical elements of authentic activities is the key to achieving authentic learning in these contexts. An important outcome of the research was the development of a framework for the design of authentic activities to be used in the teaching of foreign languages, in the form of 11 design principles. These principles contribute both theoretically and practically to understanding of how students learn languages in meaningful contexts.

Practitioner notes

What is already known about this topic

• There is a lack of authentic language use in English as a Foreign Language (EFL) learning
• Rules of language and vocabulary learnt in a decontextualised manner often remain inert and are unable to be retrieved for appropriate communication
• Language learners may be competent in the rules of language but unable to apply them

What this paper adds

• A pedagogical framework of 11 design principles for EFL learning using emerging technologies
• Evidence that language learning is usefully conducted in contexts that require the production of genuine artefacts using the target language
• A research-based, pedagogy-driven design model that is effective and motivating for students, and readily implemented by language teachers

Implications for practice and/or policy

• The use of the pedagogical framework will assist language teachers to create their own contextualised e-learning environments
• Authentic e-learning has the affordances to engage language learners in meaningful and immersive environments that facilitate learning
• Emerging technologies have the capacity to provide realistic contexts for language learning.
**Introduction**

One of the challenges that foreign language learners experience is a lack of authentic use of the language. In many cases, learners are confined to activities conducted in classrooms without practice of the target language in genuine settings. Activities completed in class are generally decontextualised and lack real-world relevance. As a result, while learners may have extensive knowledge about the target language—it is quite common to hear students talking knowledgably about grammar rules—they are unable to use them for communication in much less structured, ill-defined novel contexts outside the classroom.

The need for a paradigm shift has been voiced by many researchers since the 1970s when the communicative approach began to gain popularity, implying a rise in the importance of communicating effectively compared to grammatical accuracy (Hymes, 1972; Widdowson, 1978; Clarke, 1989; Nunan, 1989, 2004). Larsen-Freeman (2003) criticises traditional Presentation-Practice-Production (PPP) teaching methods and proposed that while language learners can cope with the presentation and practice sections of a lesson, they struggle at the production stage, which is the more communicative aspect requiring transfer of knowledge. Harmer (2007) emphasises the inadequate structure of form-focused language teaching methods and argues that form-focused type of learning approaches “stops students from getting the kind of natural input that will help them acquire language because it fails to give them opportunities to activate their language knowledge” (p. 49). The author concludes that form-focused language teaching methods can only teach people *about* language rather than helping them to be able to effectively communicate with it—*having* a language. If one cannot use the target language in real life for real communication, and can only identify the structures in school type activities, then it cannot be said that the person *has* the language (as summarised in Table 1).

Table 1: The difference between *knowing* and *having* a language

<table>
<thead>
<tr>
<th>Knowing a language</th>
<th>Having a language</th>
</tr>
</thead>
<tbody>
<tr>
<td>The student can:</td>
<td>The student can:</td>
</tr>
<tr>
<td>• name and illustrate linguistic structures</td>
<td>• use the target language to communicate</td>
</tr>
<tr>
<td>• answer questions in school type activities, e.g., fill in the gaps, multiple choice tests, matching exercises, rewrite exercises, and referential questions</td>
<td>• respond to the original communication purpose of the text</td>
</tr>
<tr>
<td>• use the structure if specifically asked</td>
<td>• use a variety of linguistic structures in a variety of contexts</td>
</tr>
</tbody>
</table>

Further critical aspects of communicative effectiveness are teacher-centred and learner-centred approaches. According to Dupin-Bryant (2004), a teacher-centred teaching is “a style of instruction that is formal, controlled, and autocratic in which the instructor directs how, what, and when students learn” (p. 42). This teaching style is usually paired with focusing-on-form (Allen, 2004). A learner-centred teaching style, on the other hand, is “responsive, collaborative, problem-centred, and democratic in which both students and the instructor decide how, what, and when learning occurs” (p. 42), thus, focusing-on-meaning (Allen, 2004). Yet, even within the communicative learner-centred approach, there might exist superficial communication that has been labelled as *empty babble* by Pennycook (1994) or *cosmetic authenticity* by Mishan and Strunz (2003). Littlewood (2011) expands this view saying, “students are sometimes given a steady diet of activities such as ‘planning a party’ that will never take place or ‘given directions to the station’ on the map of a non-existent town” (p. 553). Obviously, learners should actively become involved in meaningful communication as they learn with the help of authentic tasks relevant to their needs. To this end, Larsen-Freeman (2003) has suggested that if the aim is to help language learners...
overcome an inert knowledge problem, then grammar should be thought as something people do rather than know (p. 143), a suggestion that aligns well with the construct of authentic and situated learning. Herrington, Reeves and Oliver (2010) propose a framework for authentic activities that could provide conditions for meaningful learning, proposing that authentic activities: are meaningful and engaging; have depth and complexity; result in a genuine and meaningful product that has value in its own right; and they are worth completing. Other principles have also been proposed in successful implementations of the approach, such as, Fitzsimmons (2006), Collis, Foth and Schroeter (2009), Bozalek et al. (2013), Leppisaari, Herrington, Vainio and Im (2013), and Lindsay and Wood (2015). There is an urgent need to shift the paradigm from focusing-on-forms to focusing-on-meaning and thus, educators need approaches that use language in contexts that learners will encounter in real life.

This paper describes a research study to investigate how students in an English Preparatory School (EPS) within a Cyprus University engaged with and responded to an e-learning language environment designed to incorporate characteristics of authentic activities in foreign language education. EPS prepares students for academic life by giving them competency in English and required academic skills.

Research methodology
A design-based research (DBR) study was conducted comprising four phases suggested by Reeves (2006) in two full iterative cycles of enquiry (Figure 1).

![Design-Based Research](image)

Figure 1: Four phases of design-based research (Reeves, 2006, p. 59)

*Phase 1* of the study involved a comprehensive investigation of the problem area, including an in-depth literature review, and consultations with practitioners who were familiar with the problems and issues (including the first author’s own reflections as an experienced EFL teacher). Major issues that concerned practitioners included the tendency for students to be constrained by the parameters and language forms used in their course books, and the fact that while learners are expected to discuss controversial issues in proficiency exams, the types of language activities in the classroom are usually more trivial. A solution needed to involve opportunities for learners to engage with the language on the collaborative creation of meaningful products.

In *Phase 2*, a more in-depth literature review was conducted that enabled the creation of draft design principles to guide the development of a proposed solution, principally based on characteristics of authentic activities (Herrington, et al., 2010). Consideration of technological innovation led to the decision to create a web-based authentic learning environment set in a virtual office of a newsletter publisher, and a task requiring students to use their own mobile devices as cognitive tools.
In Phase 3, the learning environment was implemented in the EPS in two full 6-week iterations over two semester courses. Participants were three practitioner teachers and their classes of 20-24 students. Data were collected (with ethical approval) through semi-structured interviews (10 individual, 2 groups of 6 and 4 students) of approximately 45-60 minutes each, work samples, video recorded data, and observations. Revisions to the learning environment occurred between iterations. Data were analysed using Miles and Huberman’s (1994) three-step process: data reduction, data display, and conclusion drawing and verification. Coding was based initially on a priori categories based on the key areas of investigation and draft design principles. After preliminary coding, a spreadsheet was created for each area of investigation to identify emerging themes and refine them according to the data revealed.

In Phase 4, design principles were refined and expanded as a contribution to both theory and practice (as described in detail below).

**The authentic learning framework and implementation**

The learning environment implemented in the study involved a scenario consisting of a 6-week complex task grounded on authentic learning principles (developed in Phase 2 of the study). According to the scenario, the class comprised the editorial board of the fictional City Newsletter, where the teacher was the editor and the learners journalists. The major task required the students to research a problem that had social significance, and to propose a possible solution that would be published as an article in the newsletter. For example, the journalists could research and write real stories for the newsletter on topics such as drink-driving, water conservation, and teen smoking. Subtasks, such as producing posters and videos, were intended to inform the audience further on the background of the issue or to create awareness about other aspects of the issue. Moodle (https://moodle.org/) was used as the platform to enable students to participate in asynchronous and synchronous chats, and provided file sharing functionality for which each task was an authentic problem requiring authentic solutions targeting an authentic audience.

Unlike a more traditional language exercise, where learners are given a situation that lacks contextual information (e.g., “Smoking has negative effects on health. Discuss”), in this instance, learners were given tasks that require thoughtful and extensive communication in English. In addition to a web-based hyperlinked virtual office—providing a range of examples and further resources—students were able to use personal mobile devices, such as mobile phones, to record interviews, anecdotes and data to prepare their stories.

By way of introduction, teachers and learners were given badges with their names and assigned roles. Learners were then introduced to the learning environment by their teacher and were asked to choose a situation to further investigate. Learners enthusiastically discussed the situations and conducted their investigations, then wrote their articles for the newsletter. The newsletter was a class product, which provided learners the opportunity to display and share their knowledge with their peers throughout the EPS. This was not only rewarding for the participants, but other learners at the school were also excited to read stories on issues of interest written by their peers.

A ‘cross-case’ data analysis (Miles & Huberman, 1994) was employed to examine the data sources: interview transcripts, observations of students and teachers while using the learning environment, and teacher journals. Analysis highlighted how participants viewed the importance of each of the characteristics of authentic activities. The findings and resulting design principles are described below.
Findings
One of the key outcomes of a design-based research approach is the development of design principles that inform both theory and practice. The initial design principles used to guide the learning environment design were adapted from a model of authentic tasks (based on Herrington, et al., 2003) with generic applicability. The use of existing design principles as the basis for further contextualised and refined applications in research can be likened to a relay race, where the baton (existing principles) is passed to a researcher, who then runs the race (conducts the research) and hands it on (with additional principles) to the next researcher. Many of the original principles remain as useful guidelines for the kind of activity-based language learning implemented in the study. However, some modifications were made as a result of the findings of the study. Of the original 10 draft design principles, six were retained as originally described; four were merged, expanded or modified; and two additional principles were derived from the analysis of data to appropriately reflect the more specific aspects of the language-learning environment that was the focus of the study. The final design principles from the study are described below.

Design principle 1: Authentic activities have real-world relevance
The findings suggest that having real-world relevance is a crucial element of a learning activity that enables learners to create a link between what they learn at school and how knowledge is used in practice. Participants appreciated their roles as journalists and enjoyed providing real solutions to real problems significant to them. Furthermore, learners appreciated that the target language was used for an authentic purpose, which gave them enjoyment and motivation while learning and developing relevant knowledge and skills. For example, one student indicated that the task enabled him to consider social issues and prompted a change in behaviour:

Have you or I ever sat down and thought about what people should do about drink driving?...But we did. I don’t think I will ever drive after drinking alcohol. (Interview, Doğukan)

Design principle 2: Authentic activities are complex and ill-defined
The learning environment and the task required learners to go through ill-defined stages that were not laid out in any sequential manner by the teacher. This increased the complexity and difficulty level of the activity to reach a solution or conclusion. Because of its ill-defined and complex nature, learners needed to spend more mental and interactional effort over a sustained period of time, while defining a path of action to complete the activity. One of the participant teachers saw the nature of the authentic tasks as a quality that provided learners with flexibility, which in turn promoted creativity:

It was demanding in a way it encouraged positively students’ creativity….if you strictly define the task, what they produce is like a factory production….This ill-defined characteristic gives creativity and imagination for students. (Interview, Caner)

Design principle 3: Authentic activities provide the opportunity for students to examine the task from different perspectives, using a variety of resources
The findings suggest that providing learners the opportunity to examine the task from different perspectives brought a number of opportunities for the development of expertise. The major perspectives while completing the activity were: focus on author, focus on content, focus on form, focus on audience, and focus on process. Each of these can be used as a sub-guiding principle in similar contexts. One student indicated that focusing on different perspectives has led to diversity in outcome:
The different outcomes were the biggest advantage of this. Different ways of thinking and opinions were present. (Interview, Burak)

**Design principle 4: Authentic activities provide the opportunity to collaborate**

Collaboration was another key design feature that facilitated learning. Some learners indicated that if they worked individually, they would not have completed the activity because there were many different aspects of the task to complete and they appreciated the opportunity for joint problem solving. For example, one student mentioned the difficulty of the task and the benefits of working with another student:

It wasn’t something that could be done alone…our level is ok but if there is no opportunity to discuss then I don’t think the outcome will be as good. (Interview, Caner)

The findings suggest that learners valued peer scaffolding and that such a complex and ill-defined activity was further facilitated by peer collaboration.

**Design principle 5: Authentic activities provide the opportunity to reflect**

Reflection, as another fundamental design feature, provided students with meaningful discussion that enhanced learning and experience. In this respect, learners had opportunities at different stages to reflect on the learning resources, (e.g., interactive essays), problem solving, (e.g., while designing and producing their newsletter), and learning strategies, (e.g., at the end of their presentations in class where they were formally required to reflect on their learning strategies and the processes that they employed). One student indicated that the presentations assisted reflection:

While presenting we shared how we learned and the process we went through so this helped us see what we learned. (Interview, Burak)

Reflection was attributed as a fundamental element that provided opportunities to learn socially from peers.

**Design principle 6: Authentic activities lead beyond domain- and skill-specific outcomes**

This guiding characteristic suggests that the product-oriented nature of the authentic activities led to the creation of products that comprised real communication and that focused on multiple skills rather than on single one-dimensional responses. The learning activity allowed students to produce stories that authentically captured communication and incorporated reading, writing, speaking, and listening skills, along with the further development of grammar and vocabulary knowledge. Doğukan’s remark indicates that the authentic tasks had assisted him to gain skills that he may need in the future:

Maybe one day we will run a company or we will be the manager and maybe we will work with foreign companies. English is a world language…the more I do these type of activities I learn how to design, how to present, how to affect the audience. (Interview, Doğukan)

**Design principle 7: Authentic activities are seamlessly integrated with assessment**

The learning activity provided learners with opportunities to use the target language in context. In this respect, assessment provided learners with opportunities to gauge what they could do with the target language in practice. Thus, even though the activity was completed both in class and in the online environment, learners were able to reflect on their language skills by referring to ‘can do’ statements (Council of Europe, 2001) and revealing the strengths and weaknesses of their communication skills rather than linguistic knowledge. One
of the participant teachers indicated that assessment was a source of motivation by providing a real purpose to present work in different forms:

After spending lots of time after putting so much effort…students enjoyed sharing [their stories] with their friends because it served a real purpose. It wasn’t just for the sake of doing a presentation, because they knew that what they presented would be integrated in the newsletter so they were more careful with their presentations. (Interview, Caner)

**Design principle 8:** *Authentic activities yield polished products valuable in their own right rather than as preparation for something else*

Creating polished products valuable in their own right, rather than as preparation for something else, was another characteristic that was enabled by the task and its products. Writing stories allowed learners to establish real communication between the audience and themselves and to move away from school-type exercises that only provided practice on a textbook or teacher-prepared forms. One of the participant teachers indicated that this feature provided opportunities to focus on meaning:

I felt the need to be more careful. It wasn’t going to be only me reading their products…it was going to be published in a newsletter. (Interview, İrem)

The findings suggest that requiring the submission of polished products is a fundamental characteristic of a learning activity as it focuses importantly on whether learners can use the target language to accomplish target tasks, as well as demonstrating knowledge about the language. Thus, orienting the learner towards the creation of polished products provides a real-world perspective rather than a linguistic perspective.

**Design principle 9:** *Authentic activities allow competing solutions and diversity of outcome*

The research activity was open-ended allowing competing solutions and diversity of outcome. It was observed that having the freedom and the opportunity to use any language structure within their repertoire, or by acquiring new structures to write their stories, learners were able to convey different messages and text styles, even though some students worked on identical topics. It was observed that this was not only a key factor in achieving authentic outcomes, but was also a motivating factor as learners provided genuinely diverse and engaging stories. Learners’ comments confirmed this view by reflecting positive feelings towards this characteristic:

Everything was left up to us, whichever topic we wanted to research…there were no restrictions. For example, I could have chosen the idea of having a clean new cinema in Famagusta but…[instead] I’m researching the types of entertainment centres I would like to have established. This was very good because it has something to do with my character. I don’t like being restricted. I like to give my opinion on an issue freely. (Interview, Sahra)

**Design principle 10:** *Authentic activities are conducive to both learning and communicating*

The research study suggests the importance of a characteristic that links learning and practice in context, that is, authentic activities are conducive to both learning and communicating. In this research context the focus of many language classrooms is teaching grammar structures explicitly and practising decontextualised school exercises. However, as is shown in this research, when learning is embedded in real-world, relevant activities that maintain a communicative purpose and provide opportunities to learn new structures in context—while at the same time practising existing knowledge—learners develop a more robust knowledge
that they can use in real settings. A student commented that the e-learning environment prompted a greater usage of the language for communication purposes while at the same time learning new language structures incidentally:

I seriously liked the Staff Meeting Room because I could go there and have a look...how my friends answered the questions, what I did right and what I did wrong, how the sentences were formed...It helps develop your grammar. (Interview, Sahra)

The findings suggest that the students appreciated the activity for its conduciveness to learning and communicating because it enabled them to use language as a tool to communicate the message that they wanted to pass on to their audience.

**Design principle 11: Authentic activities provide motivational factors**

One important factor that emerged as a key issue for consideration in the study is motivation. In pre-university level language classrooms learners may not always be motivated due to the fact that the subject area or major that they wish to study (e.g., science, economics, the arts, etc.) and language learning are considered two different subjects. A student indicated that her language improved as she developed topic-related knowledge by engaging with the learning environment:

Not only did we consider our topic but we also considered our friends’ topics, we touched on a variety of topics from health to international topics. As a result we read about our topics and our friends’ topics and opinions...this helps develop our knowledge. (Interview, Meryem)

**Discussion and limitations**

The findings indicated that the characteristics of the authentic activities were mainly perceived as a key aspect of learning for both learners and teachers. In this respect, participants appreciated using English for a real purpose, dealing with real-world problems, and examining the task and its sub-tasks from different perspectives which, in turn, resulted in developing relevant knowledge and skills. In addition, they valued the opportunity to reflect on their own learning process and use English as a communication tool, rather than treating it as an object to be studied. Participants also reported that being provided with the opportunity to explore tasks in-depth, collaborate with peers, and produce products that were valuable in their own right fostered learning. A new framework of 11 elements of authentic activities in an EFL context emerged from this enquiry as described above.

However, it is important to mention that one aspect of the research design may have influenced the study in such a way as to reduce confidence in the findings. The employment of research interviews immediately after the participants’ engagement with the learning environment may have created a positive ‘researcher effect’ (Miles & Huberman, 1994) and this positive and reflective ‘debriefing’ may have increased students’ appreciation of authentic activities. Nevertheless, the results of the study provide strong support for the incorporation of authentic activities in foreign language learning.

Design principles were used to create a web-based learning environment for EFL learners who were largely deprived of authentic contexts within which to learn the English language. The associated learning activities were implemented and researched in two iterations involving three classes of students. Design principles were reviewed and refined with each iteration. Design principles such as those that emerged from this study can be a powerful catalyst for improving pedagogical approaches in language learning classrooms. But, they
cannot simply be accepted without question in different contexts. As noted by Anderson (2005) “design-based research does not seek for universal solutions but rather for deep understanding of innovations and the factors that affect improvement in local contexts”. Design principles are offered as a key outcome of this research as a means to assist language teachers to facilitate learning in authentic contexts.

This study has investigated how authentic activities can be implemented in web-based foreign language learning environments. The authentic learning activities implemented in the study were successful in providing sustained motivation for students to learn a foreign language, and to use the language in a meaningful way within the environment. Learners were given ownership of the problem and this strongly motivated them to uncover their own solution, providing freedom and control to develop autonomous learning skills, and giving them the opportunity to diagnose lack of (language) skills required to complete the activity. Providing authentic roles— in contrast to short activities that engage learners only in artificial roles— required learners to complete a variety of sub-tasks relevant to their roles. Learners commented that being invited to take on the role of a member of an editorial board, and publishing articles for a newsletter as if they were journalists, encouraged and motivated them to go through the challenging steps towards the completion of the activity. And importantly, publishing these stories for a real audience gave the products a life beyond typical assignments that are destined solely for the eyes of the teacher who assesses the work—and no one else.

The tasks implicit in authentic learning environments are valuable to learners and absolutely worthwhile completing. The work described here, and its design principles, will be of substantial assistance to educators wishing to implement engaging and highly motivating authentic activities in language education.

**Statements on open data, ethics and conflict of interest**

*Open data statement*

The data used in this paper are contained in the PhD thesis by the first author entitled *Task-based authentic learning activities in computer assisted foreign language learning* available online at: [http://researchrepository.murdoch.edu.au/27393/](http://researchrepository.murdoch.edu.au/27393/).

*Ethical declaration*

This research was conducted with the approval and oversight of the Human Research Ethics Committee, Murdoch University, Western Australia.

*Conflicts of interest statement*

There are no conflicts of interest in the research described in this paper and any of the authors.

**References**


