# Perceptions and reflections: Using Skype chat to build a community of learners

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**Abstract**: This paper is a report on the preliminary findings of two on-going studies conducted on graduate level courses for pre-service teachers. A survey was used to gather student perceptions about using Skype and written tutor reflections obtained for evidence of perceived advantages and disadvantages of using Skype to build a community of learners. Constant comparative analysis techniques were used to examine the Skype chat transcript. Findings indicate that students appreciated the opportunity to communicate in real-time with their peers and used the technology to connect with and support each on their learning journey.

## Introduction

As the number of students enrolling in online higher education courses is increasing higher education is taking a more strategic approach to embracing online learning (Kim & Bonk, 2006). However, despite the rapid advances in cognitive psychology and the affordances of new technologies many online higher education courses still utilise traditional teacher-centred information delivery modes (Maor, 2003). The tendency to simply dump large tracts of information into online courses often leaves students to study in lonely isolation and evidence suggests many learners are failing to engage with traditional online learning approaches because they are bored or unwilling to use outmoded technology (Kim & Bonk, 2006).

Quality online learning is more than delivery of information followed by a test. Rather, it is a complex mix of physical and social technologies, applications, activities, and presentations designed to teach, combined with a suite of services that helps support the entire online learning experience (Knight, 2002; Woodill, 2007). Meyer (2010, p. 3) described the implications of this for teaching: “It means designing instruction so students are encouraged to read, ponder and discuss; shape their understandings of the material; evaluate their knowledge; and create new knowledge”. Putting students at the centre of the learning experience means putting a greater emphasis on student generated content and the use of communication and collaboration tools.

Hrastinski (2008) suggests asynchronous and synchronous modes of communication complement each other as they each facilitate different forms of communication. Asynchronous communication forms (e.g., discussion forums) encourage cognitive participation and are best suited to discussing complex content-related issues as learners have more time to process information, reflect on and refine their responses. Synchronous communications (e.g., chat) encourage personal participation and are more suitable for developing rapport amongst students and building a community of learners, as this type of communication is similar to face-to-face conversation. In creating a community of learners, particularly by means of communication technologies, Garrison (1997) argues for the importance of developing *social presence,* or the ability to comfortably and effectively communicate through a technical medium (Hall & Herrington, 2010). Garrison defines it as the “degree individuals project themselves through the medium verbally or nonverbally” (p. 6). Based on the work of Short, Williams and Christie (1976) who

defined social presence as “the degree of salience of the other person in the interaction” (p. 64), Gunawardena and Zittle, (1997) identify *salience* in this respect as comprising two factors: intimacy and immediacy.

Lee and McLoughlin (2010) describe the difficulties often faced by distance learners in gaining a sense of social presence in their learning environments—difficulties arguably also experienced by on-campus students who, because of their personal commitments and circumstances, rely more and more on learning management systems and lecture capture systems as a substitute for the campus experience. Lee and McLoughlin describe four key problems in this regard:

1. Students are often denied a sense of belonging that is more readily acquired on-campus, affecting their motivation and enthusiasm
2. There is a perceived lack of contact and timely feedback from the instructor, affecting students’ abilities to evaluate their own progress
3. Large numbers of mature aged students entering the education system have little knowledge of an institution’s culture nor the means to acculturate within it
4. A significant proportion of students who enrol in distance courses have little or no knowledge or experience of the mode of learning. (pp. 63-64)

In addition, context, making connections and social interaction play an important role in helping learners assimilate new information (Lombardi, 2007, p. 7). Environments that make effective use of communication technologies to connect learners in meaningful ways and include relevant and authentic learning activities are the most likely to succeed (Herrington, Reeves, & Oliver, 2010). In this paper, we investigate the use of the Skype group chat to facilitate the development of a community of learners among distant and on-campus students in two courses using authentic learning principles.

## The Study

A group chat (a synchronous chat facility within Skype) was used in two graduate level pre-service teacher courses to enhance student communication and social interaction. The study described in this paper investigated how this technology was used, how students responded to it, and to what extent it assisted in developing a community of learners.

**Course 1: External (n=60)**

The focus of the first unit was learning with information and communication technologies (ICTs). It was designed as a general elective for people interested in using ICT in schools (K-12), post-secondary institutions such as vocational colleges or universities, as well as training establishments. The unit was delivered fully online via the Blackboard learning management system (LMS) across 14 semester weeks. Student learning was supported using a range of resources: textbook, unit reader, pre-recorded video lectures (via the Lectopia lecture capture system), video tutorials (web based), a range of discussion forums (LMS), and the Skype group chat area (text-based). The unit assessment consisted of two assignment tasks and an exam. Both assessment tasks centred around the topic of teaching and learning with current and future ICTs. Students were required to select a teaching area and topic relevant to their interests in teaching and learning. Assignment 1 required students to imagine they had been asked to make a presentation at a staff meeting in their institution on the trends and issues in ICT in their selected area of teaching. They were asked to research their topic across a range of sources; an article, a website, an audio podcast and a video, and to write a brief summary of the main points of each, and comment on the strengths and weaknesses of each source. Assignment 2 required students to plan a unit of work for their teaching area to engage students over a 2-3 week period where students would use technology as cognitive tools (Kim & Reeves, 20097) to support their learning. They could present their work as either a formatted document or a website to explain to other teachers how they could implement this unit of work. The examination was comprised of eight compulsory short questions. Students were given a list of fourteen potential questions to study, and were permitted to takes notes into the exam.

**Course 2: Internal and External (n=258)**

The second unit in the study provided practical and theoretical understanding on educational technologies, not as hardware and software that are objects of study in themselves, but as useful tools that impact on our everyday lives.

The unit gave students the opportunity to explore technology as social beings, as student learners and researchers at university, and as classroom teachers. Tasks were documented and presented in a website that students created, and they focused on the creation of authentic products.

The semester unit was compulsory for all first year students and was delivered on-campus and as a fully online unit via the Blackboard a learning management system (LMS). While the LMS provided a central focus for students studying the unit, student learning was also supported using a range of resources: a textbook, face-to-face lectures (video recorded and uploaded to Lectopia for external students), weekly workshops (internal students), occasional online tutorials, video tutorials (web based), a range of discussion forums (LMS), a Skype group chat area (text) and a Diigo bookmarking group (resource sharing).

The unit consisted of two assessment tasks and an exam. The first assessment task focused on social technologies, first requiring students to create a website and set-up a blog, and then to choose and learn to use two social media technologies. The second assignment focused on researching and teaching technologies, including a group project where teams of 3-5 students created a website featuring an authentic learning task, and to present their site to their peers. The second assignment required students to use research technologies such as Google Docs, Google Scholar, and Library databases to locate information about a specific topic, write a brief summary and use Endnote bibliographic referencing software to include citations. The examination was comprised of four compulsory questions, three selected from a list provided to students and one unseen question about blogs. Students were given a list of eight potential questions to study and permitted to take notes in to the exam. The website acted as an e-portfolio space to feature the students' reflective blogs, and all the products of the semester's work.

**Data collection and analysis**

Qualitative methods were used to collect first-hand evidence of participant perceptions and teacher reflections about the Skype chat tool. Qualitative methods were most appropriate as they allowed participants to share their experiences in greater detail to enable the researchers to understand and interpret their meanings and provide rich descriptions (Patton, 2002).

Multiple data collection methods were used to enable corroboration of data. Data collection methods for both courses were: an anonymous online student questionnaire, student comments and artifacts made during the course (including the record of Skype chat), summary statistics gathered from the learning management system (LMS) during the normal progression of the course, and written tutor reflections. Data was collected with ethical approval.

Glaser and Strauss's (1967) constant comparative method of qualitative analysis was used to analyse the data. This joint coding and analysis method enabled data collected from each respondent to be systematically categorised and analysed to determine if data was replicated, as a means of verifying facts. This method involves four stages: (1) comparing incidents applicable to each category, (2) integrating categories and their properties, (3) delimiting the theory, and (4) writing the theory. Each stage provides continuous development to its successive stage until the analysis is completed (Glaser & Strauss, 1967). Where appropriate, direct quotes have been used to faithfully represent participant perceptions and tutor reflections (Patton, 2002).

## Findings

Data gathered from the anonymous surveys, the discussion forums and the Skype chat provided insight into how students used the Skype group chat, their perceptions about the effectiveness of this technology and tutor reflections about student interactions on the Skype chat. The findings drawn from the analysis are summarized below.

**Student use**

Course 1 consisted of 60 students (15 male and 45 female) and Course 2 consisted of 258 students (29 male and 229 female). Thirty percent of students in Course 1 joined the Skype group chat (3 male and 17 female) whereas only nineteen percent of the students in Course 2 joined the Skype group chat (all female). Figures 1 and 2 illustrate the student participation numbers against enrolment figures for each course.

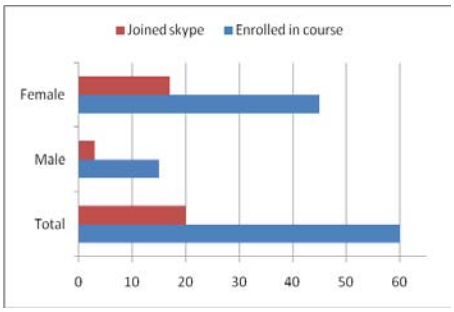


**Figure 1:** Course 1 (n60)

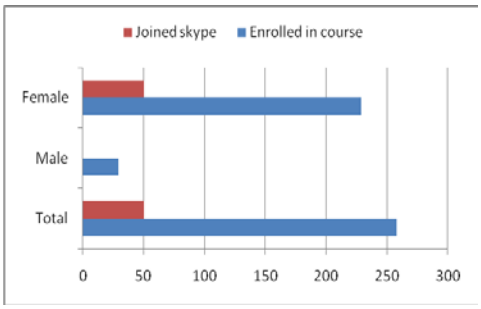


**Figure 2:** Course 2 (n258)

It was also possible to analyze data in relation to the content and nature of the students' Skype chat contributions. Specifically, comments made by students fell basically into one of the following categories: assessable, conceptual, procedural, technical, social, facilitative, emotional, reflective, and factual. These themes were then grouped into two categories: content-related and facilitation-related—categories derived from Hrastinski's (2008) cognitive and personal dimensions of e-learning. Hrastinski's study (2008), which looked at asynchronous communication (discussion forums) and synchronous communication (chat), found that asynchronous discussion tended to focus on content whereas synchronous communications tended to have content, planning and social components as well.

Our data tells a similar story. Students who participated in both the Skype chat and the discussion forums behaved in a similar manner and pattern to the Hrastinski study group (see Table 1). Table 1 shows the percentage of comments attributable from each source to each category.

| | **This Study** | | **Hrastinski Study** | |
|---|---|---|---|---|
| **Communication Type** | **Asynchronous** (Discussion forum) | **Synchronous** (Skype chat) | **Asynchronous** (Discussion forum) | **Synchronous** (Chat) |
| **Content-related** | 91% | 47% | 93% | 57% |
| **Facilitation-related** | 9% | 53% | 7% | 43% |

**Table 1:** Comparison of data results: this study (2011) and Hrastinski study (2008)

Students who used the Skype chat used it for both content-related and facilitation-related communication. Interestingly, these particular students did not appear to use the general discussion forums on the LMS, where social and other comments were more likely to appear. However, they did use the dedicated exam preparation discussion forums and other topic-specific discussion forums on the LMS in a range of ways. Students who did not use the Skype chat, or made very few posts, used the general and specific topic discussion forums to ask questions and add comments. However, these students did not appear to use the discussion forums to the same extent as the students who used both the forums and the Skype chat. Students who used the Skype chat were much more prolific users of communication technologies generally.

**Student perceptions**

Student perception of the Skype chat were sought from an anonymous survey of students administered after completion of each course. Eighty five percent of the respondents who completed the survey agreed with the statement: *This unit has improved my skills to communicate using information technology*.

Many perceived Skype to be a good tool for building rapport and social presence with their fellow learners:

> Having all the students on sometimes live chat was all I needed to help understand the broad assignment topics.

However one student thought the discussion forum was sufficient for their needs, and so did not contribute to the Skype group chat at all. They commented:

> I found that it could double up and serve same purpose of discussions on LMS to a large degree.

Many respondents indicated the Skype chat gave them easy access to the tutor. One student commented:

> Skype was also really good, having access to our tutor at all times.

Another agreed, also pointing out that such access was particularly useful for external students.

> It was very helpful to chat and discuss in live time and access to the tutor was invaluable as an external student.

In response to the survey question: *What did you think were the best aspects of this unit?* many students identified the Skype chat. For example, comments included:

> Having Skype chat, being able to send a message and read questions that other students had as well.
>
> Having the ability to talk/chat to others via skype was very beneficial and importantly the accessibility and ability to contact the tutor for even minor 'glitches' when completing assignments.
>
> I really enjoyed skype having the tutor online when you needed a question asked was great. Also when we did the group task having the tutor join the conversation to help get us on the right track was very useful for external students.
>
> Showing the use of skype especially for communicating with tutors and other students.

When asked what improvement (if any) students would suggest for the course, one student said they would have liked to use Skype more, and possibly in a more purposeful way:

> Maybe incorporate some aspect of the subject to include a limited but valuable experience of Skype for all. It was left up to us to volunteer our time in this area and I would have liked to learn how to use this technology more - especially if it is seen as a valuable resource in future and current education.

Unsolicited comments gathered from the discussion forums, Skype chat, assignment submissions (via the LMS) and emails to the tutor supported the comments from the anonymous survey. For example:

> Skype is a great web tool and easy to download and best of all 'free'. All you have to do is Google Skype and follow the download prompts - relatively easy.

### Tutor reflections

Tutors in both courses were asked to contribute their impressions of the use of Skype chat in facilitating the building of community among students, and observations of their own management of the communications technologies during the semester. They had kept anecdotal records of their teaching as the courses progressed. Tutor 1 noted:

> Informal feedback from students who joined the Skype group chats indicated they liked this technology as they could see when I was online and get instant answers to their questions when they needed support. It also gave them the opportunity to chat with their peers about how they were progressing in the unit and to share resources, problems and solutions with each other. My feeling was that “external” students in particular liked the ability to chat with their peers in real-time as it allowed them to connect and communicate with their peers in a more informal manner similar to face-to-face conversations. From a teaching perspective I think it required more time to monitor both the LMS discussion forum and the Skype chat. However, I found it quicker and easier to respond to student questions on the Skype chat. The Skype chat allowed me to provide immediate responses to student questions that everyone could see and to chat to a number of students at the same time in “real-time”. I think the Skype chat is a useful tool for encouraging communication and interaction and has the potential to promote a “community of learning” that could continue beyond the students university life (Tutor 1).

Similarly, Tutor 2 observed that the Skype chat was particularly useful for off campus students in ameliorating some of the problems of isolation and distance they face:

> External students miss out on some advantages of on-campus study, such as building a support network and discussing problems with fellow students. Chat facilities appear to enable external students to overcome some of the disadvantages they face. Chat and discussion boards appear to fulfil student learning needs, and we need to explore ways to make best use of them (Tutor 2).

## Conclusion

In 2009, Anderson wrote of the challenges academics face in supporting the development of social presence and community and that it may be more challenging than we think to create and sustain these communities. However, technologies such as readily available chat facilities go some way towards meeting these challenges. In the study described here, students indicated the Skype chat was easy to use and an appealing technology for communicating with their peers and tutor.

Our data appears to confirm Hrastinski's observations: students tend to use discussion forums for content related discussions as there is less time pressure to respond immediately. Discussion forums give students more time to reflect and respond to deeper questions, whereas students tend to use chat for addressing immediate problems as they arise, as well as for facilitating group processes. Our study showed that many students did not use chat at all, for reasons we have not yet established (although studies such as Watson's (2010) study of online interactions gives a comprehensive list of reasons nominated by students). These students, however, did use the discussion forums for social and planning purposes, but we know little about how effective that was. Those students who did use chat, did not use—or had no need to use—the discussion forums for social or planning purposes. This suggests that social presence is more readily achieved through synchronous chats. Incidental evidence in our study indicates that Skype assisted students in developing self-directed learning strategies. For example, a number of students from Course 2 organised their own Skype chat groups to assist their learning in subsequent courses, with or without their teacher's involvement. Indeed Anderson (2009) has pointed out that reduced and/or delayed teacher response in chat and discussion forums may be beneficial: "Playing a less dominant role in class discourse can actually support the emergence of greater learner commitment and participation" (p. 59).

The findings of this study are limited by factors such as the low response rates for both surveys, but it does provide interesting trends, and indications for further analysis and research. Issues to be explored in future will include in-depth content analysis of types of student communication. As noted by Lee and McLoughlin (2010), any technology use is best considered in the light of the task that students complete. If tasks are uni-dimensional or require only lower-order skills, there is perhaps reduced need to develop social presence and community to support learning. The interplay among task, technology and theory in relation to the building of community among learners merits further investigation.

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