

Developing a peer-assisted learning community through MSN Messenger: A pilot program of PALS online

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Abstract

Evidence suggests that peer-assisted learning schemes on campus help students to establish social networks that can have a positive influence on their learning achievements. At USQ, the majority of students are off campus, which raises the urgent question: how to harness the advantages of PALS (Peer Assisted Learning Strategy) in an online environment? Given that the potential problem of social isolation is even more acute in distance education, how do we develop a PALS scheme online that creates a sense of community for its participants? These questions are explored by reflecting on a pilot program that was conducted during the first semester of 2006 in two different courses and made use of MSN Messenger to build collaboration amongst learners in a variety of geographical locations. This pilot program is evaluated through a survey with PALS leaders and participants, and also through comparisons with other such programs in different institutions.

Keywords

peer-assisted learning; collaboration; online communities

Introduction

The first year experience has become increasingly important to universities as a result of two major challenges that are perceived to have transformed the tertiary education environment over the last decade: student diversity and new technologies (Taylor, 2002). These challenges, in combination with severe financial pressures on universities, have resulted in various strategies and initiatives to provide a high quality service to 'clients' on the one hand, and to combat attrition rates on the other. As McInnis (2001, p. 105) notes, 'the major driving force now comes from the pressure of accountability and efficiency on institutions, academics and support staff to address the problems and pitfalls facing students in the initial days and weeks of their undergraduate courses'. Peer mentoring is one initiative that is increasingly used to address first year transition issues, variously called PASS (Peer-Assisted Support Scheme), SI (Supplemental Instruction) or in USQ's case PALS (Peer Assisted Learning Strategy). These schemes are constructed around three elements of student need, as identified in the Queensland University of Technology's First Year Experience Program: engaging learning experiences, practical and timely support services, and a sense of belonging. In this paper, we will primarily focus on the last of these elements, because it raises important questions about the use of technology and how this affects the social aspects of the learning experience, and by extension influences academic results and retention.

Benefits of peer-assisted learning support

Measuring the success of peer-assisted learning support in a systematic and scientific way is notoriously difficult, as many of the perceived benefits are in fact intangible, not least the long-term benefits of a sense of belonging. For example, it is easy to measure academic results of students who participate in a PALS scheme, but it is much harder to identify the extent to which those results can be attributed to their participation in such a scheme. Thus, quantitative research is generally limited, with some notable exceptions (for example, Lewis et al., 2005). However, qualitative studies consistently conclude that peer teaching has significant benefits, particularly with regards to first year transition issues. According to Packham and Miller (2000, p. 57), such schemes aim to:

- assist students who are having difficulties with certain aspects of course material
- improve grades and social development
- increase the overall graduation grade and subsequent employability of students.

What makes PALS schemes particularly suited for these purposes is that they create an informal environment where potential intimidatory factors, such as highly structured lectures and tutorials run by perceived 'authority figures' are minimised because PALS instructors are students themselves. In addition, the emphasis is on student-centred learning where students not only set the agenda, but also decide whether they want to participate or not, and how often. Within this context, PALS schemes have the broad potential to firstly play a positive part in addressing the difficulties students face in adjusting to university in first year, and secondly to enhance what Watson (2000, p. 1) calls the 'college socialisation process, with peers providing role models and instilling enthusiasm for learning'. Watson further notes that this is particularly beneficial where first year students come from diverse cultural and educational backgrounds: 'a peer assisted learning scheme can be valuable in supporting a multicultural student group while outwardly providing academic assistance' (Watson, 2000, p. 1). A recently released DEST report (Krause, Hartley, James, & McInnis, 2005) about the findings of a longitudinal study into the first year experience in Australia draws attention to this aspect. Although it finds that first year students overall are more satisfied with the quality of teaching, there remains a substantial number who do not perceive staff to be accessible. Secondly, international students are significantly less satisfied than their domestic peers (Krause et al., 2005), and it is precisely in these areas that PALS schemes can be valuable.

At the same time, however, it is important to be cautious about the benefits, as these are in most studies *potential* benefits, and they are not always supported by the facts. Packham and Miller (2000, p. 57) identify, for example, that demand for PALS in their Welsh context is firstly assignment driven and secondly female dominated. Similarly, Lewis et al. (2005, p. 1) note that 'better or more able students may be more likely to attend PASS' (as it is called at the University of Wollongong). This may indicate that the schemes do not necessarily benefit those who could potentially benefit most from them. However, for our purposes here, we start from the assumption that PALS schemes have major benefits, particularly social benefits that might have a trickle-down effect on academic results, which is supported by University of Wollongong research (Lewis et al., 2005). These social benefits are mostly nurtured in a non-threatening context of face-to-face peer interaction. But the next question then becomes: in a context where students spend less time on campus (which particularly applies to USQ), how can technology assist us in harnessing the potential benefits of PALS schemes?

Enter technology

As mentioned above, there is no doubt that new technologies have had a major impact on both university teaching and learning, the extent and potential of which we are only beginning to come to terms with. The First Year Experience Report identifies a marked increase in the use of new technologies and argues that 'ICTs are transforming the way first year students engage with each other, with their teachers and with learning', but it also acknowledges that this development has been so rapid that there is very little comparative data to analyse this with (Krause et al., 2005, p. 83). There is, however, a growing body of academic writing that engages with e-learning and attempts to develop theoretical foundations for various aspects of e-learning. With 'technological determinism' (Twigg, 2003; Oblinger & Oblinger, 2005) and 'techno-scepticism' (Postman, 2003) at the extremes of this debate, a lot of useful material has been generated in the middle. In other words, between the initial push for technology as 'good across the board', or new technology as inherently worse than what went before, we are beginning to see a welcome fragmented approach to technology as a many-tentacled beast with many potential benefits, but only if applied for the right reasons and within the right context.

For example, Laurillard (2002) rightly argues that the promise of e-learning will only be realised if we begin with an understanding of how students learn and design the use of learning technologies from this standpoint. This is an important recognition after the initial rush to get online, and it allows for a pedagogically informed introduction of new technologies, rather than a technology for technology's sake approach. The latter led initially to a number of problems with computer-mediated instruction, which Baker, Hale and Gifford (1997) characterised as follows some years ago: narrowly conceptualised, limited in their scope, theoretically chaotic, non-transformative, and pedagogically confusing. Although some of these characteristics have received more focused attention in recent years, the basic premise that learning and teaching should be learner-centred remains. Kirkwood and Price (2005, p. 257) reinforce this by arguing that 'it is not technologies, but educational purposes and pedagogy that must provide the lead, with students understanding not only *how* to work with ICTs, but *why* it is of benefit for them to do so'. This also means that in some contexts, face-to-face contact may be the best option if that proves to be the most beneficial from the learner's point of view, even if it is not the most attractive option for universities already squeezed by tight budgets. Mayes and De Freitas (2005, p. 34) acknowledge this in their review of e-learning theories, frameworks and models when they identify what they call the real challenge for e-learning: 'to offer a reasonable level of individual dialogue in a situation where there are too few tutors and too many learners. Can technology help to provide teaching and learning activities from which intended learning outcomes can be achieved without an unattainable level of support from human tutors?'

At this stage the answer to this question appears to be yes, with the important proviso that it applies to the acquisition of knowledge and skills. Twigg (2000, p. 43) notes that 'any portion of a course that concentrates on skill acquisition can benefit from an IT format', and if we were to ignore the problematic generalisation here, this could potentially apply to PALS schemes, as they are designed in part to teach students academic skills. But where does that leave the social benefits of a sense of belonging to a university community that are mostly acquired through face-to-face contact? Is it possible to create a virtual sense of belonging? And is this equally effective? Some early examples of online PALS schemes may provide some clues in this respect.

PAL-Online: Some preliminary experiences

A thorough online search reveals that fully fledged PALS schemes are currently not available online, with one notable exception (E-College Wales) to which we will turn shortly. However, many online teaching and learning resources are being developed which address issues related to the first year experience and are thus partly relevant to some of the objectives of PALS schemes. In her review of web based material related to the first year experience, Webb (2001) has found this type of material under the following general headings: online orientation, academic study skills, academic writing skills, student assessment, and staff development. In addition, there is some material that relates to various PALS schemes, but in virtually all cases this takes the form of general information about the peer-mentoring schemes that individual universities offer. In other words, it tells students that peer mentoring is available, and it tells students for example that mentors will provide assistance with course assignments or discuss course readings. In short, most of this material is added onto existing practices and materials and uses what Baker et al. (1997) call a 'bolted-on approach', rather than what we might call an integrated approach where the online materials and practices complement and/or reinforce what is available offline.

A notable exception to this is E-College Wales (University of Glamorgan), where in 2003 a peer-assisted online mentoring scheme was introduced, partly because students articulated the need for a mentoring system designed to support students (Davies, 2004). Significantly, students recognised that e-learning can be an isolating experience and would appreciate contact with a more experienced student. The basic framework of PAL-Online revolves around asynchronous discussion forums and is organised primarily by a team of mentors, all second and third year students, who have done well on a particular course (Davies, 2004). Based on his evaluation of PAL-Online, Davies (2004) identifies the benefits as follows:

- provides feedback and a feeling of support
- overcomes isolation
- less intimidating (and therefore more inclined to ask 'stupid' questions)
- aids motivation by reassuring students
- flexible nature of response time.

Except perhaps for the last one, these benefits can be equally applied to offline PALS schemes, which raises the question: what is the difference? In addition, limitations were identified in Davies' evaluation as: impersonal, limits to mentors' knowledge, difficulties in explaining problems, and lack of face-to-face contact. The last two factors are particularly important for our purposes here because they go straight to the core of the problem: is it possible in an online environment to go beyond content and skills support, and to create a virtual sense of belonging?

This is highly relevant from a USQ point of view. USQ is a large regional university that offers courses across five faculties in on-campus, distance education and online modes. It currently enrolls approximately 20 000 students, 75% of whom study off campus from every state in Australia and internationally (Taylor, 2002). Many of the off-campus students live outside of the metropolitan centres as well and because of the distance, it is impossible for many students to have face-to-face contact. And given the perceived benefits of various PALS schemes, it is urgent to find the best possible ways of introducing such a scheme online. At the same time, however, it is important that an appropriate and equitable medium is used as not all distance students have access to the latest technology, and even if they do, their ability to participate in online forums is sometimes hampered by poor services in remote areas. As Ramaley and Zia note, 'it is helpful to realise that not everyone is a member of the Net Generation - not because of age but because of access to technology' (2005, p. 8.1). With this in mind, we decided to run a small pilot program of PALS Online using MSN Messenger, because it is firstly already widely used by many students, and secondly because it is relatively easy to use for the uninitiated. As one student commented, 'it was my first MSN chat so I was probably a little over excited! But when you're external you sometimes feel like you're the only one'. Finally, MSN Messenger can be accessed from home with relatively slow connections, which makes it reasonably flexible. This was an important consideration, as

many external students also have a busy working life and can often only access support from home after hours. From our point of view the primary focus was on building collaborations amongst learners who are geographically dispersed, so access to the pilot program was limited to external students.

PALS Online using MSN Messenger: Initial reflections

Two courses were selected for this pilot program, both of which also have a regular PALS program on campus: *ECO1000 Economics* and *STA2300 Data Analysis*. In Semester 1, ECO1000 had an enrolment of 249 on campus students in Toowoomba, 40 on the Fraser Coast, and 190 external students. STA2300 had 126 on campus students (Toowoomba) and 515 external students. The regular on campus program runs for the entire semester on a weekly basis. The same peer leaders who ran the regular PALS sessions also ran the MSN Messenger sessions. We decided to limit these sessions to eight students per session, as this is considered to be the maximum workable number in a synchronous online chat environment. In the end, two sessions ran in ECO1000 and one in STA2300. Each session had four students participating, even though eight students had registered for each one. Because of the capping of participants at eight, prior registrations of participants was needed to avoid more than eight students logging on at the same time. This made it necessarily somewhat less flexible than face-to-face sessions where students can decide to drop in at the last minute. The decision to use MSN Messenger was arrived at after consultation with the peer leaders, who expressed a preference for this format, as they were already regular users and thus comfortable with the MSN chat environment. As the overall coordinators of the program we were accessible throughout the trial for consultation, but the peer leaders were generally confident about their ability to moderate these sessions. At the end of the pilot, we conducted a small evaluation that was targeted at both the peer leaders and the participating students.

The student responses were generally positive, particularly with regards to our main objective of fostering collaborations among learners. The positive feedback can be categorised into three main but interrelated strands: overcoming isolation, developing a deeper understanding of course content, and collaboration with other students. For example, one student commented that 'it's good to talk to others who have the same questions, and as an external student you often miss out on the asking the spontaneous little questions'. Synchronous chat is particularly suited to the latter point, where it is often these small questions and instant answers that provide students with the confidence to move forward. Similarly, group interaction provides a sense of community, and finding others who have similar questions can be a confidence booster, as well as provide fresh ways of looking at a particular issue or problem. 'Another student always asks the questions that you're thinking about or asks a question that you otherwise wouldn't have thought about, which therefore allows you to benefit.' Again, this is especially important for external students who otherwise work largely in isolation. These are intangible, long-term benefits that go beyond the immediate assessment related benefits, such as 'getting points I wouldn't have otherwise received in my assignment'. Some of the perceived benefits are related to the online format itself and the flexibility it allows, while others are more specifically related to PALS as a learning strategy. For external students for example, 'having someone [whether a fellow student or a peer leader] explain to you rather than read everything from a text book is great - I know it's still over the computer but it's in English rather than the jargon talk that's in the text book sometimes'. Peer leaders are students themselves who have previously passed the course successfully, which on the one hand gives them 'experience in the subject' and thus the 'ability to provide us with more insight and information into our studies', while on the other hand they speak the language of other students, rather than jargon that can have an alienating effect.

Despite the generally positive response, there were also useful critical notes that must be taken into account for future applications. Some of these related to the nature of the pilot program and expressed a disappointment with its limited scope: 'one session was not really enough to gauge whether a group like this would work'. However, most students indicated that they would definitely attend regularly if PALS was offered in this format on a weekly basis. Other critical feedback followed two major strands: the nature of MSN Messenger as a format, and the role of peer leaders. In terms of the former, some questions were raised about whether the PALS session offered any added value to what was already offered as part of the course. 'I just felt that it was no more than those [students] who give their online address on the course discussion board and speak to each other when they see they are online.' It was unclear from this response whether this student actually participated in such discussions but, regardless, there are some crucial differences.

Firstly, such discussions rely on whoever happens to be online and whoever happens to be willing to engage with other students, which could be no one at a particular time when a student feels he/she would benefit from a discussion. In contrast, PALS sessions are scheduled for a specific time, which makes them more reliable. But more importantly, PALS sessions are structured around course content and include an 'expert' and moderator who guides the discussions. This makes the role of the moderator very important, and some of the critiques focused specifically on the role of the peer leaders in this respect. One student noted that 'although there was

some good conversation, there was no real clear leadership or guidance of the session', while another expressed disappointment that one session 'became a little dominated by one particular student'. These critiques are indirectly aimed at us as coordinators of the program, and test our flawed assumption that the offline moderator skills of the peer leaders would be transferable to an online format in an unproblematic fashion. Dorman and McDonald stress that 'when choosing online discussion forums as a learning strategy, it is important that course leaders and tutors are skilled moderators of online interaction in order to achieve the planned outcomes' (2005, p. 112). While their emphasis is on asynchronous discussion forums, this could equally be applied to synchronous formats. Adequate training, specifically geared towards moderating online discussions should thus be incorporated into the program in the future.

Interestingly, the peer leaders themselves hinted at this too in their feedback, even if they did not specifically ask for it. When asked about the benefits of PALS Online, they mentioned factors such as 'ease of use, no requirement to leave home or find a venue, and allows time to think of questions and responses', or in short the aforementioned convenience and flexibility. With regards to the participating students, both peer leaders emphasised the social aspects of group discussions. 'It helps them to augment their social/study networks and gives them contacts for fellow students they can converse with if they experience difficulties'. Furthermore, 'they can form study groups outside of that session'. Clearly, these are perceived benefits, and whether social contacts were maintained beyond the sessions remains to be seen, but these responses were echoed by the students themselves, and they relate closely to one of the main objectives: to build collaborations among learners. In terms of difficulties and surprises they encountered in running the sessions, the peer leaders noted a number of factors that could have been anticipated beforehand through adequate training. For example, they experienced difficulties with structuring the sessions 'as you are limited to a conversation box - no handouts, not much chance of all doing the same question'. This was based on the perception that 'the questions had to start from the students' which is usually how PALS sessions are run in an offline context. However, this approach to 'initiating learning' tends to create group discussions in an offline context because group dynamics work differently in such a context. For example, rules of politeness dictate that you wait your turn in a group discussion, which is more problematic in a chat room format, because different students can be writing responses simultaneously. In addition, 'some participants seemed to come and go periodically throughout the conversation, making it difficult to logically structure the session'. Thus, peer leaders are presented with different challenges during these online sessions, and they 'can become a little confusing/difficult to manage with a large number of participants'. Finally, it was noted that rapport between students and peer leaders suffers in an online format, as there is 'no opportunity for face to face interaction'.

As mentioned above, specific training related to e-moderating would have neutralised some of these issues, and running more sessions as part of this pilot program would have given us an opportunity to react immediately to some of these challenges. In our view however, the perceived benefits warrant further development of this program, both in terms of more sessions per course and more courses in which to run it. The objective is to find the right balance between these benefits and the specific challenges of building learning communities online. This requires both rigorous and continual evaluation of practice and a flexibility and openness to new technologies as they present themselves. Overall though, learner needs should be central to this process, and should be fundamental to evaluating the use value of new technologies. This is particularly significant for a regional university like USQ with an increasingly diverse student population. Apart from factors such as cultural and family backgrounds, age, and class, this diversity also includes access to technology and ability to use this technology. In a context where 75% of students learn from a distance, PALS Online can potentially help to build collaborations amongst learners so that they become part of a learning community rather than stay 'distanced'.

Thoughts and questions for future development of PALS Online

In the evaluation of the PAL-Online program in Wales, some interesting suggestions for improvement were put forward. The main areas of focus were to introduce face-to-face sessions, install pictures of the mentors with a short biography, initiate regular virtual classrooms or chat rooms and introduce a FAQ section (Davies, 2004). These are interesting findings from our point of view, because they appear to mitigate against some of the perceived benefits, for example the flexible nature of response time. In establishing a PALS Online program, it is therefore very important to keep in mind that new technologies and the opportunities they open up, do not necessarily merge seamlessly with learner needs. Stokes, Garrett-Harris and Hunt (2003, p. 2) argue that 'e-mentoring merges the approach of the traditional mentoring relationship with technology'. And so the challenge from our point of view becomes one of making this merger as tight as possible, while not discounting any application of the available technology if it can provide us with the benefits we are seeking, particularly the important benefit of a sense of belonging. With Stokes et al. (2003, p. 4) we can even ask an additional question: 'can e-mentoring offer additional benefits which go beyond those offered by traditional mentoring?'.

As technology develops at an ever-increasing pace, new opportunities will keep presenting themselves to develop approaches to online PALS schemes that take this sense of belonging seriously, whether through virtual classrooms and chat rooms, videoconferencing or wireless mobile technology. To reiterate in conclusion, if we can harness this technology and apply it from a sound pedagogical basis, PALS Online has the potential to significantly enhance the learning experience for an increasingly diverse student population.

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