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Integrating Peer Assisted Learning and eLearning: Using Innovative Pedagogies to Support Learning and Teaching in Higher Education Settings.

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Abstract: The paper reports the findings from a project which examined the interface between Peer Assisted Learning (PAL) and eLearning in a higher education setting. Traditional uses of ICTs in higher education have focussed on the 'transfer model' where existing face to face pedagogies have tended to be transferred to approaches to eLearning. This paper argues that arrival of web 2.0 has challenged the continued viability of the transfer model and discusses instead the need for more innovative approaches to inform the design of teaching and learning in higher education settings. In response to this the PAL project was conceptualised using ideas drawn from socio-cultural theory. This theoretical perspective includes the role that social situations play in promoting learning. The project findings indicated that interfacing PAL and eLearning provided an important context for re-positioning the ways in which tutorials and lectures could be used as a basis for collaborative learning between students and lecturers alike.

Introduction

In recent years the pedagogies associated with teaching and learning in higher education settings have been challenged by the increased use of ICTs as a means of supporting student learning. These pedagogical developments have been paired with developing insights into the role of social and cultural interactions in student learning, including the role of Peer Assisted Learning (PAL) in higher education. This paper reports the findings from a project which attempted to integrate PAL and online learning as a basis for reconceptualising the more traditional use of lecture and tutorial periods in a unit of study associated with a bachelor degree program in early childhood teacher education. The integration of PAL and online learning was conceptualised using ideas about the social and cultural nature of learning drawn from socio-cultural theory, in particular the role of social situations in promoting learning. Therefore, the project aims were to:

1. Explore the interface between PAL and eLearning as a site for developing an alternative approach to the more traditional face to face (f2f) lecture
2. Determine students' perceptions of the relationship between PAL and eLearning in relation to their perceived acquisition of unit content
3. Examine students' responses to their participation in the alternative lecture approach compared to their existing perspectives on the role of the traditional lecture in their learning

Given recent advances in the use of technologies and ICTs in Higher Education, a core aspect of this project was to explore the extent to which traditional pedagogical practices associated with Higher Education could be repositioned for more effective and engaging student learning.

Higher Education and eLearning

It is widely accepted across the international Higher Education sector that eLearning is enabled by the use of particular ICTs which offer students, teaching staff and institutions flexibility in terms of the times, places and pace at which learning and teaching may occur (Turney, Robinson, Lee and Soutar, 2009). Associated with perceived 'benefits' for students and teachers alike, the early arrival of eLearning in higher education settings was promoted as offering the potential to enable student centred learning through the realisation of constructivist teaching principles. What emerged instead was a 'transfer pedagogy' (Salmon, 2005) in which existing approaches to teaching and learning in higher education were applied to the digital environment, such that Learning Management Systems (LMS) were employed as a means of delivering course content to students. Transfer pedagogy was represented by uses of the technology which mimicked existing conceptions of knowledge and knowledge practices. The lecturer remained the 'expert' delivering his/her content through the medium of the lecture; tutorials were used as a space for questions and discussion to occur amongst students and tutors. The eLearning versions of these activities included lectures 'delivered online in the form of text, audio and/or video' (Alexander and Boud, 2002), and supposed 'discussions' occurring in online discussion forums. In terms of the usual student/lecturer and student/student relationship very little changed.

Transfer pedagogies were successful to some extent during the early days of eLearning as they tended to fit the primarily textual and reader orientated nature of the first generation of web activity. However, during the last few years the emergence of Web 2.0 has increasingly challenged not only the efficacy of transfer pedagogies, but the very assumptions regarding knowledge underpinning their use in the first instance. Web 2.0 is characterised by activity in which users abstract, articulate and contribute their own "mashed-up" content to particular sites (Alexander, 2006). Knowledge is no longer necessarily viewed as being held by 'experts' whose role it is to deliver information to students. Rather, knowledge is viewed as socially constructed and mediated through many digital and non-digital forms and the use of the internet in Higher Education increasingly positioned as "reshaping the world of knowledge through its socio-technological practices" (Ladyshewksy & Gardern, 2008, p. 243). Pedagogically, the implications are that traditional approaches – whether those used pre-web, or those 'transferred' to the web, may no longer be appropriate ways of engaging with information and working towards the construction of knowledge and understanding that is meaningful to learners.

A 'second stage' of eLearning has therefore began to emerge in which 'innovative pedagogies' (Salmon, 2005) are arguably necessary to reconceptualising how teaching and learning can be enacted in Higher Education settings in a situation whereby information, knowledge and the capacity to socially shape such information and knowledge tends to define the learning experiences of many students (Brown & Adler, 2008). Innovative pedagogies are not necessarily easily defined, but are represented by approaches to teaching and learning in which "technologies are used in new ways to advance what was possible in the classroom" (Salmon, 2005, p. 202). This occurs by understanding the ways in which Web 2.0 has shifted knowledge and information practices, and by aligning these new practices with more traditional structures to realise new pedagogical approaches. An important part of this process involves understanding the social dimensions of learning and how these integrate with the use of Web 2.0 technologies (Greenhow, Robelia & Hughes, 2009) as a basis for approaching practice, so that rather than focussing on transfer pedagogies, innovation is able to drive the development of alternative practices. In the project reported in this paper, the social dimensions of learning were understood with reference to the use of Peer Assisted Learning (PAL) in higher education, and the relationship between eLearning and PAL was framed within a cultural-historical (socio-cultural) reading of learning and knowledge acquisition.

Higher Education, eLearning and PAL

Alexander's (2001) extensive study of the use eLearning in Australian Higher Education settings suggested that the use of technology itself does not necessarily improve student learning (p. 241). Rather, it was indicated that students were more likely to report engaging uses of the technology when it was associated with opportunities to interact with other students and lecturers (Alexander, 2001, p. 242). Alexander's findings regarding the social use of technology to support learning, mirror those arguments emerging from the literature associated with PAL, whereby the social aspects of peer learning are argued to build student motivation, enhance social connections and increase student access to feedback about their learning (Morrison, 2006, p.3). Technically, PAL is an approach to supporting student learning which is used as a supplement to existing pedagogical practices, whereby more experienced students mentor and support incoming students in particular subjects (Wadoodi & Cosby, 2002). The use of PAL across a range of higher education settings has been found to significantly increase student understanding of course content, to contribute to cognitive understanding of course material and to contribute to students' interpersonal and social skills (Wadoodi & Crosby, 2002).

The practices associated with PAL, in which students work together to create and share their understandings of course content, have also been applied to individual courses and used as a way of realising the social aspects of eLearning. For example, Huijser, Kimmins and Evans (2008) and Harris and Sandor (2007) report on studies in which PAL was integrated with the use of online discussion forums so that students could work collaboratively on responding to particular problems associated with course material. Huijser et al, (2008) suggested that 'PAL-online' provided a range of benefits for students such as providing a less intimidating learning environment, aiding motivation and enabling the provision of flexible and timely responses to questions (p. 54). Whilst important, these perspectives on PAL-online tend to suggest a transfer pedagogy, in that the benefits associated with group work are utilised within a discussion forum format so that rather than working towards new ways of understanding how the social aspects of PAL can relate to the social dimensions of eLearning, existing ways of thinking about PAL are used in the online environment. In the example reported in this paper, a concerted effort was made to consider the ways in which PAL could be interfaced with eLearning so that the technology informed student interactions within the context of PAL activity. The PAL activity was then used to generate online content that students shared with each other during scheduled lecture periods so that the traditional conceptions of what constituted a tutorial or lecture were able to be reconsidered.

Interfacing eLearning and PAL: a case example

Unit description and design

The unit of study that was the focus for this research was located in a Bachelor degree program for pre-service early childhood education teachers and was focussed on the role of assessment in early education and care. The unit was a new offering in a recently revamped course and made reference to relevant early childhood curriculum frameworks at the national and state level. The unit was conducted over a thirteen week semester and involved students working in self-chosen groups of three to four. Students were advised that their groups were to develop a fictional childcare or educational service and that each week they would be required to develop an aspect of that service during the second half of the tutorial. These developments included, creating a name, logo and web presence for their services; creating philosophy statements on their centres approach to working with children and families, writing policy statements on their approaches to assessment; and/or creating draft or template approaches to assessing children's learning in relation to particular learning outcomes (as referenced in the curriculum frameworks). The materials generated by the students in the tutorial period were to be completed in digital form so that they could be posted to the unit website (using the Digital Libraries function in Blackboard™). As well as providing a

space for each 'service' to grow during the course of the semester, this also allowed students from other groups to access, read and comment on the contributions of their peers.

The lectures followed the tutorials and involved two to three groups of students per week presenting their service to their peers. The presenting groups would log onto the Blackboard™ site, locate their services and share and discuss their developing philosophies, policies and approaches to assessment. The observing students would then ask questions of the presenting group asking them to explain and justify the decision making that informed their philosophies, policies and assessments in light of the theoretical and research material that had framed the learning for that week. Both lecturers attended the lectures and supported the presenting students to justify and explain their contributions and worked withthe student audience to provide appropriate feedback to peers. the provision of constructive feedback.

The theoretical and research material that framed each weekly topic was provided online and students were expected to complete these materials BEFORE attending the tutorials. A range of theoretical and research material was provided including readings, video clips and audiocasts. The audiocasts had been previously recorded by the lecturers and featured interviews with practicing teachers, whilst the video clips referenced approaches to early childhood assessment from across the globe. Whilst the second half of the tutorial focussed on the groups developing a response to the weekly topic, the first half was dedicated to an open conversation between the two lecturers. During this period the lecturers would discuss the online materials, presenting their own views on what had been provided in terms of a range of theoretical perspectives. Students were invited to contribute freely to these discussions on the basis of their interpretations of the online material. This meant that in a typical week the students would 1) complete the online the materials; 2) attend the tutorial in which they would listen to, and contribute to an open conversation about the materials, and then create a digital response to the topic for their services; 3) post their digital responses to their group's link on Blackboard; and 4) either share or listen to others share their responses to the weekly material in the f2f lecture. In this way the unit of study sought to integrate PAL and online learning by having the students engage in both types of learning through the generation of digital responses to the online materials during the tutorial periods, which were then shared in the larger f2f experience of the lecture. Figure 1.0 outlines the relationship between the online and PAL activities in relation to the use of the tutorials and the lectures (including the use of peer teaching).

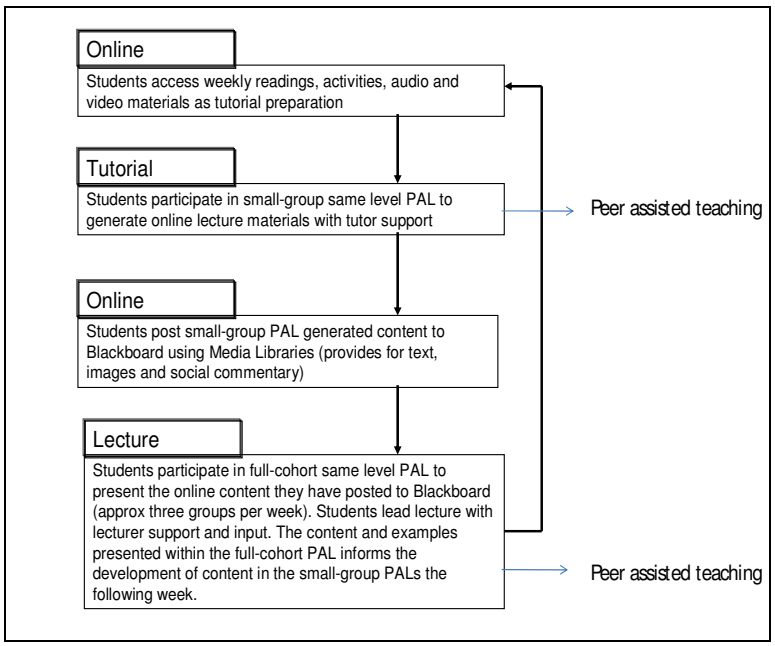

Figure 1.0: Relationship between the online and PAL activities in relation to the use of tutorials and lectures (including the use of peer teaching).

Assessed tasks for the unit of study were derived from the responses students created to each weekly topic. Here students were required to implement samples of their group work during their practicum experiences and to reflect on the extent to which their 'fictional' responses worked in a practical context when used with children and families.

Conceptual framework

The unit design was informed by a cultural historical (more commonly known as social-constructivist or socio-cultural) perspective in which learning is described as an inherently socially developing process (van Oers, 2008). According to this perspective, the acquisition of knowledge is related to the capacity of the social environment to provide opportunities for learners to master their current levels of understanding and operation in order to move towards higher levels of conceptual awareness and mastery of theoretical content (Jacobs, Hurley & Unite, 2008; Kravtsova, 2006). Cultural historical theory outlines a series of increasingly complex social situations which are entered into by learners throughout the lifespan, the highest of which is known as 'collective theorising' (typically achieved during adolescence and adulthood). Collective theorising represents a social situation that provides a context for group or peer activities which support learners to pay attention to both *what and how* they are learning (Kravtsova, 2006). In this project, the social situation represented by collective theorising was supported by what is already known about the benefits of PAL and the use of eLearning for content delivery and development. For example, PAL has a demonstrated capacity for allowing students to articulate their understandings about unit material, to negotiate their learning and present their developing ideas and arguments (Boud, 2001), whilst eLearning has the capacity to allow students to access content and share the results of their PAL activities with their peers (Alexander, 2006). The combination of PAL and eLearning created a particular social situation that provided a context in which the lecturers and students were able to focus on *what* (i.e. through and reading discussing online materials) and *how* (i.e. through developing, presenting and reflecting on the digital responses for each service) they were learning. This meant that the lecture was repositioned as an opportunity for participating in collaborative discussion about the implications of the unit content for their teaching practice, rather than focussing on transmitting theoretical content to students as a basis for practice.

Method

Participants

The participants included 90 pre-service teachers (89 female and 1 male) enrolled in two Bachelor of Education degrees, which lead to qualification as early childhood and/or primary education specialists. The participants' ages ranged from 20-55 years. The participant group included both local and international students, and a cross-sector of languages other than English, including Thai, Mandarin and Hindi were represented. All students participated in the unit of study, however only those students providing informed consent participated in those aspects of the project which focussed on the collection of data aimed at addressing the project aims. The project was conducted with full approval from the University Ethics Committee.

Data collection and analysis

Specific data collection techniques were employed to address each of the three project aims, including lecturer discussions, collection of student work samples, a student survey and a student focus group. The lecturer discussions were audio-recorded conversations between the authors responsible for the design and implementation of the project. The discussions were held before, and at the conclusion of the unit of study and were approximately 45 minutes in length. Each discussion

was transcribed. The student work samples included postings made to the website by students (discussion postings and examples of their digital responses). The survey contained twelve items on a Likert scale of 1-4 (1 being strongly disagree and 4 being strongly agree) and four qualitative items. The focus group was conducted at the end of the thirteen week semester, was one hour in duration and used an open-ended interview schedule. The focus group was conducted by both of the lecturers. Table 1.0 outlines the data collection techniques for each project aim and the type and number of participants.

Aim	Lecturer discussions (2 lecturers)	Student work samples (15 students)	Survey (29 students)	Focus group (6 students)
1. Explore the interface between PAL and eLearning as a site for developing an alternative approach to the traditional f2f lecture	✓	✓	✓	✓
2. Determine students' perceptions of the relationship between PAL and eLearning in relation to their perceived acquisition of the unit content		✓	✓	✓
3. Examine students response to their participation in the alternative lecture approach compared to their existing perspectives on the role of the traditional lecture in their learning			✓	✓

Table 1.0. Data collection techniques for each project aim and the type and number of participants.

Thematic data analysis was used for the lecturer discussions, the focus group data and the qualitative survey items. Themes were derived from each of the project aims and included 1) evidence of a relationship between PAL and eLearning; 2) evidence of student perceptions of learning through the PAL and eLearning interface; and 3) evidence of student preference for the alternative lecture approach over the traditional approach. Descriptive statistics were used for the quantitative survey items, including mean response and standard deviation from each mean. Student work samples were used for illustrative purposes only.

Findings

The findings are presented according to the three main themes derived from the project aims, including evidence of a relationship between PAL and eLearning; evidence of student perceptions of learning through the PAL and eLearning interface; and evidence of student preference for the alternative lecture approach over the traditional approach.

Evidence of a relationship between PAL and eLearning

This theme was derived from project aim one 'to explore the interface between PAL and eLearning as a site for developing an alternative approach to the more traditional f2f lecture'. The possibility of the interface was evidenced by data illustrating a relationship between PAL and eLearning. This data emerged from the lecturer conversations, the student focus group and from survey items one to five. The survey items and findings are presented first, followed by examples from the qualitative focus group and lecturer discussions data.

Survey item (n=29)	Mean (4 = strongly agree)	SD
1. The online activities and readings are an important starting point for my learning in this unit	3.72	0.19
2. The tutorial activities extend my understanding of the unit content	3.72	0.19
3. Connecting the online activities with the tutorial activities helps me to think deeply about the unit content	3.69	0.22
4. Working in the groups to develop the responses for each 'Service' is a useful way of working towards everyone generating material for the lecture	3.83	0.12
5. Combining group work with the online activities and 'Sharing our Services' has helped to understand the unit content	3.86	0.09

Table 2.0 Responses to survey items one to five (evidence of a relationship between PAL and learning

These items were intended to establish whether or not a relationship could be argued to exist between PAL and eLearning in a way which supported the students to engage with, and learn, the unit content. For example, items one and two established that the online activities and participation in the PAL and team teaching in the tutorial supported learning and extended student understanding of unit content. This relationship was confirmed by item three, which considered the extent to which connecting the online activity with experiences in the tutorials allowed students to think deeply about the unit content. Items four and five consolidated this suggestion by focussing on whether or not the group work interfaced effectively with the eLearning. The high mean scores for each item suggest potential for interfacing PAL and eLearning and using this as a basis for reconfiguring the traditional approach to the lecture. Thus, student work conducted within the intersection between PAL and eLearning preceded the lecture to the extent that students were able to use the lecture period as time for presenting and sharing their own user generated content to their peers and the lecturers. This contrasts with the more traditional use of the lecture where it is used to transmit theoretical information to students prior to their participation in a tutorial. Interfacing PAL and eLearning meant that the lecture time could be reconceptualised a social space for learning which positioned the students as responsible for generating and understanding the unit content. This idea was explored in the lecturer conversation, in which the lecturers noted with surprise that the students were effectively running the website and lectures themselves:

> "They were pretty much running that website themselves. I visited once every, not even every week, which normally I would. I wasn't there all the time ... [and did you notice] they started to take ownership of that space [the lectern]. Do you remember we would walk in and they would already have turned on the computer and it was up and they were waiting to start [to present their digital responses]. And it was all becoming self organised, that they were leading it" (post implementation lecturer conversation).

In this way, the interface between PAL and eLearning enabled a new approach to the 'lecture' to be realised. Here student activity during their PAL experiences within the tutorials, their use of the online materials and the generation of their own digital responses created a context whereby the lecture did not need to focus on the delivery of unit content, so much as the exploration and sharing of content. This meant that the 'expertise' traditionally associated with the lecturer delivering unit content was shifted and the students were able to take more ownership and responsibility for engaging with the unit content.

Evidence of student perceptions of learning through the PAL and eLearning interface

The second theme was articulated from project aim 2 'to determine student perceptions of the relationship between PAL and eLearning in relation to their perceived acquisition of unit content'. Quantitative and qualitative survey data and comments from the focus group suggested that students were able to articulate perceptions of having learned through the PAL and eLearning interface. In general, the learning was described as occurring through the interface established between the group work (within tutorials and the lectures) and the eLearning (completion of online activities and development, posting and sharing of digital responses).

Survey item (n = 29)	Mean (4 = strongly agree)	SD
6. Having lectures where the groups share their work with others helps me to think about my own learning	3.76	0.17
7. The combination of online learning and group learning in this unit of study has helped me to see how theory might relate to practice in early childhood education	3.62	0.26
8. I like the way this unit moves between online activity, tutorial discussions, small group activity and shared lectures	3.52	0.34

Table 3.0 Responses to survey items six to eight (evidence of student perceptions of learning through the PAL and eLearning interface)

These items were focussed on determining the extent to which students perceived they had learned from participating in the PAL and eLearning. For example, item six suggested the students benefited from the large group PAL situation in the lecture where the sharing of group work was credited with helping students think about their own learning. Items seven and eight indicated that students perceived the relationship between the PAL and eLearning activities to have supported their learning and allowed them to see how theory related to practice in early childhood education. These findings were supported by responses to one of the qualitative questions on the survey which asked students how they would explain their learning in this unit of study to non-enrolled students. In these responses the students were able to articulate perceptions of their learning that described the ways in which PAL and eLearning were being integrated to create an engaging, interesting and interactive context for learning:

> I would say that we were learning in a non-traditional lecture format, and that this way helps me to understand the content, share ideas and learn from others
> That it is interactive and using the technology of today combined with traditional forms
> In a number of ways, reading; audio recordings; YouTube videos, group task; open discussion
> The content is interesting; the delivery of content is interesting and helps us to interact with others and share ideas

These responses indicated the students were aware of how they were learning through the combined use of PAL and eLearning. These perceptions were explored in more depth during the focus group interview, and interestingly were noted by the students as supporting them in extending their learning and challenging their thinking. For example:

> "You would be listening to us when we did our presentation, and say 'oh, I didn't think of doing it that way'. And we would go 'oh'. So, you have to realise that your mind is going to change and the way you think and feel now is going to be different to the way you think and feel tomorrow. It's made everything that more unpredictable, which made it interesting. And, if it is interesting teaching, you learn better".
> The other thing is, the other mentality we have as a student is, to be very open and frank, we try to see what that lecturer is expecting from us, and then we try to make and present our assignments for that lecturer in that way. Usually it is just with one person, but because it was with two persons [sic], we are trying really to take a risk and so you get the real thing [what we really think not what we think the lecturer wants]".

PAL and eLearning was associated with creating a context for learning in which students were able to engage in open discussion, interact with others and share ideas. Importantly, these elements were credited by the students with allowing them to take risks with their learning and thinking – to be aware that their ideas would change, and that they were able to take risks sharing what they really thought, rather than thinking they needed to replicate what the lecturers offered.

Evidence of student preference for the alternative lecture approach over the traditional approach

The third theme was derived from project aim three 'to examine student responses to their participation in the alternative lecture approach compared to their existing perspectives on the role of the traditional lecture in their learning. Quantitative and qualitative data from the survey and focus group data indicated that students had a strong preference for the alternative lecture approach

over the traditional lecture. The alternative lecture was described as being more interesting, engaging and as supporting student learning.

Survey item (n = 29)	Mean (1.0 = Strongly Disagree)	SD
9. This unit would be better if the lecture was used in a more traditional way and the lecturers gave each lecture before the tutorial	2.20	1.27
10. I think this unit would be better if it was offered in a more traditional format with the lecture first, then the tutorial and then the set readings	2.10	1.34

Table 4.0 Responses to survey items nine to ten (evidence of student preference for the alternative lecture approach over the traditional approach)

These responses suggest that a majority of the surveyed students preferred the alternative lecture approach, strongly disagreeing with the suggestion that the unit would be better if a more traditional lecture format had been employed. Responses to a qualitative survey item asking students to described what they saw as the difference in their learning when they participated in the alternative lecture format compared to their experiences in more traditional lectures emphasised the active and collaborative nature of the alternative lecture:

> I feel I understand everything better as we are involved and by 'taking the lecture' and discussing things together. We all learn from each other.
> The main difference is it is getting all students involved. Having our say more, being able to work together more with students and lecturers.
> Everyone is involved in tutes and lectures which helps you learn more. I find the way this unit has been taught is more successful for my learning.

The more collaborative nature of the lecture was described by the focus group students as supporting their learning as they had to be clear about what they were going to present to the larger group and why:

> "You know, you have to do the work before hand [before the lecture]. You can't just slip in underneath and say 'yeah, I've been to the lectures and I've listened'. But, if you are doing they work and telling people what you are doing, you are going to bring out your best [effort] aren't you? You are going to show them, you don't want to hide your light under a bush, you want to show everybody what you have done".
> "It forces you to be very clear in your mind, about what you are doing, which is another thing you wouldn't necessarily do if you didn't have to get up there and talk about it"

Students appeared to prefer the alternative lecture over a traditional lecture due to the opportunities it provided for peer learning and interaction. However, it was not the conversations alone that were important, it was the idea that students were responsible for 'taking the lecture', being 'clear' on what they wanted to present and that they would bring out their 'best effort'. These comments are characteristic of engagement in the lecture that moves beyond 'just listening' to someone else talk, to having a particular perspective and understanding of a theoretical concept or issue that they wish to share with other students. As with the earlier findings, this suggests that interfacing the PAL and eLearning enabled the lecture to be reconceptualised as a space for constructive peer based dialogue, rather than being a situation in which knowledge was to be transmitted to students.

Discussion

In this project, the social situation for learning was understood as the interface established between PAL and eLearning. This interface was represented by the way students accessed online activities and used these as a basis for small group PAL, and the larger tutorial group PAL discussions and collaborations. The interface was also represented by the way students posted samples of their work to the unit website for later sharing in the lecture, and to be accessed for further discussion and comment online. This interface created a context in which the unit content could be examined, discussed and articulated by the students drawing on technological tools for

information and expression in a way which enabled the students to 'collectively' engage, or 'theorise' about what they were learning. As cultural-historical theory suggests, these opportunities for collective theorisation provide an important avenue for student learning as they allow students to examine what and how they are learning. This was evident in the qualitative data whereby the students discussed the ways in which the PAL experiences had supported their learning and the quantitative data indicating a relationship between the learning and PAL experiences. In this way, the perspective on knowledge promoted throughout the unit of study shifted from being one of the 'lecturer as expert' to enabling a process of student and lecturer collaboration, participation and inquiry.

The social aspects of the learning were more strongly aligned with the social dimensions and interactions enabled by the technology. This suggests a movement beyond the transfer approach towards a more innovative perspective whereby the interface between PAL and learning may be used to reposition traditional pedagogical approaches and structures in Higher Education settings. Thus, rather than having a lecture, a tutorial and then set readings, the interface enabled a more 'futures' orientated approach whereby eLearning preceded opportunities for tutorial-based PAL which supported more eLearning which in turn lead to a more sustained PAL engagement during the subsequent lectures (Figure 2.0). In this approach there was also an opportunity for lecturers to learn and to be constructed differently from 'expert' or 'transmitter of knowledge'. Both lecturers had the opportunity to engage in open dialogue, to participate in group work with students and to be available as a resource for students and for each other in a new way. They were no longer static and in a conventional position, rather they were engaged as co-constructors of knowledge in a mutually beneficial way.

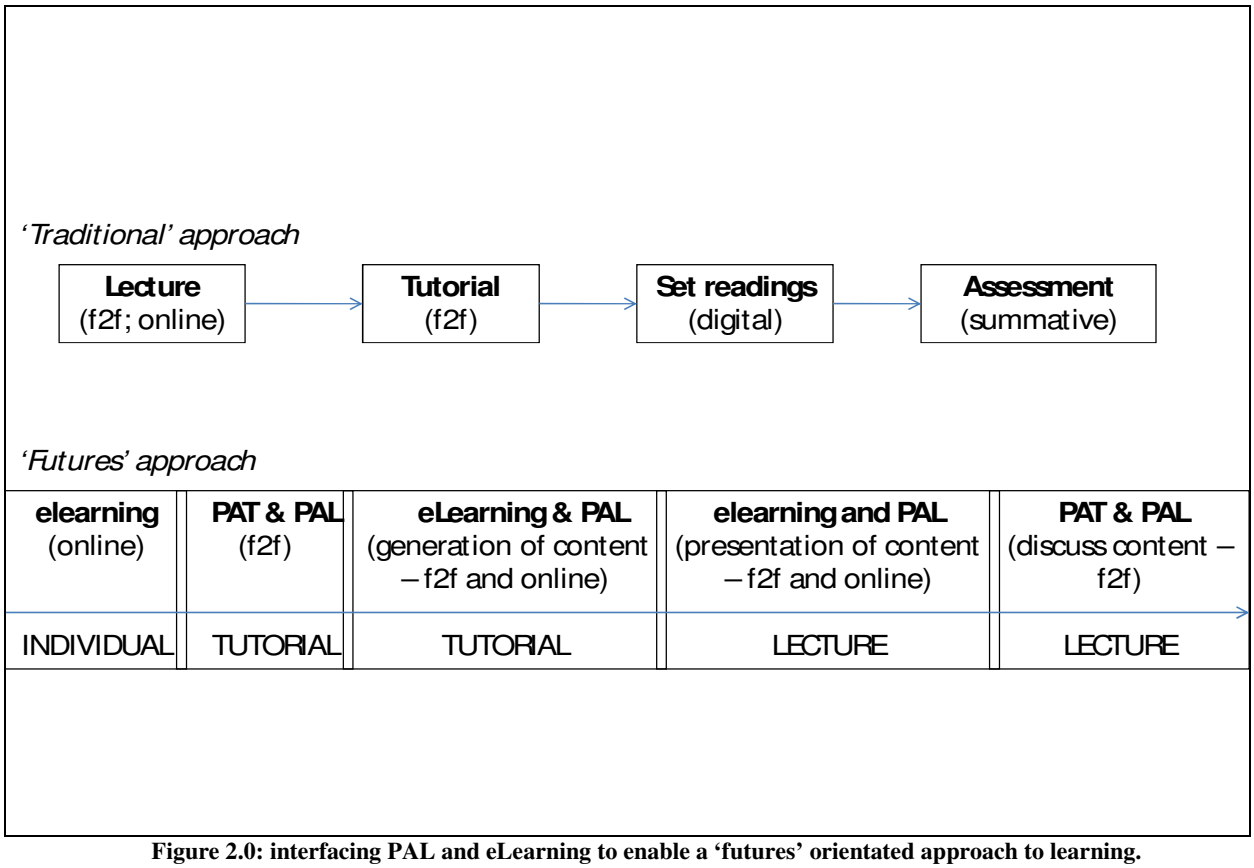

Figure 2.0: interfacing PAL and eLearning to enable a 'futures' orientated approach to learning.

Conclusion

The use of ICTs and eLearning has occupied a place of interest and examination in the Higher Education sector for a number of years. Whilst early approaches to eLearning tended

towards the implementation of transfer pedagogies, the more socially orientated nature of Web 2.0 suggests the need for more innovative pedagogies to inform Higher Education practices. In this project, the social situation known as 'collective theorising (derived from cultural historical theory) was used to frame the interface between PAL and eLearning so that a context for working collaboratively with unit content was used to support students in the generation of unit materials that provided the basis for further learning. This suggests potential for considering alternative approaches to existing pedagogies such that lectures and tutorials can be used as opportunities for collaborative lecturer and student engagement in ways which use technologies as basis for constructing knowledge rather than focussing only on the transfer of knowledge. Innovative pedagogies are possible within existing pedagogical structures in those situations where the uses of the technology can be framed in relation to what is known about effective socially based learning.

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