Connecting in rhizomic spaces: Peer-assisted learning (PAL) and e-learning in teacher education

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A PAL (Peer-Assisted Learning) project supported research that focused on e-learning and Web 2.0 technologies as part of a pedagogical approach in the context of a tertiary institution. This project responded to a call for a rejuvenation of conventional approaches to pedagogy while teaching an early childhood unit in a large Australian university. In the project a variety of methods, qualitative (interviews and focus groups) and quantitative (on-line survey), were used in order to explore the possibilities involved in learning together in innovative ways. The PAL project is connected here to a 'rhizome' (Deleuze & Guattari, 1987). A rhizome is a form of network; it is multiple; and, it is capable of producing surprises. This is reflected in the findings that support the use of technology to create an effective collaborative space and also show that there are advantages to destabilising conventional student/lecturer positions. Finally, this narrative account contributes to a growing literature that connects Deleuze and Guattari's (1987) philosophical ideas to education.

Keywords: *Peer-assisted learning, early childhood, assessment, Web*

2.0 technologies, Deleuze, rhizome

Introduction and background

This is a narrative account of a research project carried out in a situation familiar to educators in tertiary contexts, namely, delivering a new unit to a large class in a formal lecture/tutorial format. Reflection about the uses of Web 2.0 technology is encouraged (Yamamoto, Kush, Lombard & Hertzog, 2010) and these are included and connect to the philosophical ideas of Deleuze and Guattari (1987) from *A thousand plateaus: Capitalism and schizophrenia.* Their work influences education, especially in the field of early childhood education (Olsson, 2009), the area of interest here. The application of Deleuze and Guattari's philosophical concepts is a form of "border crossing" according to Dahlberg & Moss (2005: 23). As they point out, a philosopher like Deleuze took little direct interest in early childhood, but as they also say "we need the provocation of different perspectives, viewing a particular field from across borders" (Dahlberg & Moss, 2005: 23). The narrative presented here contributes to, and supports, border crossing. We open with a story about teacher educators thrown into a particular and far from unique situation and document the process of turning what might have been disadvantageous into a research project and a successful pedagogical experience. This is an account of a "line of flight enabling one to blow apart strata, cut roots, and make new connections" (Deleuze & Guattari, 1987: 15). A line of flight presents new possibilities but with risks because the line of flight is unpredictable and "the line of flight ... creates or turns into a line of destruction" (Deleuze and Guattari, 1987: 423). A line of flight constitutes a resistance, a desire for something different, a breaking away from the usual norms and expectations.

Our findings challenge the stereotypical thought that the use of Web 2.0 technologies saves time and effort and is a preferred mode of learning. Instead we discovered that the neoliberal dream of students choosing to learn connected only to each other and to various websites is only part of the story. The background and preparatory work is described here as the project was set up carefully to promote a Peer Assisted Learning orientation toward teaching and learning (Edwards & Bone, 2012).

PAL, or peer-assisted learning, is not new and neither is the emphasis on collaboration (Bain, 2004; Boud, 2001; Valli, 1989). A critique could be put forward that peer learning simply reduces face-to-face (f2f) time time with lecturers; this was not our intention. We wished to construct a strong and vibrant collaborative space (Mäkitalo-Siegl, Zottmann, Kaplan & Fischer, 2010) and go beyond the usual group work that is often more about forming relationships and 'getting to know each other' rather than emphasising the possibility of learning together. We chose to affirm PAL as a way of learning from each other in a context that has been intentionally set up to promote learning through engagement with Web 2.0 technologies (Edwards & Bone, 2012). The project was set up in a way that engages *technography*, an approach that "recognises the significance of technological change to a variety of pedagogical contexts" (Saltmarsh, Sutherland-Smith & Kitto, 2008: 175). This research critically challenged the use of Web.2.0 technologies that value only behaviourist 'reward' based approaches to teaching and learning. As an educational leader known to one of the lecturers said recently, "ICT is a classic example [of things staying the same] with interactive whiteboards and those clickers for support, there is more direct teaching with one person out the front controlling the group" (personal communication). In this project we hoped to challenge this perception and to work in a different way.

The beginning

When describing our work together it sometimes sounds as if we had been colleagues for a long time but that was not the case. At the beginning of the academic year when this research took place we had not taught together. We found ourselves making plans to develop a unit called 'Assessment in the Early Childhood Curriculum'. This unit would be delivered to 90 adult learners who formed a diverse group in terms of age and ethnicity. Later, at the end of the semester, as we reviewed the events that had taken place, we reflected that the project was "almost mad, as we had completely reconceptualised a teaching and learning approach". We were concerned to teach new approaches to assessment in line with the requirements of T*he Early years learning framework for Australia: Belonging, being and becoming* (EYLF) (DEEWR, 2009). Added to this, one lecturer noted, "We'd never taught before together, we'd barely had a cup of tea together actually because I was overseas.

We'd actually barely met". The often *ad hoc* construction of teaching teams and the requirement to suddenly build a successful working relationship shows in our conversations that reflect the 'rupture' (Reid, 2008: 295) that can open an opportunity for a "line of flight" (Deleuze & Guattari, 1987: 9).

This research could have been constructed on the basis of self-reflection but from the self-study literature we took up the challenge presented by Loughran (2007: 14) to "go beyond the individual alone" and there was a strong focus on teacher and researcher reflexivity in terms of the relationships between ourselves and the students. While planning and delivering this unit and conducting research together, we maintained what Gallagher (2008: 73) calls a "dialogical approach" evident in this narrative. Despite our wish to 'make a difference' like all teachers we found ourselves caught in certain discourses that constrain and construct teaching and teacher education (Reid, 2011). Deleuze and Parnet (2002: 125) note that "a profession is a rigid segment", yet underneath are "the connections, the attractions and repulsions". The spaces we were working in were not ideal but by expressing difference and doubt we could "outmanoeuvre" (Deleuze & Parnet, 2002: 143) the limitations and stay in movement, knowing that "it is always on a line of flight that we create, not, indeed, because we imagine that we are dreaming but, on the contrary, because we trace out the real on it" (Deleuze & Parnet, 2002: 136).

Tracings

In early childhood education the EYLF (DEEWR, 2009) gave an opportunity to work with fresh approaches to assessment in the new unit and to reposition ourselves and our students. There was also space to recognise the "double pincers" (Deleuze & Guattari, 1987: 45) of content and expression and to use this, to take a risk, experiment, and to do some research as part of a larger project. We were designated Peer-Assisted Learning (PAL) Fellows within the university and so our exploration was linked to a Peer Assisted Teaching Scheme (PATS) initiative supported by the Australian Learning and Teaching Council (ALACT).

Segmentarity

Lecturers or students may continually experience "all kinds of clearly defined segments, in all kinds of directions, which cut us up in all senses, packets of segmentarized lines" (Deleuze & Parnet, 2002: 122). There is a familiarity about the lecture theatre and lecture format usually followed by a tutorial that aims to consolidate what had been taught. This is both reassuring and dangerous, as Deleuze and Guattari (1987: 237) note "the more rigid the segmentarity, the more reassuring it is for us". We wanted to challenge the usual default positioning of lecturers: front of class, the lone expert, entertainers and transmitters of knowledge. In their turn, students are too often positioned as passive receivers of knowledge. These are familiar positions and of course, there are also certain risks when making changes and in confronting what Penman and Ellis (2009) call the common dilemmas of educators who wish to create change.

Over time it has become apparent that even with the arrival of sophisticated new information technologies that the more things change the more they remain the same and while new tools have been introduced essentially the set up in the tertiary classroom remains the same as ever; tiered seating, facing front to a person or screen. Very often students expect a conventional lecture supplemented by new technologies and these expectations may mirror earlier educational classroom experiences or are influenced by how teaching looks in different cultural contexts. When we teach in Singapore for example, the transmission model is expected and that is how the classroom is set up. This places very few demands on the student in terms of participation apart from the obligation to attend class and take notes. A focus of the project was to encourage peer learning but there remained a possibility that it would be seen as conventional group work. This is often resisted in practice for various reasons and too often all parties retain their positions within rigidly segmented spaces. Sometimes recognising and being frustrated by "heavy constraints" (Gallagher, 2010: 72) in learning environments can support a creative response.

(Re) positioning

A decision was made to use e-learning and to realise the potential of Web 2.0 technologies (Alexander, 2006). Lecturers often discuss

informally the frustrations of knowing that students who have their heads down in the lecture theatre may not be engaged in deep thought but are more likely to be using technology to text or check out Facebook. The students use these technological tools in ways appropriate to their age and experience as citizens in a technological and fast-changing world. Bruns coined the word 'produsage' to sum up the fact that "the impact of information technology on everyday personal and professional cultural practices can no longer be disputed" (Bruns & Humphreys, 2010: 42). We decided to use this fact pedagogically and to our advantage as well as to the advantage of our students.

Connecting through theory

The Web 2.0 technologies were used in a way that supported peer support within a collaborative space with a sense of community. Grippa et al (2010: 37) note that this idea matches the theoretical perspective of Vygotsky (1978) who suggests that learning is enhanced "by immersion in social contexts, supporting social interactions and by belonging to communities". The second author of this article favours this theoretical perspective. The first author takes a perspective informed by poststructural theory (Lather, 2007) and related philosophies. From the philosophical (Deleuzian) point of view put forward here this means that learning can be conceptualised as an event (Deleuze & Guattari, 1994), as something untameable and "impossible to predict, plan, supervise or evaluate according to predetermined standards" (Olsson, 2009: 117). The fact that our theoretical perspectives did not always coincide was important in this project as we demonstrated respect for each other's differences and allowed them to work pedagogically for us.

This particular version of events makes use of the work of Gilles Deleuze and Felix Guattari (1987) and from this perspective the Web 2.0 technologies and particularly the internet reflect the image of the rhizome. To be rhizomic is to connect in ways that are "acentered, non-hierarchical, nonsignifying" (Deleuze & Guattari, 1987: 21). It is to be unexpected, a little bit risky, "reversible, modifiable" (Deleuze & Guattari, 1987: 21). To think of the rhizome is to think of a weed or a flower with tangled root systems that exist underground and emerge occasionally and not always in the planned space. The rhizome is difficult to destroy. It is not obvious like a tree, with a main trunk and

branches, this is the model of arborescence that Deleuze and Guattari (1987: 15) critiqued when they said "we're tired of trees".   The rhizome puts out new shoots and makes new and unexpected connections.

The rhizome is like the internet, the connections are there and so are the surprises; one thing does not necessarily lead to another or the outcome of a search is not predictable. Sometimes when new threads are followed a lot of periphery information comes to light and at other times following a trail may lead nowhere. When we presented the PAL project to the students we shared our wish to make some discoveries together. For once this was genuine as we did not know what we would discover when we planned the unit and were aware that our plans might work or might not. We discussed this with the students and reflected that in all educational contexts there is a teacher discourse that supports certainty and that we do very little that is experimental, more often asking questions that we already know the answer to and constructing predictable activities. The students, as beginning teachers, could relate to this and these discussions closed the distance between us all and began to create a discursive space for shared discoveries. Like all lecturers we had to keep our final evaluation scores in mind but we decided to take some risks anyway. What follows here is a description of what happened as we "moved seamlessly between research and pedagogy" (Gallagher, 2008: 73) and teaching and conducting this inquiry were concurrent activities.

Plateaus

The various aspects of the project are set out to be read as a series of 'plateaus', that is, they all connect but each one represents a particular challenge or activity connected to this inquiry. According to Deleuze and Guattari (1987: 21) rhizomes work and connect through a series of nodes or "plateaus". These plateaus do not have to be written or read in any kind of order because each plateau is "any multiplicity connected to other multiplicities by superficial underground stems". The tangled roots are the PAL project, the use of technology and the early childhood education focus, together with the wish to be innovative in the tertiary education classroom. These interests coincide, intersect and occasionally interrupt each other as shown by the voices of students from focus groups and interviews as well as in our recorded interview

with each other.

The research project – a plateau

The project explored PAL approaches over one semester with one cohort of students but linked with Web 2.0 technology thereby combining a traditional approach with new media (Hine, 2005). Methods of generating data included interviews with each other. Because the power dynamic is a major issue in a project like this where we were teaching the class there was no pressure put upon students to participate. We ran an online survey but it was anonymous and we did not know who participated or not. The online survey contained twelve items on a Likert scale of 1-4 (1 being strongly disagree and 4 being strongly agree). This survey was supplemented by three qualitative questions. Two focus groups of participating students were set up at the end of the project. Ethical permission was granted by the university ethics committee, MUHREC, and students gave informed consent to participate in the research but in a qualitative research project like this the ethical issues are frequently on-going and dilemmas can arise. The idea of research as an ethical process involving "rights, responsibilities and reflexivity" (Bone, 2005: 1) is something that we were always conscious of in this situation.

In terms of research reflexivity a tape-recorded interview between both lecturers took place at the beginning of the project and at the end. These lasted about 45 minutes and were transcribed. More informally, we talked after each lecture and sometimes jotted down notes and ideas about how we were feeling about the project and about what was happening in lectures and tutorials. A Research Assistant transcribed the lecturer interviews and focus group responses. All students were contributing to an e-learning site so samples of their work were available online as part of the unit and the only work we have considered as research data was the work of students who formally consented to participate in the research.

The research was guided by the following intentions:

1. To explore the interface between PAL and e-learning as a site for developing an alternative approach to the more traditional f2f lecture.

2. To determine students' perceptions of the relationship between PAL and e-learning in relation to their perceived acquisition of unit content.

3. To 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.

We were especially keen to know whether by using ICT we could reposition pedagogical practice with adults in ways that were effective. We view students as active participants in their engagement with interactive technologies (Bruns & Humphries, 2010). The Web 2.0 technologies and students' use of ICT were expected to accentuate the PAL aspects of the research.

Planning for change

Planning became a way of working with the "and…and…and" (Deleuze & Guattari, 1987: 25) because we did not put any blocks in the way of new ideas. We decided to reverse the usual lecture/tutorial pattern. We opted to run tutorials and then have the lecture. The planning was very upfront for us as everything had to be on the interactive e-learning site well before the session. Students were expected to have engaged with materials (chapters from the textbook, peer-reviewed journal articles, transcripts of interviews with teachers, audio recordings from research projects, video clips, the curriculum documents, internet links) prior to the tutorial. This reversed the usual scheme of things, whereby students could attend a lecture and then survive in a tutorial, because everything has already been introduced to them by the lecturer.

New learning spaces

Tutorials started with a conversation between the two lecturers in front of the class. This was an improvised and unrehearsed talk connected to the topic for the week.   Following this, students in self-selected groups worked on an on-going project whereby each group invented a fictional early childhood setting using ICT. This fictional early childhood setting, together with the technology, advanced what Lin (2010: 12) refers to as an "identity-technology fit", a process of social construction that

builds professional identity. Week by week this creation took shape and students decided on: a name and logo, a vision statement, the guiding theoretical perspective in that setting; they made curriculum links; and, finally the approach to assessment and examples of assessment (the focus of this unit) were presented and added to the site. The topic of the conversation that started the tutorial linked to key learning outcomes from the EYLF (identity, wellbeing, connected and contributing, communication, involved learners) (DEEWR, 2009). The students then applied their own ideas about how these outcomes might be achieved to their imaginary early childhood setting.

Following the tutorials we went into the lecture theatre. Each week two or three groups of students presented their latest application of learning to the broader group. One week we looked at wellbeing and the student groups, presenting as staff members of their fictional early childhood establishment, described the assessment procedures that they would use to show that wellbeing was a learning outcome supported by certain activities in the early childhood setting. After two or three presentations on the same topic for that week the entire class then critiqued what they had heard and discussed the new ideas that arose from the presentations. As lecturers we became part of the audience and sometimes facilitated the discussion. Again, we often did not agree with each other so the way was open for the whole student group to participate without having to be 'on side' with the lecturers. The work of each group was saved on the e-learning site and could be retrieved under the name of the early childhood setting and so information was available for other groups to look at and share and we all had an overview of all the fictional early childhood settings. This created a new shared learning space and supports the contention of Howard and Ng (2009: 379) that "technology is able to facilitate the sharing and distribution of knowledge and expertise among members within a learning community".

The lecture – a plateau

It was risky not to present a lecture because there is an expectation that the lecture theatre will be where learning happens. Through the changes that were enacted the lecturers became part of the audience in the lecture theatre instead of the performers or main actors. In this

project we retained the lecture theatre as a pedagogical space and it became an exciting space as every week the student groups presented some new and innovative work. This work felt fresh and immediate - not overworked. At first, as the official lecturers, we helped students set up their presentations and supported them as they presented. As the semester progressed the students began to 'own' the space. They went in ahead of us, set up their presentations, introduced themselves and started the session with confidence.

As lecturers we found that student ability to take on the lecturer role and to meet peer expectations was impressive. One of the questions we asked was: would students prefer conventional lectures? The results were encouraging. In response to a qualitative online survey students stated that:

> *I feel I understand everything better as we are involved and by 'taking the lecture'... we all learn from each other.*

> *Everyone is involved in tutes and lectures, which helps you learn more.*

Another student in the focus group said that she had to get over some fears about public speaking, because:

> *You don't want to hide your light under a bushel you want to show everybody what you've done.*

The feedback we received was overwhelmingly positive and encouraged us to continue and complete what we had planned.

Conversations

The students realised that they were able to join in the conversation between the two lecturers and discovered that when they came prepared they could get involved more easily. As has been made clear, the lecturers do not share a theoretical perspective, have different life experiences and come from different places, so it was unlikely that we would agree or do what is usually expected of lecturers - present a united front. Our conversations were unexpectedly lively. They were spontaneous and students could hear that they were not being

presented with one 'Truth' and inadvertently we discovered that we were encouraging critical thinking.

We realised that when behind the bank of controls in the modern lecture theatre that we became 'the lecturer' and embodied this role and often presented knowledge and facts as 'Truth' or 'Knowledge'. We discovered that when we were all sitting and talking together that our students contributed very naturally and without any sense of risk when we opened the discussions. It may have helped that we were not in the lecture theatre, in semi darkness, staring at a series of powerpoint slides. It became a more equitable space where stories and experiences could be shared and enjoyed. These open conversations favoured the extrovert student far less and we noticed that in a multicultural and multilingual group of various ages that there was far more willingness to join in. One student said in the focus group that she felt more confident because of the strategies we had put in place, as she said:

> *You have to do the work before hand, you can't just slip in underneath and say yeah, I've been to the lectures and I've listened.*

Contributions could also be from what the students really thought as opposed to what they thought their lecturers would like to hear. It was not easy to simply 'toe the party line' and agree with the lecturer as we were often disagreeing with each other or presented shifting views. Some students said that listening to us challenged their usual ways of managing their learning and disrupted their usual strategies for being a stereotypically successful student. In the focus groups they were honest about these strategies:

> *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, we are trying really to take a risk.*

> *Yes, we put ourselves out there, we didn't say, this is what xxxx would like and this is what yyyy would like. Instead, there are two of them and they are going to have different opinions about it*

so, I'll just put the whole lot out there, that's it, so you get the real thing. ..this is something very different.

ICT and equity debates – a plateau

One issue that was debated throughout was the use of ICT both with a range of adult learners and in relation to early childhood settings. Students who were not so familiar with technology in their personal life admitted that these technologies are commonly used in many early childhood settings. All adult learners can be encouraged to go 'pro-am', a term used by Leadbeater & Miller (2004, cited in Bruns & Humphreys, 2010) to illustrate the transition from amateur to highly skilled user of ICT. In early childhood settings this is increasingly a professionally desirable attribute. We noted that some students lived and worked in rural areas of Australia and there were sometimes issues with internet access. Some students had concerns about the cost of laptops and the purchase of the latest technological devices. However, students who did not own a laptop could access computer rooms. The discussion about this was useful because when on practicum in a range of early childhood settings some students became aware that not all families have access to these technologies and to the internet.

We were aware that as Nicholas and Ng (2009: 381) point out "teacher educators blending technology with learning need to implement the pedagogy with care to avoid cognitive overload". Students who were not 'digital natives' (Zevenbergen, 2007) felt that because of the PAL approach that they were supported to learn much more about ICT. One said "my computer skills have improved" and another student felt there was a challenge:

Maggie, Lisa and I landed together with computer skills almost zero between the three of us, this is a huge learning curve so I just swallowed hard and though okay, I thought I had no idea who these two ladies are, I don't know what their background is, and they didn't know that of me either, and in one sense you start with a clean slate, and that is the workplace too. It's life.

The words of this student affirm the strength of the PAL approach to learning together. We realised that in terms of peer assisted learning that the student group is not homogenous and does not automatically

form a community of learners. Instead as Bromley (2010, cited in Bruns & Humphreys, 2010: 45) suggests "community is something that is made through participation, not something that is necessarily a pre-given constituency to be discovered".   Equity in the student group and the different skill level of lecturers had to be acknowledged and in this sense the PAL approach built new alliances between learners.

Collaborations

Everyone was working together and the shared ownership of tutorial and lecture spaces was making this more likely. The fact that students could look at each other's work supported a sense of sharing, and as students said:

> *Susie – cos you had the sharing our services link, did you go into other people's services and look? (services – the fictional early childhood settings)*

> *Student 4 – yes we did*

> *Susie– you did?*

> *Student 4 – Yes, we thought this is lovely, this is lovely, it was more professional and we learnt from others' ideas …we picked up things*

The collaborative potential of using the Web 2.0 technologies was something we felt was affirmed in the research. It has been suggested that Web 2.0 collaborative learning tools:

> Encourage discussion, enable easy sharing of documents and information, manage workflow and allow new ideas to emerge. These technologies have the potential to improve individuals' capabilities to learn from others and increase a sense of personal commitment to knowledge creation. (Grippa et al., 2010: 37)

This statement was supported by evidence obtained in this research project.

Extending the community –the Expo

Later in the semester we invited family, friends and teachers to an Expo evening where everyone presented posters of their fictional early childhood setting together with the assessment tools they had developed. We were amazed at how many people turned up as this was a non-assessed task and took place after hours. It seemed that, like the rhizome, the sense of a fixed centre had gone and new possibilities emerged. In many units the assignment is an overwhelming focus and this was no longer the case in this unit. As some students in the focus group said in response to (Susie's) query:

> *Susie – so you didn't see the peer learning just limited to your group?*
>
> *Students – NO*

Instead of feeling protective or shy about their work the students were proud of it and their confidence was enhanced by the reaction of experienced teachers in the field who were invited to the Expo. These teachers were impressed by the student work and asked for examples and for the students to share resources. Experienced educators made new connections with the university and challenged the assumptions that sometimes exist between academic work (sometimes seen as 'too theoretical') and practice. The Expo was discussed by us, the lecturers, in our final taped interview and we expressed surprise at the commitment of the student group:

> *Jane – I realized they really did it because they wanted to they didn't have to work to that level.*
>
> *Susie – no, but I wonder if you made that the assessment…*
>
> *Jane – would it change?*
>
> *Susie – because part of what was beautiful about the evening, was that it wasn't*
>
> *Jane – they turned up because they wanted to, that was really lovely.*

When we interviewed each other as lecturers and researchers we began to talk about the things that had surprised us, the things that we had not planned. In rhizomic terms these can be revealed as "very diverse forms, from ramified surface extension in all directions to concretion into bulbs and tubers" (Deleuze & Guattari, 1987: 7). The rhizome is connected to desire, to risk, to "lines of flight" (Deleuze & Guattari, 1987: 11) as certainties are destabilised and it became clear that "things never pass where you think, nor along the paths you think" (Deleuze & Parnet, 2002: 4). The links with the PAL project are clear. We did engage a line of flight and it cohered in the collective desire of everyone involved in the teaching and learning.

Dismantling hierarchies

On this line of flight we used e-learning and Web 2.0 technologies and began to dismantle the conventional classroom hierarchies. Deleuze and Guattari (1987: 211) refer to processes of "segmentarity" that may become "rigid". It became a possibility throughout the process that despite this rigidity "the face of the father, teacher, colonel, boss, enter into redundancy" (Deleuze and Guattari, 1987: 211). In other words, we displaced ourselves as authority figures, as experts, from the centre and became more flexible and occasionally uncomfortable and a "supple" (Deleuze & Parnet, 2002: 124) segmentarity emerged, a segmentarity that can "make detours" (Deleuze & Parnet, 2002: 124). After the first tutorial one of the lecturers said that she felt strange as she wandered around because everyone was busy and absorbed in their work with peers. She experimented with leaving the classroom and nothing happened, the students went on working. She had constructed a situation where she was no longer needed. Instead a new pedagogical relationship was being created based on mutual interest rather than the old dependencies that constantly surface in educational contexts.

Rhizomic unpredictability

One of the students in the focus group said that learning in different ways and being challenged had made her work more unpredictable and more interesting. We were relieved that our approach had enhanced her experience in this way. We gathered sufficient evidence to convince ourselves and others that what we had done was effective pedagogically in terms of adult teaching. We even surprised ourselves. In our recorded

interview together we realised that there had been "an extra turn of the wheel":

> *Jane - I had no idea that our conversations would almost set the scene for the unit.*
>
> *Susie – no neither did I...   really what fascinated me when they saw us peer teaching as almost modelling how to peer learn*
>
> *Jane– Which we really weren't*
>
> *Susie – we weren't modelling*
>
> *Jane – not consciously*
>
> *Susie – not deliberately, and that's fascinating. Because what they were saying was watching us do the peer teaching provided them with a model for how to learn in groups.*
>
> *Jane – fascinating, I have to say that hadn't occurred to me*
>
> *Susie – no, it hadn't occurred to me at all.*

It must be noted here that we were also surprised by our surprise. Teachers get very used to getting certain outcomes because of careful planning and they carry out the task of teaching in systematic ways. To be surprised, to learn to value the unexpected, and to love what might not be predictable, made teaching the unit an experience we both value. One of the lecturers said as she reviewed the unexpectedness of some of the outcomes of the research in the final interview, "what a journey!"

This seems to highlight an extra dimension of the PAL process and that is, that peer assisted learning when it happens between the people presenting and teaching, gives that approach an added sense of integrity. If the lecturers were so obviously learning from each other as peers then it seemed that so could the students. E-learning was integral to this as the ability to put resources that supported learning on the interactive e-learning site meant that we could then 'go live' in the classroom knowing that everything had been put in place.   Penman and Ellis (2009: 152) say that a constant dilemma is to teach content and retain "interaction and creativity" and maybe our approach addressed

that challenge, not in a sense of solving a problem, more in that we really worked with what seems to be a perennial quandary. From a Deleuzian perspective this is a positive state as the problem will always be fruitful because it demands attention. According to May (2005: 84), writing about Deleuze, a problem provides an "open field" whereas a solution is "a particular form of exhaustion" (May, 2005: 85).

Enjoyment

The students spend hours with us so we are aware that this time has to be useful learning time as well as enjoyable time. We especially wanted them to come to lectures and tutorials because we were teaching new content and using the new curriculum framework. We noticed that we finished with similar numbers in the lecture theatre that we started with. This also challenges another supposition, namely that the use of e-learning technologies will mean that people will chose to learn in isolation; that was not our experience. Students stayed in groups and learned most from each other, and also learned to think differently about what could be utilized in terms of learning beyond the walls of the classroom and the relevance of multimedia to increase content knowledge. As they said:

> *Student – it opened my mind, cartoons for instance, can be relevant to what we are talking about, little children's articles, anything*

> *Jane – YouTube, anything like that*

The feeling that everything is changing and that resources can be accessed from a variety of places is attractive. One night we created a chat room for the students. Students new to this experience of online chatting were surprised by the impossibility of keeping one thread of conversation going. We discussed this in terms of the internet and the way that learning happens, sometimes not in an orderly way but often by being playful and experimental, by being rhizomic, being prepared to be uprooted so that something new can arise. Consideration of the rhizome itself is to be aware of "a powerful metaphor for change" (Reid, 2008: 295).

Conclusion

The balance between novelty and the conventional is always edgy in pedagogical terms. Both lecturers had been involved in 'innovations' before and were both slightly suspicious of change for the sake of change. Framing what we did within a research project meant that we could go beyond the usual evaluation processes and claim as evidence some of the words of students who participated in the research project.

In relation to the research intention we found that peer-assisted learning can interface with e-learning to create a different dynamic in the classroom or lecture theatre. There were new shoots of learning that surprised us, for example, the idea that the conversations between the lecturers were actually a form of peer learning that demonstrated critical thinking had not occurred to us. Students also felt that the new approach to the lecture increased their active participation. We recognise that every educator will have different concerns and in our account we do not wish to tidy up the loose ends, or provide an 'answer', this is in any case, impossible. The rhizome implies "an exercise in creation" (May, 2005: 134), and this work represents a series of overflows and excesses, connections and resistances. We will not know, and teachers rarely know, how this learning will influence the professional lives of our students but their voices and ours, give definition to what happened in this PAL project and affords a glimpse into a different way of working in a collaborative space using Web 2.0 technologies and e-learning. Ultimately we hope that this experience will support students to experiment with assessment and to do things differently themselves as educators of young children.

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