

Second Life PBL: Liminality, Liquidity and Lurking

What we now seem to have run out of is a lack of information

(Eriksen, 2001: 19)

Introduction

This paper seeks to present a challenge to the problem-based learning community about the possibilities for reinventing problem-based learning as both a philosophy and approach to learning. What I offer is not just a constellation of questions and a number of big ideas, but instead some suggestions and priorities. It will be argued here that the notions of liminality and liquidity in the context of reconceptualisation of learning spaces may offer some purchase on the questions and issues we face as a community. This paper will therefore suggest some options and possibilities, but it will begin by arguing that we need to see the shifts required as being akin to a Second Life, not only because it is a transformational position but also because we need to engage more deeply with Web 2.0 technologies and learning in liminal spaces such as 3D worlds. However, it will be argued that:

- We need to reinvent PBL as a much more troublesome learning space than it is already.
- Learning spaces are increasingly absent in problem-based learning
- To reinvent PBL will prompt early curriculum engagement with troublesome learning spaces
- Such reinvention will result in liquid learning becoming central to PBL
- We need a new model of Transitional Learning spaces

The article will then explore learning spaces, liquid learning and argue for the importance of liminality and the need to lurk differently.

Second Life Problem-based Learning

To date problem-based learning has been seen as a relatively stable approach to learning, delineated by particular characteristics. Second Life PBL (SL/PBL) embraces not only Web 2.0 technologies but also troublesomeness and new curriculum learning spaces. The reason we need to reinvent problem-based learning as a more troublesome learning space is because of the challenges of new and emerging technologies and the impact they are having on staff, students and what 'learning' means. Whether it is through podcasts, wikis or m-learning, learning is on the move. Further, it could be argued, and increasingly is, that cyberspace has resulted in a sense of multiple identities and disembodiment, or even different forms of embodiment. The *sense* of anonymity and the assumption that this was what was understood through one's words rather than one's bodily presence, is becoming increasingly unmasked through worlds such as Second Life. Yet in the process of trying out new identities in virtual 3D worlds, what I would term our representative identities, questions arise about the impact of these representative identities on our physical, embodied or place-based identities. What is also important in the whole issue of 3D worlds such as Second Life is

- a) the pedagogy of such worlds
- b) the pedagogical possibilities underlying these worlds

For example, it might be that 3D worlds and gaming not only have different, or diverse, underlying pedagogies (and pedagogical possibilities), but also the assumptions that are made about issues of power and control in games where avatars are representative of 'someone else;' as opposed to a representation of one's own identities.

It would seem that to date there has been relatively little engagement by those using problem-based learning with these new kinds of learning spaces, However, I would like us to reconsider first of all the notion of learning spaces.

Learning Spaces

The concept of learning spaces expresses the idea that there are diverse forms of spaces within the life and life world of the academic where opportunities to reflect

and analyse their own learning position occur. (The notion of life-world is based on both Husserl (1937/70) and Habermas (1989) and represents the idea that as human beings we have a culturally transmitted stock of taken-for granted perspectives and interpretations that are organized in a communicative way). Such learning spaces are places of engagement where often disconnected thoughts and ideas that have been inchoate begin to cohere as a result of the creation of some kind of suspension from daily life. In such spaces, staff often recognise that their perceptions of learning, teaching, knowledge and identity are being challenged and realise that they have to make a decision about their response to such challenges. Yet such often hidden spaces are invariably not valued by university leadership and industrious colleagues nor recognised as being important in our media populated culture.

Common types of learning spaces may occur through:

- Physical and/or psychological removal from the normal learning environment. For example, attending conferences, writing retreats or working overseas. New environments often prompt new ways of seeing issues, providing opportunities for reflection and present challenges to current ways of thinking.
- The creation of specific time for writing or reflection
- Using social learning spaces for dialogue and debate
- Accessing digital spaces for discussion and reflection with and through others

Learning spaces are often places of transition, and sometimes transformation, where the individual experiences some kind of shift or reorientation in their life world. Whilst these kinds of shifts are apparent in some problem-based learning curricula, if PBL is to survive in this late modern world we need to embrace troublesome knowledge and engagement with liminality. Engagement in learning spaces does not necessarily result in the displacement of identity (in the sense of a shift causing such a sense of disjunction that it results in costs personally and pedagogically, and hence has a life cost) but rather a shift in identity or role perception so that issues and concerns are seen and heard in new and different ways. Learning spaces thus might also be seen as liminal in nature in that they can be seen as betwixt and between states that generally occur because of a particular need of an individual to gain or create a learning space.

Locating Troublesome Learning Spaces

Troublesome learning spaces are places where ‘stuckness’ or ‘disjunction’ occurs. For both academics and students, becoming stuck in learning is often seen as deeply problematic rather than as being useful and transformative.

Catalysts, which prompt movement into troublesome spaces, *include*:

- Modes of knowledge
- Perceptions of difficulty
- Disciplinary difficulty (including signature pedagogies)
- New learning difficulties
- Prior learning difficulties
- Threats to identity
- Threshold concepts
- Scaffolding learning
- Troublesome power
- Learning stances
- Challenging dominant narratives

Modes of knowledge

Knowledge has been defined in a whole host of ways. Gibbons *et al* (1994) have argued for Mode 1 and Mode 2 knowledge. Mode 1 knowledge is propositional knowledge that is produced within academe separate from its use and the academy is considered the traditional environment for the generation of Mode 1 knowledge. Whereas Mode 2 knowledge is knowledge that transcends disciplines and is produced in, and validated through, the world of work. Knowing in this mode demands the integration of skills and abilities in order to act in a particular context. Whilst this division has been popular and useful to many, it does to some extent reflect some of the problems of Ryle’s (1949) notion of know that and knowing how, which despite his protestations to the contrary has echoes of Cartesian dualism. Although Mode 1 and Mode 2 knowledge are more complex and their position is better argued than that of Ryle, the problem with both of these stances is in the boundary spaces between the two forms of knowledge. Barnett (2004), however, argues for Mode 3 knowledge, whereby one recognises that knowing is the position of realising and producing epistemological gaps. Such knowing produces uncertainty because, ‘No matter how

creative and imaginative our knowledge designs it always eludes our epistemological attempts to capture it' (Barnett, 2004: 252).

What is missing from the arguments and formations of knowledge and knowing is not only the way in which the spaces between these forms of knowledge are managed, but also what it is that enables students and staff to make the connections between all of them. It might be suggested that the missing links here are disregarded forms of knowledge, for example, Cockburn (1998) suggests that knowing when to keep your mouth shut and the virtues of tact are forms of knowing that are required in many professions but are not forms of knowing that are made explicit in the academy. Disregarded forms of knowledge then might be termed Mode 4 knowledge since it transcends and overlays Mode 1, 2 and Mode 3 knowledge, forming a bridge across the space between them. However, Mode 4 knowledge is also a mode in its own right, since it involves not only realising and producing epistemological gaps but also realising the ways in which these gaps, like knowledge and knowing, also have hierarchical uncertainty. In contrast, Mode 5 knowledge is a position whereby one holds a number of modes together in a complex and dynamic way. Gaps, like knowledge, have hierarchical positions and this makes both the gaps and the knowledge, and the knowing and the knower eminently uncertain and liquid. The modes are set out in Table 1 below:

Table 1. Modes of Knowledge

Mode 1	Propositional knowledge that is produced within academe separate from its use and the academy is considered the traditional environment for the generation of this form of knowledge.
Mode 2	Knowledge that transcends disciplines and is produced in, and validated through, the world of work.
Mode 3	Knowing in and with uncertainty, a sense of recognising epistemological gaps that increase uncertainty
Mode 4	Disregarded knowledge, spaces in which uncertainty and gaps are recognised along with the realisation of the relative importance of gaps between different knowledge and different knowledge hierarchies
Mode 5	Holding diverse knowledges with uncertainties

The concept of disregarded knowledge encompasses knowledge often equated with emotional intelligence, such as when and how to use self-promotion, when to keep silent and when to intervene but also Haraway's (1991) concept of responsible knowledge – the need to take responsibility for the position from which we speak. Yet it would seem that this kind of knowledge is also akin to what Sibbett (2006) refers to as nettlesome knowledge. Nettlesome knowledge comprises elements of knowledge that are taboo 'in that they are defended against, repressed or ignored, because if they were grasped they might 'sting' and thus evoke a feared intense emotional and *embodied* response.' Disregarded knowledge is neglected because it lacks status in academic life and is just that – disregarded. Furthermore, Taylor et al (2001: 59) suggest that what is required is an expanded notion of knowledge and reason, so that the current narrow definitions of both of these concepts no longer dominate. For example, Midgley (1994) has remarked that epistemology has neglected a whole area of knowledge, that of knowing people.

'... pressures to prepare students for employment often conflict with the desire to develop their critical faculties and to encourage them not only to participate in the production of knowledge, but to believe, too, that if they want to, they can change things'

(Taylor et al, 2002: 66)

Haggis (2004) argues for a new conceptualisation of knowledge which she terms as learning that is social and relational, yet I would suggest that what she portrays using the voices of her participants is in fact disregarded knowledge, because it is about the idea of being able to function 'skilfully in a practical world'.

People talk about giving, sharing, learning from each other, learning how to be sensitive to their children, and learning how to make things go smoothly in social situations. There is also a kind of learning that seems to be about *functioning skilfully in a practical world* . . . Others talk about problem-solving and common sense, verbal and relational skill (as opposed to a fear of writing), and make jokes about academics who can't do basic practical tasks . . . people talk of finding out, reaching up, learning how to rise above tragedy, developing lateral thinking,

taking away prejudice, getting answers, understanding, expanding the mind, and experiencing joy

(Haggis, 2004: 347)

The position here is essentially one of treasuring stuckness and sitting with chaos, it is a post tacit and pre realisation phase and thus it has a liminal quality about it. It is a position of realisation that emerges in a place of stuckness and is a mode of knowledge whereby one realises that living with and in uncertainty is not a place to be reached or gained but instead a place of transformation, a position of complex and dynamic chaos through which one learns to value stuckness in ways not previously understood. Further, Perkins' work is also useful here in understanding the impact of diverse forms of knowledge, and how this is often covert and therefore misunderstood by students and often disregarded by staff (Perkins, 1999). More recently, Perkins (2006a) described conceptually difficult knowledge as 'troublesome knowledge'. This is knowledge that appears, for example, counter intuitive, alien (emanating from another culture or discourse), or incoherent (discrete aspects are unproblematic but there is no organizing principle). To engage with trouble learning spaces then is to see learning as liquid:

Liquid Learning

Troublesome spaces are places where 'stuckness' or 'disjunction' occurs. For both academics and students, becoming stuck in learning is often seen as deeply problematic rather than as being useful and transformative. Such transformative spaces are often 'liquid' in nature, so perhaps the learning in such spaces should be termed 'liquid learning'. Thus rather than the current system of a series of distantly related modules it might be more effective to centre the curriculum on uncertainty and liquidity rather than content. Therefore liquid learning would focus on diverse forms of problem scenarios that could be taken in any order, or be sequenced, but the focus would be on the problem-orientatedness of knowledge rather than a notion of solid content. The current forms of ordering and containment inherent in current curricula seem to reflect a more modern than post-modern stance to learning, of perhaps 'solid modernity'. Bauman (2000) suggests that in the age of solid modernity there was a sense that accidents, sudden or surprising events were seen as temporary irritants,

since it was still possible to achieve a fully rational perfect world. Thus, solid modernity was characterised by slow change, where structures were seen as being tough and unbreakable. Bauman has argued that we have moved into liquid modernity, the state of living in constant change characterised by ambivalence and uncertainty. To live in the liquid modern we need to act under the conditions of uncertainty, risk and shifting trust. Liquid learning on the other hand is characterised by emancipation, reflexivity and flexibility so that knowledge and knowledge boundaries are contestable and always on the move. This kind of learning tends to occur in action learning sets, creative project groups and some forms of problem-based and scenario-based learning. However, what is important about liquid learning is that it is constantly changing. There is a tendency, for example, to move to innovative forms of learning, which allow for emancipation and criticality to emerge but over time they often become increasingly solid spaces as the need to maintain and control overtakes the original desire for liquidity. Reverting to solid learning stances may result from organisational, institutional, peer or student pressure; yet, it might also be because liquid learning is inherently risky and taxing. There are a number of catalysts to encountering troublesome spaces: disciplinary difficulty; (including signature pedagogies), new learning experiences, prior learning experiences that have previously been difficult, threats to identity, threshold concepts and troublesome power and modes of knowledge. The consequence of seeing liquid learning as central to SL/PBL is that we will need to see problem-based learning as a catalyst, as part of a larger model of transitional learning spaces.

A model of transitional learning spaces

This model has grown out of my own concerns about the relationship between disjunction and threshold concepts and in particular the (over) generalizability of such concepts. I would argue that all learning is necessarily biographical and contextually related. Thus this model can only relate to and be shaped by an individual in relation to his or her own stance as a learner. The model (Figure 1) is to be seen as a liquid learning space in which a series of 'learnings' occur. The starting point is a catalyst to change which results in disjunction and movement into a liminal space. However, once through a liminal space the journey continues, over a learning bridge into

engagement and on to a position of transition or transformation, then to a place of proactive learning.

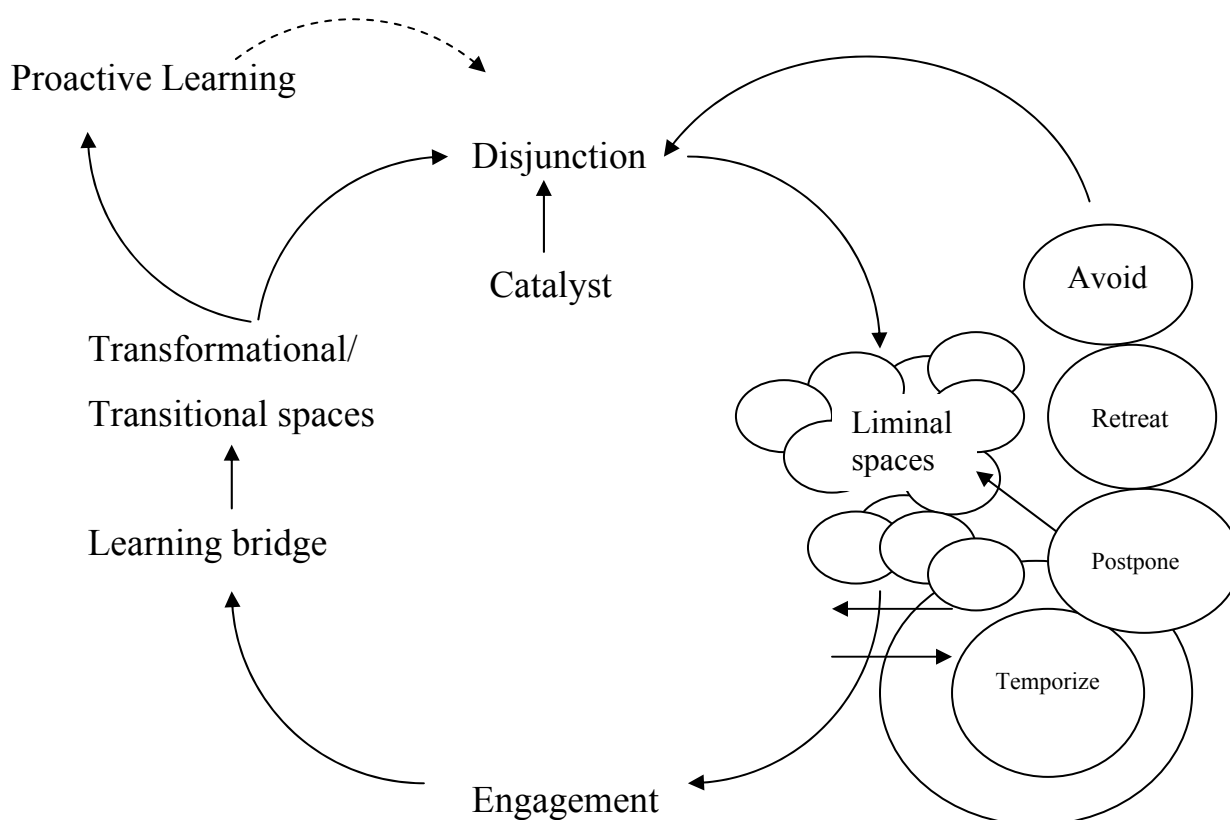


Figure 1. A model of transitional learning spaces

Components of this model:

Disjunction and Disjunctive spaces

Many staff and students have described disjunction as being a little bit like hitting a brick wall in learning. Disjunction is also similar to troublesome knowledge because until it is experienced in a learning environment it is difficult to explain, particularly in terms of students feeling fragmented. After someone has first encountered disjunction they enter a liminal space. However, it might be that there are different types of disjunction or levels of disjunction, and that these might result in movement into different kinds of liminal spaces.

Disjunction is not only a form of troublesome knowledge but also a ‘space’ or ‘position’ reached through the realisation that the knowledge is troublesome. Disjunction might therefore be seen as a ‘troublesome learning space’ that emerges when forms of active learning (such as problem-based learning) are used that prompt students to engage with procedural and personal knowledge. Alternatively, disjunction can be seen as the kind of place that students might reach after they have encountered a threshold concept that they have not managed to breach.

Disjunction is thus a form of troublesome knowledge because it bridges Meyer and Lands’ (2006) notion of engagement with troublesome knowledge and the state of liminality. They suggest that when students find particular concepts difficult they are in a state of liminality. This state of liminality tends to be characterised by a stripping away of old identities, an oscillation between states and personal transformation. However, they suggest that Einstein, when wrestling with the mathematics of general relativity, may have been in a liminal state in this possibly apocryphal story presented below:

Einstein, in a somewhat anxious state, was complaining to Ricci at ‘the party’ about the fact that he was *stuck*. Ricci explained to him what tensor calculus could do, and Einstein immediately saw it as the solution to his mathematical problems. In fact, tensor calculus became the ‘language,’ or discourse, of general relativity. It is interesting to speculate here that Einstein may well have been in a liminal state, temporarily suspended by the lack of a formal mathematical vehicle through which to express and progress his thinking.

(Meyer and Land, 2006: 25)

However, I would suggest that Einstein was stuck, he was not in a betwixt and between state but instead had experienced a barrier to moving forward; he was experiencing disjunction. In assisting Einstein, Ricci helped him to move away from his disjunction into a state of liminality – so that liminality was a ‘jumping off point’ that necessarily follows disjunction, that allowed Einstein, and also allows other people, to begin to see the way forward.

Forms of disjunction

It would seem that it might be possible to locate different forms of disjunctions, although such forms will differ between people, and their encounters with it will vary. However, some of the varieties might include:

*A moment of aporia*¹, this is where a moment of misconception is drawn attention to by someone else, leaving the person concerned both stuck, exposed and in doubt.

A moment of conceptual puzzlement, here self-realisation that one is stuck and does not understand how to move on results in a sense of feeling paralyzed or fragmented by this realisation.

A cycle of stuckness, here someone may understand he needs to move away from a particular position of stuck space, but not knowing how or where to move to results in a constant cycle of stuckness which leads to a return to the same stuck space repeatedly.

A hermeneutic cycle, in this form of stuckness revisiting issues and concerns does not result in a cycle of stuckness, but a reconsideration of the issues that have promoted becoming stuck. Having reconsidered the difficulties the position of stuckness is seen differently, and the familiar is seen as new or strange. Thus, here there is a sense of reinterpreting what was once familiar and what once seemed whole into a collection of components, some of which are then rendered strange.

The difficulty with stuckness is that explanations of its forms, and possibilities for moving away from them, do not always enable people who are stuck to make the required shift, nor do explanations of stuck spaces necessarily help people to deal with them any better. However, explanations concerning what some forms of disjunction might look like for some people is useful in understanding it, particularly since

¹ Aporia (Greek: ἀπορία: *impasse; lack of resources; puzzlement; embarrassment*) is a puzzle or an impasse, but it can also denote the state of being perplexed, or at a loss, at such a puzzle or impasse.

stuckness has a moral element because choosing how to manage it often involves difficult decisions and choices.

Responses to disjunction

Students deal with disjunction in a number of different ways. This means that the conflict, ambiguity and incoherence experienced by individual students cannot be defined by distinctive characteristics, but there are some general trends. What seems to be apparent is that disjunction is dealt with by students, in one of five ways, through forms of decision making that are conscious and/or unconscious. Thus, students may opt to *retreat* from disjunction, to *postpone* dealing with it, to *temporize* and thus choose not to make a decision about how to manage it, to find some means to *avoid* it and thus create greater disjunction in the long term, or to *engage* with it and move to a greater or lesser sense of integration.

Retreat

In this position, students who experience disjunction choose not to engage with the process of managing it. Here they want to avoid engaging with the struggles connected with disjunction and often retreat behind some form of excuse, which means that they do not engage with the personal or organizational catalyst to the disjunction. Students who retreat may also take up a particular position, entrench themselves within it and then reinforce the bunkers around that position.

Postponement

Students may consider their position of disjunction, invariably because they have experienced disjunction before and learned how to manage it. Thus they choose to postpone movement. This is not a postponement of a decision, as in temporization, but a clear decision that this area of learning or life is on hold.

Temporizing

Students who do not directly retreat from disjunction may adopt an indecisive or time-serving policy. They not only acknowledge the existence of disjunction, but also that they have to engage with it in order to enable an effective transition to take place, but they decide that it is preferable to postpone making any decision about how to manage it.

Avoidance

In this situation, students do not just temporize but adopt mechanisms that will enable them to find some way of circumventing the disjunction. The result will be that although the student has found a means of bypassing the disjunction, this may have taken more effort than engaging with it, especially as in the long term, because of the nature of disjunction, they will still have to engage with disjunction in their life-world in order to avoid always becoming entrenched in this position.

NB Retreat and Avoid can be on the edge of liminality, or within liminality where a position of turning back may occur. Temporize and Postpone tends to be in the liminal space and the students may stay in these places for some time before engaging.

Engagement

Engaging with disjunction requires that students acknowledge its existence and attempt to deconstruct the causes of disjunction by examining the relationship with both their internal and external worlds. Through this reflexive examination process, students can engage with what has given rise to the disjunction and they are then enabled to shift towards a greater sense of integration.

There is a sense that when people are stuck they tend to retreat to places of safety, places that are known and feel comfortable. Such spaces are ones in which people feel they can regain control, put boundaries around the stuckness and manage it in some way. As people move towards a catalyst and begin to engage with disjunction, they may retreat to a space of safety, and thus avoid engaging with liminality and the subsequent catalyst out of liminality, thereby preventing movement over a threshold. They may hope that by retreating they will avoid moving into a liminal space, but it is more likely they will locate themselves in a cycle of stuckness. Although this might feel safe, it will actually prevent shifts towards engagement and proactive learning.

Liminal spaces

The state of liminality tends to be characterised by a stripping away of old identities, an oscillation between states and personal transformation. Liminal spaces are thus

suspended states and serve a transformative function, as someone moves from one state or position to another. Engaging with liminal spaces may involve choice but in the case of troublesome spaces they are often more likely to be stuck spaces, rather than what Ellsworth (1997) has termed 'stuck places' (Ellsworth's conception of stuck places would seem to imply that stuckness is a place one travels to – whereas disjunction is often a position one seems to find oneself in, often somewhat unexpectedly). Hence the term 'stuck spaces' reflects this unexpectedness, unpredictability and sense of the liminal. Many people know nothing about disjunction before they experience it, so that they have no preparation for it, and it may be because of this that disjunction is where people are before they reach a liminal space, prompted by a threshold concept or a new learning experience. Thus having overcome the shock of the disjunction they find they begin to re-examine their position, and in doing so see the terrain that they then choose to move through towards a liminal space. I suggest that liminal spaces may be temporary or permanent and sometimes a combination of both:

Temporary liminal spaces

These are characterised by boundaries in time and space, they are usually

1. Reflective activities
2. Rites of passage
3. Temporary disjunction

More or less permanent liminal spaces

These are in a sense liminal states in which one lives, such as the priesthood, serial and long-term travellers and possibly serial students and authors.

Transitional and Transformational Learning Spaces

Transitional spaces are places where shifts in learner experience occur, caused by a challenge to the person's life-world in particular areas of their lives, at different times and in distinct ways. The notion of transition carries with it the idea of movement from one place to another and with it the necessity of taking up a new position in a different place. Leaving the position and entering transition may also be fraught with difficulties that may result in further disjunction for the student. Thus, transitions can

often be difficult and disturbing and yet simultaneously be areas where personal change takes place. Transformational spaces are spaces where a sense of coming into oneself occurs – there is a sense of identity construction, of self-realisation and of seeing the world anew. The difference between transitional and transformational spaces is that in a transitional space there is a sense of shifting from one place to another, whereas in a transformational space there is a sense of life-shifts, of knowing the world differently in living, working and learning contexts.

Proactive Learning, the beginning and the end of the spiral

The notion of proactive learning is one that requires a new stance, a different vision, an active leap away from previous perspectives. This conception of knowing is the higher order form of knowing suggested by Perkins (2006b), who has argued for three conceptions of knowing:

1. Retention and application: characterised by ritual type activity such as driving to work;
2. Understanding: the ability to perform what you know and thus to be able to think with what you know about, for example being able to explain causality in history;
3. Active and adventurous; a proactive conception of knowledge which requires creativity and the ability to see things differently. It is an approach that requires a leap away from bounded understanding.

Whilst much of the learning that occurs in this model is transitional, the possibilities for transformational learning occur when a leap is made beyond understanding knowledge to engaging with it actively. To engage students in proactive learning I would suggest requires engagement with liquid learning and problem situations that prompt students to consider their stances, identities and moral positions.

Learning bridges

Learning bridges vary in their structure and appearance, as well as their perceived relevance by students. Broadly speaking, learning bridges are mechanisms that help to link or connect different past and present positions in ways that enable shifts to be made – whether transitional or transformative. Learning bridges can also be seen as

a means of joining issues or positions together and also are seen as a means of connecting two unknowns. Further, as Burbules (1997) argues:

A passage to is different from a passage through, which is different from a passage from. Sometimes a passage connects knowns; sometimes it leads from a known to an unknown. One can differentiate here between the pattern of a constellation, which connects known elements, or givens, and the pattern of a labyrinth, which leads away from the known toward the unknown: in the latter case, we choose a path, not a destination.

Thus, learning bridges are not merely the connection of two points but are rhizomatic in nature, akin to the way Deleuze and Guattari (1987) describe the worldwide web, so that learning bridges spread in a number of directions that denote little, if any hierarchy. Learning bridges include:

- Developing a new position
- The realisation of new modes of knowledge
- The honing of critique
- Reviewing prior experiences of learning
- Legitimising experiences

Developing a new position

The concept of an epistemological framework captures the idea that following disjunction one is able to take up a new position. Such a position might initially appear to be epistemological, but more often it is both epistemological and ontological. The bridge here is the sense that one is on the way to 'being' different and seeing the world differently.

The realisation of new modes of knowledge

Here a shift is made away from knowledge being seen as static, unrelenting or pragmatic. Instead knowing about people, the virtues of tact (a form of disregarded knowledge) and the value of knowledge gaps becomes a learning bridge.

The honing of critique

The honing of critique is a learning bridge because it often enables staff and students to see that critique and being critical is not just about negative deconstruction.

Through such realisation, they begin to see critique as a bridge to other forms of learning and ways of being. Therefore, critique is to be seen as a form of criticism of the discipline (Barnett, 1997). Such a notion of critique brings with it the transcendence of the discipline, and reflexivity around that very transcendence in which differing views are celebrated.

Reviewing prior experiences of learning

Reviewing past experiences of stuck spaces and worthwhile learning can be a learning bridge, since it helps staff and students to recall strategies for progression that may have helped them in the past. Alternatively reviewing can result in an increased possibility of being in a liminal space, because of not finding prior experiences helpful in bridging the current situation. In general, it would seem that reflection on prior experiences does prompt movement away from stuck spaces.

Legitimated experience

Legitimated experience is a learning bridge because it captures the idea that staff learn to value the worth of their experience. It is often through realizing the value of their experience that staff are able to manage disjunction and subsequent transition.

Learning bridges are evident in the connections made in the very process of legitimating their own experience. This enables them to acknowledge and interpret the text of their experiences and thus reconstruct prior notions of legitimate forms of learning, knowledge and personal experience. So if we are to engage with SL/PBL where do we go from here?

Lurking differently

The notion of 'lurking' implies that silence and watching are inherently bad, whilst at the same time raising questions about what counts as presence in learning spaces – and who decides. I suggest that we need to see silence and lurking differently. The notion of 'silence in learning spaces' suggest that being a SL/PBL student can sometimes feel like being in a silent space. Paradoxically, late modern learning spaces can also seem to be very noisy places, with many people 'talking' at once and using a

language that may be alien in part. For example, Phipps (2005) has discussed the notion of ‘sounds’ in academia and argues that the changes in sounds is having a somewhat unhelpful impact on the quality of academic life experiences. Phipps’ work, although located in a deconstruction of sounds in many ways refers to the impact of noise on learning spaces. For example, understandings and constructions of the concept of learning spaces are seen not as just the creation of mental and physical dislocation from academic noise but as the location or creation of spaces in which one can hear things differently. We need to try to work out for ourselves how we want to be in these spaces and how we want to communicate with others who are there already. Inevitably, we have sometimes got stuck, so what are the futures?

1. Possible futures

We can ignore all this and pretend it isn’t happening

We can lurk on the edges

Change everything immediately

2. Preferred futures

Consider our discipline-based pedagogies or our curricula (why we teach physics the way we teach it, for example) and consider how we might reinvent problem-based learning in ways that embrace troublesome knowledge and liquid learning. *To ignore the ways that students are choosing to learn and interact through social networking outside the class room will mean that we lose them in the classroom. We may to prefer to ignore all this but we do so at our peril.*

Conclusion

This paper suggests that perhaps problem-based learning communities can embrace some of these ideas and concepts in order to enhance their distinctiveness. Most of the explanations of and arguments for problem-based learning, to date, have tended to focus on (or privilege) the cognitive perspectives over the ontological positions of the learner. Perhaps reinventing problem-based learning involves no longer lurking with solid knowledge and cognitive stances and needs to focus on the contestable nature of knowledge and the impact of liminal spaces on transforming identities. Further, perhaps there needs to be an engagement with the need for delineating and creating

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new curriculum spaces that help students to transcend and manage liminality in ways that embrace contemporary dislocations, locate modes of translation, and mediate rhetoric differently.

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