

12. LECTURERS' EXPERIENCE AS PROBLEM-BASED LEARNERS: LEARNING AS HARD FUN

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INTRODUCTION

This chapter illustrates how the concept of learning as hard fun was derived from analysing how lecturers, who are problem-based learners for a PBL staff development module, talk about learning in the dialogue of PBL tutorials. It focuses on what can be learned about Problem-based Learning from how lecturers as problem-based learners talk about learning in the dialogue of a PBL staff development module. The purpose of the chapter, then, is to explore how lecturers' language in use can help develop conceptual understanding of the nature of learning as hard fun in PBL and the practical implications of such understanding.

The learning that emerges when a team of participants work towards the resolution of a problem is central to Problem-based Learning (Barrows and Tamblyn, 1980). The chapter begins by defining the illuminative concept of learning as hard fun. It then discusses the complimentary halves of this concept in relation to the talk of the participants about learning. Following this the practical implications for conceptualising learning as hard fun are discussed. The chapter concludes with a summary. My central argument is that hard fun is an illuminative threshold concept for understanding learning in PBL.

Contexts and Background

This paper analyses the dialogue of two Problem-based Learning teams. Two teams of eight lecturers were completing a module on Problem-based Learning that was part of a staff development Postgraduate Diploma in Learning and Teaching in Higher Education. These teams were given the pseudonyms "Skelligs Team" and "Glendalough Team". These lecturers were problem-based learners for the module. The lectures came from a variety of disciplines that included engineering, business, visual communication, nursing and architecture. They worked on two problems about PBL. Thus both the content and process of the module was Problem-based Learning. The teams met once a week for fourteen weeks. This research is based on all of the dialogue, of the full set of tutorials for two teams.

Four of the key characteristics of PBL are: the problem, the PBL tutorial, the PBL process and learning (Barrows and Tamblyn, 1980; Barrows, 1988; Lloyd-Jones, Margeston and Bligh, 1998). My doctoral research explores how the participants talked about these four characteristics. This chapter which is part of the wider doctoral study focuses on one of the key characteristics of PBL: learning. The research question is 'How do lecturers as problem-based learners talk about their learning?'

The Skillbeck report (2002) stressed the importance of developing graduates who are problem-solvers and innovators. Hak and Maguire (2000: 769) identify the need for more studies on what actually happens in PBL tutorials. It is a vital yet under-researched area of PBL and thus they called their paper "Group process: The Black Box of Studies on Problem-based Learning". Murray and Savin-Baden (2000) highlight the scarcity of studies in the area of PBL staff development. Dolmans et al (2005:741) stress the need for:

research that bridges theory and practice and extends knowledge about developing and improving PBL in everyday practice.

This chapter aims to make a contribution to these gaps in the literature by analysing how participants talk about their learning in the tutorials of this PBL staff development module.

Introduction to the illuminative concept of hard fun

There is a growing literature on fun in adult learning (Wischnewski, 1983; Brookfield, 1991; MacKeracher, 2004; Barrett, 2005) to which this chapter contributes.

Learning as **hard fun** following Papert (1996), is a concept that encapsulates the idea that emerged from the data, that learning can be fun because it is hard, challenging and stretches participants. The fun in hard fun is a fun with enjoyment, laughter, freedom, creativity and energy.

From my data the idea of learning in PBL as fun emerges. This is a fun that is not superficial and frivolous, rather a fun that is rigorous and challenging. Hard fun following Papert (1996) captures the idea of learning as fun **because** it is hard. Although this concept was developed in relation to children learning about computers, I would argue that it is very relevant to the learning of adults in Problem-based Learning. The following quotation captures Papert's definition of this concept:

One of the best formulations of a fundamental principle of learning came from a conversation reported to me by Carol Sperry, the director of a pioneering computer in school project, supported by IBM and the Silicon Valley Technology Center at the Gardiner Academy in San Jose, California.

One kindergarten section was waiting to take the place of another section that had just had its first encounter with the computers. A student recognised a friend coming out of the room and asked: "What was it like?" The friend replied: "It was fun." Then paused and added "It was really hard." (Papert, 1996: 52-53)

Papert interprets the relationship between "fun" and "hard". He argues that it is not a case of it being fun in spite of being hard but rather a case of it being fun *because* it is hard. His argument is based on the tone of the conversation heard by the teacher who knew the children, together with the fact that since this experience he has come to "know that the concept of hard fun is widely present in children's thinking." (Papert, 1996: 53). I argue that the learning in PBL is an experience of the many dimensions of fun *because* it is hard in many ways.

I illustrate this by giving an extract from the dialogue where I argue the participants are talking about their learning in terms of hard fun. The Skelligs team give a shadow acting presentation that they had prepared for the problem about doing a presentation to heads of school about the PBL process. The problem is called "The Enthusiastic Lecturers." Ann, a tutor on the module asks them the following question:

Ann: I am wondering at the end of your presentation to the heads of schools, what sort of thoughts do you think you might have left with them in relation to PBL?

Hanora: But I would love to think the thoughts we have left with them is that wow, (*eyes opened wide and head lowered to right hand side*) you know, those students had an opportunity to be creative, how does that reflect on your own person and how you develop and we were actually challenged by doing something scary and we faced it

and did it. And working it through, tackling it and breaking it down into units (*hand moves up and down moving across*) and addressing them. And as heads of schools they are wanting to have something unique in comparison to other schools. Maybe that is what they want, they want something unique. Em I would love to leave them with the fact that we were so creative, and the amount of students are, we put it all together without anybody's help, no lecturers.

Maura: It was such an enjoyable experience as well. It was actually fun

Hanora is saying that learning is “creative” in an experience of being “challenged” through doing something “scary”, and doing it themselves. I argue that she is saying it is “creative” and has a “wow” factor because it is challenging and “scary”, fun because it is hard. Maura says it was “fun” and qualifies this with “actually”. The argument of conceiving of learning in terms of hard fun is based on the language in use, the tone of the voices and repeated expressions of learning in PBL being described in terms of “fun” and “hard” by the participants in the course of this module.

RESEARCH STRATEGY

This research is situated in the constitutional paradigm. Trigwell and Prosser (1996:2) define the constitutional paradigm as:

an internal relationship between the individual and the world. The individual and the world are not constituted independently of one another. Individuals and the world are internally related through the individual's awareness of the world. Mind does not exist independently of the world around it. The world is an experienced world.

Within this constitutional paradigm, the theoretical perspective is interpretivism. Interpretivism seeks to understand the complex world of lived experience from the perspectives of the participants. It draws on a broad combination from the history of ideas to do this and includes hermeneutics, critiques of scientism and positivism, practical philosophy and discourse analysis.

I was a tutor for one team, the PBL module co-ordinator and the programme leader. The chosen research methodology is action-research. This involves the twin processes of the theorising of PBL practice together with the situated theorising from this PBL practice (Usher and Bryant 1988). Within an action research framework the research strategy is conceptual analysis based on thematic analysis informed by critical discourse analysis. I videoed and audio-recorded all the PBL tutorials for both teams. The participants went through a process of informed consent. Pseudonyms were used. I analysed the videos exploring how participants talk about their learning.

Thematic analysis involves finding patterns and proposing interpretations of the patterns together with accounts of the meanings and ideological significance of these patterns (Cameron, 2001). The thematic analysis is informed by critical discourse analysis, which makes use of systemic linguistics, continental pragmatics and cross-disciplinary trends, “but attempts to go beyond them in providing a synthesis of necessary theoretical concepts and analytical frameworks for doing critical analysis.” (Fairclough, 2001: 11)

The thematic analysis is the basis for the conceptual analysis. I analysed the emerging themes for both teams. I then gave the first draft of this analysis to the participants and met with them to discuss this at a member check. At the member check I asked them, having experienced the staff development modules as students and having read my analysis of the themes, to comment on what I had written. After the member check, I then looked at the themes across both teams

and formulated illuminative concepts. These illuminative concepts provide a meta-language that give intellectual light to help in understanding the lived experience of the dialogue of lecturers as PBL students. Conceptual analysis:

is no more and, and no less, than an act of sensitisation to the political implications of contestation over the diversity of conceptual meanings. In this it draws attention to the multiplicity of meanings that are invoked by the use of key terms, to the dualistic framing of language, to the art of deconstruction, and to the salience of focusing on language in use. (Hughes 2002:3)

Conceptual analysis in this chapter is about discussing the concept of hard fun that emerges from exploring themes about learning across the two teams.

THE FUN OF HARD FUN

Fun as laughter and joking

Fun in learning in PBL has three dimensions: laughter and joking, freedom and creativity, and playfulness. Fun is laughter and joking. Julie, from the Glendalough team at the member check said that PBL was “fun”, “relaxed” and that “you could slag people off”. “Slag” is an Irish expression meaning to joke with someone about her/himself in a friendly rather than a malicious way. In Ireland people only “slag” people they are comfortable with and having fun with. There is much laughter and joking and “craic” (the word Irish people use for an explosive, energetic boisterous type of fun) in the dialogues.

Fun as freedom and creativity

A second dimension of fun is freedom and creativity. The Skellig team talk about assessment of learning in terms of the theme of “terrifying lack of freedom versus enjoyable freedom”. They experience freedom, creativity and laughter in presenting their learning through shadow acting, which was is a lot of hard work. They do the entire presentation through shadow acting. This is a genre that is new to some of them. This change in genre is reflective of a change in the way they are interacting with one another in an assessment of learning space. They have four characters behind the screen with a fifth character created with a puppet. There are two narrators. One narrator tells the story of the PBL team as it moves from scene to scene. The second narrator links what was happening to PBL theory. After their presentation there is a discussion about why they decided to take the particular approach to the problem and presentation and the following is an extract from that presentation:

Maura: In terms of our own learning...mm...some of us who had never engaged in that type of learning before, you know, so, or active before, so it was important for the team as well that there were people in the group that had a lot of experience of this kind of presentation. So it stretched the boundaries a wee bit for some of us.

Hanora: How many of us have been on a course and we would have had the freedom to do something so creative, so when the idea came up even though some of us were quite nervous about doing it, but we said lets give it a try and see how it works.

Beatrice: And Hanora is now running away with the circus (*laughter*)...

Participants talk about the freedom and creativity that is part of their learning experience in PBL. Freedom is a prerequisite of creativity and both are essential elements in fun. The participants in the Skelligs team contrast their experience of assessment of learning in PBL as

enjoyable freedom compared with some previous experiences of assessment of learning that are characterised in terms of being terrifying and lacking in freedom:

Ann: O.K I am interested in the problem you talked about PBL being in the strategic plan as it were stuck with no.. .(inaudible) I am wondering at the end of your presentation to the heads of schools, what sort of thoughts do you think you might have left with them in relation to PBL?

Hanora: I think as well for the heads of schools to see that education can have such freedom. I said this before, I just think, I have not seen it before,.....we had great freedom here to move furniture (*laughter*) and you know set up props, and do something completely different that challenged us, which we wouldn't have had, well particularly in my background, maybe people with a media background , we wouldn't have had this lovely creativity.[.....]

Maura: It was such an enjoyable experience as well. How many times do you have the opportunity to be assessed and actually enjoy it, without being terrified....(*laughing*).....

Ann: You mean you were not terrified? (*laughter*)

Hanora: The screen helped, you know if you don't like acting or anything like that, you are totally hidden away, there was an element of protection and security as well.

The participants have freedom in both dimension; in terms of an inner existential freedom, and in terms of an outward expression of freedom as choices between alternatives (Roger and Freiberg, 1994).

At the member check, Betty made links between this theme and Stake's (2002) keynote. This keynote was entitled "The Unbearable Lightness of Education". She explained that this was an analogy with "The Unbearable Lightness of Being". She said: "Do we want our students to be heavy with the curriculum we have set or light with their own curriculum, own agenda. This links with words like freedom and enjoyment." She then spoke about how Stake talked about the lightness of how his three-year old grand-daughter learned. I joined in the conversation to make the link with this and "Poem from a three-year old". (Kennelly, 1990)

I talked about how in this poem the three year old is learning through asking a series of questions. Can we bring some of the lightness, fun, creativity curiosity, questioning and sense of playfulness of the three year old back into learning in higher education through Problem-based Learning?

I think the following extract from this poem illustrates the creativity of the child making connections between different things and her freedom of questioning and playfulness.

Poem from a three-year old

And will the flowers die?
And will the people die?
And every day do you grow old, do I
Grow old, no I'm not old, do
Flowers grow old, do
Flowers grow old?
Old things-do you throw them out?
Do you throw old people out?
And how you know a flower that's old?

The petals fall from flowers,
And do the petals fall from people too?
Every day more petals fall until the
Floor where I would like to play I
Want to play is covered with old
Flowers and people all the same
Together lying there with the petals fallen
On the dirty floor I want to play

(Kennelly, 1990)

Fun as playfulness

A third dimension of fun is playfulness. My understanding of hard fun is in the context of the play ethic to which it belongs. Play in terms of the play ethic can be viewed, not as something separate from work and learning, but as a media for both. Kane (2004a) argues that play will be for the 21st century what work was to the last few hundred years of society, our dominant way of thinking, doing, learning and adding value. Play can be a fruitful approach to different types of work including science, education and media. Kane (2004b: 38) refers to Freyerabend to introduce the general applicability of his theory of play and to illustrate the role of play in science.

Kane (2004b) explains that play is about engagement and that the Indo-European root behind the old English *plegian* is found in Celtic, German, Slavic *dtegh* meaning to engage oneself. Hard fun fits very well into the modern rhetoric of play which Sutton-Smith (1999) views as; play as frivolity, play as progress, play as imagination and play as selfhood. The idea of play as “selfhood” both asserts that we are only fully human when at play and that through play we can develop a more integrated self. Central to the play ethic is a way of thinking which tries to close a huge gap in modern living, the gap between who we are and what we do (Kane, 2004b). The concept of hard fun has two complementary parts fun and hard.

THE HARDNESS OF HARD FUN

The hardness of the learning has three dimensions: the hard level of difficulty associated with the problem, the high level of activity demanded by the nature of the learning and the transformative nature of learning in terms of attitudinal change.

Hard level of difficulty associated with the problem

The Glendalough team talk of their learning in terms of “I used to believe” versus “and then I learnt some more”. The Glendalough team summarises their learning about Problem-based Learning in a poem. The poem is part of a presentation that they gave at the end of the module. The presentation was the result of their working on a problem called “The Enthusiastic Lecturers”. This problem was about them being asked to help with a workshop on Problem-based Learning for heads of school, by giving a presentation on the PBL process and teamwork. The learning they talk about is hard in terms of the difficulty level of meeting the challenge of the problem. The opposite of this hard, difficult problem they experience would have been an easy problem. The Glendalough team talk about the high difficulty level associated with way they decided to address the problem:

Kate: And sometimes the harder thing to do probably distils the essence a bit better. It was extremely difficult to come up with that poem. What it actually did for us, distil the essence of what the PBL experience was like for us.

High level of activity demanded by the nature of the learning

A second dimension of the hardness of the learning is the high level of activity demanded by the nature of learning in PBL. One way of differentiating hard and soft is in terms of whether the people themselves are doing the action or whether they are passively observing others doing the action. A striking characteristic of how hard the learning in PBL is that the students themselves do the action and the work. They define the problem, review the facts, brainstorm ideas, seek out resources and information, reason through the problem, complete other work they decide to do, make their own decisions on which directions to take or not take and finally present their learning. Hanora talks of the hard work doing the work on the problem and presentation themselves:

Em: I would love to leave them with the fact that we were so creative, and the amount of students, we put it all together without anybody's help, no lecturers

It could be regarded as a "softer" option for the student to passively receive transmitted knowledge in lectures.

Transformative nature of the learning

A third dimension of the hardness of the learning in PBL is the transformative nature of the learning. The following extracts of the poem they present shows how the learning is hard because of the transformative nature of the learning which is about change in beliefs and attitudes. The learning is not just at the levels of knowledge and skills acquisition.

Mary: In conclusion our team has come up with a communal poem and you will find a copy in your information packs. This poem attempts to give you a flavour of how some of our beliefs have been challenged and changed in the course of this process. The source of the poem began with two lines borrowed from a poem by Pat Ingolsby entitled *Then I Learnt Some More*. The poem is taken from a book called *How Was It For You Doctor?* Group members took pen and paper in hand and wrote one or more verses beginning with "I used to believe" and ending with "and then I learnt some more". I will call upon Sue to begin.

Sue: I used to believe
that I was the lead, and that the students need was to follow
and then I learnt some more. (*Tears up written verse and sits down*)

Noel: I used to believe
that my teaching style gave cause to smile
and I enjoyed my delivery style
and then I learnt some more
I used to believe that students learned according to my notes
would give me cause to gloat
and then I learnt some more. (*Tears up written verses and sits down*)

Julie: I used to believe with all my might and height (*laughter*) [she is short!]
I could shelter students from the mess of real life
and then I learnt some more. (*laughter*)
(*Tears up written verse and sits down*)

Fairclough (1992) views changes in genre and changes in social practice as having a dialectical relationship as he uses the term genre referring to a relatively stable set of conventions associated with a socially ratified way of acting and interacting. The change to a new way of learning through PBL, with the associated changes in the participants beliefs about different aspects of learning and teaching are manifested through changing to a new genre, the genre of a poem.

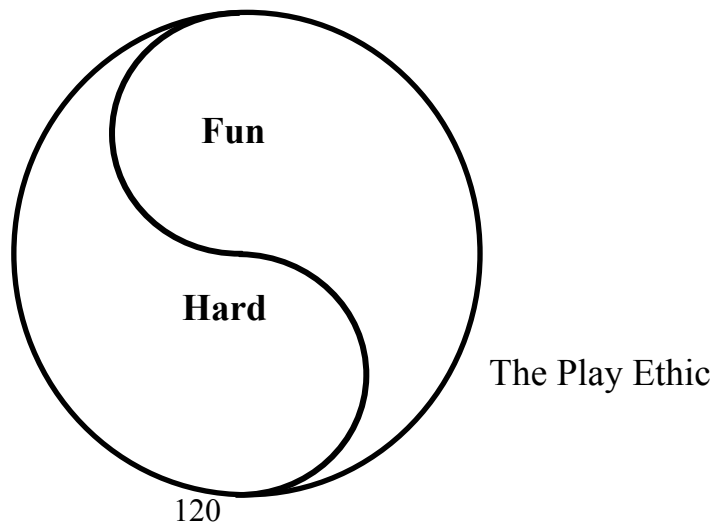
What about poetry? Some of the participants described writing a poem as "extremely difficult" and "new". However, perhaps all of us inherently have the ability to express ourselves poetically but are not in the habit of using this ability. In *The Poetics of Mind: Figurative Thought, Language and Understanding* Gibbs (1999) using evidence from recent research in the cognitive sciences argues for that thinking is deeply poetic. Poetry is often used as it was in this case to capture emotional and attitudinal change. The participants describe how their beliefs and attitudes about many aspects of learning and teaching have changed with a major causal factor being experiencing Problem-based Learning as PBL students in a staff development module.

Trigwell and Prosser (1996:80) stress that academic development that focuses on teaching strategies "is unlikely to be successful without an ongoing focus on the intentions that are associated with the strategy" (emphasis my own). We can see the participants through their poem engaging in ideological critique through questioning their beliefs. This de-mythologising of their learning and teaching situations has involved them in questioning both their teaching strategies and intentions. There is some movement from teacher focus to student focus. They are also deeply questioning their underlying attitudes. In the poem there is some movement away from the intention of the transmission of information. This de-mythologising of reality has the potential to lead to transformative social action. The learning is hard as it is working at the transformative level of beliefs, values, attitudes and ideologies. The participants are experiencing attitudinal change which I would argue is the hardest but most important type of learning. When beliefs, values and attitudes that have been held for years are challenged, turned upside down or replaced by new ones it can be experienced at once as both hard in terms of hard work and fun in the sense of a liberating freedom of having new attitudes and beliefs that serve us and others better.

CONCLUSION

I represent the concept of hard fun in the context of the play ethic in terms of the yin-yang symbol of two complementary halves forming a whole:

Figure 1 Learning as Hard Fun in the context of the Play Ethic



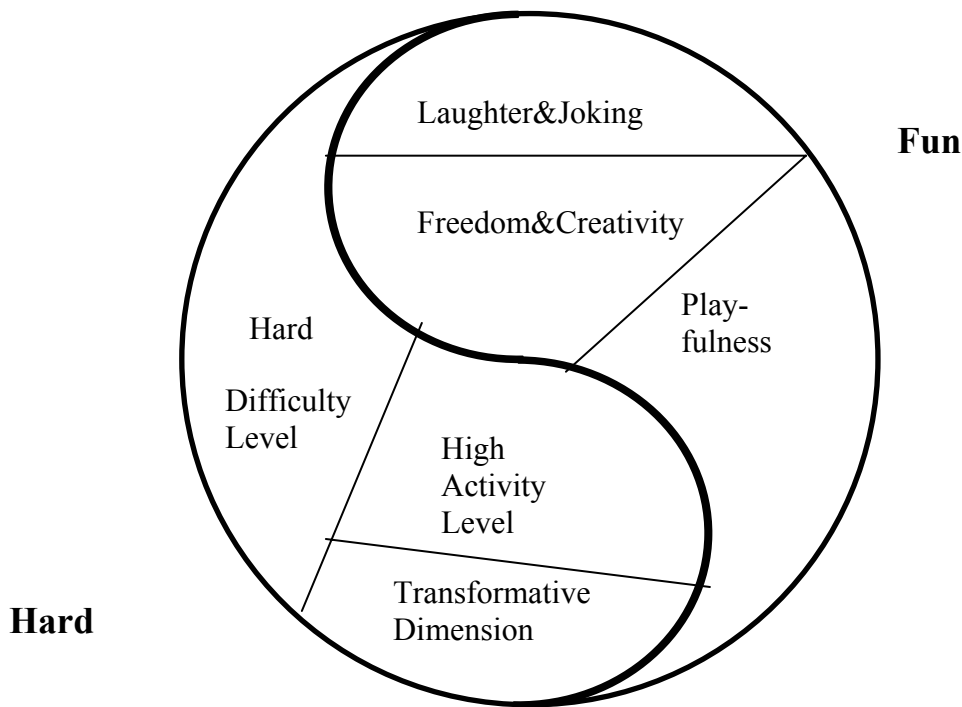


Figure 2 The dimensions of Fun and Hardness in the illuminative concept of Hard Fun

IMPLICATIONS FOR PRACTICE

I consider hard fun as a threshold concept in understanding the lived experience of learning in PBL. A threshold concept has been defined as:

a portal, opening up a new and previously inaccessible way of thinking about something. It represents a transformed way of understanding, or interpreting, or viewing something...(Meyer and Land, 2003: 1).

When I analysed how both teams talk about learning I found hard fun as a new way for me to interpret and understand the lived experiences of participants. I had not come across this threshold concept in relation to PBL rather I created the use of the concept in relation to PBL, through reconceptualising the lived experience of learning in PBL as hard fun. Threshold concepts are considered to be transformative, probably irreversible, integrative and troublesome (Meyer and Land, 2003:1).

The concept of hard fun has transformed my understanding of this learning. Even though I have been working with PBL for a number of years I had never thought of this learning as hard fun until I carried out this research. I think it is irreversible in the sense that this insight affects both the way I think about and do PBL and PBL staff development. The concept of hard fun is integrative in that it integrated my analysis of how two different teams talked about their learning. Learning in PBL is about the fun of laughter, creativity and playfulness and the hardness of difficulties, demanding activity levels and transformation. Fun without hardness is

frivolity. Hardness without fun is drudgery. Learning in PBL demands both the fun of playing with ideas and the hardness of refining and reworking ideas. Both complementary parts are needed for learning.

It is definitely troublesome. Some people have difficulties with considering notions of fun in learning as academically rigorous and practically and professionally relevant. It is also troublesome in that it is counter intuitive by juxtaposing the words “hard” and “fun” together to form a concept.

The concept of hard fun has practical implications at three levels. At the level of PBL tutorials understanding learning as hard fun in PBL encourages us as PBL tutors to be intellectually challenging and academically rigorous with our students but also to have space for student creativity and room enough for joy. It stimulates us to write problems that are hard enough to really challenge students. At a time when there are difficulties with student retention the hard fun of learning in PBL may be a way of engaging students in the curriculum.

In the introductory chapter of “Exploring academic development in higher education: issues of engagement” (Elvidge 2004a) reasons for difficulties in engagement in staff development from the viewpoint of academics are outlined by Elvidge (2004b:11) to include:

the staff development function is seen as low quality and lacking intellectual rigour.

At the level of staff development my recommendation is that academics experiencing Problem-based Learning as students for a module where they experience learning as hard fun is a way of overcoming perceptions of staff development as lacking in academic rigour. They will understand from this experience that PBL staff development is hard for participants and education developers but that this hardness is part of hard fun.

At a wider level learning is the central purpose of higher education:

Learning is what a university engages in and what it produces. The two main academic activities teaching and research, are processes for learning that produce learning outcomes. Learning is also necessary for the organisation and those within it...(Blackmore et al, 2004:19).

The usefulness of hard fun as a concept for exploring the different types of learning and varied learning spaces in higher education is something that could be explored further. Hard fun is a threshold concept that gives us a new way of thinking about and doing “learning” in PBL.

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