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TITLE: Evaluating the effectiveness of problem based learning as a method of engaging year one law students

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ABSTRACT:

The focus of this paper is a critical assessment of the effectiveness of a problem based learning exercise introduced to increase student engagement within a year one, core law degree module at Northumbria University. Problem based learning as a teaching method was developed by medical schools in the US and Canada in the 1960s and 1970s and has steadily grown in popularity, particularly within law schools. By presenting students with a reality based problem, and requiring students to resolve that problem in teams, they should find an increased motivation to learn. This paper explores the rationale behind the use of problem based learning as a means of engaging students and will outline how the project was designed and implemented into the curriculum. Although both students and lecturers verbally reported an improvement in confidence and an increase in engagement, formal student perceptions were obtained through the use of an evaluation questionnaire. The paper details a full breakdown of the survey, which covers not only issues relating to student engagement but also student perceptions of group work and skills acquired.

Evaluating the effectiveness of problem based learning as a method of engaging year one law students

Joanne Clough[1] & Dr Gillian W. Shorter[2]

The focus of this paper is a critical assessment of the effectiveness of a problem based learning exercise designed to increase student engagement within a year one, core law degree module at Northumbria University. Problem based learning as a teaching method was developed by medical schools in the US and Canada in the 1960s and 1970s and has steadily grown in popularity, particularly within law schools. By presenting students with a reality based problem, and requiring students to resolve that problem in teams, they should find an increased motivation to learn. This paper explores the rationale behind the use of problem based learning as a means of engaging students and will outline how the project was designed and implemented into the curriculum. Although both students and lecturers verbally reported an improvement in confidence and an increase in engagement, formal student perceptions were obtained through the use of an evaluation questionnaire. The paper details a full breakdown of the survey, which covers not only issues relating to student engagement but also student perceptions of group work and skills acquired.

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Introduction

"Student engagement is the product of motivation and active learning. It is a product rather than a sum because it will not occur if either element is missing." [3]

English Legal Systems (ELS) is a core module on all UK qualifying law degrees, and is taught in year one of the M Law (Exempting) undergraduate degree programme at Northumbria University. This is a Masters level degree programme combining the requirements of a Qualifying Law Degree (QLD) with the necessary components of the Legal Practice Course or Bar Professional Training Course, and is designed to prepare students for practice. Prior to 2008, the ELS module was delivered through weekly lectures and fortnightly seminars, the latter requiring students to prepare answers to a series of essay style questions based on topics covered in lectures. Questions were designed to stimulate discussion and facilitate critical appreciation of the subject matter. The purpose of the lecturer was to be the catalyst of discussion, with students directing the debate amongst each other in the classroom.

It was collectively observed by all members of the teaching team that students did not actively engage in the classroom debate.[4] Tutors reported that discussions were difficult to manage and dialogue was strained. In consequence, the tutors stated that they were forced to take greater control of the seminars, to try and improve student engagement with the topic, but this resulted in mini-lectures replacing student led seminars. Students were simply repeating the information

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[3] E. Barkley *Student Engagement Techniques: A Handbook for College Faculty* (San Francisco, CA: Jossey-Bass, 2010), page 6

[4] Concerns about student engagement in the ELS seminars were individually expressed to the module tutor by different members of the teaching team at various stages across the two academic years prior to 2008. In light of these similar and repeated comments, the module tutor held a meeting to discuss the issues further. The comments noted in this section are what were reported during the discussion.

taught in lectures without any critical consideration of the material, thus they were not engaging in deep learning and considered thought; the intrinsic level of motivation[5] that educators strive for when designing programmes. Instead, an instrumental (extrinsic) level of motivation[6] was evidenced through frequent tutor observations of poor student attendance, a lack of preparation and limited participation in class. There was a universal concern amongst the team that students were at risk of failing to meet the learning outcomes by failing to engage in deep learning and it was believed that deeper learning might be achieved through better engagement with the subject matter.[7] There was a possibility that the traditional teaching method was failing to inspire and motivate students.[8] As student engagement can be increased by creating a more active learning environment,[9] it was agreed by the team that the teaching strategy should be reviewed as a first step towards attempting to correct this issue. Problem based learning (PBL) was piloted on one part of the module, to see if a different approach to learning and teaching would increase engagement with the topic through enhancement of the student learning experience, with a view to rolling this out across the module if successful. [10] This method provides an opportunity for students to actively manage their learning experience by drawing upon scenarios resembling the

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[5] See Piaget's theory of active learning in A. Moore *Teaching and Learning: Pedagogy, Curriculum and Culture,* 2nd edn. (Oxon: Routledge, 2012), pages 3-30

[6] See Skinner's theory of positive reinforcement in A. Moore, *op cit* (n.5)

[7] See A. Astin *What Matters in College? Four Critical Years Revisited* (San Francisco, CA: Josey-Bass, 1993) who suggests that student engagement is one of the key predictors of college success.

[8] See N. Vos, H van der Meijden & E. Denessen "Effects of contructing versus playing an educational game on student motivation and deep learning strategy use" (2011) *Computers & Education* 56:1, 127-137 for a discussion on the research which suggests that traditional learning methods can affect motivation and in turn, deep learning.

[9] M. Prince "Does Active Learning Work? A Review of the Research" (2013) *Journal of Engineering Education* 93:3, 223-231

[10] It should be noted that the choice of model had the ulterior purpose of extending PBL into the early years of the degree programme so as to increasingly expose students to this method of self-directed experiential learning which would feature more heavily in years 2-4 of the degree. Further, it was considered that PBL would assist in enhancing student skills and help to encourage independent learning from an early stage in the degree programme.

complexity and novelty of real world situations. PBL can provide an inspirational learning environment[11] which was considered by the team as being capable of motivating students so that engagement could be achieved. While PBL tends to be adopted as an educational model across a whole curriculum, it was believed that the theoretical benefits could still be achieved within the narrower context of one topic within a module. This paper will discuss the rationale behind the choice of educational model, the design of the PBL sessions and the impact of the change with particular reference to the aim of student engagement.

How to make the shift: increasing engagement

It is acknowledged that students may have reasons other than lack of engagement for low participation in class. These can include poor understanding, shyness, problems outside of the classroom, lack of preparation, disability, nonchalance, or boredom.[12] A student's upbringing and personal values may also affect their ability and motivation to learn.[13] However, the comparable observations of the teaching team (noted above) suggested that there was a clear lack of engagement with the ELS module, and it was hoped an increase in student centred learning would resolve some possible demotivating factors and allow students to better meet the learning outcomes.

Eggert,[14] who bases his writing on Hertzberg's satisfaction theory of motivation for the workplace,[15] suggests that when a subject matter may be not immediately interesting, motivation

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[11] B. Duch, S. Groh & D. Allen *The Power of Problem Based Learning* (Sterling VA: Stylus Publishing, 2001)
[12] J. Bruner, cited in A. Moore, *op cit* (n.5)
[13] *ibid* (n.12)
[14] M. Eggert *The Motivation Pocketbook* (Alresford: Alresford Press Limited, 1999)

can be increased by giving students responsibility for their work, and by enlarging tasks so they have some ownership and control over their studies. He postulates that teamwork also plays a motivating role, and students should be allowed to set their own targets and standards in that context. So, as responsibility and teamwork encourage groups to self-manage, which in turn promotes motivation, an active teaching method which capitalised on these factors was therefore required to increase engagement.[16]

A potential solution: Problem Based Learning

Problem Based Learning (PBL) is based upon the tradition of naturalism where knowledge is developed through questioning.[17] While its foundations can be located within the work of educational theorists such as Socrates and Plato,[18] the method was developed by medical schools in the US and Canada in the 1960s and 1970s. The first PBL class took place at McMaster University Medical School, Ontario, Canada in 1969, in which 19 students worked on simulated patient problems. Students were not lectured but successfully worked in teams to complete their learning. While the use of PBL in the UK is growing within tertiary level teaching for the

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[15] In 1959, Frederick Herzberg, a behavioural scientist proposed a two-factor satisfaction theory to explain motivation in the workplace. He suggested there are some factors at work which produce satisfaction while there are others that prevent dissatisfaction. Hygiene factors, such as wages, benefits and good working conditions, are those job factors which are essential for existence of motivation at workplace but they do not lead to positive satisfaction in the long-term. However, without hygiene factors, the workforce will become dissatisfied. On the other hand, motivational factors such as recognition, responsibility and meaningfulness of the work, yield positive satisfaction. These factors motivate the employees for a superior performance and are called "satisfiers"; employees tend to find these factors intrinsically rewarding and are essential for motivation. See, F. Hertzberg et al *Motivation to Work* (New Brunswick, N.J., USA: Transaction Publishers, 2008)

[16] E. Barkley, *op cit* (n.3)

[17] For an overview of the concept of problem based learning see D. Boud & G. Feletti (eds) *The Challenge of Problem Based Learning* (London: Kogan Page, 1997)

[18] See Plato's theories of learning through play in M. Savin-Baden *Facilitating Problem Based Learning: Illuminating Perspectives* (Berkshire: Open University Press, 2003), pages 10-11

professions,[19] it is most prevalent in disciplines such as medicine and architecture, and is less common in legal education. Some argue that PBL is a teaching strategy highly suited to professional courses that aim to produce competent practitioners,[20] and can therefore be viewed as an ideal model for teaching in law. Nevertheless, only a few law schools exclusively adopt PBL approaches,[21] the first in the UK being York University, which teaches exclusively through PBL on its law degree.

Boud and Feletti[22] consider PBL to be a framework for constructing and delivering a course using real problems as both the stimulus and focus for student activity. Commencing with a problem, rather than disciplinary knowledge, students are guided towards gaining knowledge through stages presented in a realistic context, rather than based on a pre-supposed list of learning outcomes. It centres on teamwork to make sense of a problem and to acquire the knowledge necessary to present a range of options relevant to solving the problem. As such there is no "right answer" as it is the process of learning which is more important, and it is this which differentiates PBL from problem solving, where students are directed towards finding the correct solution. Although there is no universal approach to PBL, there is a generally accepted system to the process and one frequently cited PBL system is that of Barrows and Tamblyn[23] which is set out in figure 1.

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[19] J. Biggs *Teaching for Quality Learning at University* (Berkshire: Open University Press, 2003)

[20] M. Saven-Baden, *op cit* (n. 18)

[21] M. Tzannes "Problem Based Learning in Legal Education: Intentionally Overlooked or Merely Misunderstood*"* (1997) *The Law Teacher* 31:2, 180-197. Maastricht University was the first to exclusively adopt PBL as a teaching methodology throughout all its faculties, not just in law.

[22] *Op cit* (n.17) at page 2

[23] H.S. Barrows and R.M. Tamblyn *Problem-Based Learning: An Approach to Medical Education* (New York: Springer Verlag, 1980) cited in Tzannes *op cit* (n. 21) at page 183

INSERT FIGURE 1 AROUND HERE

Students are given a problem at the start of the PBL session without any prior teaching of the subject matter. Thereafter they are required to brainstorm relevant issues, discuss possible outcomes, seek new information, and present their findings within real world implications.[24] By identifying gaps in their own knowledge, students should question, speculate and generate their own learning outcomes to make sense of the problem.[25] The tutor takes a facilitative approach to student learning rather than providing information or answers.[26] Students shift from information receipt to information exploration.[27] They must take responsibility for their learning, set their own goals and targets and work in teams to achieve these goals; it is an active learning environment which fits neatly with Eggert's theories of motivational increase and should, in theory, increase student engagement. Indeed, research has shown that PBL has been successfully used to motivate students in learning complex legal topics.[28]

Design of the PBL exercise

The teaching team followed Moust's interpretation[29] of the six steps advocated by Barrows and Tamblyn in the design of the PBL exercise. The topic of jury trials was chosen for the pilot of

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[24] R.K. Yeo, "Problem-based learning in tertiary education: Teaching old "dogs" new tricks?" (2005) *Education & Training*, 47(7), pp 506-518. Available via *Emerald* [Online] at: http://www.emeraldinsight.com (Accessed 17 November 2012)

[25] J. Biggs, *op cit* (n.19)

[26] R.K. Yeo, *op cit* (n.24)

[27] R.K. Yeo, *op cit* (n.24)

[28]   F. Martin "Using a Modified Problem Based Learning Approach to Motivate and Enhance Student Learning of Taxation Law" (2003) *The Law Teacher* 37:1, 55-75

[29] J.H.C. Moust, "The Problem-Based Education Approach at the Maastricht Law School" (1998) *The Law Teacher* 32:1, 5-36 at page 17

the PBL method as it is a straightforward subject matter where students would not be disadvantaged in their summative assessment, should they not thrive on such a practical approach to learning. The student groups, which were required to assume the role of the Law Commission,[30] who had been informed by the Lord Chancellor that a pressure group was lobbying parliament, complaining that the present system of jury trials was outdated and in need of reform. They were instructed to present a consultation paper[31] proposing reforms to the system as deemed appropriate. The problem brought together a number of topics already covered in the module (the constitution of parliament and government), a new topic (jury trials), and a contextual real life scenario (the process of reform through the Law Commission).

In developing the scenario, the problem had to be vague enough to steer the students towards research, directive but not enough to discourage them from taking part, while also aligned with the learning outcomes of the module as a whole. The problem was designed to be manageable and provide sufficient freedom for the students to learn.[32] The team ensured that appropriate resources were available; if students were unable to acquire the knowledge they had identified as important to the problem, motivation would decline[33]. Students were orally briefed about the exercise and were given detailed written materials in order that they understood the process and what was expected of them. This was important as by setting clear expectations, motivation

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[30] A body set up under the Law Commission Act 1965 to promote the development, simplification and modernisation of the law. See http://lawcommission.justice.gov.uk/index.htm

[31] A consultation paper is a document prepared by the Law Commission on a particular topic, which is disseminated to gather opinions on law reform proposals before they are implemented. Such documents typically set out the current state of the law while proposing reforms with clear justification for the proposals.

[32] G. Ryan *Learner Assessment and Program Evaluation in Problem Based Learning: A Monograph*, (Sydney: PROBLARC, 1997) cited in Biggs, *op cit* (n.19), at page 234

[33] M. Eggert, *op cit* (n.14)

should increase.[34]   Students were also informed why PBL was being utilised in order to encourage full engagement with the exercise.[35]

To facilitate the exercise, four scheduled lectures (over two weeks), in which students would have been lectured about jury trials, were cancelled. Two seminars (over four weeks) were set aside for the exercise. There was some background reading set on the operation of the Law Commission to prepare for the first seminar, at which students were presented with the problem and asked to work in groups to brainstorm the problem and plan completion of the task. In this initial seminar, students appointed a chair person and allocated typical Law Commission roles within the group. They discussed the problem and determined areas for their research. Students required time to plan their learning and to complete the consultation paper in time for the second seminar two weeks later, so groups were able to use two of the four cancelled lecture slots (specifically timetabled to avoid overcrowding) to ensure they could meet up and discuss progress. They were advised that additional time would be required to fully prepare. The second seminar involved the group submitting their consultation paper and orally presenting their conclusions to the others in the class.

Students were summatively assessed on their ability to meet the learning outcomes in the ELS module through examination and coursework. PBL has been criticised in that students on a PBL module may fare worse at traditional examinations than those who study declarative

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[34] M. Eggert, *op cit* (n.14)
[35]   P. Race *The Lecturer's Toolkit: A Practical Guide to Learning, Teaching & Assessment.* 2nd edn. (Oxon: Routledge Falmer, 2001)

knowledge.[36] It was therefore important to ensure that all students managed to gain sufficient

basic information during their research on the subject of jury trials to enable them to apply this

knowledge to the assessment. To achieve this, tutors were given guidance on how to support

students within the PBL model to achieve the overarching seminar outcomes.[37] This required

tutors, in the first seminar, to guide students towards specific research areas through questioning

rather than information giving, so that students would gain confidence in their own analytical

skills. In the second seminar, tutors were tasked with ensuring that students had accurately

grasped the key facts and issues and this was formatively assessed through the presentation.

Tutors were provided with a list of knowledge based outcomes on the subject matter to check

against the presentation material. Rather than lecture the students on any knowledge gaps in their

presentations (a return to a tutor led seminar style), the tutor posed questions so that students

could either identify additional areas of research to fill those gaps, or demonstrate their

knowledge which may have been beyond the scope of their presentation. Ultimately, the team

realised the importance of ensuring that student learning through the PBL exercise could map

onto outcomes which were to be assessed by the coursework element of the summative

assessment.

[36] M. Albanese & S. Mitchell, "Problem-based learning: a review of literature on its outcomes and implementation issues" *Acad Med.* 1993 Jan; 68(1): 52-81, cited in Biggs, *op cit* (n.19) at page 238
[37] J. Biggs, *op cit* (n. 19)

Analysing the PBL exercise: Methodology

Following the series of PBL seminars, all students in the year group were offered the opportunity to complete a questionnaire designed to evaluate the teaching method.[38] Ethical approval was granted from the Northumbria Law School. In order to maximise the available sample, the questionnaires were handed out between two year 1 compulsory lectures thus addressing as many of the cohort as possible. Unfortunately this took place at the end of the academic year when student attendance was in decline due to the impending assessments. A relatively small sample of 123 students, from a potential pool of 318, completed the questionnaire.[39]

All participants were asked to confirm their sex, age (in years) and whether they had previously studied law. Of those who took part 60.2% were female and 37.4% were male (2.4% did not answer this question). The mean age of the sample was 19.6 years (range 18-49 years). The majority (58.8%) had studied law before joining the M Law programme (39.0% had not previously studied law and 2.4% did not answer this question). The questionnaire topics included questions on students' perceptions on the skills gained through the PBL teaching method for this module, their positive and negative evaluations of different activities engaged in as a group, and finally their suggestions for improvement of delivery of PBL.[40] Responses to the

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[38] The questionnaire was adapted from that used in an earlier PBL study (C. Sylvester, J. Hall & E. Hall, "Problem-based learning and clinical legal education: What can clinical educators learn from PBL?" 6 *Int'l J. Clinical Legal Educ*. 39, 2004. It was trialled by some independent members of staff to ensure question clarity and it was amended following feedback from those participants.

[39] This is a limitation of the research. The small sample size may mean that the results are not generalisable to the whole population. Arguably the researchers failed to reach the least engaged students (those who did not feel sufficiently engaged to attend the revision lectures), whose views were clearly of relevance to the research.

[40] A further limitation of the questionnaire design was its rather general nature. As PBL was chosen for purposes beyond student engagement (*op cit* n.10), it was important that the team assess the effectiveness of the teaching method for all of these purposes. Consequently, the questions were not always specific to engagement. Were this

questions used the Likert scale[41] and are presented as percentages of the total group, split by sex and prior legal education. In light of the literature suggesting that taking responsibility for your own learning, working in a team and setting your own goals are key motivational factors, students' views on these particular matters were considered most relevant for determining whether they had increased engagement with the subject matter during the PBL exercise.

Results

As the questionnaire was designed to assess the impact of the PBL exercise in respect of a number of different aims[42], results have been collated to evaluate the skills students felt they had gained from the PBL activity, their analysis of the team working activities which mirror the work of the Law Commission, and their views of PBL in the context of other teaching methods. An overview of the general results of the questionnaire is provided before analysing any evidence of increased student engagement.

Student's evaluation of skills learned

Students mostly agreed that the format of the class enabled them to increase their general skills (Figure 2). They agreed the format enabled them to get to know their group members better (73.1%) and they had the confidence to tackle challenges (71.1%). Notably, students were least

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research to be repeated, the team would have designed the questionnaire with direct reference to the literature on engagement and consequently used more explicit questions to assess that aspect of the project.

[41] Students could choose options of strongly agree, agree, neither agree nor disagree, disagree and strongly disagree but these were recoded to reflect agree, neither and disagree.

[42] *Op cit* n.10

convinced that the task gave them the opportunity to critically analyse the law (52.9% agreed).[43] The lack of confidence, reflected in 18.2% disagreement, may negatively impact upon student engagement.[44]

In terms of sex differences, males in the group agreed particularly with items reflecting increased confidence in both speaking in seminars (77.8% agreed) and voicing opinions on the law (77.8% agreed). By contrast, female students also agreed that increased confidence in speaking in seminars was a skill they had gained, but to a lesser extent (65.8%). The skill most endorsed by female students was a confidence in their ability to learn by themselves (69.9% agreed) and knowing individuals in their group better (69.9% agreed). Overall, males were more likely to agree the exercise enabled them to build their skills.

Many of those with prior legal experience agreed their confidence in critically analysing the law had increased. However, among those without prior legal experience, there were higher levels of agreement for increased confidence in their ability to complete independent research (69.8% versus 63.9%), knowing other students in the group better (78.3% versus 70.0%) and being more confident with working in groups (67.4% versus 61.1%). There was little difference between those with prior legal experience and those without on their understanding of the legal system, with only 3% more of those with prior legal knowledge agreeing compared to those without.

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[43] This result may be due to students' lack of understanding of the term "critical analysis" particularly as the jury trials PBL task actually centred on a critical analysis of the current system.

[44] See A. Isen & J. Reeve, "The Influence of Positive Affect on Intrinsic and Extrinsic Motivation: Facilitating Enjoyment of Play, Responsible Work Behaviour, and Self-Control" (2005) *Motivation and Emotion*, 29(4), 295-323

INSERT FIGURE 2 around here

Student's positive evaluations of group work

Students stated the most enjoyable group working task was presenting conclusions (73% agreed; Figure 3a) followed by brain-storming (68.9%), and discussing findings and sharing research (59.5%). Around one fifth disagreed that brainstorming, and presenting conclusions in a group was helpful for the learning of subject matter. But 57.9% and 59.8% agreed brainstorming, and presenting conclusions in a group was helpful for the learning of subject matter. Students were most likely to agree group work was effective in presenting their findings. However, there was some indication that brainstorming was not effective in working through the problem for around one quarter of those surveyed (24.6%); 58.2% agreed that it was effective.

INSERT FIGURE 3a AROUND HERE

Assessing sex differences, males were less likely to agree that group working to discuss findings and share research was enjoyable (56.5% versus 60.3%). However, males were more likely to agree that working in a group was enjoyable when brainstorming or presenting conclusions. Females were less likely to consider group working to be helpful for the learning of subject matter and effective for the purposes of brainstorming, and there was some disagreement that group working to present conclusions was helpful for learning the subject matter (Figure 3b). Broadly, males were more likely to consider group working effective, particularly in the presentation of conclusions with 84.8% males in agreement, compared with 73% females.

INSERT FIGURE 3b AROUND HERE

There were few differences between those with and without prior legal experience (Figure 3c). However, those with no prior legal experience were more likely to agree that group working to brainstorm was enjoyable; 79.2% of those with no prior legal experience agreed compared to 61.1% of those with prior legal experience. Conversely, those with prior legal experience were more likely to agree that group work to present conclusions was helpful for the learning of the subject matter (62.5% versus 56.3%).

INSERT FIGURE 3c AROUND HERE

Students negative evaluations of group work

Students noted difficulties in group working. Discussing findings and sharing research was considered to be the most frustrating aspect of group work (38.5% agreed). Group work to present conclusions was not considered frustrating, with highest disagreement. There was least agreement with the statement "group brainstorming was time consuming", closely followed by the time consuming nature of presenting conclusions. There was some indication group work was difficult to organise, with most agreement for organising group brainstorming sessions (see Figure 4a).

INSERT FIGURE 4a AROUND HERE

Females were more likely to agree group working was frustrating to discuss findings and share research, and to present conclusions. However, overall the majority disagreed group work to present conclusions was frustrating; males had slightly higher disagreement (50% versus 41.9%). The majority also disagreed working in a group was time consuming across all three activities. Across all three activities, the majority of both males and females agreed group work was difficult to organise; females were more likely to agree in relation to discussing findings and sharing research (see Figure 4b).

INSERT FIGURE 4b AROUND HERE

Given that students mostly disagreed that working in a group to brainstorm and present conclusions was frustrating, there were slight percentage differences between those with and without prior legal experience (see Figure 4c). For brainstorming, a slightly higher percentage of those with prior law experience disagreed, and for presenting conclusions, a slightly higher percentage of those without prior legal experience disagreed. Regarding the time consuming nature of group work, whilst the overall feeling was that brainstorming was not time consuming, there was a higher percentage of agreement amongst students with no prior legal experience. Those with prior legal experience were most likely to disagree that discussing findings and sharing research was time consuming: those without prior legal experience were more likely to endorse the "neither" category. Students with prior legal experience were more likely to agree that group working across all three activities was difficult to organise; for example 77.8% of those with prior legal experience agreed it was difficult to organise the group to brainstorm compared to 64.6% of those students with no prior legal experience.

INSERT FIGURE 4c AROUND HERE

Discussion: Evidence of engagement

Relating student evaluations back to engagement, Eggert and Hertzberg's theories would suggest that questions relating to taking responsibility for the task and teamwork are key motivation and engagement indicators. This section considers these particular themes to identify whether student engagement had increased as a result of this project.

Overall opinions

Looking at the statistics (Figures 5a-5c), the PBL teaching method was generally welcomed. Most students agreed they understood the subject matter of jury trials at the end of the PBL exercise (65.8% agreed, 20% neutral, and 14.2% disagreed), although it was not possible to assess whether they would have understood the topic better if a different teaching method was chosen.[45] There is some evidence of student engagement as just under half of those surveyed (49.2%) agreed the PBL exercise was more enjoyable than ordinary seminars (25.4% neutral; 25.4% disagreed), with males generally more in favour. Similarly 44.3% agreed they were more interested in the subject matter by working on the PBL exercise (33.6% neutral; 22.1% disagreed). These figures indicate that for the majority, the PBL exercise had engaged students, not only in relation to the method of teaching but also in the subject matter itself.[46]

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[45] Unfortunately it is not possible, due to ethical constraints, to randomise the teaching conditions so that some students were taught by PBL and others taught in traditional method so that teaching conditions could be compared.
[46] A. Isen & J. Reeve, *op cit* (n.44)

INSERT FIGURES 5a -5c AROUND HERE

Most students agreed their skills increased throughout the module, with males feeling more confident about this issue. 70.2% agreed they felt more confident about speaking in seminars (16.5% neutral; 13.2% disagreed) and 64.5% agreed they felt more confident about voicing opinions on the law (23.1% neutral; 12.4% disagreed). These statistics suggest learning outcomes were met, and future teaching beyond the ELS module, would benefit from improved confidence in this area.[47] Perhaps the most difficult skill, confidence in the ability to critically analyse the law, had the lowest agreement in the cohort (52.9% agreed; 28.9% neutral; 18.2% disagreed). Critical analysis is a core skill for Masters level education[48], and for creating reflective legal practitioners. Whilst over half the students noted an improved confidence in critical analysis, teaching beyond the PBL exercise should build upon this skill, for cumulative confidence as the year progresses. Whilst prior legal experience seemed to help with critical analysis, for other skills, students without prior legal experience agreed they had increased levels of confidence and understanding. This is a welcome indication that the PBL exercise has not left a gap in knowledge within a cohort where nearly half had not studied law previously.

Taking responsibility for learning

There was 60% agreement in a preference for more tutor input. This agreement is particularly evident in females and those without prior legal experience, which may reflect a lack of

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[47] D. Kaufman, T. Laidlaw & H. MacLeod "Communication Skills in Medical School: Exposure, Confidence, and Performance" (2000) *Academic Medicine* 75:10, 90-92

[48] See the Quality Assurance Agency for Higher Education (QAA) Subject Benchmark Statement for Law available at < http://www.qaa.ac.uk/Publications/InformationAndGuidance/Documents/Law07.pdf > (accessed 23 October 2014)

confidence in taking responsibility for independent learning. PBL requires tutors to be facilitators rather than information providers, so for future exercises, the tutors should reflect on how they could facilitate deeper and more practical learning.[49] A valuable extension to this research would be to explore the relationship between tutor and student in PBL teaching formats in order to guide tutor behaviour.

Nevertheless, most students agreed (66.9%) that as a result of the PBL exercise, they felt more confident in their ability to conduct independent research. A similar number (71.1%) agreed they felt more confident in their ability to learn by themselves with 64.5% agreeing they felt more confident in group work. These figures indicate that students had developed the ability to take responsibility for their studies, a motivational indicator suggesting solid engagement, and hopefully engagement beyond the ELS module.

Group work

Team negotiations and student led tutorials are key means of building valuable joint working skills for a legal workplace. Team work questions related to three stages of activity: brainstorming, discussing the results and research, and presentation of conclusions. On the whole, students enjoyed these activities[50] indicating potential for increased engagement with the subject overall using teamwork as a motivational tool.[51] In terms of ownership, students found difficulties around the organisation of brainstorming, findings and presenting conclusions.

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[49] T. Barrett (2005) cited in T. Barrett & S. Moore (eds) *New Approaches to Problem-Based Learning: Revitalising Your Practice in Higher Education* (New York, USA: Routledge, 2011) at page 135

[50] 68.9% agreed that they enjoyed group brainstorming; 59.5% agreed that they found discussing their findings and research in a group enjoyable; 73.0% found presenting their conclusions in a group enjoyable.

[51] A. Isen & J. Reeve, *op cit* (n.44)

Again, as taking ownership of a task is a key motivational indicator, it is suggested that tutors might, in future, facilitate a framework for these organisational skills. This may enable students to better manage or take control of their team and drive the task forward.

There was an agreement that group work was effective particularly in the presentation of conclusions. This would suggest that students were able to set and achieve their own targets, despite the difficulties in organisation, and is an indication of improved engagement and motivation. Tutors reported[52] that students had complained when their peers had not attended meetings which made some activities prior to the presentation difficult and de-motivated those in attendance to undertake the required research. Attendance at the presentation seminars was excellent[53], which might also explain this agreement.

The two information exploration[54] activities, group work for brainstorming and, discussing findings and sharing research were generally positively regarded. Although discussing findings and sharing research was considered difficult, this may reflect students holding back some of their findings to better improve their own knowledge. Equally, it could relate to poorer group relations, but students participated well in icebreaking exercises at the start of the sessions[55] and generally agreed that the PBL approach allowed them to get to know their group members. Issues of engagement thus seem to be related to working and sharing in teams, rather than with module content.

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[52] At the end of the PBL exercise, the teaching staff met to share their experiences. Findings from this meeting are set out in this section.
[53] *Ibid* n.52
[54] R.K. Yeo, *op cit* (n.24)
[55] *Ibid* n.52

The activity of presenting conclusions was the most favourably regarded overall. It was most enjoyable, effective and helpful for learning of the subject matter, and in the negative evaluations it was the activity for which there was highest disagreement of being frustrating, time consuming or difficult to organise. As mentioned above, this may be due to linking with the assessment even if this did not affect their final grade. There were some sex differences such that group work to present conclusions was less positively regarded by females. This may reflect issues in group relations and how aspects of this task were divided between the members of the group, and tutors should be vigilant to any indicators of individual differences within the groups.

Reflections on the experience

Barrett[56] notes that PBL is "hard fun"; simultaneously difficult and engaging. Students were hesitant about being taught more in this way[57] and had mixed views about their enjoyment of working independently. Rather than indicating a failure in the PBL method, or with engagement, this may reflect an expectation of education to be more of a traditional lecture and seminar approach. Some of the students enjoyed this break from the norm, while others may have needed more convincing of the value of other approaches in their journey to be a well prepared, skilled practitioner. Staff should communicate the value of PBL as a teaching approach to equip them with skills for survival in the legal workplace; guidance materials for future student cohorts should reflect this. Students generally found they had to undertake more preparation for the PBL exercise than for normal seminars which may be an indication that students underestimated their

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[56] T. Barrett and S. Moore, *op cit* (n.49)

[57] 40.5% agreed they would like more of the degree to be taught in this way (21.5% neutral; 38.0% disagreed).

work commitments for other modules, and they may need to become more engaged with the overall learning experience.

Tutors confirmed[58] that they were universally impressed by the manner in which students took charge of the seminar discussions and worked hard to present their findings. The brainstorming sessions were lively and reflected deeper discussion than the jury trials session in the previous year. Tutors reported high standards in student consultation papers. Some were more descriptive than evaluative but students had at least acquired basic knowledge required of the task and met overarching learning outcomes. Following on from the PBL exercise, tutors felt the group ethos was much more focussed. Students appeared more willing to speak in class and contribute to sessions. Indeed, tutors from other modules also noted the shift following the PBL exercise.[59] Future research should attempt to measure PBL innovations across the curriculum in a single module. This would facilitate better integration and decision making about whether PBL could or should be applied at a whole curriculum level, or just to specific modules.

Conclusion

Overall, this was considered to be a successful curriculum development which promoted student engagement on the ELS module and improved key legal skills. The student evaluation highlighted areas for improvement to build engagement further. Instructions to students were clarified to increase the structure of the brainstorming exercise and to require students to

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[58] *Ibid* n.52

[59] Whilst this evidence was anecdotal from the lecturing teams across the law curriculum, it would be helpful to evaluate the views of other module tutors in a more robust way.

complete a bibliography (for referencing practice and to better monitor the level of research undertaken). Student mentors from year 3 of the programme were also introduced to the process to bring more structure to the "middle section" of PBL. The mentors helped to facilitate research, referencing, and preparing of the consultation paper so that students did not feel disengaged or have difficulties with organising their time and group to meet the outcomes. The success of this project has resulted in PBL being rolled out through other modules within the M Law undergraduate programme, for example, the Civil Liberties year long option has been re-designed so that it is now taught exclusively through PBL. Both students and staff are keen on the use of PBL overall and while engagement was a driving factor behind the curriculum change, the societal importance of producing lawyers ready for their legal careers upon graduation was an underlying consideration. While market trends continue to demand workplace-ready graduates, it would appear from this research that engaging students through PBL at least partially addresses this need.