

JADE

THE JOURNAL OF ACADEMIC
DEVELOPMENT AND EDUCATION

Issue 4 | August 2015

EDITORIAL

But it is a 'theatre', not just in name alone
by Eileen J. Pollard

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JADE

THE JOURNAL OF ACADEMIC
DEVELOPMENT AND EDUCATION

ISSN
2051-3593

About

JADE publishes articles, case-studies, papers, reviews, teaching tips, letters to the editors, interviews and student submissions about learning and teaching

Author's instructions and submission procedures are available from our website: www.jadekeele.wordpress.com and you can contact us directly via our email: jade@keele.ac.uk

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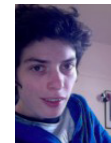

Welcome to JADE. JADE was launched two years ago by the Learning and Professional Development Centre. The journal was developed as a space to share practice for Keele staff and students that wished to write about their educational experiences as part of their scholarly practice. It was established to publish reflections on and inquiries into the acts of learning and teaching and to disseminate that work. Staff and students at Keele University act as writers, readers, reviewers, editors; and perhaps most importantly as learners and collaborators in the endeavour to improve student learning experiences and outcomes through their contributions to JADE.

JADE celebrates teaching scholarship, an act I have previously described as a journey of discovery and personal growth, and makes teaching scholarship public – open to scrutiny and sharing with interested others. Over the past two years, the readership of JADE has grown and broadened to include colleagues beyond Keele, and in 2015, we took two decisions that will further support JADE to grow and flourish. First, we have decided to accept submissions for published articles from staff or student members of other Universities and to publish these if they are deemed to be of interest to our Keele and wider readership. In making this decision, we have expanded the potential community of scholars that can contribute to JADE's future but hold steadfast the desire to sustain the journal as a place for scholarly discovery of both staff and students. Second, in support of encouraging submissions from student scholars, we also took the decision in 2015, to appoint a student Associate Editor to solicit for and encourage student contributions.

JADE continues to be a space that models innovation and creativity in the scholarship of teaching and learning. I sincerely hope you enjoy your experience of contributing to JADE, as a writer, reader, reviewer or editor, and as a learner and collaborator in scholarly endeavour.

Dr. Jackie Potter

Head of the Learning and Professional Development Centre


Eileen J. Pollard | Manchester Metropolitan University

Associate Lecturer

Eileen has been teaching English Literature to undergraduates for two and a half years, but had already acquired extensive experience working on reading-based participation projects.

Eileen took stories into hospitals, after-school-clubs and community centres, and her background in 'teaching' non-traditional learners in a variety of contexts meant that Eileen entered higher education knowing that engagement is key. Eileen has taught on a variety of courses at Manchester Metropolitan University and also the University of Chester from levels three to six, including dissertation students, and is known for her enthusiasm and innovative teaching methods. Eileen undertook a PGC AP at Manchester Metropolitan and her study of and interest in the pedagogy of engagement culminated in Eileen's recent interview in the 'Careers Intelligence' section of the THE: <http://www.timeshighereducation.co.uk/news/why-live-lecturing-benefits-from-fear/2017310.article>

**BUT IT IS A 'THEATRE',
NOT JUST IN NAME ALONE**

What do the component parts of a lecture – namely, the students and the teacher – actually think we are all *doing* when we are in a lecture situation? My thoughts on 'live' lectures were in response to this apparently basic question. I gathered a small action-research sample using the focus 'what *is* a lecture?'. The research design primarily consisted of two open-ended questions:

1. In one sentence, answer the question – *What is a lecture?*
2. *What three keywords spring to mind when you think of a lecture?*

Frank Furedi(1) critiqued learning outcomes in the THE when he remarked: 'The precision gained through the crystallisation of an academic enterprise into a few words is an illusory one that is likely to distract students from the clarity that comes from serious study and reflection'. Similarly, for my students the three largest words were 'information-lecture-knowledge', while teachers selected 'information-students-thought', which indicates overlap in terms of content but that teachers see lectures as the start of a process of thinking, rather than as 'crystallised' knowledge.

“Sitting closer together creates a physical and personal environment that will foster exchange”.

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At the opposite extreme, is Donald Clark's(2) polemic 'Don't Lecture Me', which argues that real blended learning does not simply mean chopped-up 'blended' delivery. However, his outright rejection of numerous established aspects of higher education pedagogy, such as having respect for a lecturer, as 'criminal and stupid', demonstrates a discursive poverty beneath which lurks an inappropriate level of black and white thinking. The lecture is not 'one thing', it is neither all good nor all bad; yet despite Clark's open hostility to so-called 'faith' schools, he champions the unashamedly evangelical zeal of TED talks as a viable alternative to lectures – and as apparently delivered by people who 'really' know what they are doing. Watching a video is a passive activity though, arguably even more passive than attending a lecture; Clark makes a point of highlighting the inclusivity and reach of online videos, quickly establishing a connection between the number of 'hits' and the level of engagement - 'Do the maths', he demands. However, as the contemporary age is one where screens with rolling news and/or daytime television are omnipresent in train stations, doctors surgeries and staff rooms around the world, making what is happening on the screens both auditory and visual background and wallpaper, is it wise to assume that the one million people who 'hit' your video have actually paid attention to all, or even most, of it? Is it then sensible on the basis of this assumption to influence higher education policy and redirect even more content from offline into online? At least in a lecture theatre, the lecturer can gauge the level of the students' attention and, in the words of the novelist Zadie Smith(3), remind them that 'YOU ARE NOT WATCHING TV'.

The conclusion I have reached through reflecting on 'Don't Lecture Me' – itself a lecture – is that the solution to the lack of engagement in lectures is not to embrace distance and go online, but to emphasise and develop the proximity that lectures facilitate. The Unique Selling Point (USP) of the lecture is that it involves actual real people in actual real time in an actual real space, which, despite the explosion of the online world, people still definitely want – think of packed arenas for stand-up comedians, filled football stadiums and sold out rock concerts. Many, many people, if not most, enjoy sitting right-next-to other people in a (very) large group in order to take part in a one-off event. You can watch the Cirque du Soleil on youtube, but it will never be the same as the experience of seeing it live, and there are ways of cultivating the excitement of the 'live' back into the lecture too.

Sitting closer together creates a physical and personal environment that will foster exchange. Interestingly, I do not hesitate to move my students around into smaller or larger groups, as required, in

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seminar sessions; instead my inhibition is culturally and specifically related to lectures. Changing, or increasing, the energy in the lecture theatre, and therefore emphasising its 'live' quality, can be achieved through the use of paper aeroplanes, clickers, buzzers and/or airhorns as ways of receiving answers to questions. There is a disconnect between teacher recognition of student boredom and student resistance to change, based on a financial exchange model of quid pro quo. This often reveals a tension between students feeling fearful of taking ownership of their learning, and suspicious of teaching strategies that they are able to present as poor value for money, i.e. 'I am not paying all this money to listen to other students'. But it is a 'theatre', not just in name alone, and as Maya Angelou(4) famously said - 'People will forget what you said. People will forget what you did. But people will never forget how you made them feel'.

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ARTICLE | #1

Title

The role of formative computer-based assessment (CBA) in promoting self-regulated learning in a final year undergraduate model

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Abstract

Computer-based assessment (CBA) is now a well-established tool within higher education however, the use of CBA in different subject areas, and across different levels of study, for both formative and summative assessment purposes still remains the subject of some debate. This study aimed to investigate the use of formative CBAs, in the form of 'self-test quizzes', as a tool for promoting self-regulated learning in a final year (FHEQ Level-6) module within the Geography suite of programmes at a UK higher education institution. The implementation of a series of self-test quizzes was evaluated in terms of: (1) their impact on the students' learning experience, (2) the extent to which they promoted self-regulated learning and, (3) their role in improving students' summative assessment performance. Tracking data from the Virtual Learning Environment (VLE), alongside student responses to an evaluative questionnaire, suggests that the implementation of computer-based, formative self-test quizzes can have a positive impact on the students' learning experience however; students were found to be somewhat functional in their use of these assessments and appeared to be using them as a 'reassurance tool' in preparation for summative assessment, as opposed to a mechanism which promotes self-regulated learning.

Keywords

Computer-based assessment (CBA), formative assessment, self-regulated learning, self-test quizzes

Context

In recent years the increased use of virtual learning environments, combined with innovative developments in the software, tools and different platforms available, has led to resurgence in studies exploring the use of computer-based assessment (CBA) in higher education. Although the use of CBAs is now well established within higher education (Thelwall, 2000), there remains a need to better understand how CBAs are used in different subject areas, across different levels of study, and as part of both the summative and formative assessment process (Waddell et al., 2012).

CBAs have considerable value when used as part of the summative assessment process and they have some clear advantages over other types of assessment (Charman and Elmes, 1998). For example, they provide a greater degree of reliability and equitability than other assessments, they contribute to the diversification of the assessment profile, validity is ensured because there is no subjective judgment of quality or presentation style and they can be an efficient method of assessment where marks and feedback can be delivered in a timely fashion (Brown et al., 1996). However, whilst several studies have explored the use of CBAs for summative assessment purposes (e.g., Charman and Elmes, 1998; Angseesing, 1989, 1998; Ricketts and Wilks, 2002), the pedagogic benefits of using CBAs for formative assessment have become increasingly apparent (e.g., Irons, 2008, Miller, 2009; Gikandi et al., 2011; van de Kleijn et al., 2012).

The timing of feedback, in relation to a student's past, present and future learning is of critical importance (Freestone, 2009) and one of the most significant pedagogic advantages of using CBAs for formative assessment lies in their capacity to provide instant feedback and offer students unlimited attempts to receive formative feedback on their work (Bull and McKenna, 2003, Peat and Franklin, 2002; Wang, 2007). The use of CBAs for formative assessment has also been found to increase students' interest in a topic (Burrow et al., 2005) and motivate them to learn (Peat and Franklin, 2002; Wang, 2007). As such, formative CBAs have great potential to empower students to become reflective, self-regulated learners (Nicol and Macfarlane-Dick, 2006), especially when such assessments are used within blended learning contexts (Burrow et al. 2005, Miller, 2009). CBAs are widely perceived to be capable of only assessing lower order taxonomic skills and as such, many studies have focussed on their use within the context of large, first-year student cohorts (e.g., Peat and Franklin, 2002; Miller,

2009; Wilson et al., 2011; Timmers et al., 2013). Their use and value in final year (FHEQ Level-6) modules, as a tool for promoting self-regulated learning, is less common and still somewhat debated in the literature (Thelwall, 2000).

This study aims to address this issue by exploring the use of formative CBAs ('self-test quizzes') as a tool for promoting self-regulated learning within a final year (FHEQ Level-6) option module within the Geography suite of programmes at a UK higher education institution. This is achieved by designing, developing and implementing a series of formative self-test quizzes, administered through a VLE (Blackboard), into a final year option module. The implementation of the self-test quizzes was evaluated in terms of: (1) their impact on the students' learning experience, (2) the extent to which they promoted self-regulated learning and, (3) their role in improving students' summative assessment performance.

Curriculum Context

This two-year study investigated the use of formative self-test quizzes in two consecutive student cohorts, within the context of a final year (FHEQ Level-6) option module from within the Geography suite of programmes at Keele University. A series of formative self-test quizzes, relating to the ten key topic areas covered within the module, were designed, developed and first implemented into the module in the 2008/09 academic year. Each self-test quiz consisted of ten multiple choice questions (MCQs), designed to target higher-level learning skills. To achieve this, and in common with the methodology used by Bruyn et al. (2011), multimedia (e.g., photos and diagrams) and raw data were used within the questions, which students were required to interpret, synthesize and evaluate in order to arrive at the correct answer. Elaborated feedback (EF; Timmers and Veldkamp, 2011), in the form of explanations of correct and incorrect responses and links to further reading, were provided to stimulate further and self-directed learning. A new self-test was released following each week's teaching session and remained available for the duration of the semester and into the examination period. Students were able to complete the self-test quizzes as many times as they wished. Completion of the quizzes was optional for all students, although their availability and benefits were promoted within both the module documentation and within classes.

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Methods

Anonymous student tracking data, showing the number of times each self-test quiz had been accessed and completed, the number of self-tests each student had completed, and the time duration each student spent completing self-test quizzes, was downloaded from Blackboard VLE. Students were made aware that by engaging in the formative self-tests they were also giving permission for their anonymous VLE tracking data to be used in this research.

Students were also surveyed by use of a mid-module questionnaire, aimed at better understanding the reasons why students chose to engage with the formative self-test quizzes, and an end of module evaluation form. The former of these comprised of semi-structured and closed-ended questions, which employed a Likert-type response scale to produce a differentiated scale of responses and enable quantification of the data (Norton, 2009). The latter of these employed the School-wide standard module evaluation form, used to evaluate all undergraduate modules, which included open-ended questions about students' learning experiences on the module. Completion of both surveys was optional for students. Following methods used by Zakrewski and Bull (1998) and Charman (1999), the impact of formative self-test quizzes on student summative performance was evaluated by use of a statistical T-test to ascertain whether there was any statistical difference in the mean marks of the summative assessment components within the module pre- and post-intervention.

Results

First year of study

A total of 26 students were registered for the module in 2008/09 and a total of seven formative self-test quizzes were made available to students via Blackboard. VLE tracking data from 2008/09 show that over the course of the module, the majority of students did engage with the formative self-test quizzes. Students completed an average of just over ten self-tests each and spent an average of 3 hours and 48 minutes engaging with them over the duration of the semester (Table 1). The maximum number of self-tests completed by any one student was 27 and the maximum amount of time spent working on the assessments by any one student, a different student, over the course of the module was 10 hours and 14 minutes.

THE ROLE OF FORMATIVE COMPUTER-BASED ASSESSMENT (CBA)

	Number of CBAs Begun		Number of CBAs Completed		Time Spent Completing CBAs	
	08/09	09/10	08/09	09/10	08/09	09/10
Mean	12.35	10.58	10.77	10.36	3:48:00	5:27:38
Max.	28	24	27	23	10:14:18	21:16:23
Min.	0	0	0	0	0:00:00	0:00:00

Table 1. Number of formative CBAs begun and completed, alongside the average, maximum and minimum time spent completing the formative CBAs, during the course of the module for the 26 students registered for the module in 2008/09 and the 33 students registered for the module in 2009/10. Mean amount of time spent completing the formative CBAs only includes data for students actively using the CBAs.

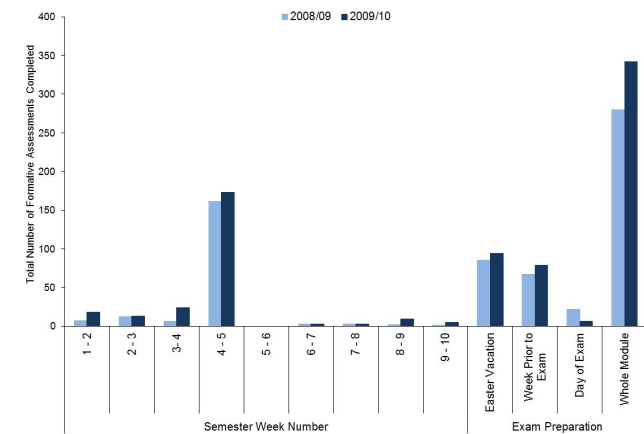


Figure 1: Total number of formative CBAs completed by students on a week by week basis and in the run up to the end of course examination for the 2008/09 and 2009/10 student cohorts.

Figure 1 shows the total number of self-tests completed by students in the 2008/09 cohort on a week by week basis. A total of 280 self-tests were completed by students over the course of the module, with the highest number of self-tests completed in any one-week period (161) occurring in the week immediately prior to

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the summative in-class assessment which takes place in week five. A total of 174 self-tests were completed by students in the three-week period immediately prior to the examination and, perhaps surprisingly, 22 self-tests were completed by students on the day of the examination itself (exam started at 4 pm).

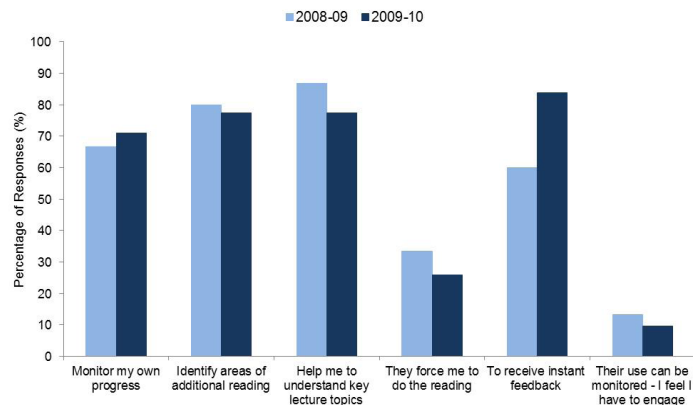


Figure 2: The key reasons students chose to make use of the formative CBAs for the 2008/09 and 2009/10 student cohorts. Students were able to select as many of the six options as they felt applied to them.

A total of 15 students (58% response rate) responded to the mid-module questionnaire and Figure 2 shows that the majority of students (87%) were using the assessments to check their understanding of key lecture topics, whilst 80% of respondents were using the assessments to highlight areas where they needed to do additional reading. Some 60% of respondents agreed that one of their reasons for using the assessments was to receive instant feedback on their work. Additional comments included on the mid-module evaluation included:

“It’s a really useful way of knowing if you have understood the lecture material”

“It gives you a reminder to do the extra reading and gives a useful resource for revision”

“They help to ensure that I’m not missing any key concepts from the lectures”

THE ROLE OF FORMATIVE COMPUTER-BASED ASSESSMENT (CBA)

Second year of study

In 2009/10 a total of 33 students were registered for the module and ten formative self-test quizzes were made available to students via the VLE. Again, students completed an average of ten self-tests each (Table 1) however, the average time students spent engaging with self-tests was much higher than in 2008/09 at 5 hours and 28 minutes (Table 1). The total number of self-tests completed by students over the course of the module in 2009/10 was 342, although this higher number is probably due to the higher number of students taking the module. In 2008/09 the maximum number of self-tests completed by any one student was 23 and the maximum amount of time spent working on the assessments by any one student over the course of the module, again a different student, was 21 hours and 16 minutes.

Figure 1 shows similar patterns of student engagement to the previous student cohort. The highest number of self-tests completed in any one week period occurs immediately prior to the week 5 summative in-class assessment (173) and there is a clear increase in the use of the formative CBAs as students prepare for the end of course examination. A total of 179 self-tests were completed by students in the three-week period immediately prior to the examination, of which 6 self-tests were completed by students on the day of the examination itself (exam started at 4pm).

A total of 32 students (97% response rate) responded to the mid-module questionnaire. This higher response rate is likely to reflect the fact that students were given time within classes to complete the questionnaire, as opposed to completing it after class. Figure 2 shows that in contrast to the previous student cohort, a large proportion of students (84%) were using the assessments as a way to receive instant feedback on their work, although 77% of students were also using the self-tests to check their understanding of key lecture topics and/or highlight areas where they needed to do additional reading. One respondent (3%) said they had not been using the assessments because they “had not had the time” and “preferred to wait and use them for revision purposes at the end of the module”. Again, the self-tests were well received by students and some of the positive comments in terms of the impact on their learning experience included:

“Formative assessment on the VLE were really good to recap key points from the lecture”

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"The assessments online were very helpful and are good for revision"

"VLE quizzes were useful at highlighting areas you need to work on"

"I liked that progress could be monitored via the formative assessments"

Impacts on Student Summative Performance

	t-values 2008/09 Student Cohort	t-values 2009/10 Student Cohort
Summative in-class assessment	6.5	0.5
Examination	1.61	0.71
Overall Module Performance	1.34	0.22

Table 2: T-test results comparing student performance in summative assessment components of the module. The performance of the 2008/09 student cohort is compared against that of the 2007/08 cohort (pre-intervention) and the performance of the 2009/10 cohort is compared against that of the 2008/09 cohort. Significant values at a 95% confidence interval are shown in bold.

Table 2 shows the results of statistical T-tests comparing student performance in the summative assessment components of the module pre- and post-intervention. The only statistical difference in student performance between cohorts, at a 95% confidence interval, is in the summative in-class assessment between the 2007/08 (pre-intervention) and 2008/09 (post-intervention) student cohorts. However, this statistical difference in student performance can be attributed to the changing format of the in-class assessment between the 2007/08 and 2008/09 academic years, and not as a direct result of implementing formative CBAs into the module.

THE ROLE OF FORMATIVE COMPUTER-BASED ASSESSMENT (CBA)

Discussion

VLE tracking data and student evaluations suggests that the implementation of computer-based, formative self-test quizzes into a final year (FHEQ Level-6) module has had an overall positive impact on the student learning experience. In common with the findings of previous studies (e.g., Burrow et al., 2005; Peat and Franklin, 2002; Wang, 2007), the implementation of formative self-test quizzes into the module appears to have made the learning process more enjoyable, been of value to students in terms of assessing their own progress, and has generally enhanced the students' learning experience. Zimmerman and Risemberg (1997) suggest that 'self-monitoring' of academic progress can be important for developing self-efficacy, which in turn can promote more effective study.

It is widely recognised that the ability of CBAs to provide instant feedback, and enable students to receive unlimited opportunities to gain feedback on their work, is one of the most significant advantages of using CBAs for formative assessment purposes (Bull and McKenna, 2003, Peat and Franklin, 2002; Wang, 2007). Data presented in this study shows that this was an important factor in why students chose to engage with the formative self-test quizzes, particularly for the 2009/10 student cohort (Figure 2).

Direct comparisons of the impact of introducing formative assessment on the subsequent performance of students in summative assessment are very difficult (Bull and McKenna, 2003). This is because summative assignments are likely to change, or be modified each year, as formative CBAs are introduced, module content is likely to be updated each year, and the entry level ability of each student cohort taking the module will be different and may be difficult to ascertain. Nonetheless, a few studies do attempt to statistically evaluate the role of formative 'self-tests' on student summative performance. For example, Charman and Elmes (1998) used CBAs as a means of formative assessment within a statistics-based geography module and found that average module marks improved for students using the formative assessments. Wilson et al. (2011), in their study of a first year Geography course, found that students who used computer-assisted formative assessments performed significantly better in their final exam compared to students who did not engage. In this study, a statistical T-test was used as an 'indicative tool' to assess whether the introduction of formative, computer-based self-test quizzes into a module has helped to improve student summative assessment performance. T-test results (Table 2) show that no statistically significant difference in summative student performance was found in either the end of

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course examination, or the overall module performance, following the implementation of formative self-test quizzes into the module. Statistically significant differences were noted in the summative in-class assessment (Week 5) between the 2007/08 (pre-intervention) and 2008/09 (post-intervention) student cohorts however, this was attributed to the changing nature of the summative assessment, as opposed to the implementation of computer-based formative self-test quizzes.

It has been widely argued in the literature that CBAs are capable of only assessing lower order taxonomic skills and this is reflected in the number of studies which have focussed on their use within the context of large, first-year student cohorts (e.g., Peat and Franklin, 2002; Miller, 2009; Wilson et al., 2011; Timmers et al., 2013). In this study, student tracking data shows that use of the formative self-test quizzes is overwhelmingly driven by summative assessment. In both student cohorts, there is a noticeable increase in the number of formative self-test quizzes completed by students as students prepare for the week five summative in-class assessment and the end of semester exam. For the 2008/09 student cohort, some 161 self-test quizzes were completed in the period between the Week 4 lecture (Friday pm) and the summative in-class assessment which took place in Week 5 (Friday pm) (Figure 1). In 2009/10, 173 self-test quizzes were completed in this equivalent time period (Figure 1). This pattern of usage indicates that students are being somewhat functional in their use of the self-test quizzes by using them as a revision or 'reassurance tool' in preparation for summative assessment, as opposed to a mechanism which promotes self-regulated learning. The results of this study therefore suggest that in final year (FHEQ Level-6) modules, the introduction of formative CBAs ('self-test quizzes') may have a key role to play in enhancing a student's revision strategy, as opposed to being a tool which promotes self-regulated learning and improves student summative assessment performance. The use of formative CBAs in influencing students' revision behaviour has also been demonstrated by Thelwall (2000) who found that formative CBAs can 'drive students to revise more' (Thelwall, 2000: 47). Whilst there is increasing evidence within the literature that carefully constructed CBAs are in fact able to assess higher level learning skills (e.g., Bruyn et al., 2011), they appear to be a more effective tool for improving student summative performance in Level-4 modules (e.g., Wilson et al., 2011), where understanding key terminology and core knowledge is more easily assessable via the use of CBAs.

 THE ROLE OF FORMATIVE COMPUTER-BASED ASSESSMENT (CBA)

Conclusions

This study aimed to explore the use of formative CBAs ('self-test quizzes') as a tool for promoting self-regulated learning within a final year (FHEQ Level-6) option module within the Geography suite of programmes at a UK higher education institution. This was achieved by designing, developing and implementing a series of formative self-test quizzes into a final year option module within the Geography suite of programmes. The implementation of the self-test quizzes was evaluated in terms of: (1) their impact on the students' learning experience, (2) the extent to which they promoted self-regulated learning and, (3) their role in improving students' summative assessment performance. The main conclusions of this study are that the use of CBAs in the form of formative self-test quizzes can have a positive impact on the students' learning experience and, to a certain extent, motivate them to learn. However, the data presented here suggests overwhelmingly that students are being somewhat functional in their use of these formative self-test quizzes by using them as a revision or 'reassurance tool' in preparation for summative assessment, as opposed to a mechanism which promotes deep, self-regulated learning.

Acknowledgements

This study was completed by KS as part of the Teaching and Learning with Technology (TLwT) module, which formed part of the MA in Teaching and Learning in Higher Education at Keele University. The author wishes to thank her project supervisor, Dr Stephen Bostock, for his help and advice during the completion of this project.

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ARTICLE | #2

Title

Assessment and Feedback: Essentials for an Effective Online Learning of Histology

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Abstract

This review article will highlight the importance of online assessment and feedback in the effective implementation of the medical curriculum, in general, and of histology, in particular. Histology, a basic discipline in medical curricula, is witnessing a continuous increase in its online resources and a massive enrollment capacity. Consequently, for online teaching to be effective it needs periodic assessment and feedback, especially with the expansion of web based instruction delivery methods.

Introduction:

Feedback and assessment are inextricable components of the effective implementation process of a medical curriculum, especially when using online learning modalities. In a course component such as histology, which witnesses a continuous increase in online resources and massive registration, assessment and feedback are important factors influencing student's approaches to learning as well as the outcomes (Jurjus, et al, 2013, Evans et al, 2014). Histology is normally regarded as building in a well-organized timely process starting with cells towards more complex tissues to organs. In such a course, which is mostly a visual science, online assessment and feedback are feasible and essential to drive learning and assess the desired outcomes. Actually, with contemporary progress of the internet, more and more distance and online education is taking place. In the USA, nationwide, online enrollment rates in higher education are expanding at a much faster pace than traditional classroom enrollment growth. There was a 17% increase between 2008 and 2009 in online enrollment compared to a 1.2% increase in the overall enrollment in higher education during the same period. In brief, web-based technology has noticeably transformed the learning and teaching environment, particularly in medical sciences. The number of medical schools as well as the number of students enrolled has remarkably increased (Allen and Seaman, 2010).

In most histology courses, students born in the last 25 years make up the current cohort of undergraduate students. These students have been shown to embrace technology and are part of the force driving institutions to increase their online course offerings (DiLullo et al, 2011) with this trend being projected to continue for a number of years (Allen and Seaman, 2010). With this projected growth it is important to ensure that online courses meet the set objectives by developing reliable online assessment and feedback systems.

Advocates of online learning have reported it to be more effective than traditional face-to-face experience by potentially eliminating barriers of various types (Swan et al, 2000; Jurjus et al, 2013) whilst increasing convenience, flexibility, customized learning, and facilitating assessment and feedback.

In such a modern era of learning, traditional testing methods do not seem to fit well at all times and the trend worldwide is to turn to online methods, especially in big courses like histology (about 6 credits) which consists of a large portion of laboratory work, be it in the regular microscopy or virtual labs. Studies looking

at exclusively online laboratory courses in higher education have also shown promising results (Gilman, 2006), especially when using discussion boards and synchronous online conferencing to increase instructor feedback, along with the incorporation of collaborative assignments to increase student-student interaction. In fact, approaches to assessment need to be harmonious and should ideally include feedback mechanisms as well as diverse forms of assessments: self, peer, co-assessment and instructor assessment to name a few.

This article aims to highlight the important role of online assessment and feedback in the effective implementation of medical curriculum in general, and particularly within histology.

Assessment:

It has long been considered that assessment drives learning. Further, self-assessment, peer evaluation, portfolios of learner's work, written assessment of reasoning, standardized examinations, oral examinations and sophisticated simulations are used increasingly in histology to support students to be able to fulfill the curricular objectives (Jurjus et al, 2013; Evans et al, 2014). Histology, which is a relatively large course, equivalent to 6 credits in some curricula, benefit a great deal from this diversity of assessment methods. In fact, almost all these modalities could be practiced online providing rigorous preparation and may drive the learning process more efficiently. Multiple types of assessments have been described using a variety of approaches including formative and summative assessments which constitute 2 different uses of assessment rather than different types of assessment: However, they have important things in common. Both involve some form of judgment of the students' work and attainment. When student work receives comments intended to guide future work as well as a mark or grade which will affect the student's progression or final award, the assessment is then both formative and summative. The provision of formative assessment has been recognized as a significant benefit to student learning through familiarizing students with the levels of learning required (Barbeau et al, 2013; Rauf et al, 2014).

Given the importance of assessment in learning, students need to learn about it to clarify "the rules of the game," i.e., assumptions known to teachers but that are less transparent to students. Good practice would dictate that assessment strategy needs to be clear from the start and well delineated in the syllabi of courses. It is our opinion that syllabus' should include: (1) The criteria forming the basis of awarding grades to students,

(2) Involving students in generating or applying criteria after clarification of assessment criteria, and (3) The marking process itself from the perspective of both the tutor and the student.

Taking into consideration the impact of assessment on student success or failure in higher education, online assessment dialogues have an important role to play in reinforcing the assessment process; from design to summative feedback. Failure to perform such dialogues may lead to negative consequences such as student dissatisfaction and/or poor retention (Yorke 2001). Indeed, engaging students in assessment and feedback practice could enhance students' awareness and understanding of learning outcomes and assessment criteria; factors which may positively foster performance, maximize enthusiasm and thus engagement (Evans et al, 2014).

The type and frequency of assessment is therefore possible to influence the caliber of learners we produce. If histology assessment is largely to remain in the form of multiple choice questions, testing volumes of factual knowledge, even those students who are usually deep learners may be forced to become surface learners. With an integrated and innovative curricula, a mixture of strategies and activities such as case-based, team-based or problem-based learning, virtual microscopy, appropriate online assessment methods (both formative and summative) measuring intended learning outcome should aim to be developed by educators to engender more transformative conceptions of learning (involving reflection and self-development).

The importance of assessment in influencing student learning cannot be under-estimated. The authors are of the opinion that assessment is possibly the most important influence on student learning processes and outcomes. We consider the "appropriate assessment" as one of the major principles of effective teaching in higher education. Examination questions that do not encourage understanding risk giving students the message that surface learning approaches will be rewarded. Equally, the opposite also holds true. If students anticipate that test questions require understanding then they will be encouraged to adopt a deep learning approach, thus facilitating the retention of knowledge after the learning period and be able to use and rely on a full understanding of that knowledge in their chosen career (Sugand et al, 2010).

Students need also to develop individual approaches to come to terms with Histology, constructing their own mental images of structures which allow them to differentiate one tissue from another. We encourage students to do this by relating structure to function,

hoping they will integrate biochemistry and physiology learning with histology and even pathology learning within one clinical scenario. Such integration would constitute an appropriate subject for online assessment. In this case, a collection of various formative assessments designed and introduced into each of the system-based modules which make up the basis of the first 2 years of the medical program. Histology would feature as an inter-woven element throughout each of the system-based modules and would be delivered using a multifaceted approach based on virtual microscopy (Evans et al, 2014).

Feedback:

Effective feedback is both appropriate and timely (Ramsden, 2003). It is defined by its ability to inform, in a constructive way, the progress of the students through their studies providing a clear sense of how well they are doing and what they might need to do to improve. To reach this ideal, feedback should be understandable, timely and acted upon by students and educators (Gibbs and Simpson 2004).

Feedback has long been recognized by educators as central to student learning processes in the development of effective learning playing a decisive role in learning and development, within and beyond formal educational settings. Actually, we learn faster and better when we are aware of what we might need to do to improve. Timely feedback can serve multiple purposes; besides being part of academic life, it provides advice for improvement of the current and future assignments as well as justifying the grade. In our teaching of Histology, feedback has served efficiently by indicating to the students how well they performed in their learning and to professors how successful they were in conveying the appropriate educational message.

Extensive efforts have been deployed recently to compare the effectiveness of traditional course formats to online alternative formats. They showed that assessment and feedback were at the heart of the student learning experience and had a dominant influence on the way students learn (Nicol & Macfarlane, 2006).

Therefore, prompt and effective feedback constitutes, as it comes online, a key issue in promoting student learning, while in general, slow feedback could contribute significantly to stress, to increase in drop-out rates and even quitting education (Race, 2007).

Staff spending many hours marking and writing constructive feedback have also expressed their frustrations and some students

recognize the problems staff face in returning feedback quickly but their feelings of frustration override their thinking leading to expression of negative comments in surveys. However, other studies concluded that it was not an issue of equal significance to all students. An array of students' opinions was expressed along this line and as demonstrated by Poulos and Mohoney (2007), the effectiveness of feedback extends beyond the mode of delivery and timelines. Fast feedback (provided online) leads in general, to short turn-around times, addressing an issue with multiple purposes and benefits in courses like histology (Barbeau et al, 2013). Actually, fast assignment turn-around seems most critical for students who are involved for the first time with a particular course to actively engaging them in the learning process. In addition, prompt turn-around seems to be more significant for students whose assignments have sequential relationship like in histology whereby cytology and basic tissues are offered in the early sessions. The organs and organ-systems histology will therefore be able to follow on a more solid basis. However, students who are confident and autonomous learners also tend to be less concerned with prompt feedback than their less confident, inexperienced counterparts. However, the diversity of students entering the medical field and taking histology is increasing and their approaches to learning and their learning styles are expected to be enriching if properly channeled and guided through well designed, fast and individualized online assessments and feedbacks (Evans, et al 2014).

In brief, prompt feedback is a significant indicator of a satisfactory result and a justification of marking decisions. It is also feasible to be done on-line and very relevant to histology, where students appear particularly dependent on rapid return of their assignments.

In line with the current wave of transforming medical curricula into organ-system based integrated teaching modules, and with the massive growth of classes and online course enrollment, fast feedback and assessment, on-line or otherwise, are becoming an urgency. Some of the courses are short, they last for 3 or 4 weeks and if left without fast and periodic feedback, the students might lose the thread of context and do not know where they stand until it is too late. Fast feedback will provide the benefit of direct observation, instruction, coaching and assessing the students who also have time for self-reflection and for their own professional development (Cooke et al, 2006). Actually, the most important factor in the success of formative assessment is the quality of feedback, proven to result in a maximum impact on student accomplishment (Rauf et al, 2014).

In describing helpful feedback, Walker (2006) stressed that a

balance between positive and critical feedback is required to make students confident. This balance guides the student on how to improve performance against the assessment criteria. Moreover, the effectiveness of the feedback also extends to the credibility of the teacher and ultimately to the educational system. It is the responsibility of the tutor to ensure that feedback is timely, understood, and constructive by offering indicators of what students can do to improve. Research data support learning interventions taking as little as 90 minutes to be a powerful and cost-effective strategy for enhancing the process of learning.

Feedback Strategies:

Educators resorted to a number of feedback strategies that could be considered as lightening the burden of marking and reducing the feedback time. These strategies include:

1. *Computer Aided Assessment (CAA). This form offers staff and students a mechanism for providing rapid feedback. Evidence proved that students and staff are benefiting from the use of CAA provided through the Black board and the Question Mark online testing systems among others. These modalities are applied in histology in various medical schools.*
2. *Use of statement banks and electronic templates. These mean that staff can speed up compiling of feedback and contribute to the quality of feedback (Heinrich et al., 2008).*

It is very important to note that some studies showed that students, and to some extent teachers, perceive the lack of useful and timely feedback as a problem in the assessment process (Sugand et al, 2010; Jurjus et al, 2013; Evans et al, 2014). However, adopting an on-line feedback mechanism in our histology and anatomy courses would offer a great advantage in this context.

Discussion:

As on-line education expands to become more mainstream, one important question for us as educators still awaits an appropriate answer; "How do I know what my on-line students have learned?" In addition, the growing demand for lifelong independent learners and reflective practitioners has stimulated us as educators for a periodic re-evaluation of the relationship between learning assessment and feedback. Not only that, new trends in higher education have

influenced to a great extent, the development of new assessment forms such as self-, peer-, and co-assessments. One might say this is actually a new era in assessment pedagogy, with the sector aiming to replace passive testing activities with forms of assessment that promote integration of learning and instruction; examples of teaching strategies that respond well to this strategy include team-based learning, problem-based learning, as well as interactive virtual microscopy and case discussions. Their use is increasing as appropriate teaching strategies in histology courses. It is pertinent to note at this point that many new assessment methodologies conceive the student as an "active" person who shares responsibility, reflects, responds to feedback, collaborates and conducts a continuous dialogue with the teacher. As an appropriate vehicle, the on-line process has likely facilitated an effective way to reach learning objectives and an efficient method of implementing the respective strategies and activities leading to the intended outcomes.

Actually, the goals of higher medical education have been undergoing continuous revision over the past two decades, especially after the second Flexner's report (Cooke et al, 2006; Jurjus et al, 2013). In recent years, new methods in line with developments of new scientific knowledge and modern communication technology have been implemented. These new methods stress problem solving skills, professional skills, and learning in real-life contexts. It is conceived that medical students taking up positions in modern organizations need to be able to reflect critically upon their practice (Kwan & Leung, 1996), to analyze information, improve their problem-solving skills and communication, and to reflect on their own role in the learning process. In brief, students are expected to become lifelong learners (Sambell & McDowell, 1997) trained on evidence based medicine throughout their medical curriculum (inclusive of histology) and to make efficient use of on-line learning resources and modalities including on-line assessment and feedback.

In Europe, USA, Australia and other countries, education experts are rightfully considering that the era of testing has changed into an era of assessment and feedback (Birenbaum, 1996). These are valuable tools not only to alert and guide students but also to improve courses and curriculum including histology and other anatomical and basic sciences (Sugand et al, 2010; Rauf et al, 2013; Jurjus et al, 2013).

Assessment is being considered, within histology as well as elsewhere, as a pluralistic approach using authentic tasks (Segers, 1996; Evans 2014). Assessment providers can serve as tools for crediting students with well-defined evaluations as well as for monitoring directly students' progress and directing students to remedial

learning activities through timely feedback. In brief, assessment is now being considered as a tool for learning, it definitely goes beyond measuring the reproduction of knowledge and passing the test. Research findings concerning assessment indicate that the use of the combination of self, peer, and co-assessments, which could be well achieved on-line, are effective and lead to more accuracy (Horgan et al, 1997). Self and peer assessment can also be used for summative purposes as a component of co-assessment whereby the tutor also retains the authority to express the final decision about a grade. Such a collaborative assessment, especially when done on-line, removes the student / tutor barrier leading to greater motivation and better learning (Somervell, 1993). The challenge for course directors is to find the right combination that works best for their course.

In our histology courses, assessment and feedback to and from the students are acquired through filling on-line forms, face to face discussion oral exams as well as National Board of Medical Examiners (NBME). In the future, our plans are to add more elements of assessment and feedback such as:

1. *Assessing whether online learners can align learning objectives with real-life applications better than the paper based or face to face approaches.*
2. *Adopting strategies for creating better and validated multiple-choice tests with online assessment and feedback like the NBME.*
3. *Using self-check exercises to assess online learning*
4. *Measuring the effectiveness of an online learning community*

It is believed that designing and developing on-line assessment and feedback strategies would lead to more and better documented findings. In the end, the goal of learning assessments should be to measure whether actual learning outcomes match desired learning outcomes. The gold standard for assessment of quality is therefore validity. A valid assessment should measure what it claims to measure. However, inadequate learning assessments can be frustrating. At worst, it can defeat the students and institutions in reaching their goals.

Conclusion:

Could the online approach make learning better in histology? More work is needed in this regard, however, reported data support well-defined on-line instructional and learning techniques making teaching more effective. Such techniques can be introduced slowly and methodically, at the same time as on-line assessment and feedback without compromising coverage of the syllabus, thereby promoting the learning process. These activities are more economic and require less expenditure of money, time, and effort. Most importantly, on-line learning, assessment and feedback have been validated by documented and repeatable research and as such, their effectiveness is not simply a matter of opinion. They work well in histology (Barbeau et al, 2013; Jurjus et al, 2013) and contribute to maintaining high educational standards.

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ARTICLE | #3

Title

White Water Writers

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Abstract

The White Water Writers (WWW) programme is a literacy project which provides an opportunity for groups of young people to write and publish their own full length novel in a week. The project has worked with children of primary school age through to university students, including those who are from disadvantaged backgrounds. It has quickly gained momentum, and with extra funding being funnelled into the project, it looks set to reach far and wide.

Previous research conducted by Skipper, Leman & Reddington (2014) has highlighted the numerous ways in which participants benefit from WWW, such as improving literacy skills and raising self-esteem. In contrast, this article focuses on the potential for the scheme as an outreach initiative - that is to say, the way in which it can raise aspirations amongst young people, and strengthen the skills needed to achieve their goals. It will focus on the positive impact that the project can have on learners who are still in school, as it is this group of writers which WWW can help most in terms of raising aspirations.

Keywords

Widening Participation, Creative Writing, Creativity, Education.

What is White Water Writers?

White Water Writers (WWW) is a literacy project which gives groups of young people the chance to write and publish their own novel in five days. The young people are provided with a brief to guide their ideas, which includes a genre and a guiding theme, but the book itself consists of entirely their own work. University student volunteers then lead the writers through the planning, plotting, drafting, and proofreading stages. At the end of the week, the book is released for sale on 'Amazon', and the writers receive printed copies of it.

Last year, we facilitated WWW in a Special School, and with a group of looked after young people. In the Special School, we were met with a consensual "can't do" mentality in the group of learners. One particularly memorable child scoffed, "You can't write a book in a week!" A Year Seven boy who had recently moved to the school as a result of his disruptive behaviour, he made it clear to us that he felt that the remit of the project was beyond his capabilities. Even some of the teachers doubted that we could achieve our aims. Yet, as the week progressed, the transformative capability of the programme surpassed even our expectations.

Previous Research

Skipper et al. (2014) have found WWW to lead to marked improvements in areas such as the writers' ability to work under pressure, teamwork, communicating ideas, and giving and receiving constructive feedback. They also ascertained that completing the programme resulted in the writers having higher self-esteem and feeling more in control over their lives. The learners also became more open to the idea that intelligence is something which can be changed. Thus, the empirical evidence appears to suggest that the project leads to improved skills and a more positive mindset. It is also likely to result in positive learning outcomes, such as persisting in the face of adversity. Skipper et al.'s (2014) findings corroborate that of a key NACCCE report (1999: 6), which asserts that *'when individuals find their creative strengths, it can have an enormous impact on self-esteem and on overall achievement'*.

By focusing on 'improving' a young person's skills, and raising aspirations, one is implicitly instilling a sense of self-belief in them; for instance, one writer commented, *"I'm a published writer now - I'm not taking a B in English!"* The process increases the writers' confidence and this, in turn, changes the way they perceive their ability to succeed. Without overtly encouraging them to attend university, this becomes more of an autonomous

decision on their part. This article will broach the possibility of WWW as a vehicle for ambition.

Widening Participation Context

Widening Participation (WP) is conceptualised differently by stakeholders, and there is a certain degree of autonomy in how universities facilitate its practice (which is overseen by the Office for Fair Access). OFFA describes WP as *'[...] the participation of disadvantaged groups in higher education generally'*, and they reflect the target groups as being care leavers, disabled students, those from ethnic groups or sub-groups, and students from lower socio-economic groups. There is a view that WP should concentrate on 'getting children through the doors' of universities - an idea which was propagated most notably by Tony Blair during the New Labour era, and which has, to some extent, permeated Higher Education (HE) since. However, Walker (2008) believes that *'widening participation ought [...] to be conceptualised as widening capability as a matter of full justice'* (2008: 277), and she reflects the need for a pragmatic approach to WP. It is also apposite to remember that WP is not a monolithic group. A standardised approach to WP is problematic because individuals from these diverse groups face a range of challenges and barriers. It is pertinent, then, to consider initiatives like WWW, which are less explicitly aimed at WP but are underpinned by the raising of aspirations.

HEFCE's 2013 Report highlighted Stoke-on-Trent as being a particularly concentrated area of low participation in HE (2013: 26). As such, Keele plays a significant role in attempting to break down barriers. The University is already innovative in its approach to WP, not simply allowing young people to visit the campus, but actively *engaging* them in a range of experiential learning activities. Even before the conception of WWW, Keele has used subject-specific workshops in schools to engage prospective students. Other activities include residential events 'Unifest' and 'UniSkills', providing Key Stage Four and Five pupils with an opportunity to experience university life for three days, as well as mentoring from current university students. WWW, then, can be used to exemplify good practice within this existing structure.

WWW and Creativity

Like WP, creativity can be defined in different ways, but here it will be presented as the act of creating something original, such as by linking existing ideas together to make a new one. Banaji et al. (2010) argue that '[...] creativity brings with it the ability to question, make connections, innovate, problem solve, communicate, collaborate and to reflect critically' (2010: 4). It is also important because it manifests itself in even the most prosaic elements of our everyday lives, and thus it can be utilised whether a young person progresses to the workplace or further education.

Indeed, WWW itself is underpinned by a creative concept. It is based on a computer programming model, which opens up the possibility of a new interest to young people - a skill which is increasingly important in a rapidly technologically advancing society. Joe Reddington(1) discusses in his research how WWW employs computer programming visualisation techniques in order to produce a more consistent narrative (2013: 6-7). Even simply using the computers and 'Google Drive' can enthuse the learners. Many of the writers do not realise that they have been using a programming language until the end of the week when we explain this to them (in layman's terms), and they are invariably taken aback that they have unwittingly developed this new skill.

WWW is also creative in the sense that it adapts to, and harnesses, each individual learner's strengths, in order to ensure that they reach their maximum potential. It offers a way for writers to channel their passion and convert it into a functional 'tool'. For instance, in the Special School, we allocated one young person with a passion for the military the role of overseeing the historical accuracy of the plot. After all, we can learn effectively when we are focused on something we enjoy. This way, it is possible to ground the unknown in the known - that is to say, by facilitating their knowledge of areas which they enjoy, the pupils can learn new ideas about computers and the writing process. This interdisciplinary approach allows learners to learn in an explorative and contextualised way.

Why is Writing Important?

Monteith (1992) reflects that '*writing is one of the few learning and teaching areas that run through every level of society, from pre-school learning to continuing education classes and community outreach courses, a lifelong continuum of practice and study*' (1992: 11). Therefore, writing is ubiquitous, and is not a specialist skill which young people need to learn for WWW, but it can be honed

and developed. Patently, then, writing remains a cornerstone of education, so it is worrying to consider that, at age seven through to age fourteen, The National Literacy Trust found that '*National Curriculum test results show that the writing of young people who receive free school meals (FSM) continues to lag behind those who do not receive FSMs*' (2014: 14). This is particularly concerning when considering one's writing skills can have an impact on how they are perceived by prospective employers. For instance, some employers may reject a poorly written cover letter or CV. Even rudimentary tasks such as formulating an email are a prerequisite for many jobs. One whose writing 'lags behind' is at an immediate disadvantage.

Context specific evidence paints a particularly concerning picture. An Ofsted report found that '*Stoke-on-Trent is in the bottom fifth of local authorities in England for the proportion of children achieving the expected standard of Level 2 or above in reading and writing at Key Stage 1*' (2014: 1). WWW, then, can be a step towards mitigating these issues. With Stoke-on-Trent being one of WWW's focal points, it is able to generate opportunities for local schools to engage in literacy in a challenging yet interesting way. After all, there is only so much that can be achieved in classrooms, particularly with the structure of the education system sometimes constraining creative activities. WWW allows learners the space to develop vital writing skills and be creative.

Changing Perceptions of Learning

WP introduces university life to young people, and WWW takes this one step further and shows an individual - in a very immersive way - how *learning* is experienced at university. The project is conducted in an educational environment, and yet the learning approach is relatively new to the learners. In fact, they often do not even realise that they are learning. To them, it is a chance to publish a book, or, more crudely, to enable them to have a week off their school timetable. This may be because it does not feel like learning to them. There are no right or wrong ways of writing, and adults are not allowed to touch the keyboard. This then returns autonomy to the individual and puts them in the 'driving seat' of the learning process.

The writers tend to expect there to be a trick involved with WWW, for they can find it difficult to comprehend that they could be capable of writing a novel. They often have not written anything longer than a piece of school work, and yet during WWW they can write in excess of twelve thousand words. Joe Reddington alludes to this in his TED talk (2015), "*when you release young writers like this,*

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when you stop trying to direct their attention, when you stop putting safety catches on their creativity, they astound you." Furthermore, one of the looked after young people reflected the following: "We are teenagers that have done this and there's nothing stopping you doing the same. Just follow your dreams and you may go far."

When we recently facilitated the project with a group of Key Stage Two pupils, we were met with resistance when we asked them to take a lunch break. The classroom had become more appealing than the playground, for the children wanted to continue writing - a conscious choice on their part. WWW allows learners to take control of their learning experience, akin to HE, where individuals actively choose to attend and focus on their specific interests. As a result, rather than encouraging young people to go to university on the premise that it is intrinsically worthwhile, WWW shows them a different way of learning. Tacitly, then, it can be seen to introduce them to the differences between school and post-compulsory education. This notion is reinforced by the student volunteers who are able to answer the learner's questions about HE. Meeting these students shows the young people that those who attend university are not significantly different to them, thus affording them the idea that they could 'belong' in HE.

Moreover, as a collaborative project, teamwork is a key facet of WWW. This approach is relatively innovative; in schools, and even post-compulsory education, we are often expected to work in isolation on set tasks and assignments. Plagiarism checkers can restrict us from working with others at university, and at school we are separated and prohibited from contact with peers for the duration of an exam. Learning collaboratively prepares us for life, as when we progress to the professional environment we are generally expected to work as part of a team, and this is a skill which WWW augments.

Advantaging the 'Disadvantaged'

WWW works with (though not exclusively) those from WP backgrounds. Sometimes there is a propensity to focus on the ways in which particular individuals are disadvantaged, and thus the way in which these afflictions may inhibit them. WWW removes the young people from that context for a week; it strips them of the labels they have been given and instead gives them another - 'writer'. Of course, their individual needs and backgrounds are taken into account, but these are not fixated on. This, in turn, shows them that they can exceed their own and others' expectations of their abilities when they are given the opportunity to do so. As one of the

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looked after young people wrote, "I was one of the people who used to ignore what people told me, but if you have read this book, you probably know we completed it in 5 days, and I just want to say that proves you can do anything if you try!"

Additionally, writing can be an outlet for young people to channel their emotions, and this can have real currency for them. This is particularly pertinent for young people who are learning to manage their emotions. Rather than, say, punching a wall or swearing, writing can be a cathartic alternative. These emotions can then bleed into the narrative and bring their characters to life. Communicating feelings verbally can be difficult for young people, but writing can provide an alternative method and, thus, emotions can be a stimulus for creativity. Issues can be explored through the lens of a character rather than from the self, and this gives them a safe space to explore issues such as bullying, control, and sexuality. In fact, one of the teachers we worked with reflected that she could see how the looked after young people had expressed some of their own desires and frustrations in the novel, thus suggesting that the process had a somewhat therapeutic effect.

Aside from the actual writing process itself, WWW offers other benefits. For instance, last year we invited a group of looked after young people to Keele. I gave them a tour of the campus, and they were able to spend time talking to other university students and staff. This could perhaps lead them to associate university with positive experiences - it was, after all, the place where they wrote a novel. This can be an invaluable experience for an individual who may have had an unsettled childhood. The ink on the pages is indelible and therefore the book is a permanent fixture in their lives. This, then, is an emotionally rewarding experience for young people.

Lasting Impact

Two narratives unfold during the WWW programme; one ends up on Amazon as a published novel, and the other remains internalised - unwritten. The latter is less tangible, but the personal growth of the individual is not to be underestimated. Joe Reddington reflected this in his TED talk (2015): "The creativity that those writers showed was greater than the sum of its parts." It is the generation of transferable skills and raising of aspirations which are likely to be most fruitful in the learners' futures.

To summarise, there is scope for WP to focus on the raising of aspirations more generally. WWW shows that it is possible to adhere to the 'university access for all' rhetoric whilst simultaneously

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presenting alternative options for the less academically inclined. For example, the writing process of WWW could encourage a learner to become a freelance writer, or they may decide to work towards an IT apprenticeship after using the computer software. Certainly, WP can change the trajectory of an individual's life. In 2010, myself and other Year Twelve pupils attended Keele's Unifest event. Selected as we derived from areas of low participation in HE, and as most of us were 'First Generation'(2), many of us progressed to university afterwards. Hence, WP evidently has an impact, but WWW adds another dimension to enhance current strategy – an embedded and pragmatic approach, which sets a precedent for a whole new realm of possibility. In fact, the finished book itself serves as a method for raising attainment, in the sense that a young person can add it to their CV to showcase their capabilities.

As for the Year Seven boy who proclaimed that you cannot write a book in a week, he eagerly accepted the finished book at the presentation ceremony. I found him reading the book in the classroom afterwards. I tried to engage him in conversation, but he was immersed in the world he had helped to create.

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(1) Joe Reddington is one of the WWW project's founders.

(2) By 'First Generation', I refer to someone who is the first in their family to have considered university.

Acknowledgments

I would like to thank Dr Yvonne Skipper for both her role in creating the WWW programme, and for providing guidance for this article. I would also like to thank Dr Joe Reddington for his part in forming the programme and training us (alongside Yvonne) as student leaders.



ARTICLE | #4

Title

Tigger or Eeyore? Does the use of mobile devices help or hinder participation in the lecture theatre: a pilot evaluation of LectureTools

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Abstract

The use of internet technologies in the lecture theatres remains controversial and has divided opinion on the use of internet-enabled devices in the learning environment. In this study, lecturers investigated the effectiveness of LectureTools, a cloud-based audience response system, to enhance student engagement and participation. LectureTools was employed across two undergraduate modules and evaluated via student questionnaires, supplemented by free-text responses, and tutor interviews. Students and tutors found the technology easy to use and agreed that it increased student participation. Students valued the meta-cognitive aspects of interactive questioning and appreciated being able to view other responses and make notes on-line. Students that found the technology distracting suggested this was due to the requirement for interaction rather than alternative internet distractions such as social media. Tutors reported that the subsequent reduction in verbal interaction may hinder the development of students' social confidence. Overall, the LT technology was beneficial to the learning environment as it promoted participation and increased student enjoyment. As lecturers improve their skills with interactive classroom technologies they should be able to increase their effectiveness whilst maintaining the value of verbal interaction in the lecture theatre.

Keywords

LectureTools, Engagement, Learning technology

Introduction

The recent increase of laptops and mobile devices in the lecture theatre has forced educationalists to consider their impact on student learning: are they simply a distraction, or can they be used to enhance pedagogical processes? Certainly, some faculties have taken the decision to ban laptops from the classroom (Foster, 2008; Glenn, 2010), while others restrict their use (Mazzie 2008) or implement laptop-free zones (McCreary, 2009). Research into laptop use (Ragan, et al, 2014) suggests that students typically spend two-thirds of the lesson on off-task activities when lap-top use is unregulated and this has been shown to have a detrimental effect on learning (Sana et al, 2013). Hence, there is growing interest in harnessing internet-enabled devices to promote engagement and student learning (Zhu et al, 2011, Samson, 2010).

Audience response systems (ARs) have been developing since the 1960s, initially via wired connections (Frochlich, 1963) they evolved into the wireless internet learning devices that are commonly known as 'clickers' (Caldwell, 2007). Clickers have been shown to engage students and enhance learning outcomes (Berry, 2009) but they are restricted to Multiple Choice Questions (MCQs) and require the transportation of clickers to the learning environment. More recently, cloud-based ARs have been developed; these use a wider range of question formats and rely on students' own laptops or mobile devices for connectivity. Hence, the opportunity to positively engage both devices and students provides a potential solution to the laptop issue. Recent studies by Mazumder (2010 & 2012) suggest that students are aware of the metacognitive benefits afforded by ARs which leads to improved confidence in answering questions and exam expectation.

LectureTools™ (LT) is an on-line response system that facilitates a broad-range of questioning techniques, including multiple choice questions, ordered-list, free text responses and image location (Figure 1). It also allows students to make notes on-line, ask questions anonymously and flag slides as 'confusing'. LT has been shown to promote student engagement and learning (Samson, 2011; Swanson et al, 2014) and the ability to respond anonymously increased participation (Chiu & Lee, 2015). Dale et al (2013) acknowledged the benefits but also the distractive potential of having laptops in the lecture theatre and suggested that this may need to be controlled by lecturers.

This pilot study aims to investigate student and tutor perceptions of the cloud-based technology LectureTools. Students were specifically asked about the utility of the technology and its effect on their participation. Tutors were interviewed about

their practical experiences and views on student interaction. Free-text comments and module reports were further analysed for relevant themes.

Methods

Students from different levels of study (FHEQ 5 and 6) were recruited from two Life-Science modules at Keele University. Each of the students attended an introductory briefing where they created a unique login to LectureTools and trialled the LT technology and functions. Students typically brought their own mobile devices (laptops, tablets and android phones) but faculty supplied some additional devices as back-up. LT was used for lectures during a 12-week module, thus providing the opportunity to utilise all aspects of the technology including the note-taking function and the various questioning techniques.

At the end of the modules, students provided feedback via Likert scaled questionnaires with the opportunity for free-text comments. The lecturers were subsequently interviewed about their experiences with LT and their reflections on the impact of the technology. The quantitative results were collated in excel and published graphically via Minitab® (2010), Statistical Software. Student and tutor comments were collated, thematically analysed and described. Standard module reports were also reviewed for references to LT.

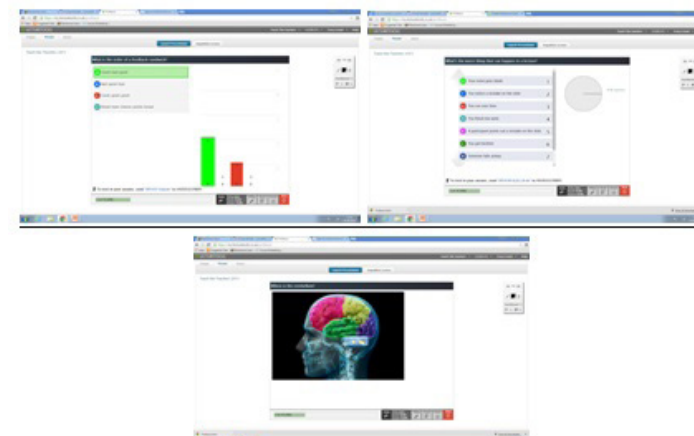


Figure 1 Screenshots of the LectureTools interface and interactive question types: multiple choice, ordered list and image quiz.

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Results

Student engagement (Figure 2)

Forty-one students provided feedback and reported that the technology was easy to log-in to and easy to use. The majority of students (34/38) responded to the different question formats and indicated that being able to review the responses of others also assisted their learning. The note-taking facility was employed by most of the students with greater than half (21/40) making notes for every lecture. Fewer reviewed their notes at a later date and there was a clear disparity between note-taking and note-retrieval (Figure 2).

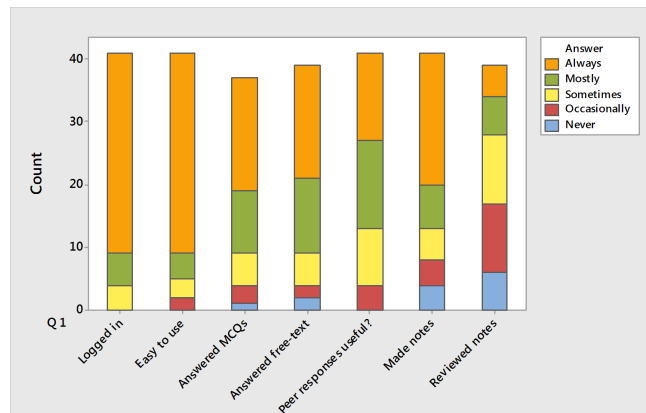


Figure 2 Quantitative results from the student survey - Engagement

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Student opinion (Figure 3)

Students reported that they had engaged with the lectures more than usual (26/41) and responded to more questions than in 'normal' lectures (30/41). Participants largely agreed that the interactive technology enhanced their learning experience (25/41) and made the module more enjoyable (26/41). Less than half (19/41) agreed that anonymity was important to them.

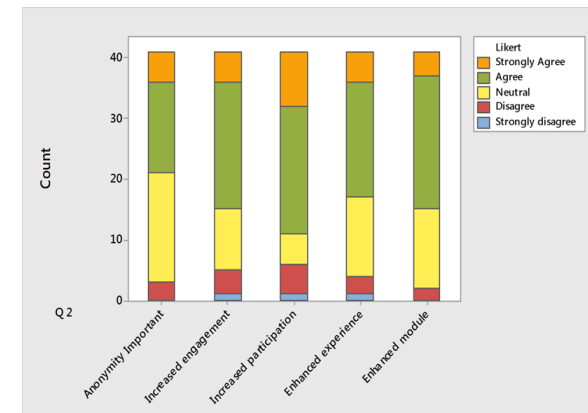


Figure 3 Quantitative results from the student survey - Student Opinion

Student feedback

The students were encouraged to elaborate on their survey response by adding free-text responses. Several students provided positive comments about the technology suggesting that LT made them feel more involved with lectures and facilitated the organisation of the PowerPoint slides and their notes. Others suggested that the LT questioning facility helped to deepen their understanding of complex concepts and improve their learning and confidence. There were a number of comments relating to engagement suggesting that 'having something to do' in the lecture (log-in, advance the slides, type responses and notes, etc.) helped to focus on the learning material and limit dis-engagement episodes. Three students thought it was revolutionary and should be used in every lecture and rolled-out across the university.

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Negative responses included the (un-prompted) suggestion that the 'clickers' were as effective as LT and did not require log-ins and tablets etc. Several students discussed 'glitches' in the software that required a 'refresh' or a 're-login' in order to proceed with the interactive elements. Some students felt it was inconvenient to bring an enabled-device to each lecture and that it seemed to work better on lap-tops than androids/phones; others said the constant attention required to participate was distracting from the learning outcomes. Three students thought it significantly hindered their learning and felt it was a waste of time (and money 1/41). No students reported being distracted by social media or other websites as a consequence of internet access during lectures.

The module evaluation report indicated that the technology had made an impact on the students' learning as several discussed the positive aspects of the LT technology; no negative comments were reported in the feedback. Mean module marks were unremarkable.

Tutor feedback

Tutors reported that the question formats were easy to set up and easy to use. It was highlighted that PowerPoint slides cannot be corrected after upload into LT and this led to minor frustrations when making changes or if errors were spotted. All tutors agreed that the students appeared to be more engaged and participatory (responding to questions) was much higher than in non LT lectures.

Despite the overall positive feedback with respect to ease of use and connectivity, a tutor who was working from a different building (School of Medicine) did report some problems with screens freezing, dropped connections and glitches when refreshing pages after student responses were revealed. Tutors also reported that the technology became easier to use as their experience increased, particularly with respect to trouble-shooting and maintaining student focus while others were answering questions and typing notes.

All tutors experienced a different dynamic in the lecture theatre as overall there was much less verbal interaction. One tutor suggested this was detrimental to student development in other aspects as it failed to build the confidence to ask questions and debate scientific issues.

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Discussion

The results from this study suggest that it is possible to increase student engagement via laptops and mobile devices but the implementation needs to be carefully considered and pre-tested. This parallels findings from earlier studies (Samson, 2011; Swanson et al, 2014) where students felt more engaged and enjoyed the lectures more.

Technically, both students and lecturers find LT easy to use although specific locations with poor connectivity may be susceptible to glitches. The range of question formats increases participation and, in agreement with Mazumder's findings (2010 & 2012), students seem to value the metacognitive aspects of learning via questioning and considering other students' responses. Contrary to the findings of Chiu & Lee (2015), it's unlikely that anonymity alone accounts for the increased participation observed with LT as, in this cohort, less than half considered this important. Student and tutor feedback suggests that it's the 'active engagement' with the question and answer format that has the biggest influence on participation, although anonymity remains important to some students.

The note-taking facility is secure and intrinsically links the lecture material. However, the retrieval of notes for revision purposes may need to be encouraged to maximise the benefits of this facility. The longitudinal features of LT might be better utilised if the system was embedded into the curriculum and used on more modules, however this might raise separate issues of extensive VDU use and related health issues.

Whilst some students seem less enthusiastic about the use of LT in lectures this appears to be mainly due to the technical inconveniences of lap-top use during lectures and the requirement to continually participate, that some students find distracting; perhaps as it reduces personal thinking time. In accordance with Dale et al (2013), it appears that the distraction of social media and other websites can be minimised by the lecturer carefully controlling the learning environment to accommodate different learning preferences. Creating 'thinking time' for some students may increase the opportunity for distraction in others and it will require consideration and monitoring. As tutor experience improves the use of LT in lectures will likely develop to include the positive aspects of LT whilst retaining verbal interaction and allowing thinking time. A Tiggerish view? Perhaps; but an optimistic finale.

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Conclusion

Although some organisations may decide to ban laptops and other internet-enabled devices, LectureTools provides an opportunity to engage students via technology and leads to increased participation and enjoyment.

The incorporation of ARSs like LectureTools requires careful planning to maximise engagement for all students. An orientation/trouble-shooting session benefits both students and tutors.

The distraction of other internet applications can be minimised with consideration to the lesson design, execution of the interactive components and learner preference.

Acknowledgements

The authors would like to acknowledge the support of the Keele Teaching and Learning Innovation grant panel and the LT technical support team. They would also like to thank David Hulse, Life Sciences, Keele University for his advice in collating and interpreting the data.

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HIGHLIGHT | #1

Title

Reflection on issues of student diversity in the Humanities

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Abstract

As 'widening impact' has encouraged a more diverse student population, issues of diversity and inclusivity have become particularly pertinent in Higher Education. This piece reflects on the issue of age, through considering the position of mature students in undergraduate seminars in the Humanities - specifically in the discipline of History. While the HESA definition of a 'mature' student is anyone 'aged 21 or older', here I focus on two case studies of mature students aged over 40. Several critical incidents that arose as a result of teaching these students are discussed within relevant theoretical literature, and I argue that it is essential to individualize students, rather than treating seminar groups as homogenous entities.

In recent years, 'widening impact' has had an impact on Higher Education Institutes, resulting in a more diverse student pool (Shaw et. al., 2007). This has manifested itself in different ways in different disciplines, and as Grace and Gravestock (2009, p. 1) have highlighted, 'the terms inclusion and diversity have become suffused with specific and often politically loaded meanings'. In terms of ethnicity, the Humanities does not feel particularly diverse. Although figures for all Keele undergraduate students for 2012-13 show that 32% are from BME backgrounds, in my experience it is relatively rare to teach students within seminars for whom English is not a first language or who are not fluent in English; the majority of students in Humanities at Keele are white and British (Keele University, 2013, p. 4). The Equality Act 2010 provides protection against discrimination on a number of grounds, including gender, age, religion, disability and pregnancy as well as race. Further, Keele University's 'Equality and Diversity Strategy', outlining 'the University's mission to be the UK's leading open, integrated, intellectual community', notes that 'diversity' includes 'marital status and gender reassignment, race, disability, sexual orientation, religion or belief, and age'.

When the diverse range of diversity issues are reconsidered, it is clear that the Humanities attracts a number of older students who are returning to studying later in life, often after concluding or taking a break from a very different career. Indeed, the arts, humanities and social sciences in particular 'play an important role in sustaining...lifelong learning needs', with 'a high proportion of mature students undertak[ing] academic qualifications in the arts, humanities and social sciences' (British Academy, 2004, pt. 153-4).(1) UCAS figures for 2002 entry indicate that 54% of all applicants aged over 30 applied to study an undergraduate degree in the arts, humanities and social sciences (British Academy, 2004, pt. 153-4).(2) This piece considers age as an issue of diversity, reflecting on critical incidents that have arisen in my own teaching of mature students. As David Tripp (1993, pp. 24-7) notes, 'the vast majority of critical incidents...are not at all dramatic or obvious: they are mostly straightforward accounts of very commonplace events...[they] are rendered critical through analysis'. Crucially, 'incidents only become critical because someone sees them as such'. Analysis will be provided here of two critical incidents arising from my own experience, to demonstrate first, that seemingly innocuous events that arise in seminar teaching can be crucial; and second, that the way in which mature students can be integrated into undergraduate courses is an individualized and complex issue.

Both student A and student B were very willing, from the first seminar of modules, to offer opinions and to speak up in front of their classmates. This is unsurprising; Blaxter et. al. (1998,

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cited in McCune et. al., 2010, p. 692) have argued that mature students 'often have high levels of intrinsic motivation...and are less likely to enter HE simply for instrumental reasons or because they were not sure what they wanted to do'. Malcolm Knowles (1980) has pioneered the concept of 'andragogical' students, who are motivated to learn by an inherent interest in the subject, are willing to learn, and who are largely self-directed. Thus, he argues, mature students are likely to display high levels of self-motivation (Knowles, 1980). Indeed, initially both student A and student B fit this model, but as the second-year cohort were preparing to submit their first piece of work, a critical incident occurred. Student A came to see me on the day of the deadline, asking whether it would be possible to be granted an extension. As Faculty policy means that I cannot do this, my first reaction was to offer him practical advice on who he should speak to. As our discussion continued, however, it became clearer that Student A seemed to be starting to struggle more generally with his workload. While strongly motivated, he confided to me that the pressures of managing his home life (including children, dogs and aging parents) were impacting on his studies; he also commented that he was finding it hard to fit in within a class in which his peers were largely in their late teens and early twenties, thus having different concerns to him and, crucially, viewing both their degrees and their lives in different ways. Although some aspects of teaching mature students tend to be forefront in tutors' minds - for example that 'a number of older students will not be looking for new, long-term careers' (Grace and Gravestock, 2009, p. 215), it is perhaps less common to consider how mature students feel in practice when participating in classes. Due to his personal circumstances (which he discussed in full and in confidence with his personal tutor), Student A was granted an extension for this piece of coursework, and since this incident I have been more proactive in ensuring that he is integrated into group discussions and feels able to cope with his workload.

Student B, though also a mature student, has thrown up critical incidents of a different kind, one of which I will discuss here. Student B is retired, and is undertaking an MA in History because of interest in the subject and because, as she has told me, she did not have the opportunity to do so when she was younger. While her inherent interest in the subject is often positive - she comes to class prepared, is willing to offer opinions, and usually reads more widely than the compulsory preparatory reading - problems have also arisen. In week 6, a critical incident made me re-evaluate my approach to student groups more generally. In addition to explaining clearly to students what tasks they are being asked to complete - as lack of clear rules and roles can lead to student anxiety in

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group discussions (Jacques, 1991) – it is also important to explain to students why they are being asked to complete tasks. Knowing that there is a tangible gain helps students to accept the benefit in participating, making them more receptive to teaching. Following this approach, I explained an exercise to my third-years that they would all participate in – to design and lead a seminar themselves, in small groups, over three weeks in the second half of the semester. One reason for implementing this exercise was to foster peer-to-peer teaching, because ‘in reviewing and organizing the material to be taught, student teachers gain a better understanding of the subject. Studies demonstrate that the cognitive processing used to study material to teach is different from studying to take a test [...] and the peer learners benefit because of the ability of peers to teach at the right level...’ (Whitman and Fife, 1988, p. 5). As Biggs and Tang (2007, p. 96) have argued, ‘most people learn 95% of what they teach someone else; 80% of what they use and do in real life; 70% of what they talk over with others; and 50% of what they see and hear.’ There were other benefits in addition to this, though, and in explaining the exercise to my students I mentioned that the purpose was not only to encourage them to study the historical topic of their seminar in depth but that the exercise was designed specifically to prepare them for later life by honing transferable skills that will help them in future employment – for example in organisation, teamwork, and in leading meetings where it is possible that people will not show up or will not have prepared. I did this to try to galvanise enthusiasm for the exercise, which would only work well if all participants were fully involved.

The majority of the class embraced the exercise, but Student B was resistant, suggesting within the seminar that she should not be involved as she wouldn’t need these skills for future employment because she was retired. Thus, although it has been suggested that ‘most universities now realise...the need to help students to learn the skills that will make them employable in later life’, mature students will not always fit this mould (Barker, 1997, pp. 58-61). I wanted Student B to participate in the activity, and to see the benefit to her of doing so, and so I elaborated that ‘transferable skills’ were not the only aim. Instead, I emphasized that the task was an exercise in interdependent learning, and that all students needed to participate so that all parties would benefit, contributing in equal measure to other students’ education (Johnson and Johnson, 2009, pp. 366-7). This critical incident highlighted the danger of teaching seminar groups as homogenous entities, rather than considering that within these groups there are individual students with a diverse range of prior knowledge, abilities, and reasons for being there. Thus in explaining set tasks it is important to ensure that the needs of all

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of the students in the room, rather than just the most common denominator, are met.

As explained by Shaw et. al. (2007, p. 47), widening participation has presented some challenges to Higher Education. Certainly, it can be difficult to teach a diverse range of students, particularly those with whom you do not have shared experiences. However, through this reflection on the issue of age, I have not only considered that ‘diversity’ is a term with broad meanings, but also that even within certain ‘categories’ – such as age – students remain individuals. Morgan and Houghton (2001, p. 8) argue that ‘the tendency is to focus on groups of students covered by equality legislation’, and that this approach is limiting because it ‘masks the complexity of students’ multiple identities...some factors [that influence students] will be visible and known in advance; other factors are hidden and may only emerge during a course of study’. Indeed, ‘mature students cannot be considered as a single type or “species”’, (McCune et. al. 2010, p. 698) and the two critical incidents I have drawn on in this piece have made me consider the importance of ‘individualising’ students; that they have unique backgrounds and life experiences that influence their motivation and participation in learning. As Knowles (1984) writes, ‘people learn best when treated as human beings...the ultimate purpose of all education is to empower individuals through a process of lifelong learning’.

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HIGHLIGHT | #2

Title

Links between alleged cases of demonic possession, Mental Illness and the health implications

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Abstract

Major cultures and religions across the world maintain a belief in the power of demons and spirits to invade humans. Demonic and spirit possession has been used as an explanation throughout the ages for mental illness, especially Medieval Europe. Religion was used to fill the void of medical knowledge and as medical knowledge advanced, belief in demonic causes of mental illness supposedly declined. Analysis of studies and case reports is carried out to determine modern beliefs in supernatural causes worldwide. Results show significant numbers of people still maintain that mental illnesses are influenced by supernatural happenings and demonic possession. Cultural and religious influences are shown to have an impact on the beliefs in supernatural causes of mental illness around the world. The results suggest that patient's beliefs should be taken into consideration by psychiatrists and they should think outside the routine medical framework to improve treatment. The effects of the stigma surrounding mental illness is shown to have a negative impact on mentally ill patients. There lies a responsibility within education, the media and the government to reduce stigma, in an attempt to improve treatment outcomes. It is also advisable to give faith healers, patients and care-givers better education on the limits of their own knowledge.

Introduction

Most major belief systems in the world today have reference in some form of possession by a spirit or demon. Possession is mentioned in many holy books including the Bible, Talmud and Qur'an. Possession can have various meanings. It can mean authentic possession, where a human individual has their body taken over and controlled by a supernatural being (1). Ritual possession also exists, but is a temporary state, permission is given by the participant during a ceremony and is usually temporary (2). Symptoms of Demonic possession can include convulsions, increased intelligence, clairvoyance, insensitivity to pain, experienced involuntariness, hearing voices, delusions and amnesia (3)(4). Demonic possession was used throughout history as an explanation for various mental illnesses including Schizophrenia, Epilepsy and Tourette's syndrome (5). Schizophrenia is a mental illness with symptoms including hallucinations, delusions, hearing voices and a change in behaviour. Epilepsy is characterised by convulsions and is most likely caused by brain damage. Tourette's syndrome is a neurological condition which results in the person making involuntary sounds and movements. Viewing the symptoms of demonic possession and these mental illnesses side-by-side it is clear to see how the two are connected, and how they may have been misdiagnosed.

The New Testament has many references to demonic possession and exorcism. In Luke's gospel Jesus heals an epileptic boy who was believed to be possessed by a spirit (Luke 9:37-43). The belief in demonic possession causing mental illness was widely accepted around the Christian world, especially Medieval Europe. In the early modern period, witchcraft was closely associated with demonic possession, and belief in these supernatural causes of mental illness increased. This trend continued until Arabic medical writings began to be translated and progressed medical knowledge in Europe. In the centuries that followed, knowledge of mental illness became more detailed and gradually Demonic Possession was used less often as an explanation for mental illness. The ruling classes had become more sceptical about the possibility of demonic possession. These doubts eventually trickled down to the lower classes, and the belief in possession became less popular. However, the diagnosis of demonic possession in an ill patient depended on the observer's own beliefs. Even in some developed countries, certain religious groups firmly believe in demonic possession (5).

In modern society medicine and science have almost overruled cultural and religious beliefs in explaining some of the most important human questions. Therefore it is interesting to view

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whether demonic or spirit possession is used as an explanation for mental illness in the world today. The objective of this report is to identify broadly, the links between demonic possession and mental illness. It will also attempt to clarify the beliefs across the world in demonic or spirit possession as being a cause of mental illness, by analysing several studies from various countries. Finally, it will appreciate the relevance of these beliefs in effectively treating patients who are believed to be possessed for healthcare professionals and faith healers alike.

Methods

In attempting to identify the links between mental illness and demonic possession and to answer the other questions posed by this report, analysis of various studies relating to spirit or demonic possession and psychiatric patients from across the world was carried out. This gave a universal view on supernatural influences in treatment of psychiatric patients as the studies originated from Britain, Spain, Switzerland, Turkey, Saudi Arabia, India, Malaysia, China and Trinidad. The range of different origins of the studies is very important, as cultural and religious factors play a key role in beliefs surrounding demonic possession. The majority of these studies asked the question of patient's own beliefs in the cause of their mental illness, but also included are the views of clergy, university students and experts in religious studies. The information analysed came from case reports, quantitative studies and qualitative studies. The results and statistics produced from these studies will be compared alongside each other, with similarities and differences conveyed. The results and views expressed in the studies will also be compared with the beliefs of experts in religious studies. Together, these comparisons will be brought together to show possible future implications for treating psychiatric patients with the belief that they are demonically possessed.

Results

A study of psychiatric patients in Britain over a period of 4 years included 16 patients who believed themselves to be possessed by a 'demon', 'the devil' or 'spirit' (1). Of these 16 patients, 9 were diagnosed as having affective disorders, 5 had schizophrenia and 2 were in a neurotic state. The majority of the patients had family history of mental illness and had possession heavily suggested as a cause of their illness and due to their personal disturbances, began to believe it to be true.

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In Switzerland, 37.6 percent of 343 'religious' psychiatric patients believed their mental illness was caused by evil spirits (6). The type of church the patient was affiliated with and belief in 'occult' causality was strong as shown in Figure 1, with non-mainline church members making association with possession than traditional churches.

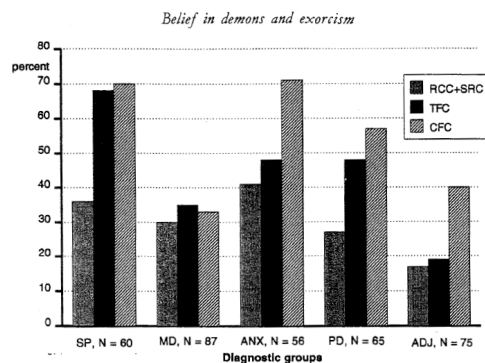


Fig. 1: (Adapted from Pfeifer, 1994) Belief in 'occult' causality related to Church affiliation. Key: RCC: Roman Catholic Church, SRC: Swiss Reformed Church, TFC: Traditional Free Churches, CFC: Charismatic Free Churches. X-axis Key SP: Schizophrenia, MD: Affective Disorders, ANX: Anxiety disorders, PD: Personality disorders, ADJ: Adjustment Disorders

A different study from the same author showed that patient's beliefs of demonic involvement in their condition was strong, regardless of having schizophrenia or a non-delusional disorder (7). It was found that 56% of schizophrenic patients believed in demonic involvement. However the study also found that 23% of patients with non-delusional mood disorders shared the same belief. The belief in demonic possession is described as unusual illness behaviour. This is how patients interpret the symptoms of their own illness and settle on their own explanation. Figure 2 shows a breakdown of non-delusional disorders into more specific illnesses.

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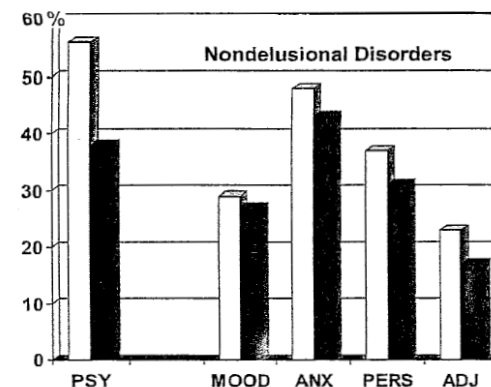


Fig. 2: (Adapted from Pfeifer, 1999) Frequency of belief in demonic causation (white) and of rituals of deliverance (dark) in different diagnostic groups in percent. PSY- Psychotic and schizophrenic conditions, including mood disorders with psychotic features; MOOD- mood disorders without psychotic features; ANX- anxiety and related disorders; PERS- personality disorders; ADJ- adjustment disorders (7).

A study in Saudi Arabia of 398 School teachers and Undergraduate students into their views on epilepsy found that 43.1% believed that epilepsy was a psychiatric condition and 50.4% associated epilepsy with possession by a "jinn" (8). Jinn's are believed to be demons or devils in Islam and are capable of invading an individual. In the study, many of the participants understood medical treatment was available for epilepsy, but also believed that faith healers were also a viable treatment method.

Of 100 Chinese psychiatric patients analysed in a study, 22% of the patients felt possessed by supernatural spirits. 36% of the patients had consulted local faith healers before visiting the hospital. Education of the patients was not as significant as cultural beliefs surrounding their beliefs (9). A similar study of patients in Malaysia found that 53% of patients regarded their illness as being caused by a supernatural entity or magic. 67% of the patients gained the knowledge of their mental illness from local faith healers (Bomohs) who reinforced cultural beliefs surrounding mental illness. 92 of 134 patients had visited a Bomoh about their current illness, which was a significantly higher percentage than figures from the Chinese study (10).

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These findings were also similar to the results of a study of psychiatric patients and care-givers in India. 61% of care-givers believed that supernatural bodies were responsible for mental illness. A large number of care givers (32%) had visited a faith healer regarding their patient's mental illness (11).

Clergy in the UK were asked in a small qualitative study in the UK about their beliefs surrounding supernatural influences in mental disorders. Although each clergy member had their own individual opinion, it was found that the mainstream clergy were more focused on natural causes for mental illness, whereas Pentecostal church clergy explained mental disorder with supernatural reasoning (12).

Discussion

The beliefs in supernatural and demonic causes of mental illness are not confined to specific religions or cultures. The results of these studies show that even in supposed developed countries, and knowledge of medical explanation for illness, cultural and religious beliefs take precedence. This was shown in the Saudi Arabian study (8) where the participants were relatively well educated and had experience of epilepsy prior to the investigation, yet still the majority felt it was caused by 'jinn' possession and faith healers could assist in treatment. The study in China (9) supported the view that education played very little part in the belief in supernatural causation of mental illness.

The studies also suggested the very important role of traditional faith healers in the treatment of mental disorders. A significant number of Chinese patients (36%) (9) had visited a faith healer, and that was still lower compared to Malaysian patients (69%) (10) and Indian care-givers (55%) (11). In western societies, the studies showed that the role of Christian churches was important in influencing patients beliefs about their illness. The study in Switzerland showing non-delusional patients belief in demonic possession (7), giving the example that patients don't need to be delusional to believe in the supernatural. The studies suggest that there needs to be a greater involvement of faith healers in the care pathway of mentally ill patients. However a case report from Spain urges caution with involving clerics in treating mental patients as it resulted in interference with clinical treatment of a paranoid schizophrenic patient (13). The Swiss study (6) also showed the dangers of patients belief in the supernatural as those who believed in supernatural causation had lower drug compliance compared to those who didn't. Yet the benefits of exorcism were shown in a study

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of a Bedouin patient, (14) where a patient was misdiagnosed as a paranoid schizophrenic and after exorcism by a local faith healer, was then diagnosed as a neurotic.

The links between demonic or spiritual possession and mental illness are clear to those who believe in the existence of a spiritual world. A case study in Trinidad (15) showed how belief in demon possession being woven into the culture had made people associate mental illness as a symptom of supernatural afflictions. Instead of being used antagonistically, medical knowledge should be used in conjunction with religious and cultural beliefs. A book written by a pastor for Christians with mental illness (16) advises his readers to understand both the limits of religious and medical explanations for mental problems. Conversely a paper by Betty (17) shows evidence for demonic possession, but more importantly challenges psychiatrists to think outside the usual medical framework when treating patients who believe demonic possession is the cause of their illness.

Although Medical Science has advanced at a rapid pace, particularly in the last century, perceptions of mental illness in some sections of society across the world remain rooted in the dark ages. A survey carried out in the UK (18) suggested that 87% of people suffering from mental illness reported that stigma had a negative impact on their lives. As this paper attempts to emphasise, people are attempting to find ways to explain mental illness using both medical and occult reasoning. However the importance of removing the taboo surrounding mental illness must be challenged on several levels. The public need to be better educated regarding the facts about mental illness, and in some ways banish ideas that mentally ill patients are dangerous and violent, when in actual fact self-harm is the biggest issue. The media have a crucial role in their coverage and giving a more reasonable portrayal of mentally ill people. Responsibility should be shared by governments across the world to increase openness towards mental health, through campaigns and promotions. In removing or reducing stigma, people suffering from mental health issues can be encouraged to seek treatment, and possibly receive more positive outcomes.

Mental health awareness is improving at higher education as a result of campaigns by universities and student unions. Students themselves are vulnerable to mental illness- due to isolation from the home environment and increased work pressures and expectations. More effort however is required from Higher Education to help increase not just the awareness, but also develop a greater understanding of mental illness. The removal of mental illness stigma within these

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institutions is required to bolster the inclusive curriculum that is a hallmark of 21st century higher education. Students have often been the social catalyst for change, ideas that they drive forward can filter through to have a significant impact on society as a whole.

The importance of different beliefs is also apparent at Universities across the country, with societies such as the Islamic Society and Hindu society catering for students of all faiths and backgrounds. This presents a unique opportunity to manage mental illness amongst students, whilst also respecting the individual's faith. In an attempt to improve the understanding of mental illness and the perceived existence of a spiritual world, guest speakers who are from the specific faith and have experience of mental health treatment either as a patient or a health professional could prove extremely useful. This could help emphasise to students that healthcare and personal beliefs do not have to be antagonists when treating mental illness.

Within Higher Education there lies a responsibility with tutors to not only increase the understanding of mental illness amongst their students, but to be able to spot the signs of mental illness. Statistics published by NUS stated that as high as 20% of university students believe they have a mental illness (19). Workload and exam deadlines were stated by students as the main contributing factors to their mental health issue. With this rising mental health problem in university, Higher education tutors need to be equipped with the necessary additional training to help their students. They have a pastoral care role in ensuring that they advertise to students the availability of counselling services within the university for those who are struggling and also be willing themselves to speak to students with concerns regarding workload. As tutors usually have to teach to a large cohort, they can also use the students whom they teach, to advise them to look out for each other, and to seek help from the relevant services if they believe one of their peers is suffering from a mental illness.

Conclusion

Although the actual existence of demonic possession is debatable, in terms of the effect the belief in demonic possession has on mental illness is significant. It plays an important role in the lives of psychiatric patients who believe themselves to be possessed. This is due to cultural and religious exposure to the idea of a supernatural world and its interactions with our own. These beliefs were expressed from patients around the world, suffering from a variety of different

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mental illnesses. Therefore it is vital that doctors and clinicians take note of the religious and cultural influences on their patients, which will allow them to treat them more effectively. Religious and faith healers also require education on mental illness and the limits of their ministry. However, ordinary people at grassroots level must also be educated about mental illness to improve awareness. Higher education in particular, is viewed as being an integral factor in challenging perceptions and the removal of the stigma surrounding mental health. Universities have a role at several structural levels to incorporate a greater understanding of mental health in relation to different belief systems. Tutors also require empowerment to help identify and improve the mental health of their students. In summary, a better understanding and communication of different perspectives will provide better treatment plans for patients believing they are possessed.

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Image References

Cover Page image: <http://images.fineartamerica.com/images-medium-large/saint-michael-overthrowing-the-demon-raphael.jpg>

Figure 1: S. Pfeifer. 1994 Belief in demons and exorcism in psychiatric patients in Switzerland, *British Journal of Medical Psychology*, 67: 247-258

Figure 2: S. Pfeifer. . 1999 Demonic Attributions in Non-delusional disorders, *Psychopathology*, 32: 252-259

HIGHLIGHT | #3

Title

Resilience - A Communicable Notion?

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My inkling of resilience being something that one person can transfer to another was borne out of an interaction between myself and my personal tutor during my first year as a student Mental Health Nurse at Keele University. I was struggling with some aspects of the academic work and my confidence in my own ability plummeted, so much so that my previous drive and determination had ebbed away. I sought help from my personal tutor and I was inspired by her belief in me which served to reignite my enthusiasm and motivation to continue. Her practical solutions and determination served to remind me of my purpose which was to graduate and also of my ambition to qualify as a nurse. In times of adversity I have been particularly drawn towards those who tend to be more solution focused rather than those who dwell on a problem and I derive reassurance from those who have a desire to forge ahead undaunted by perceived problems and search for ways to move forward. There appears to be truth that experiencing adversity enables us to become more resilient and it was my personal tutor who supported me to see that challenges ultimately prepare us for sustained success. This is because we will face many challenges that will test our nerve to follow our goals and ambitions. I did wonder if a tutor can support a student to see a way forward and rekindle their passion and purpose for studying then maybe a health professional, using similar techniques, could inspire those with mental health problems to regain their sense of purpose when they felt life was not worth living.

As a student, much of my valuable learning has been acquired through quiet observation and careful reflection so keeping my experience in mind I was curious to explore whether resilience is transferrable from one person to another and whether this was evident in different clinical settings.

The notion of resilience, an ability to soldier on in the face of adversity, hardiness and a quiet sustained determination has always been an admired quality. Much has been written about Viktor Frankl, the holocaust survivor who inspired and motivated those around him to visualise hope when living seemed inconceivable in such hopeless and desperate circumstances. Closer to home, as a second year student Mental Health Nurse, I witnessed this concept and was intrigued by how people react when exposed to resilient type behaviours.

Resilience as a concept is interesting but I was fascinated to discover how patients on an acute ward appeared to be inspired and positively influenced by staff who exhibited resilient type behaviours. I observed that staff who attended to their daily duties in a calm and capable manner and who never seemed daunted or fazed by events, appeared to lift the mood of

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some of the most acutely unwell patients. On such wards it was interesting to witness the effect that resilient type qualities had on others. For example, I observed some patients show more interest in their surroundings and even change their posture illustrating a natural curiosity in what was happening. It appeared to me that patients who had increased exposure to resilient type behaviours from their care givers seemed to display higher levels of motivation and a keener interest in themselves and others.

As a mental health student nurse on clinical placement it can be challenging to connect with those patients who had seemingly lost hope. So through careful and quiet observation I studied how some of the most seemingly isolated patients reacted to the different personality behaviours of staff. Frequently, it was those staff who they saw rising to challenges and who sought solutions to problems that illustrated their creativity and resourcefulness who inspired patients the most. I saw patients who were previously unresponsive begin to make eye contact and become inquisitive when exposed to resilience in others around them. I also saw these patients visually scanning the environment around them and respond to words and actions to a greater extent suggesting that they were influenced by resilience being exhibited around them. It also became apparent that these staff were adept at combining and blending patients quite effortlessly into their daily routine and their presence was always felt. I noticed a health care support worker who could naturally multi task and she exhibited an intuition that enabled her to tune in and connect with patients, sometimes in the absence of the spoken word. To me, this natural almost subconscious ability was a resilient type behaviour because she was focused, prepared and appeared confident to face challenges.

Through careful observation I noticed that it was these staff who drew positive responses, not only from patients but from their colleagues and students too. These staff members were not always senior, not necessarily qualified, sometimes health carers, cooks, cleaners, porters, in fact from all walks of health professionals. What these staff all had in common was the ability to work calmly and effectively and appear to make everyone they met feel valued, even cherished. They all displayed a genuineness and transparency which encouraged those around them to feel contented and motivated, patients and staff alike. I noticed that these staff appeared to manage their time well as they never appeared rushed or anxious. They seemed to take events in their stride with a knack of being able to prioritise and delegate work effectively to aid the smooth running of the ward. These staff may have been working under a lot of pressure but their calm demeanour belied any anxiety they may have experienced.

MANDY MOULD

I witnessed life threatening events on acute wards and it was the resilient type staff who responded quietly and efficiently, seeming to take events in their stride and who slipped into the role of a natural leader and decision maker. Away from the acute wards in the community, it seemed to be the staff that possessed courage, confidence and staying power that also drew more motivated behaviour from service users. Such staff were not afraid to be challenged and were open minded to new ideas. They were proactive, resourceful and creative when tackling challenges and seemed to thrive in their quest for solutions.

Resilience or a capacity to cope, however we interpret it to be, seems to be universally admired. It spans cultures, age, sexes, religions and language and it appears not to lie in the spoken word but is embedded in actions, deeds, in personas, attitudes and values. On the acute wards, I believe patients derived strength and a feeling of being secure when exposed to resilient behaviours because these staff represented solidity, safety and security at a time when people are at their most vulnerable. Dyer and McGuinness (1996) suggested that exposure or access to “healthy skills and abilities” was pivotal to the process of resilience and these staff who naturally displayed resilience were unwittingly exposing and seemingly communicating the attribute that would be instrumental to patients’ recovery.

Watching these staff rise to challenges and display creativity and resourcefulness in demanding situations almost gave an impression of them being invincible. In life, watching someone succeed against the odds is inspirational because they believe in achieving what is perceived as impossible. More importantly, regular exposure to someone who is resilient can make us believe in achieving our hopes, dreams and aspirations, however impossible they may seem.

To me, resilience is empowering but to witness the profound positive effects it has on those around us, especially the acutely unwell, is inspirational. What is interesting is the notion of how responsive people seem to be to resilience particularly at times when they appear detached from life.

Similarly with student nurses who experience the debilitating effects of hopelessness, I have witnessed how our sometimes flagging morale can be lifted after exposure to the resilient type behaviours of those around us. Typically this seems to be mentors and tutors who inspire us by displaying an unerring endurance and resolute-ness to overcome difficulties. To see an educator go that extra mile and adopt a solution focused approach can inspire students to visualise ways of overcoming the obstacles that pose a threat to our own fragile resilience. Personally, I have often derived strength

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and a renewed sense of purpose when tutors demonstrate creative ways we can overcome challenges such as mastering clinical skills, managing our work load and advise on how to get the best learning experience possible. Stephens (2013) noted that students who had successfully overcome challenges were better placed to assist others who faced adversity, particularly because the aim was for positive outcomes. This suggests that such hurdles are designed to challenge us with the intention of building students’ resilience.

As a student I want to build upon and foster my own fledgling resilience to enable me to inspire and motivate the patients I care for. If my notion of resilience being communicable is true then this could be a profoundly powerful method of enabling people to visualise hope in the face of adversity.

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HIGHLIGHT | #4

Title

The potential for virtual worlds in Higher Education: A short literature review

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Abstract

Technology is changing the way University courses are taught; the use of virtual worlds such as Linden Labs Second Life are providing a novel approach to teaching students in a range of disciplines. While few studies are available that assess the quality of learning which takes place in these environments, the potential for this technology is significant. An overview of the current status of the use of virtual worlds in academia is presented, together with examples of studies where pedagogical evaluation supports the use of virtual worlds.

Education is changing – more and more HE establishments are providing distance learning courses, innovative teaching methods and interactive learning sessions to enhance the student experience and maximise the potential of each individual, regardless of how they prefer to work and learn. Traditionally, health education took the form of didactic lectures supported by practical classes relevant to the specific discipline; anatomy classes for medics and nurses, dispensing practicals for pharmacists, etc. In the past decade developments in technology have opened up a brave new world for healthcare education in the form of 3 dimensional (3D) learning environments such as the Keele Active Virtual Environment (K.A.V.E) and the use of virtual worlds (VWs). But what potential do such virtual worlds really have for medical/healthcare training? And what can they offer over and above the use of 3D technology?

The most frequently encountered virtual world is Linden Lab's Second Life (SL); a VW created in 2003 (San Francisco, California). It is one of the most popular of the VWs, with millions of users, its ease of use and accessibility being key to this success. Users move through the VW as avatars, interacting with each other and the environment in real time, which makes it an attractive proposition for distance education; there is the potential to incorporate streaming media such as YouTube, create 3D virtual libraries and even virtual medical units (Morin et al., 2004), all of which have great potential for academia. Interpersonal interactions can all take place in real time and in an immersive, realistic online environment - studies have indicated that students who are shy in face to face contact sessions are more comfortable interacting with their peers in the VW environment, interactions in a simulated environment reportedly reduce student anxiety, encourage students to work together and allow students to improve their skills in a safe environment (Hansen et al., 2008). However, limited research has been conducted on measuring the outcomes of educational programs conducted in virtual worlds other than assessing user satisfaction and ease of use. Over the past decade more studies have been published where the use of SL as a teaching tool have been evaluated - Wiecha et al in 2010 designed an educational program for qualified medics to improve their education and skills in managing type 2 diabetes patients (Wiecha and Heyden, 2010). The study utilised both questionnaires and test cases to assess student satisfaction and to evaluate how much learning had taken place. The results showed participants not only found the sessions helpful and enjoyable, but noted that they carried what they learnt in SL over into their practice (Wiecha and Heyden, 2010).

A great benefit of virtual worlds is the ability to allow students located in different parts of the country to interact in a learning

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program without the need to be geographically in the same place as each other; this has significant potential for inter professional education, as it is possible for professionals working in separate fields of expertise to come together to complete training exercises for example in critical incident management in healthcare. Simulations and role play are an established form of education in nursing, pharmacy and medicine, however as mentioned previously it is essential to design studies which have a pedagogical approach and which allow the tutor to assess the effectiveness of any learning which takes place. With this aim, King et al (2012) designed two pilot studies utilising a framework originally described by de Freitas and Oliver. A framework checklist is employed to identify the context, learner specifications, pedagogic considerations and mode of representation (Table 1). By applying this framework King et al were able to design and assess two pilot studies using a trauma room simulation; several groups of students were involved, who would expect to work together under such circumstances in real life but who may not work with each other during their studies. This work demonstrated the potential for IPE applications of SL but also highlights the issues educators face in designing and implementing such simulations – not least the issue of technical glitches which detract from the learning experience.

Technical issues are the most frequently cited problem with using VW's in teaching; in addition the expense of purchasing 'land' to develop in not inconsiderable. Working as a multidisciplinary team would seem to be the best way forward in utilising this technology, however the need for the facilitator or leader of the session to be familiar and comfortable with using this technology should also be emphasised. Whereas in real life humans move without necessarily realising what their hands are doing or what their facial expressions are, in SL and other VWs the user must move the avatar using the keyboard; this is an example of where practice makes perfect, as learners take their cues from the facilitator – if the facilitator is confident and comfortable in the virtual environment, the other participants are more likely to be comfortable and to obtain maximum benefit from the session (Schoonheim et al., 2014).

While more studies evaluating the effectiveness of teaching in VWs are needed, the above mentioned studies indicate that this could be a powerful teaching tool if we can get it right, offering significant benefits for the students experience and offering a new avenue for distance learning programs to explore. If tutors are to take full advantage of the benefits, studies must be designed to critically evaluate the performance of the teaching in VWs and facilitators should ensure that sufficient technical back up is available to help resolve any issues with the technology. By working together, the potential

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for the use of this technology is immense.

Context	Learner specification	Pedagogic consideration	Mode of representation
1. What is the context for learning? (e.g. University)	1. Who is the learner?	1a. Which pedagogic models and approaches are being used? 1b. Which pedagogic models and approaches might be most effective? 1c. What are the objectives?	1. Which software tools or content would best support the learning activities?
2. Does the context affect learning? (e.g. level of resources, accessibility, technical support)	2a. What is their background and learning history? 2b. What are the learning style/preferences? 2c. Who is the learner group?	2. What are the learning outcomes?	2. What level of fidelity needs to be used to support learning activities and outcomes?
3. How can links be made between context and practice?	3. How can the learner be best supported?	3. What are the learning activities?	3. What level of immersion is needed to support learning outcomes?
	4. In what ways are the groups working together (e.g. singly, partially in groups) and what collaborative approaches could support this?	4. How can the learning activities and outcomes be achieved through existing games or simulations?	4. What level of realism is needed to to achieve learning objectives?
		5. How can learning activities and outcomes be achieved through specially developed software?	5. How can links be made between the world or the game/simulation and reflection upon learning?
		6. How can briefing/debriefing be used to reinforce learning outcomes?	

Adapted from de Freitas S, Oliver M. (2006)

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HIGHLIGHT | #5

Title

Flashbulb Memory and Gender

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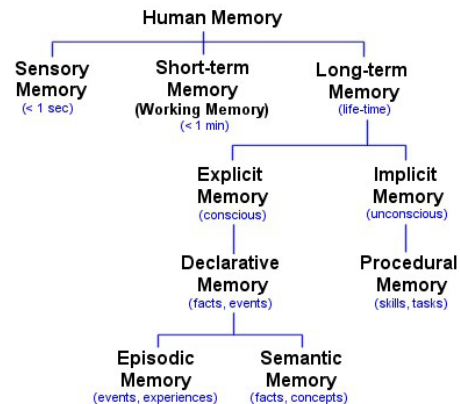
Abstract

The Department of Psychology has been developing its' outreach activities engaging young people and giving them a flavour of university study. AS-level students recently visited the School of Psychology to hear academics talk about topics relevant to the A2 syllabus. Dr Yvonne Skipper and colleagues talked about gender and the media, provided insight into attachment and adult relationships, discussed fears and phobias and talked about autobiographical memory. The students were also given a tour of the department and learned about the research process. This was a good opportunity, not just to learn about psychology and research, but also to tour a working department and learn about student life.

The visiting students then ran their own research projects inspired by the four talks given during their visit. The article below is one of the submissions that the department wanted to share with the JADE readership.

The aim of this research is to find out whether the level of detail within a flashbulb memory account is affected by gender. Both male and female teachers completed an account of their flashbulb memory of the moment they were first told about the 9/11 terrorist attacks in New York. Each account was rated for its vividness and the number of flashbulb memory characteristics it contained (informant, ongoing activity, place, own affect, others affect, aftermath). The null hypothesis was that 'there will be no difference in the level of detail given for a flashbulb memory between genders; any difference found is purely due to coincidence' and the alternative hypothesis was that 'females will give more detailed answers and meet more characteristics within a flashbulb memory than males for the standardized event of the 9/11 terrorist attacks'. A small difference was found between genders, however a more significant difference appears to be with age: the older participants gave more detailed accounts than the younger participants. Although a difference was found between genders, females generally gave more detailed accounts than males. Using the Chi Squared statistical test calculated value 2.565 must equal or exceed the critical value 9.24 as this is not the case we have accepted the null and rejected the hypothesis as there is not a significant difference in the quality/detail of a flashbulb memory between males and females.

Introduction



<http://www.human-memory.net/types.html>

The term 'memory' refers to the processes and constructs involved in storage and retrieval of information – there are varying types of memory, all with different functions, the most simple model of memory being the multi-store model

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of memory by Atkinson and Shiffrin which includes the short and long term memory as unitary stores. In the Multi Store model large amounts of information enter the sensory memory, a store with a limited capacity, then only a small amount of this information is transferred to the short term memory, where information is stored for less than one minute until it is lost. Information may only transfer from the short term store to the long term store if rehearsal occurs - information may remain in the long term store for up to a lifetime.

The short term memory or working memory is where information is stored for 15-18 seconds without rehearsal; the short term memory was explained in detail in Baddeley and Hitch's Working Memory Model.

The working memory model consists of the phonological loop, which deals with speech based information (often referred to as the 'inner ear') and includes the articulatory loop, which stores the words we speak for a short time before they are spoken (this is the 'inner voice'), the visuo-spatial sketchpad, this deals with visual and spatial information (referred to as the 'inner eye'), the central executive, which coordinates the other two 'slave systems' – the visuo-spatial sketchpad and the phonological loop. Baddeley also added the episodic buffer in 2000, which acts as a backup store in the case that one of the 'slave systems' becomes overloaded and links the working memory and long term memory.

There are many different types of long term memory: declarative, procedural, semantic and episodic. Procedural or implicit memory is the memory of skills (such as playing a musical instrument, riding a bicycle) which are performed automatically without conscious thought, due to continual practise, through which these types of memories are acquired. Declarative or explicit memory is the memory of facts (such as capital cities) which are consciously remembered and recalled. Semantic memory and episodic memory are both sub-divisions of declarative memory, semantic memory includes memories of meaningful concepts and facts and episodic memory is the memory of specific experiences or events, they are remembered in correct sequential order and when recalled it is as if the person is re-experiencing the event. One specific area of episodic memory is autobiographical memory, which includes memories of specific personal experiences, facts and events from across the lifespan.

The autobiographical memory varies over the lifespan – there are few memories recalled from early childhood, this is childhood amnesia, explained as a lack of narrative skills in children by Fivush and Hammond (1990). The peak in retrieval from late adolescence

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to early adulthood, the reminiscence bump, is explained by Erikson (1950) as being due to the development of adult identity during this time. The final peak, the recency effect, is the increase in recall of memories due to their recent happening making them better remembered.

Autobiographical memory contains a further type of memory: flashbulb memory, which is a vivid, detailed memory of when the person was informed of a particularly shocking or emotionally arousing event (usually newsworthy, examples including hearing of the 9/11 terrorist attacks or hearing about Princess Diana's death). Flashbulb memory is the specific topic in memory that we are researching into, focussing on the detail of the flashbulb memory of the standardised event of the 9/11 terrorist attacks that is recalled within each of the categories of a flashbulb memory: place (when informed of the event), informant, on-going activity, effect on self, effect on others, and aftermath.

Research was done by Conway et al in 1994 into the formation of flashbulb memories of Margaret Thatcher's shock resignation in 1990 - it was found that over 86% of UK participants had flashbulb memories of the event almost one year after it occurred, these findings prove that flashbulb memories are formed by a significant proportion of people, meaning that it is a valid area of research for our work: there will be enough people who will have flashbulb memories in our target population for us to test.

An additional piece of research into flashbulb memories and gender was found: Morse et al (1993) researched into flashbulb memories in the Clarence Thomas hearings, finding that women tended to give more vivid detail when recalling flashbulb memories; this is due to their higher emotional attachment to such events.

Aim

Finding studies into the gender differences in flashbulb memory detail influenced our research aim:

'To find if there was a difference between genders in the detail given when recalling a standardised flashbulb memory, the 9/11 terrorist attacks, 2001.'

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Null Hypothesis

The null hypothesis that we are attempting to disprove with our research is that:

'There will be no difference in the level of detail given for a flashbulb memory between genders; any difference found is purely due to coincidence.'

Alternative Hypothesis

The findings of the Morse (1993) study enabled us to use a directional hypothesis for our research as it suggested the outcome of our study, that women will provide the most detail in a flashbulb memory.

'Females will give more detailed answers and meet more characteristics within a flashbulb memory than males for the standardised event of the 9/11 terrorist attacks.'

Variables

The independent variable that we manipulated in this research was the gender of the participants.

The dependent variable that we measured in this research was the number of characteristics of a flashbulb memory that each participant met and the rating for the vividness and detail of their account.

Methodology

The method of data collection was a questionnaire.

Design- We decided to use the independent measures design as our experimental design with the conditions being male and female participants. The independent variable in our investigation is the gender of the participants being either male or female and the dependent variables are the number of characteristics of a flashbulb memory met and also the rating for vividness and detail of the account. The participants were asked to fill out a questionnaire asking them to describe in as much detail and in as much time as they need the time when they first heard about the 9/11 terrorist attacks. The extraneous variables in this experiment would be the time taken by the participants to complete the questionnaires as participants who do it quickly are less likely to include appropriate detail also the place in which the recall took place could affect the detail of the answer.

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Another extraneous variable that had a significant impact on results was the age of the participant as younger teachers are more likely to give less detailed answers regarding the event.

The extraneous variables we were unable to control include individual differences such as personality and the emotions of participants as each may affect the detail given.

Demand characteristics: To minimize the effect of demand characteristics during the investigation, all participants were treated equally and received the same set of instructions also to prevent our presence from affecting the detail given in the questionnaire the participants were left alone in the room after being briefed and given the chance to ask any questions.

The ethical guidelines we followed:

1. Consent- We explained the aims of the investigation before we carried it out and gained consent from all participants

2. Confidentiality- We informed our participants that their data will be treated with confidentiality and that they will remain anonymous after answering the questionnaire.

3. Debriefing- After answering the questionnaire we have debriefed the participants using a standardized debrief, explaining in detail the aims of the study and how will their data be used to remove any stress that was caused by the experiment.

4. Right to withdraw data- We have explained to all of our participants before answering the questionnaire that they can withdraw from the experiment at any time and they have the right to see their data destroyed if they wish to remove it from the investigation.

5. Deception- Our study involves an element of deception as participants are told that they are taking part in a memory study focusing on the accuracy of flashbulb memories when in reality the real aim of the study is to look at how gender affects the flashbulb memory. Even though a small amount of deception is used it does not harm the participant in any way and the true aim of the study is clearly explained.

Participants- Our target population was the teachers at Sir Graham Balfour School. The sample we have used is an opportunity sample as it was the most convenient way to carry out the experiment in the time available to us. We have used 18 participants 9 of which were male and 9 were female.

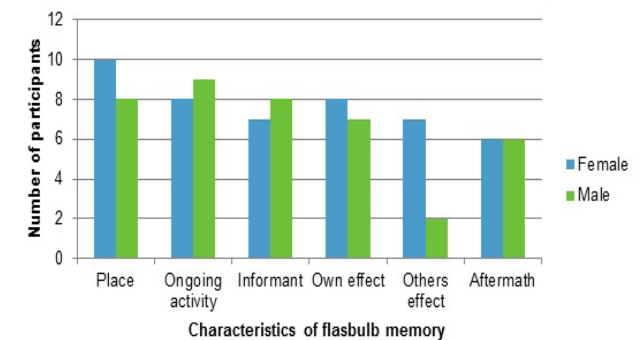
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Materials- For this investigation we have used a written consent and debrief forms which we read to each participant. We have also used a standardized script which allowed us to treat each participant in exactly the same way minimizing the effect we have on the investigation. For analyzing results we have used a rating scale for vividness and the number of characteristics in the answer.

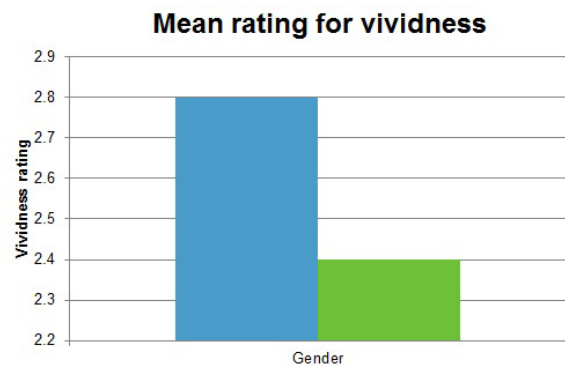
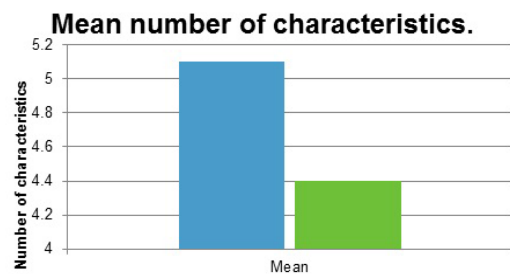
Procedure- The study involved 18 participants in total, 9 being male and 9 female. The participants were approached by opportunity sample around the school, consent was gained by explaining the aims of the study and what they were being asked to do and getting each participant to sign a consent form. Explain to them that they will remain anonymous throughout the study. Explain that you will be investigating the accuracy of their flashbulb memory, ask the participants if they know the meaning of flashbulb memory, if they don't, read out the standardized definition of flashbulb memory which is *"Flashbulb memories are distinctly vivid, precise, concrete, long-lasting memories of a personal circumstance surrounding a person's discovery of shocking events such as the 9/11 terrorist attacks."* Then proceed to give them a questionnaire asking them to *"describe in detail your memory of the time you have been informed of the 9/11 terrorist attacks"*. After they complete the questionnaire read the debrief (copy in the appendix) form explaining how their information will be used and thank them for their time.

Results

Number of Participants Who Met the Characteristics of a Flashbulb Memory



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Chi Squared X2

Observed Frequencies

Characteristics	1	2	3	4	5	6	Totals
Male	8	9	8	7	2	6	40
Female	9	9	7	8	7	6	46
Totals	17	18	15	15	9	12	86

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Expected Frequencies

Characteristics	1	2	3	4	5	6	Totals
Male	7.9	8.4	7	7	4.2	5.6	40
Female	9.1	9.6	8	8	4.8	6.4	46
Totals	17	18	15	15	9	12	86

O-E	(O-E) ²	(O-E) ² /E	=
8-7.9	0.1 ² =0.01	0.01/7.9	0.001
9-8.4	0.6 ² =0.36	0.36/8.4	0.043
8-7	1 ² =1	1/7	0.143
7-7	0 ² =0	0/7	0
2-4.2	-2.2 ² =4.84	4.84/4.2	0.152
6-5.6	0.4 ² =0.16	0.16/5.6	0.029
9-9.1	-0.1 ² =0.01	0.01/9.1	0.001
9-9.6	-0.6 ² =0.36	0.36/9.6	0.038
7-8	-1 ² =1	1/8	0.125
8-8	0 ² =0	0/8	0
7-4.8	2.2 ² =4.84	4.84/4.8	1.008
6-6.4	-0.4 ² =0.16	0.16/6.4	0.025
Total			2.565

X₂ = 2.565

(R-1)(C-1) = 2-1 x 6-1

1 x 5 = 5

P=0.05

We used Chi squared because;

- We were dealing with frequencies
- We were looking for a difference between males and females
- We used an independent group design
- We were dealing with categories of memory characteristics

Critical value=9.24

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To be significant calculated value 2.565 must equal or exceed the critical value 9.24

As this is not the case we have accepted the null and rejected the alternative hypothesis as there is not a significant difference in the quality/detail of a flashbulb memory between males and females.

Discussion

We have found a small difference in the number of characteristics met between male participants who averaged 4.4 characteristics and female participants who had a mean of 5.1. Also there was a slight difference in the vividness and the detail of the answers as females gave answers of a higher quality and included more detail than male participants.

We also did a Chi squared statistical test using which we calculated the value to be 2.565. For the difference to be significant the value had to be equal or exceed the critical value 9.24 as this was not the case we have accepted the null and rejected the alternative hypothesis as there was not a significant difference in the quality/detail of a flashbulb memory between males and females.

We also found that the age of participants affected the detail of their flashbulb memory and therefore also the number of characteristics met within their flashbulb memory and their vividness rating, we had not anticipated these findings when we planned our research. The younger participants, who were younger at the time of the standardized 9/11 event generally gave less detail in their accounts of the flashbulb memory than the older participants. We have concluded that this must be due to the fact that the younger teachers were younger at the time of 9/11, some as young as eleven years old so they may not be able to recall as much detail of the event because they had not yet reached the reminiscence bump, which is from late adolescence to early adulthood, whereas the older teachers were likely to be within this age range at the time, meaning they were more likely to remember and recall with more detail the events of 9/11. An additional explanation is that those who were older at the time of the event would have been able to understand the significance of a terrorist attack in New York and therefore would be more emotionally attached and would remember the event with more detail, unlike the younger participants who may not be able to understand the scale of the attacks.

The research by Conway et al included in our introduction stated that 86% of their UK participants formed flashbulb memories

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in response to Margaret Thatcher's shock resignation in 1990, the general theory behind this, that the majority of people form flashbulb memories due to shock news events, was found to be true in our research. We gave our questionnaires to eighteen consenting participants, receiving (18), this supports the above findings that the majority of people form flashbulb memories in response to shock news events, such as the 9/11 terrorist attacks.

The Morse et al research, also included in our introduction, found that females generally gave more vivid flashbulb memory accounts - these findings are again supported by our research: we found that the mean vividness rating for females was 2.5 and for males was 3.3 (1 being very vivid and detailed, 5 being brief and lacking in descriptive language), this difference indicates that gender may have a role in the depth and detail in which a flashbulb memory is remembered and recalled, despite not significantly affecting the number of flashbulb memory characteristics included in an account.

When carrying out our procedure we came across a few issues with regards to the fact that we didn't stick to making the participants fill out the questionnaire in one specific room, this was down to inconvenience for the participant, with them being on the job at the time, it was difficult for us to find a convenient time for them to fill it out as well as making them go to a specific room. This could have meant that memories could've been discussed between participants affecting the results we would get back. It also meant that some participants rushed their responses due to commitments such as lessons and meetings meaning that the detail could've been there but we missed it due to the lack of time and the participant's personality. Another realization was that some of the participants we asked were very young at the time so their recall was very limited whether they were male or female in comparison to the older participants who were able to give more detailed responses.

To improve our work we would've needed to stick to using a specific room for participants to complete the questionnaire, by asking participants to complete it at a more convenient time in a specific room, this would've been easier to carry out if we had longer to complete the study, as we could have organized it around breaks and lessons. We could have specified a certain age group for each gender, to make sure that our responses were detailed, instead of lacking detail due to the participant being too young at the time of the 9/11 attacks. A time limit would've needed to be introduced to enable us to get the best possible outcome, instead of some participants rushing responses due to limited time schedules and others taking more time.

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Appendix

CONSENT FORM

This experiment is a questionnaire which you will have to complete. By signing this form you indicate that you understood the aims and conditions of this experiment, the main aim is to look at the accuracy of the flashbulb memory.

I have been informed about the nature of the experiment. I understand that I have the right to withdraw from the experiment before; during or after the experiment and that any information about me will remain confidential. I will remain anonymous as my name will not be identifiable. I will be debriefed at the end, and have the opportunity to find out the results

I give my informed consent to participate in this experiment.

Name of Participant

Date

Signature

DEBRIEFING FORM

Thank you for participation in our study!

Earlier in the brief we have informed you that the aim of the study was looking at accuracy of flashbulb memories. In reality the true aim of the study was to look at how gender affects the flashbulb memory and we were looking to see if females provide more detailed accounts than males.

To accurately test our hypothesis we could not provide you with all the details prior to your participation, this was done to ensure that the knowledge of the true aims did not affect the accuracy and detail of the account you have provided.

We will use your answers to determine if gender has an effect on the amount of detail relating to the six characteristics which are; the place where you were informed about the event, ongoing activity, the person who informed you, the effect it had on you, the effect it had on others around you and the aftermath.

Our hypothesis for this study is "Women will give more detailed answers and meet more characteristics within a flashbulb memory than men".

Now that you know the true purpose of the study and are fully informed, you may decide that you wish to remove your data from the study.

Also as a participant you have the right to see the final report if you wish so. Your participation in this study as well as your data will be completely confidential.

Thank you for your participation.

Gender:

Male

Female

We would like you to recall as much information as you can about the moment you heard about the 9/11 attack in New York.

Rating scale for vividness and number of characteristics of each answer:

How vivid was the answer? (1 being very vivid and detailed/ 5 being brief and lacking in descriptive language)

1 2 3 4 5

How many characteristics has the answer met?

1 2 3 4 5



HIGHLIGHT | #6 EVENT REPORT

Title

13th Keele Annual Teaching Symposium
2015 - 'Flexible Learning' at Keele
University

Report Author(s)

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Contact

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Date

25th June 2015

Introducing JADE's new Associate Editor: Miss Lavinia Ioana Udrea

From April 2015, I am the Associate Editor of JADE, which is a wonderful opportunity to support the Learning and Professional Development Centre (LPDC) in providing a high quality academic journal and showcasing Keele's multi-disciplinary teaching and learning environments.

The Associate Editor position represents a powerful follow-up to my five years of research training as a Philosophy PhD Student (and MA Hons. Student in Applied Ethics) and my two years' experience of working in a learning and teaching environment as a Sessional Teacher in the School of Politics, International Relations and Philosophy, at Keele.

In the last year, I was nominated for two professional awards (The Excellence Involvement in Teaching and Learning Award, KeeleSU and Keele Excellence Award, LPDC) and had been invited to present my research work (on developing an effective educational strategy to cultivate moral responsibility towards nature) in front of national and international audiences. This exposure helped me expand my knowledge and keep me up to date with UK theoretical approaches / methodologies that could help me produce research of the highest quality. I feel that the Associate Editor role suits me perfectly because I know what academic development and education involves and have a good track record of educational research, publication, teaching and other forms of knowledge transfer. Moreover, I have the willingness to 'go the extra mile' to disseminate the opportunity to publish in JADE widely within the undergraduate and postgraduate student population at Keele and to act as a champion the work of the LPDC.

Event Report

This event report is intended to provide JADE readers with an inside perspective on the range of conversations taking place as part of the 13th Teaching Symposium held at Keele University on the 25th of June 2015. The event was organised by the Learning and Personal Development Centre (LPDC). The scope of the LPDC is to 'ensure the availability and development of expertise' of learners, supporting them to acquire the necessary knowledge and skills. At the same time, the centre promotes the University mission and strategy agenda to encourage students and staff to feel part of Keele's inclusive learning community and to achieving its educational ideals.

Brief Overview of the Event

The 13th Keele Annual Teaching Symposium 2015 (#KATS2015) was centered on flexible learning, which is one of Higher Education Academy (HEA)'s general discussion themes. Looking at the HEA documentation and resources on flexible learning, a reader will learn that:

'Flexible learning focuses on offering students choices about when, where and how they learn. It can give valuable advantages in an increasingly competitive HE environment as greater flexibility can help meet the needs of a diverse range of students.' (HEA 2015)

Hence, the LPDC gathered at KATS2015, a varied range of multi-disciplinary speakers to present their work and explore with the audience how flexible learning is being used to support learning at Keele. The day started with a welcome address from Dr Jackie Potter who talked about the concept of flexibility in Higher Education (HE) and the current challenges that people face in a fast-forward world where they need to continue their learning and personal development, alongside their busy lives.

Parallel to this address, an Interprofessional Education (IPE) event took place in the Old Library on Interprofessional education and learning chaired by Dr. Andrew Morris (Medical School). After the parallel sessions, both audiences came together at mid-day to attend a presentation given by Dr Elizabeth Mills, a representative of the Centre for Professional Development & Lifelong Learning titled Flexible Learning with CPD4ALL.

The second part of the day, started with Vice-Chancellor Professor Nick Foskett's opening keynote on 'What does flexible learning look like for the future at Keele?' and had been succeeded by Professor Martin Weller, the second keynote speaker from the Open University, who talked about Digital Scholarship. The keynote presenters had been followed by another series of short talks about original practices tested by Keele staff that involved learning and teaching in flexible ways in HE.

The symposium finished with Professor Fiona Cownie's closing remarks, that noted the high level of enthusiasm and excellence work of the organisers and presenters involved in this year's teaching symposium to 'drive forward pedagogic research and teaching innovation at Keele'.

In-depth Reflections from my Perspective

Dr Jackie Potter welcomed the audience and made the introduction remarks to start the discussions on the concept of flexible learning in the HE and was the one to draw the connections between Keele University learning environment and the innovative practices implemented in the Schools.

It had been said that flexible learning means to assess student needs and provide the context for them to choose when/ where/ how a specific subject or skill is learnt. Students have their educational progress in their own hands, however educators should approach flexible learning with care and provide guidance when it is needed. Dr Potter encouraged the audience to try to answer three important questions by the end of KATS2015, which were meant to help Keele staff to embrace the concept of flexible learning and start to use it widely in their practice:

- What would happen if I would implement this flexible learning activity?
- What else might happen?
- Who do I want/ need to talk to in this regard?

The first presenter, Dr David McGarvey gave a talk entitled My First Lecture Capture: Student and Tutor Experiences, which was dedicated to an innovative technology used in flexible learning. In the 2014-2015 academic year, Dr. McGarvey tried out lecture capture - a flexible learning method to provide further help and support to first and second years students in Chemistry (CHE-10050, Chemical Kinetics, CHE-20031, Chemical Applications of Group Theory). His results showed that the lecture casts were very popular with students and the use of the recordings improved their understanding of the topic.

Mr Scott McGowan next presented Flipping without flopping - A 'flipped classroom' experience, during a legal skills module. The educational strategy here involved delivering the learning content (outside the classroom) in advance to the teaching session using the Virtual Learning Environment (VLE). The advantage of organising a flipped classroom is 'to provide more flexible ways for learners to access knowledge or content'. Hence, Mr McGowan encouraged a student-centered learning strategy, where the time invested in learning is dedicated mainly to skills acquisition and practical work, and students have the responsibility to go over the content provided, outside the classroom.

Dr Eva Giraud and Dr Pawas Bisht outlined the importance of

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Creativity, Employability and Criticality for student learning in Keele Media Communications and Culture department. The main issues mentioned here were the “marketization” of universities and students’ focus on developing an employability profile (or the risk of becoming conformist workers), which lead to a poor development of creativity, critical thinking and theoretical engagement skills, essential skills that learners acquire at undergraduate level. Nonetheless, Dr Giraud and Dr Bisht presented current tactics used in the department to blend creativity and criticality with employability skills in order to show that these elements do not necessary need to contradict themselves but ‘create a dialogue between critique and craft’ (theory and practice).

Dr Teresa Oultram started the second session of the day discussing Intergrating study skills in a first year core module, which ‘offers not only subject knowledge but attempts to also incorporate study skills and guidance on the demands of university study’. The initiative is meant to be student-centered and helps to identify students who require further support in the course, focusing on learners to develop the necessary study skills. Hence, Dr Oultram promoted StudyWrite – online training to develop skills for learning on the KLE and other practical workshops on plagiarism, referencing and note taking (these represent 10% of the module mark), that students should take in the first four weeks at Keele.

Dr Kirsty Budds, Dr Alexandra Lamont and Dr Sammyh Khan talked about Meeting the internalisation agenda: Teaching qualitative methods in psychology to international students at Ludong University in China. The challenges encountered by Keele academics in teaching qualitative methods in psychology to students in an international environment, were related to limited English language skills, difficulty to studying independently or in groups and lack of ‘access to participants’ in-depth experiences of social and psychological phenomena’ (essential qualitative data to be collected through focus groups and/or interviews). Consequently, Dr Budds, Dr Lamont and Dr Khan decided to adapt and design the educational activities to learners’ needs and already acquired skills and made the study of qualitative methods more flexible and structured towards demonstrating the utility of qualitative approaches in cultures where they are non-normative.

Dr Keziah Stott and Dr Alix Cage spoke about the project StartKit: A tool kit for enhancing student engagement with statistics and data analysis, funded by the HEA. StartKit is a multimedia resource ‘to enhance the way in which students analyse and present data’ and help them engage with statistics throughout their degree, as well as providing the necessary links into employability. The flexible learning

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tool is accessible via the KLE to learners whenever and wherever they are; students determine their own learning style and speed. The resources provided by StartKit are: a written handbook about the tool kit, introduction videos into the techniques and samples of data sets to be used by students to practice their statistics knowledge and skills prior to their data analysis.

Mr Robert Stannard and Mr Matthew West gave a presentation on TLHEP (Teaching and Learning in Higher Education Programme at Keele University), which developed ‘a flexible learning programme that can act as a contemporary model of flexible, blended and educational delivery, based on sound pedagogy and learning design, and meet the needs of a culturally and disciplinary diverse group of both internal and external teacher-students’. The TLHEP results looked at the performance of Keele Staff working with home and international students and the collaboration with overseas academics towards providing flexible resources using the online environment and existent strategies at hand for the M.A. in Teaching and Learning in Higher Education. Mr Stannard and Mr West argued in favour of ‘a fundamental rethinking of curriculum design and sign-posting’ for better student access to learning resources and providing students the space to model flexible approaches to learning and pedagogy (such as the flipped classroom), which will turn out to be more effective for their personal and professional development in HE.

The final speaker of the morning sessions was Dr Elizabeth Mills, who invited the IPE event group to join her audience and talked about Flexible Learning with CPD4ALL, which is the Centre of Excellence within the Keele School of Pharmacy. Dr Mills showcased the innovative CPD4ALL ‘learning system of delivery, open and flexible course design’ and presented their excellence work with postgraduate students using flexible learning at the core of Centre’s educational strategy. CPD4ALL representatives argue that student needs change as they progress on their learning paths therefore, within the Centre of Excellence, learners choose the most suitable ‘open learn’ route towards the desired award.

The emphasis of the event changed after the morning talks, with the lively afternoon keynotes by Keele University Vice-Chancellor, Professor Nick Foksett and Professor Martin Weller, from the Open University that encouraged discussion, experience sharing and questions from the wider audience. Furthermore, the afternoon speakers explored the strengths, weaknesses, opportunities and threats of flexible learning in HE, concentrating on open education and technology, e-learning developments and digital scholarship. Mr Pete Lonsdale presented practical examples to facilitate

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interactive sessions, Using iPads, Google Apps, and online Classroom Response Systems to enhance small and large group teaching. Mr Adrian Molyneux talked about current instruments and an online process for workplace-based assessment (WBA) and feedback in the Medical School. Keele Medical Education Research Group representatives argued that 'the use of a hand-held smart device including voice recognition should make it easier for a dialogue to take place while the assessment is being completed' and is meant to enhance the feedback captured following WBA.

Mr Tim Denning, Dr Jackie Potter, Mr Rob Stannard and Ms Georgina Spencer have been Developing a Flexible Learning Tool at Keele to 'address the need for curriculum developers to think carefully about the intended, and unintended, outcomes of changing the mode of delivery of teaching and the impacts of those outcomes on learner experiences and teacher intentions', project funded by HEA.

In addition, Mrs Allison Gardner talked about TwEditing: A case study in the use of the micro-blogging site Twitter by international foundation year students to explore the challenges of editing and word limits. The class activity involved students working with 'a useful and accessible tool that can be used to challenge students editing skills and to provide a collaborative learning environment'.

The afternoon session was ended by Dr Ceri Morgan who gave a presentation on Walking and writing: producing a space for the larger Keele community, where learners can enhance their creative practice thorough increasing mobility and walking field trips.

Professor Fiona Cownie addressed the audience with her closing remarks, expressing her gratitude towards the presenters and all Keele Staff who submitted a high number of applications to showcase teaching innovation at Keele and thanking the audience for their participation at KATS2015.

The best aspects of the 13h Keele Annual Teaching Symposium 2015 for this author were the incredible showcase of Keele Staff practices and innovative ideas that had been implemented in the learning and teaching community. It is important to embrace flexible learning as a way to accept that technology and education are becoming interconnected in order to satisfy the needs of today's learners. Students are permanently linked to the online environment therefore, education needs to reinvent itself, be more interactive and educators are asked to develop a wide range of student skills in order to keep the learners focused on the taught content. At the same time, students are given more freedom to decide their educational path, accessing the wide variety of resources available

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and becoming responsible for their learning. They are encouraged by educators to become independent, get to know their own preferred learning style(s) and to make their own choices when it comes to deciding what knowledge they want to gain and what skills they plan to acquire during their time at university.

By the close of this one-day event, it was obvious to this author that flexible learning has the role to play in bridging the gap between formal education as we use to know it and a more modern, dynamic environment where everyone, especially students, are dependent on technology and the online environment to communicate to each other and learn independently.

Keele Educators are putting significant time and effort in integrating flexible learning in their practice, and are willing to do whatever is possible to make sure their students have access to excellent tools and resources that will enhance their learning experience in HE. This event report is meant to encourage JADE readers to explore further the concept of flexible learning and if possible, experiment with it in the classroom and invite them to try out for themselves, the different approaches highlighted here.

Accordingly, JADE is looking forward to receiving contributions on the subject of flexible learning to be included in the future issues so, feel free to share your innovations and hard work you put in student teaching and learning within the Keele community and the outside academic world.

In conclusion, I would like to warmly thank the Learning and Professional Development Center for the invitation allowing JADE to report on this event.

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HIGHLIGHT | #7

Title

International Student Inclusion within Higher Education Environments: Keele University Case Study

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Abstract

This research paper draws findings from the February 2015 to July 2015 'Keele University Students' Union: International Student Experience Research Project' which was supported by Keele's Learning and Professional Development Centre, through the HEA, 'Internationalising the Curriculum' project. Broadly, the project aimed to investigate the first hand experiences of international students studying at Keele. The paper investigates whether international students feel that they are included within Keele University as a whole. An inclusive Higher Education environment will be defined as an appropriate cultural and social space for learning to take place. The paper explores the responses of twelve students from twelve different nations (Greece, Hong Kong, Korea, Malaysia, Brunei, China, Macau, Sri Lanka, Singapore, Kazakhstan, Jordan and Ghana) to the question: 'Do you think that Keele University enables international students to feel included? If not, then what could be done to improve this?' As part of these interviews, students identified three main factors which enabled them to feel included at Keele: (1) Having the right spaces on campus to socialise and study, (2) the availability of the food of a range of nationalities and (3) opportunities to interact with students from a range of nationalities through activities and trips. Finally, the paper highlights what the university is doing well to enable international students to feel included as well as next steps which have been identified by the students themselves.

Keywords

Inclusion, Higher Education, International Student Experience

Context and Objectives

From February 2015 to July 2015 Keele University Students' Union, with the support of the Learning and Professional Development Centre, through the HEA, 'Internationalising the Curriculum' project, set out to investigate the experiences of international students at Keele University. The first strand of the research aimed to investigate what the real needs of both undergraduate and postgraduate international students are and how to best provide for their needs through the services of KeeleSU. Provision was seen broadly as events, services, information, support and the welcome to the university carried out at different stages throughout the year. The second strand of the research recorded and analysed the experiences of international students through a series of case studies based upon first-hand accounts of the main issues which affect those within this group.

This paper will consider the extent to which international students feel that they are included within Keele University as a whole. For the purpose of this paper, an inclusive Higher Education environment will be defined as an appropriate cultural and social space for learning to take place. The study of inclusion is significant for Keele and other universities because it 'involves an exposition of the cultures and societies in which education is enacted' (Goodley, 2007, p.4). Providing an inclusive university environment is potentially a powerful tool for universities because it enables their programmes to be a 'transformative and positive experience for all as opposed to an exclusionary process' (Gibson and Haynes, 2009, p.1. cf. DFEE, p. 198, DFES 2001/2003). *The National Strategy for Access and Student Success in Higher Education* calls for Higher Education Institutions to widen participation to reflect the 'rich diversity of the general population in England' so that a 'person's age, ethnicity, gender, disability and/or social background' should not present a barrier to 'accessing' and 'succeeding' in HE (2014, p. 7). Yet, at the same time it is acknowledged that the drive to improve widening participation is also motivated by economic factors (Archer, et al, 2006 and *The Funding Environment for Universities*, 2013). International students are a significant source of income for a university and their recruitment is prioritised, but are their particular needs being adequately addressed when they arrive on campus so that they are able to succeed? One of the other factors that can potentially negatively influence international student experience is that 'even within institutions with high proportions of "non-traditional" students, the culture of the academy predominantly reflects a discourse of the student as young, white, male and middle class' (Archer, et al, 2006, p.197). Universities therefore face the challenge of making

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sure that the culture of the university is appropriate for all of its students. This paper considers some of the ways in which Keele University is enabling international students to feel included as well as what some of the barriers to this are. Students identified three main factors which enabled them to feel included at Keele were: (1) Having the right spaces on campus to socialise and study, (2) the availability of the food of a range of nationalities and (3) opportunities to interact with students from a range of nationalities through activities and trips.

Method

As part of the third phase of the research process twelve students were interviewed from twelve different home nations: Greece, Hong Kong, Korea, Malaysia, Brunei, China, Macau, Sri Lanka, Singapore, Kazakhstan, Jordan and Ghana. This meant that the countries with the highest frequencies of students at Keele were represented: China and Hong Kong. It was also important to include a student from Brunei because there are a high proportion of Bruneian students at Keele in relation to the population of the country. The interviews also included four post-graduate students from Sri Lanka, Kazakhstan, Jordan and Ghana. All students were assigned a number between one and twelve in order to protect anonymity. The following discussion explores their responses to the question: 'Do you think that Keele University enables international students to feel included?' If not, then what could be done to improve this?' The question was purposely kept open so that students could raise the issues that were important to them, without being influenced by our presumptions.

Results and Discussion

The first theme relating to inclusion raised by the interviews was that appropriate spaces could positively influence the extent to which international students felt included at Keele. Student Nine commented that there was not as much diversity as they would like to see in on-campus accommodation. They noted that the majority of students that were in their block were Asian. The fact that the student linked inclusion to diversity is significant because it implies that inclusion, for them, links to the opportunity to meet a broad range of people. Having an appropriate space to work and socialise in was an issue for three out of the four postgraduate students. Student Eight noted that within academic departments 'people are really isolated, and within the departments people do not know each other'. Student Eight's comments again indicate that

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inclusion is linked to the creation of environments and opportunities that enable students to interact. Student Twelve (PGR) remarked that they thought that they did 'feel included'. However, because they were a postgraduate, they commented that 'it doesn't really affect me because you just really see the people in your lab'. HahH It is significant that the student felt that inclusion should not be something which affected them because they were connected to the university in quite a localised way. For Student Ten, inclusion could be improved by there being a 'space where international students can communicate with each other. For example, the Pig and Rats event at Barnes Hall'. This was a space where international students could hold parties and socialise. There is a call for there to be specific places on campus for international students to use but this potentially goes against drives towards integration.

Secondly, having a variety of international food available to buy in shops and food outlets on campus is a positive step that universities can take in order to make international students feel more included. According to Student Seven, this was a way in which they could see elements of their culture around campus. Student Nine also noted the one of the 'subtle signs' of inclusion was the fact that '[ST] Five' sell noddle boxes and that 'Commerce' have 'street food' from different countries.

Thirdly, one of the key things that enabled international students to feel included is opportunities to interact with others and to gain new experiences. The responses that came under this category either related to inclusion through belonging to a society or via taking part in university organised trips or activities. Being part of a society was the main way in which Student One felt that they were included. According to Student Ten (a postgraduate), societies were a good way for international undergraduate students to feel included, but this was not the case for postgraduate students. Another postgraduate, Student Eleven, did 'not really' feel that international students were included. They noted that students' union's societies tended to do 'activities for their own members'. Students that were not on the societies' mailing list were unlikely to know about activities. They also commented that there was not enough diversity in the activities that were available to postgraduate students. However, for students One, Two and Four, taking part in trips and activities was a way in which they felt included at the university. 'Encounter Trips' enabled Student One to visit places of interest within the UK that they might have struggled to get to via public transport.

Student Two felt that the extent to which international students felt included was improving, because of 'some festival or some

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party which say welcome international student and local student'. 'Improving' suggests that the student felt that more could be done before international students felt fully included. Student Four did not comment upon whether the university enabled international students to feel included, but they did feel that there could be more events 'like balls and sports' for international students. This would give them the opportunity to meet 'more people'. It is therefore important that welcome events and societies cater for a variety of students with different personalities and personal circumstances. It is also vital for international students to have a variety of opportunities to meet other home and international students.

Responses that came outside of the three dominant themes were: 1) Student Three did not see that there was a problem with inclusion and they could not think of anything to improve. This indicates that inclusion is not an issue for all international students. 2) Student Eight (PGR) felt that there were two sides to inclusion: 'The individual too should make some more attempts to make them included. On the other hand, I think that the university should make some more attempts to make them feel included, in society'. Student Eight gave a more sophisticated response about inclusion than the other students interviewed, noting that inclusion is a two way process. The extent to which a person feels included has partially has to do with their own perceptions and actions. Student Five felt that Keele did enable international students to feel included at Keele but not in terms of 'encouraging students to get a job' in the UK. They remarked that 'if you are learning about a British system as part of your course, then it should make sense that you are encouraged to work in the UK to make use of your skills'. The fact that the student did not feel encouraged is potentially an example of the two way process that was identified by Student Eight. The university does offer a Careers Service and KeeleSU have a Jobshop, which can both be accessed by all international students, but this does not necessarily mean that their presence enables international students to feel encouraged to find a job in the UK.

Conclusions

The students who were interviewed identified a number of factors which they considered to positively impact the inclusion of international students: The presence of international societies and societies in general on campus, Encounter Trips, festivals and parties for all students, the Keele University Students' Union World Festival Launch Party and the shops which sell Asian food. However, the students also highlighted things that the university could do

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to help international students to feel more included. For instance, there could be more promotion of activities, balls and events for international students, more diversity in student accommodation, having specific spaces on campus for the group and the opening up of society activities to all students. Problematically though, as Student Eight noted, international students would not necessarily feel included solely as a result of these proposed changes, because inclusion also links to the attitudes of those that want to be included. This means that the implementation of some of these measures by the university will not benefit all international students but they do have the potential to improve the experiences of a number of international students at the university. Finally, future research could investigate how important international postgraduate students feel that inclusion is to them. This is particularly because one of the post-graduate students interviewed felt that inclusion was not an issue that should affect them because their main connection to the university was through working in one of the science labs. Further, research could also compare the extent to which both home and international students feel included at the university, to discover whether or not different factors affected the groups.

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HIGHLIGHT | #8

Title

Team Based Learning – a Scratch Approach to Large Group Problem Classes

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Abstract

This highlight records our first attempt to introduce Team-Based Learning (TBL) into whole cohort problem sessions within a Chemistry module at Keele. We provide here a brief summary of the TBL process together with its rationale, and introduce the Immediate Feedback Assessment Technique scratch cards. In addition we have recorded the experiences of the problem session instructor, the observations of an academic peer-observer and the results of a survey of the participating students on the Spectroscopic and Analytical Chemistry module CHE-20030. Overall the introduction was considered to be a success and this project is now developing further introducing TBL into Forensic Science, Medicine and Foundation Year. This has been aided by the award of a Keele Teaching Innovation Project in 2015/16 which all subjects within Keele are invited to participate in.

Introduction

Whole cohort “problem classes” are common in Chemistry. They are a valuable opportunity for students to apply their knowledge to problem solving with direct instructor support on hand. However, a range of difficulties can arise, for example poor attendance, poor preparation, students feeling inhibited to ask questions, insufficient instructors, students losing focus etc. which can lead to both students and instructors feeling dissatisfied with the experience.

One solution to some of these problems has been to introduce group learning where students work together on problems. However this also has drawbacks as it is difficult to assess individual student progress and the wide distribution of abilities and preparedness of the students mean that it can be difficult for all students to engage in group discussions. It is common to observe that many students in group situations remain passive learners.

For these reasons we have sought alternative approaches to running problem classes and this highlight focuses on Team-Based Learning (TBL).

What is TBL?

TBL has been described by Sweet (2009) as ‘A special form of collaborative learning using a specific sequence of individual work, group work and immediate feedback to create a motivational framework in which students increasingly hold each other accountable for coming to class prepared and contributing to discussion.’

TBL relies on an Immediate Feedback Assessment Technique (IF-AT) which uses a multiple choice scratch card to give immediate feedback (Figure 1) available from Epstein Education (2015). TBL is focused on encouraging students to become more active in their own learning and to enjoy debate and discussion thus leading to an improved learning environment.

TEAM BASED LEARNING

IMMEDIATE FEEDBACK ASSESSMENT TECHNIQUE (IF AT®)					
Name	3			Test #	28
Subject				Total	28
SCRATCH OFF COVERING TO EXPOSE ANSWER					
	A	B	C	D	Score
1.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4
2.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4
3.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
4.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4
5.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0
6.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4
7.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2
8.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4
9.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4
10.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1
					28/40

Figure 1: An IF-AT scratch card.

TBL can be divided into two sections, the Readiness Assurance Process (RAP) and Application Activities.

The RAP

Preparation – All students are told in advance the topic of the session and are given guided reading material. Students are separated into mixed ability teams of 5-7 prior to the session and materials are prepared and presented in team folders.

Individual Assessment – Students have 10 multiple choice questions and mark down their answers on an individual mark sheet which is collected in. During this section there is no discussion between the team members.

Team Discussion and Assessment – Teams discuss their answers and come to a consensus on the correct answer and then use the IF-AT scratch card to find out if it is correct. If the team is unsuccessful at the first attempt they keep discussing the problem until they uncover the correct answer.

Appeals – At the end of the team assessment students are encouraged to appeal their incorrect answers and are instructed to look-up the right answers using the guided reading materials available to them.

Intervention mini-lectures – Informed by the answers of the individuals the instructor delivers a short summary emphasising those areas where the students have made mistakes.

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Application Activities

Once the RAP is over the team is now ready to tackle more complex problems which must follow the 4S's;

- **S**ignificant,
- the **S**ame problem for all,
- have a **S**pecific choice and
- there must be **S**imultaneous reporting by all teams.

Feedback

Outside of the session instructors can review and compare the work of the individuals against the team and formative feedback can be given to both.

Trial

Two 2 hour problem sessions for Year 2 chemistry students (CHE-20030) based around the analysis of NMR spectra were selected as the trial. Students were separated into teams of 5 - 6 of mixed ability based on year 1 performance and alerted that they would be analysing NMR spectra.

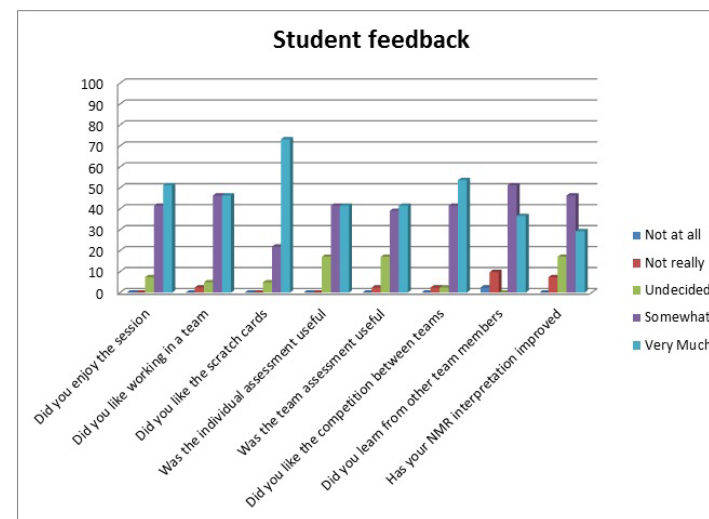
For the RAP section students were given 10 spectra and asked to choose the correct chemical structure out of a selection of four. The individual and team assessment lasted 20 minutes each.

The Application Activities lasted 30 minutes and required the teams to measure coupling constants and to annotate splitting patterns. At the end of this section the answers were reported simultaneously by the whole class and discussions took place about the correct answers.

Student Feedback

This is presented in Figure 2 and is overall positive. The majority of students enjoyed the team experience and learned during the session. Encouragingly 88% of the class reported that they had learned from other team members. Student StARs also reported positively on the sessions in the Chemistry SSLC.

TEAM BASED LEARNING



Instructor Feedback (Graeme Jones)

- The sessions require extensive preparation.
- The competitive element made the teams follow the instructions, for example there was silence during the individual assessment.
- No additional staff were required.
- Teams bonded together when they began to use their scratch cards - cheers and sighs were heard as teams revealed correct and incorrect answers on the IF-AT.
- The good team working established during the RAP was continued into the Application Activities.

Peer-observer Feedback (Laura Hancock)

- Student engagement with the material was vastly increased in this TBL session as compared to regular problem classes.
- Due to the nature of the exercise, the presence of 'free-riders' is unavoidable, however this did seem reduced as compared to traditional group work.
- TBL requires a clear briefing to ensure expectations are communicated to students.
- It is important that the questions are all genuine problem solving with points for discussions by the students.

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The marks the teams were awarded and the performance of the team did not contribute to the overall module mark, the activity was solely a formative assessment that prepared the students for undertaking individual assessment which required them to interpret NMR spectra. Unfortunately it was not possible to measure if the TBL sessions had an impact on the student performance in the NMR interpretation. It would also be interesting to know if the positive student feedback of TBL would be different if the activity contributed to the overall module mark.

Conclusion

There is one report by Walters (2013) of using TBL within Chemistry courses and another by Vugmeyste (2013) but none in which TBL has been integrated into an existing course structure. This preliminary report suggests that introducing TBL into problem sessions is feasible and has great potential. Forensic Science at Keele also had a successful attempt at introducing TBL and in 2015/16 Medicine will introduce TBL into workshops that are found in years 1-3 of the Keele MBChB programme. As part of a rejuvenation of the Chemistry Foundation Year modules TBL is to be introduced into the whole class problem sessions in CHE-00047 in 2015 which will provide comparative performance data to see if TBL success translates into better student exam performance. This introduction was awarded a Keele Teaching Innovation Project in 2015/16 and Keele staff from other faculties and schools who are interested in introducing TBL into their own course should contact the authors.

TEAM BASED LEARNING

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**Letter Title**

AUTHENTIC REFLECTION:
Understanding the mechanisms which promote authentic reflection in differing learning contexts

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Association of the Study of Medical Education (ASME) Conference Abstract

Background and Purpose

The GMC requires doctors to “regularly reflect on your own performance, your professional values and your contribution to any teams in which you work”¹. However, “despite reflection’s currency as a topic of educational importance...there is surprisingly little to guide educators in their work to understand and develop reflective ability in their learners”². Students can have negative perceptions of reflection with some struggling to develop or truly understand this skill³, and “How to engage individuals in reflection appears to be a persistent challenge to all educators”⁴. AP has observed students in a variety of teaching scenarios including experiential learning sessions to which real patients have contributed. AP’s interpretation of discussions with students after these encounters is that they have, without prompting, reflected deeply upon them. However they seem to struggle in more formal sessions where reflection is identified as a specific learning objective. This research aims to understand the mechanisms which promote the outcome of authentic reflection and to suggest change in practice to improve reflection.

Methodology

One small group of students will be observed and audiorecorded firstly during participation in a formal taught session on reflection, and secondly during an experiential learning session (situated in a local GP surgery). Students and tutors will be invited to audiorecorded post session interviews, with students asked to complete a GRAS reflective questionnaire⁵. Data (audio-recordings of the teaching sessions and interviews and AP’s field notes) collected will be analysed using a realist approach⁶ to identify context-mechanism-outcome relationships in these complex situations.

Results

The findings from data analysis, including quotes from consenting students will be presented.

Discussion and conclusion

Medical students do not always recognise when they are reflecting; this may be due to: limited understanding of reflection, teaching methods employed, participants, and environment. This study aims to understand what prompts apparently deep reflection and use this to enhance promotion of reflective practice.

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Letter Title

How do students use feedback on their teaching?

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Association of the Study of Medical Education (ASME) Conference Abstract

Background

Peer observation of teaching is a process in which an observer watches a colleague's teaching and provides descriptive feedback on their teaching practice¹. The process aims to stimulate reflection in both the tutor and observer, and ultimately lead to improved teaching¹.

In an effort to develop the teaching skills of student tutors at Keele Medical School, extra-curricular peer-teaching is peer-observed by experienced students trained in observation and feedback through a half-day workshop. The format adopted for peer-observation incorporates elements of both the developmental model and the collaborative model described by Gosling². Students meet for a pre-observation meeting to discuss learning objectives and agenda for feedback, are observed teaching, and then meet for a post-observation debrief following the principles of agenda-led feedback. They are subsequently provided with written feedback and encouraged to reflect on the experience and their feedback.

This study aimed to explore students' experiences of peer observation of teaching and how they use feedback provided on their teaching.

Methods

Individual interviews were held with students who had received feedback on their teaching after observation by their peers. The semi-structured interviews were conducted by a medical student peer who was not involved in providing peer observation. Interviews were audio recorded and transcribed verbatim. Transcripts were independently analysed by two researchers through thematic analysis following principles of the constant comparative method. Ethical approval was granted from Keele University School of Medicine Ethics Committee.

Results

To date six interviews have been held. Preliminary analysis suggests that students chose to have their teaching observed for a number of reasons: to develop their skills and competence as a teacher, in recognition of the important role this plays in their

career; to provide reassurance that they are providing good quality teaching; to ensure the content of their teaching is appropriate and accurate; and to provide evidence of engagement in, and development of, teaching. Students described feeling nervous before the observations, and preparing more for their teaching than they might normally, however, during the observations they felt more comfortable which they attribute to the peer-peer relationship.

Students described finding the narrative feedback more useful than the quantitative elements as it provided more detail as to how they might improve. Several students described how they have used the feedback they have received on their teaching to improve subsequent sessions.

Conclusions

Peer observation of teaching is an acceptable and valued method for developing students' teaching skills.

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Letter Title

What is the students' perception of learning ENT skills during Primary Care Assistantship?

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Association of the Study of Medical Education (ASME) Conference Abstract

Background and Purpose

The mean duration of ENT placements in the UK is currently 8.7 days, which is an increase compared to a study undertaken in 2004 showing an average of 7.4 days (Mace, 2004). Despite that, Khan (2012) showed that more than 75% of ENT Consultants covering more than 96% of teaching hospitals in the UK believe that junior doctors are not 'proficient in dealing with common ENT problems that don't require referrals'. Moreover, Sharma (2006) reported that 75% of junior doctors 'working in A&E, felt they had not received enough undergraduate ENT teaching'. Currently Keele University Medical School relies heavily on Primary Care Tutors to deliver ENT teaching, as there is no formal ENT placement. In this study, we are evaluating students' perception of learning ENT skills in fifteen weeks of Primary Care Assistantship.

Methodology

The current research project is a prospective qualitative study. The sample group consists of sixteen final year medical students from Keele University who completed the fifteen weeks of Primary Care Assistantship in the academic year 2014/2015. For data collection, two focus groups (each consisting of eight participants) were conducted simultaneously, and the students were asked to describe which of the possible ENT intended learning outcomes were achieved during their Primary Care Assistantship. The quality and quantity of ENT teaching in Primary Care was also discussed during the focus group activity.

Results

The audio recordings analysis showed that Primary Care can be a good environment to learn ENT, but is dependent on the tutor's interest in Head and Neck pathology. Acquiring the knowledge of common ENT drug actions was the only intended learning outcome that was not achieved by any of the students participating in the study.

Discussion and Conclusions

There are currently no intended learning outcomes linked to ENT at Keele Medical School and a very limited number of sessions related to this speciality, apart from Primary Care. Hence, having alternative strategies to deliver ENT skills and updating the current Keele undergraduate curriculum should be considered, in order to meet the requirements of future junior doctors.

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EDITOR'S EPILOGUE



W

Where to start with this epilogue!

The 4th Edition of JADE marks our two year anniversary and although it is too early for rose tinted nostalgia, it is tempting to take a brief pause to look at what we have accomplished in that span of time. All of the editorials for each edition have been high profile pedagogic thinking from some real heavy-hitter in the sector, our articles continue to be rigorous and informative and our Highlights are always exciting. The bonus for me is that the letters to the editor are usually very polite, which can only be a good thing.

This edition also marks a real upturn in student submissions to JADE, with several separate Highlights on interestingly diverse aspects of higher education, each an exemplar of good quality academic writing skill from Keele students. I would encourage all students to consider contributing to JADE as a way to develop and demonstrate their writing skills.

This epilogue is also a great opportunity to tell JADE readers about The Higher Education network Keele (THiNK), which is an institutional support network, set up by PVC (Education and Student Experience) Prof. Fiona Cownie, with the objective to encourage and support educational research and peer-reviewed publication from Keele. The other aims of the network are to share funding opportunities and to encourage networking with a view to collaboration. THiNK are also organising a series of open seminars related to educational research, the first of which is scheduled in the afternoon of the 21st of October this year, when Prof. Paul Trowler from Lancaster University is visiting Keele to start us off in style.

This also seems like a good place to tell JADE readers about an extra special edition, which will be out later in the year and is going to be our first dedicated themed edition of JADE...the theme being: Internationalisation. We have Dr. Katie Szkornik (School Director of Learning and Teaching in the School of Physical and Geographical Sciences) as our special invited guest editor for that one

and already we have had submissions for it, but we need more. I would like the special edition to really showcase the many different international aspects of Keele so please consider this your call to write, with an associated deadline of the end of November 2015.

Please enjoy this 4th Edition of JADE, and with submissions already coming in for the special edition, here's to another two great years of educational research and practice captured and shared in JADE.

Dr. Russell Crawford

Managing Editor



Open Call for Submissions

The Learning and Professional Development Centre is pleased to announce an open call for submissions on any aspect of teaching, learning or assessment for the next issue of J.A.D.E.

For those interested in publishing their educational research in J.A.D.E there is a short video introduction to the journal and full instructions for authors available at:

<http://jadekeele.wordpress.com>



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