



ARTICLE | #1

Title

Issues of Student Diversity and the Role of Technological Tools for Learning in Higher Education

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Abstract

This paper provides definitions of student diversity within the context of the University classroom. While noting that our student populations in such classrooms are becoming increasingly diverse, the connotations of the role played by technological tools for learning and engagement are explored. The paper includes a discussion of a critical incident occurring within the author's own teaching practices, alongside examination of the social and medical models of disability in relation to technology. In addition the paper includes discussion of the necessity of an increasingly inclusive curriculum design in encouraging high levels of engagement and learning amongst a diverse student population. Recommendations are given for additional signposting and access for students to technological tools for translation.

Keywords

Diversity, Global classroom, Translation tools, Critical incident

Introduction

'The concept of diversity encompasses acceptance and respect. It means understanding that each individual is unique, and recognizing our individual differences. These can be along the dimensions of race, ethnicity, gender, sexual orientation, socio-economic status, age, physical abilities, religious beliefs, political beliefs, or other ideologies. It is the exploration of these differences in a safe, positive, and nurturing environment. It is about understanding each other and moving beyond simple tolerance to embracing and celebrating the rich dimensions of diversity contained within each individual' (<http://gladstone.uoregon.edu/~asuomca/diversityinit/definition.html> accessed 11/12/15).

University classrooms are becoming increasingly diverse with the HEA (Higher Education Academy) suggesting 'A diverse student body is one which includes individuals of different nationalities, race, creed, colour, religion, sexual orientation, gender, age and socio-economic groupings.' (<https://www.heacademy.ac.uk/enhancement/definitions/diverse-student-bodies> accessed 15/02/16). As such, a '10%' rise of non EU student enrolment in UK Universities over a five year period (<http://www.universitiesuk.ac.uk/highereducation/Documents/2014/InternationalStudentsInHigherEducation.pdf> accessed 23/10/15), alongside international student numbers as high as '63%' in some UK institutions (<http://www.thecompleteuniversityguide.co.uk/international/international-students-the-facts/by-university/> accessed 23/10/15), can be seen as demonstrating an increasing level of diversity in University classrooms.

This paper aims to discuss the connection between diversity within University classrooms and the role technology plays in improving student engagement and learning through the example of a critical incident occurring within the author's own teaching practices. The impacts of the use of technological tools for learning are discussed in relation to the social and medical models of disability, followed by an exploration of the need for a continually improving inclusive curriculum design in relation to the needs of an increasingly diverse student population. The paper culminates with the recommendation of additional access for students to technological tools to aid in learning; specifically translation tools such as Todaysmeet (<https://todaysmeet.com> accessed 12/05/16).

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Technology

'When it comes to implementing new technology into the classroom, teachers often have one of two responses: Their initial reaction is either "Oh no!" or "Oh wow!"' (Stanfield, 2013:34). However, if 'Providing teachers with flexibility to try new concepts and ideas motivates, empowers, and challenges them to become better educators who are equipped with new skills to engage their students in learning' (Stanfield, 2013:35), then technology is a tool we must make use of in the quest for techniques to aid in student engagement.

A diversified student population brings to the fore a need for increasingly inclusive teaching and learning techniques in today's University classrooms. Urso and Rodrigues Fisher (2015:32) suggest technology as a potential aid in the quest for an inclusive and engaged classroom with a 'large number of learning tools available [which] can ... provide an exciting environment for the educator to innovate lessons in a manner never possible before'. In addition, 'John Dewey pointed out that changes in methods and curriculum in public schools are as much a product of technological changes and the changing needs of commerce and business as anything else' (Dewey, 2001/1915 cited in Kilfoye, 2013:53), hinting at the implications of technology in moving from the perspective that 'the student has little chance to use what he learns inside the classroom on the outside' (Kilfoye, 2013:54), to the increasingly present focus on developing skills transferrable to life after University.

Through infiltration of our teaching techniques, technology has become widely relied upon within our lectures, tutorials, and assignment submissions, becoming 'one of the most valuable tools available for developing critical thinking, self-discovery, collaboration, and presentation' (Kilfoye, 2013:53). In addition, the use of technology within the University classroom gives the possibility of an 'increased the amount of instructional time' (Stanfield, 2013:35), rather than time spent on activities indirectly related to engagement and learning; for example organizing presentation groups.

As such, the use of technological tools within lectures and seminars serves a diverse student population through increasing the possible methods of engagement available to students, while also utilizing a format familiar to them; for example with how 'students today socialize and entertain themselves online' (Kilfoye, 2013:54), 'we can conclude that they are engaged by social networking sites, video games' (Urso and Rodrigues Fisher, 2015:32) and more. As noted by Urso and Rodrigues Fisher; "Today's younger adult learners are

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known as the Millennials (18-29 years) and Generation X (30 to 45 years), ... Befitting their era, they are popularly known as the “digital natives,” ... This group of individuals has not had to adapt to new technologies. On the contrary, this generation is known for their avid uses of it. Born into the age of social media they are Internet connected, users of mobile technology, and connected through social networking’ (2015:32). Therefore, the evolution of technological tools for learning; for example from using PowerPoint presentations in lectures to technology allowing students to participate in those lectures using polling software, has illuminated the potential for increased student learning and engagement, regardless of issues of diversity amongst the student population. As such, due to its adaptability to different languages, learning styles, and methods of engagement, technology can be utilized as a powerful tool in the effort to both attain and retain a diverse student population.

Critical incident

A critical incident can be seen as an occurrence within practice which prompts us to engage with issues at a deeper level, which in turn, leads to learning about ourselves, others, or our practices. The critical incident explored within this paper is that of the use of technology as a translation tool to be used by students. Several reoccurrences have since taken place within the author’s own teaching practices, with the initial incident occurring in 2014:

‘As a relatively young tutor, I felt it important to establish and reinforce my stance on the use of mobile phones within session time. After asking one international student to put a mobile phone away, the student informed me that he had been using it to translate several words that he did not understand. Initially I did not think much of the incident and allowed the student to continue to use his phone as a translation tool.’

However, after a period of reflection, the importance of having such a translation tool easily accessible to a group of students with diverse backgrounds became clear. This illustrated further questions for consideration; how could this tool be used by other students, should a translation tool be offered by the University or tutor, and what were the overall implications of having such a tool available in a Higher Education setting?

Due to the multinational nature of the University classroom, students from diverse backgrounds may bring to the fore different perspectives and interpretations of concepts and linguistic turns. Therefore, rather than the traditional notion that ‘schools continue

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to obstruct or prevent students from using smartphones, MP3 players, iPads, and handheld or mobile computers in classrooms' (Kilfoye, 2013:54), embracing the use of technology within the classroom could aid both student understanding and acceptance of diverse learning environments. Barnett (2006:3) suggests there is a 'need to develop trust within diverse groups, so that students can learn from each other's' differences'. For instance, while not only useful for individual students, technology as a translation tool is also highly applicable to groups of students and teaching practitioners. If several students of a shared Mother tongue have issues with a phrase or word, the ability of one student to use a translation tool to find the problematic term and share meaning in a more accessible format has the potential to benefit the understanding of multiple students. In addition, teaching practitioners may also benefit from the implementation of this practice through a reassurance that students have a satisfactory understanding of the concept in question. As such, learning can be viewed as both an individual and social concept, with students sharing information they may have had difficulty with, with their peers.

Medical and social models of disability

The issue of using technology as a translation tool can be linked to both the medical model of disability and the social model of disability. The use of a translation tool to aid understanding can be seen as an individual concern for students; however social interaction with peers through discussion of difficult linguistic terms could have wider benefits for student understanding.

The medical model of disability suggests that the problems of an individual are theirs alone and not a concern for others; articulated by Kinrade (2015:26) 'as identifying and relating to disabled people in terms of their impairments' with 'an unbending hostility to medical interventions, even those that seek to prevent or cure impairments' (2015:26). For example, with an international student having difficulty understanding the meaning of a word, the fault would lie with that student, rather than a lack of support and clarity given by another.

In contrast, the social model of disability states that society is disabling individuals by designing everything for the masses, or as Kinrade suggests, 'that disability results not from impairment but is attributable to the physical, attitudinal and communication barriers created by society or, perhaps more accurately, which society fails to dismantle or change' (2015:26). Using the example given above, the fault would lie with society for not ensuring that the necessary

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infrastructure was in place to allow the student to gain the same level of understanding as their peers. In addition, the social model of disability advocates the view that society could do more to rectify this issue and make it easier for everyone to have the same opportunities regardless of disability.

In referring to the technological critical incident discussed within this paper, the inclusion of a translation tool would give equal opportunities for learning to students from diverse backgrounds, suggesting that internet technology has the potential to become 'the great equalizer in education' (Kilfoye, 2013:56). While the addition of such a translation tool fits with the social model of disability through the implementation of a tool for use by the masses, a better fit can be seen with the medical model of disability. The introduction of such a tool would allow students to address any language difficulties at an individual level, bypassing any potential barriers to learning such as embarrassment in lack of understanding, or unease in asking for help.

Inclusive curriculum design

Consideration of the social and medical models of disability brings to light the need for an inclusive curriculum design which promotes and supports learning for all students regardless of nationality. An inclusive curriculum design should aim to 'create as inclusive a learning environment as possible' (www.universities-scotland.ac.uk/raceequalitytoolkit/ accessed 10/12/14) to ensure all learners have the same opportunities. Keele University's Dignity and Respect Framework supports this view stating that we should 'take action to understand the needs and customs of different groups with whom we work and interact' (Keele University:5). In addition, the Framework suggests we should attempt to create 'collaborative engagement with a range of student groups in order to ensure full participation in University life and proper access to services' (Keele University:6).

While these points suggest a multitude of applicable situations surrounding diversity, they can also be linked to the need for a translation tool to be used by students. Understanding the needs of all of the people with whom we interact is crucial within the learning environment. For example, language barriers to learning require consideration due to the differing levels of understanding and knowledge about the English language possessed by students. Without the ability for students to translate difficult linguistic terms, it would be impossible to provide all students

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with equal opportunities for learning. In addition, without ensuring collaborative engagement with students from diverse backgrounds it would be difficult to understand the diverse needs of the student population upon any given topic.

In a similar vein, the use of an inclusive curriculum design can promote further learning. By taking into account the students' educational, cultural and social backgrounds, a teaching practitioner may be able to include additional context upon the subject in question which could expand student learning while making the topic more relevant for other students. This inclusion would provide benefits in understanding for both home and international students while aligning with the need to 'promote positive relationships and to improve the quality of our working lives' (Keele University:2), through improved communication between both students, and students and teaching practitioners. This in turn, would help to 'Support the development of an integrated community, in which the needs, customs and traditions of all are valued and respected' (Keele University:10).

Conclusions and recommendations

This paper has explored the uses of technological tools for engagement in relation to an increasingly diversified student population within the University classroom. While the discussion within this paper is a clear indicator of the need for ever evolving approaches to teaching and learning, we must also consider the necessity of an increasingly inclusive curriculum design in response to an ever-more diverse student population. As such, Universities need to become more proactive in determining how to make teaching and learning an inclusive and productive experience for all students regardless of issues of diversity. As the race equality tool kit suggests; 'Learning and teaching in a classroom has come to reflect a world that is now characterised by globalisation. Learning and teaching frameworks should now be able to meet the needs and requirements of a diverse student population in terms of ethnic, cultural, religious and linguistic diversity.'(www.universities-scotland.ac.uk/raceequalitytoolkit accessed 10/12/14).

In addition, the use of technological tools as an aid to student understanding has been explored through a critical incident occurring within the author's own teaching practices. In connection to the discussion of the social and medical models of disability, the need for the availability and signposting to students of a translation tool for their use would greatly benefit understanding and engagement through reducing barriers to learning; for example

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less embarrassment at needing clarification on linguistic terms, or a reduction in stress at having to ask tutors for help, thus aiding in the development of an increasingly inclusive curriculum design. The implementation of such a tool; for one example see TodaysMeet (<https://todaysmeet.com>) accessed 15/02/16, would facilitate an environment where 'Participants can learn from each other and share their insights, improving participation and deepening learning' (<https://todaysmeet.com/about/backchannel> accessed 15/02/16), while also becoming a platform that can enable new activities and discussions, extend conversations beyond the classroom, and give all students a voice' (<https://todaysmeet.com/about/backchannel> accessed 15/02/16), without negatively impacting teaching time. While there are several potential avenues in which students could access such a translate tool; for example on their own mobile devices or through the University website, this paper recommends that signposting to such a tool would prove invaluable in promoting student engagement within the University classroom.

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Conflicts of Interest

The quotation within the critical incident section of this paper is taken from an assignment submitted during the TLHEP course at Keele University in 2015.

The author declares that they have no competing interests.
