

Active Learning in Higher Education

editorial for volume 20, number 2

Wherever we work in the world, our universities, like everything else, are constantly changing, adapting to the demands and pressures of the day. There are changes in the economy, demands from governments, changes in the demographic, expectations from the various stakeholders and society more generally to take into account, both within a particular country and from a more global perspective. It is said that over the last few decades we have faced enormous pressures and that we have had to respond accordingly. As part of responding to these different agendas, we are always striving to become more efficient, to keep up or improve the quality of our own institutions and the sector more widely and to ensure that we take into account the views of all of those who have an interest in higher education. It is also said that, these days, some question the relevance of universities to society more generally and so this is something that we need to work on providing a suitable response to, as well. Whatever our role in society, as universities, as a sector, our students, our future graduates, will play their own roles in some way. That will most likely be in the world of work but also more generally, as our lives are not spent, solely, in the workplace. They need not only discipline specific skills and abilities but far more than that, naturally enough. Whilst often flagged up as those needed by graduates in the twenty-first century, many of these skills and abilities are those which were needed by human beings thousands of years ago, so many of these are not new or different. How else would the pyramids have been built if there were not visionaries, designers, architects who had not only the practical skills and knowledge about building, as a discipline/subject, but also the mindset to not only begin the mammoth task but also to see it through until the end? After all, it took several decades and many thousands of workers to build them, in difficult conditions in terms of the terrain and other factors, and so the leadership and management involved in seeing the huge projects through to completion needed to have been of the highest standard. Motivation, flexibility, looking at things in a different light, effective communication, effectiveness and efficiency in terms of carrying out tasks, resilience and sheer determination to see something through are but some of the personal skills needed, whether someone is building some pyramids or, these days, simply setting up a small business online selling a novel product. Or, indeed, for being 'just' a student. There is a huge difference in scale, admittedly, but the fundamental mindsets involved in both cannot be so far away from each other. As in higher education today, many if not all of these cannot be taught; we cannot teach someone to be a self starter, motivated, patient, suitably assertive, creative and flexible and to have a positive attitude, for example. Those come from within, to a large extent. We can, however, foster and nurture some of these in our students in terms of the activities that we get them to do, as part of their studies, whatever they are going to be doing after they graduate. Here, skills such as those associated with solving problems, such making contributions to discussions, reflecting on their own performance following feedback, critical analysis and the need to be aware of how their own behaviours and actions impact those who they work with in teams or groups, although it goes far beyond that, of course.

We can help our students to look at themselves, to see what their own skills and abilities are, currently, and how they might improve them and in what way in the future. All of us are unique as human beings after all, and so it is important that we recognise in ourselves what our strengths and weaknesses might be, and how best we might work with what we have got, in order to make our own, unique, contribution, whether that is whilst at university, in the workplace or anywhere else. It means looking at our past, at the here and now, and also thinking about what we might do in the future, knowing what we now know (or what we will know). This is no easy task for our undergraduates, of course, as they are at the stage in their development when so much is changing, so much is going on, from all kinds of perspectives, including the physical, psychological and social. It is said that brains undergo a 'rewiring' which is not completed until the age of about 25; most of our undergraduate students and a reasonable proportion of our students fall into this age group. Given the plasticity of the brain at this stage, research in this area tells us that our students find it difficult to think critically, rationally, given that they are driven more by their

emotions. And, it seems from the literature, they are more likely to read, wrongly, the emotions in others. As we are asking them to focus their attention, problem solve, plan and form strategies, deal with perhaps conflicting information in coming to decisions and similar, it is no wonder that this is far more of a challenge for our students than it is for us, those whose brains have matured, become more 'set'. Given this, whatever our discipline or university, all that we ask them to do is underpinned by the need to give them opportunities to learn from mistakes/their own experiences and which allow them to further develop their ability to self regulate. When it comes to assessment, one way in which we might assist our students in terms of both assessing themselves and others, is by asking them to assess the work, the coursework, of their fellow students. As the authors of the first article, Sara M González-Betancor, Alicia Bolívar-Cruz and Domingo Verano-Tacoronte, all at the University of Las Palmas de Gran Canaria in Spain tell us, activities associated with self assessment are becoming more popular. Entitled 'self assessment accuracy in higher education: the influence of gender and performance of university students', their article provides an overview of the literature around self assessment, including its advantages and disadvantages. It is perhaps not unsurprising to learn that when students mark the work of their fellow students, the range of marks awarded is narrower than the range that lecturers use and also that students are more generous, that is, they award higher marks. Gender is also a factor, as this article tells us that males and females perform differently when assessing.

Taking the context of assessing their fellow students when it comes to an oral presentation rather than a written text, the results of the study described in this article shed light on whether or not students rate the performance of their peers more highly than that of their lecturer even though both use the same assessment criteria and what might perhaps explain any differences. It also sheds light on whether or not males rate themselves more highly on their own performance than females (the results will likely not come as any surprise). Of interest here is also the difference if any between the marks awarded by those rated, by the lecturer, as better or worse in terms of their oral presentation skills and whether or not they would rate their fellow students differently. Again, there are gender differences here. No one would disagree that getting students to assess their own performance or those of their fellow students has all of the benefits described in this article, including the fact that it allows them to exercise their critical abilities and to have the opportunity to carry out suitable reflection and similar. However, this is about marks, assessment. If we get students to award marks to either their own work or to that of their fellow students, it raises the issue of whether or not those marks should be used in the determination of degree classification/GPA. If, as the literature and this study tell us, students award themselves higher marks than lecturers would award for the same performance, whether or not we would use the marks of students when calculating degree classification/GPA is more than a matter of whether peer assessment is good for students. If it is only for assessment that is formative in nature, accepting and recording the marks given by students rather than by lecturers may be acceptable to certain students (it will not be acceptable to all, however). Although, if the evidence shows us that females mark themselves and others less favourably than males, it is debateable as to whether or not we should use peer assessment, even for assessment that is formative in nature. As for its use for assessment that is summative in nature, unless there is evidence that the marks awarded by students mirror those given by those employed to award marks and considered as those with sufficient expertise to do so, that is, lecturers, however useful self assessment or peer assessment is, that task falls to us, alone. When all is said and done, ultimately, this is about the quality and/or standards of the award, by the institution, after all.

Following on from the theme of the wider skills and abilities that we wish to foster in our students, the ability to self regulate is a key one. This is the focus of the second article comprising this issue. Entitled 'scaffolding self-regulated learning through student-generated quizzes', its author, Jennifer A Jones from the University of Florida in the US, looks at the practice of asking students to develop questions for a quiz, which calls for the scaffolding of higher order thinking skills. Providing a comprehensive overview of self regulated learning or, in some cases, the lack of it in some students, it also covers aspects such as the constructive friction that can occur when we, lecturers, choose the instruction that better helps students to use new thinking and learning strategies. However, as is explained in the article, if we are not careful in our choices, we may inadvertently instigate destructive friction, and in so doing not only limit independence in our students but also decrease their use of the activities associated with learning independently. However, as the article demonstrates, it is not the case that pedagogical activity A is good per se and that activity B is bad per se. Citing the case of problem based learning (PBL) as an example,

this is both constructive and destructive at the same time; whichever it is depends on the self regulation skills of a particular learner. We often read that PBL is something that we should all be getting our students to do, that it is, without question, 'a good thing'. However, it is very good to see that, as in this article, we are reminded that nothing is 'a good thing' per se and that we must exercise caution in whatever activities we set up for our students, as all of them have their downsides. As most of our students, particularly the undergraduate ones, are still being 'rewired' and therefore are still in flux in terms of their ability to self regulate, there is even more reason to be cautious in using activities such as PBL. Or, as the author of this particular author reminds us, that if we use such activities, that we scaffold opportunities which are more low in risk in order for them to learn or further develop their self regulation. Given the issue of an activity being low risk, the author says that asking our students to generate questions for either a quiz or an examination is one such approach, and it is claimed that it has the possibility to allow them to function at the highest level of cognitive capacity. The author provides some very interesting insights into how and in what ways the development of such questions assists students and which students, in particular, might benefit more. The study described looks at the perceptions and preferences that students have of doing this and whether or not it influences how they study.

As the author rightly notes, assessment, the awarding of marks, is firmly within our own domain, thus reinforcing the view that we are still teacher-led, despite claims to the contrary. However, asking students to develop their own questions puts them in our shoes, as it asks them to think about what, precisely, students are being asked to learn in that particular module/course, and so it is an act of self regulated learning. The author encourages all of us to experiment with a low risk opportunity such as this in order to help students to develop their self regulated learning skills and which allows them suitable reflection, and this is a very good message indeed. Approaches to learning is also something that is looked at in the third article comprising this issue. This time, from the perspective of multitasking. Entitled 'learning approach and its relationship to type of media use and frequency of media-multitasking', its authors, Anna S Law from Liverpool John Moores University and Rosemary Stock from the University of West London in the UK respectively, describe their study which looks at what links there are between how students report their multitasking when it comes to using media, their achievement and their approaches to learning. Whilst all of us have to multitask, whether nowadays or long ago (multitasking is not something only done by human beings in recent times, after all), if we do much multitasking at one time, there is going to be an overload of some sort, thus reducing either our thinking or our performance or both. With technologies such as mobile phones now being used in our classrooms, such research is timely. Given the fact that most of our students have smartphones with them, in our classrooms, there is now little if any need for clickers, as smartphones can do the same job, if not better, and it is far easier for us, lecturers, to get our students to use their smartphones instead. However, whilst we may well be asking students to get their smartphones out in class, for the purposes of module/course related learning, we are well aware that, out of sight (or even in sight), some students cannot help but check their instant messaging accounts, the latest sports results or deal with other, personal, aspects of their lives outside of the classroom. If, as this study tells us, multitasking of this nature might mean a loss of concentration and therefore comprehension, this is something that we clearly need to better understand and take account of in our classrooms. The authors tell us that it is not simply about what learning is or is not going on in the classroom when students multitask but that so doing may actually be changing how our brains process information, our cognitive control processes, with a possible risk of them losing certain functionality completely. Perhaps all the more worrying in brains that are still evolving, still being 'wired', such as those of our students. Even if this is going too far, as the authors tell us, there may well be differences between those students who do only a little bit of multitasking and those who do a great deal, and their comprehensive overview of the literature provides us with insights into brain activity and also the role that factors such as gender and approaches to learning play in this. The results and the discussion which follow make for some very interesting reading, and for our own classrooms, of course.

The nature and type of the classroom and what does and does not go on within it is also a theme pursued in the fourth article comprising this issue. Most of us do not get a choice, of course, as the number of students in a particular module/course is determined by how many students are enrolled on it, and we also normally have little choice about whether we use a lecture hall or a small classroom, as this is normally determined by whatever workload allocation model is used and also by the classrooms available within the institution. Whilst all of us might, perhaps, prefer to teach seminars comprising, say, ten

students, this kind of lecturer-intensive model can only work if there are enough teaching staff to actually do it. Whatever the reasons for using a lecture hall, however, most if not all of us use lecture halls/theatres for much of what we do with our students in the classroom. Entitled 'location, location, location: A comparison of student experience in a lecture hall to a small classroom using similar techniques', the title tells us that this is about the different experiences that students might have depending on the size of the classroom or, more accurately, the numbers of students in each type of classroom environment. Its authors, Edward C Bolden III, Tina M Oestreich, Michael J Kenny and Brian T Yuhnke Jr, from Case Western Reserve University, Case Western Reserve University, Cuyahoga County Community College and The New Media Consortium in the US respectively, look at the physical spaces involved and their impact on what students actually do. Apart from being important from a learning perspective, it also impacts evaluations of teaching (and teachers), as the authors rightly point out, so it is worthy of our attention. Covering aspects such as interactivity and engagement, as well as discussions and small group work, their review of the literature provides a useful overview of what is currently being done not only in terms of what we, lecturers, do in those classrooms but also the design or re-design of the classrooms themselves, as physical entities. As most of us know from our own teaching experiences, and as confirmed in this study, activities carried out in small classrooms, often in groups, is more popular with most students, for many reasons. The results and discussion shed some valuable light on the two types of classroom setting in terms of student satisfaction and also their perceptions of engagement and understanding of the material. As the use of lecture halls is likely to continue for a good while yet, some of the results may surprise us, and in a good way (particularly for those of us teaching classes comprising 300, 500, 700 or more students in a lecture theatre).

Not so far away from this subject matter in some ways is what is explored in the fifth article comprising this issue, that is, the all-important issue of emotional well being. Whilst not about the emotional well being of lecturers/faculty, although of no less concern perhaps, this is about the well being and academic outcomes of our students. Entitled 'slaves to our emotions: Examining the predictive relationship between emotional well-being and academic outcomes', its author, Susan A Geertshuis, from the University of Auckland in New Zealand, rightly says that there has been little in the way of research into either the positive or negative aspects of emotional well being. As we learn from the overview of the literature provided in this study, emotional well being is not fixed, although it is relatively stable and that, as human beings, whether we are students, workers or anything else, our well being might change in response to aspects such as the environment and psychological conditions and so this explains why data for the study described here was collected at three points in time during the term/semester. Exploring well being was done by looking at four dimensions, that is, enthusiasm, contentment, anxiety and depression. The focus in higher education these days is increasingly concerned with the emotional aspects, and so studies like the one described here are all the more welcomed. We might perhaps be overly focused on the more negative aspects, such as anxiety, stress and depression. However, as the author tells us, if we focus too much on the negative, it risks being only a partial approach to well being, as emotions such as happiness, enthusiasm, hope or contentment are no less important, and there is literature that tells us that further differentiation is needed, that our emotions have activated and deactivated forms. Whilst being at university is an emotional experience, it is perhaps at its most emotional during the transition, that is, when students first come into university, hence why this particular study looks at those students in their first semester/term of their studies. The comprehensive and very interesting overview of the literature described in this article covers aspects such as help seeking, active engagement, self directed, independent learning, study skill self-efficacy, feeling of belonging (or not), satisfaction or otherwise, mastery avoidance and goal orientation.

As the 'wiring' of the brains of the vast majority of our students is still being done, the more that we better understand the emotional aspects associated with being a student, particularly one in their first term or year, the better. As the author rightly says, at the end of their article, the study exposes the critical relevance of emotional well being and has important implications for us all, that is, those of us who are engaged in selecting, preparing, supporting and teaching students. The article concludes with some essential, valuable practical things that we need to have in place, not only at the level of the institution but also for us to put in place, in our classrooms, given the argument made here that our own teaching affects not only what students learn but also how they feel, about themselves, about their course, about their learning and everything else. Whilst we might well not be comfortable, keen or sufficiently trained to do it,

the author is absolutely right when they say that we would do well to focus less on the marks and the development of skills and abilities and instead direct our attention to fostering more passion, enthusiasm and motivation, focusing instead on feelings and attitude, that is, aspects of learning that have so far been neglected. Emotional well being spans much more than our lives as students or workers, after all. An activity which induces stress and anxiety in most of us, including our students, is our performance in any type of test/examination. A tiny minority of students, regardless of discipline or country/context, may cheat somehow, through stress and anxiety or for other reasons. In the case of coursework, they might plagiarise. As the author of the sixth and final article in this issue tells us, all universities, everywhere, are trying to reduce the incidences of plagiarism, and there may or may not be an epidemic of this according to the popular press, whether in the UK or elsewhere. Stuart Wrigley, from Royal Holloway, University of London, in the UK in their article entitled 'avoiding 'de-plagiarism': exploring the affordances of handwriting in the essay-writing process', argues that this explains why there has been an increase in recent years of the use of plagiarism detection software, either by ourselves, or by our students. In this thought-provoking article we are told that these systems for detecting plagiarism are viewed, and marketed, as being a comprehensive essay writing platform, complete with functions for peer review, grammar checking and marking which, says the author, means that students are increasingly writing with online, internet sources in mind. The author says that this may encourage what they term 'de-plagiarism' that is, the student cutting and pasting text from an online source into their own work and then changing a few words or phrases here and there in order to lessen the chances of it being detected by the software, something that, if we make such software available to them, we are somehow suggesting is how writing is done. It may suggest that so doing is not plagiarism even if, depending on the writer, it might be. However, since everything has gone online, the author cites studies which tell us that since the advent of the internet, the opposite may be the case, that is, that incidences of plagiarism may actually have gone down, not increased. But, increase in plagiarism or otherwise, the point made by the author here is that how students, and how we ourselves, go about our writing has become digitalised and that this has introduced a change in how we write, as a process.

The author presents a fascinating exercise that they carried out themselves, in which they altered a text from a well known online source of information, doing what some might do, that is, cutting and pasting text from this source into their own work and then changing a few words or phrases here and there. If you look at the two texts, side by side, it is absolutely obvious that the writer's text has been changed to reflect the original. However, when put through one of the detection systems, the result came back as 'no plagiarism was found here'. The author of this article is absolutely spot on when they say that whilst such systems are designed to check text, they cannot possibly detect plagiarism, which is an intention to deceive. If a student (rather than the author of this article) had done the same thing, and got the same 'decision' from the detection software, as the author tells us, the student could easily understand from the message that 'no plagiarism has been found in your work' could easily mean 'you have not plagiarised/you can continue to do what you are doing'. As the author says, "in short, what none of these plagiarism detection services can know is the writing *process* and the state of mind of the writer". Covering every conceivable aspect of writing, and writers, including genre conventions, notions of dialogism, addressivity, metalinguistics and the occluded writer-reader relationship in student writing to name but a few, we are then presented with an ethnographic documentary, in which the author of this article presents some writing which is "left intentionally raw, unedited and contextualised". It may well be raw and unedited but, like the rest of the article, it does what all excellent texts do, that is, engage and absorb the reader. As good as the documentary is, the article ends on an equally thought provoking message for us all. And, on that note, enough has been said. Not only about this particular article but also in this editorial!