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PROMOTING STUDENT ENGAGEMENT AND DEEP LEARNING APPROACHES IN LARGE CLASSES

Jacqueline De Matos-Ala & David J Hornsby

INTRODUCTION

In the social sciences, the idea of teaching in large classes is considered counterproductive to disciplinary pursuits for learning. Social scientists generally believe that an effective learning environment replicates that of Socrates, sitting informally with a small group of students hanging on his every word and finding enlightenment through his philosophical prose. Small-group teaching is considered as the ideal way to promote critical thinking, and a deeper approach to learning is believed to be best suited to this context. However, while emulating the Socratic model continues to be the ideal, the social sciences face a pragmatic reality associated with increasing enrolment rates at universities. Indeed, in countries like South Africa, education is viewed as a key pillar of developmental aspirations, the pursuit of an innovation economy, and redressing the social inequalities established in the past.

While the emphasis on education, and higher education in particular, is a welcomed post-apartheid outcome, the ramifications of increased enrolment on the learning environment begs consideration, especially as the main means of coping with this influx of students has been to increase class sizes. This may impact on the quality of the educational experience, because large classes make it more difficult to take different student learning styles into account. Indeed, research has shown that teaching environments influence the types of learning styles that students adopt (Marton & Säljö 1984; 1976a; 1976b; Trigwell & Prosser 1991), and that student learning – or the tendency towards a certain learning strategy – affects student performance (Herington & Weaven 2008). When the amount and intensity of student-teacher interaction decreases – which is what tends to happen in large-class environments where dialectic teaching styles dominate – the performance of students who require interaction for motivation suffers particularly (Exeter, Ameratunga, Ratima, Morton, Dickson, Hsu & Jackson 2010; Mulryan-Kyne 2010). Regardless of their personal learning style, students also exhibit poor levels of engagement with material, less

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commitment to courses, and lower levels of motivation when presented with large classes (Mulryan-Kyne 2010).

However, in and of themselves, large classes do not necessarily spell disaster for student learning or engagement. Indeed, students have been shown to adapt their learning strategies to successfully complete a course (Biggs 1999). While student resilience is an important positive factor, educator strategies can also make a difference (Exeter *et al* 2010; Meyers & Nulty 2002; Mulryan-Kyne 2010): curriculum design, instruction techniques and assessment can all influence student learning and approaches, and outcomes (Biggs 1999; Boulton-Lewis 1998; Kember 1998; Marton & Booth 1997; Powell 1982; Rowntree 1987). Meyers and Nulty (2002) affirm that, in order to maximise the quality of student educational experience, learning environments must be constructed in such a way as to ensure that students' adaptive responses to the curriculum become congruent with the aims of the course (see also Biggs 1996; Boud 1982; Ramsden 1992). In light of the studies mentioned above, we would argue that large classes do not have to and should not be synonymous with dialectic teaching, superficial student engagement, and poor learning outcomes.

The above literature shows that by focusing on the structure of the curriculum, the strategies employed for instruction, and the ways students are assessed (Biggs 1996; Meyers & Nulty 2002), it is theoretically possible to achieve student engagement in large classes. It may not seem self-evident, but most innovative practices used to facilitate student engagement in small groups can be successfully adapted and applied in large classes to achieve the same effect. This realisation is in line with the contributions by Alastair Summerlee (Chapter 2), Stephanie Allais (Chapter 3), and Neil Butcher and Sarah Hoosen (Chapter 4) in this volume, which focus on methods that emphasise connecting with students and creating a learning community, while at the same time facilitating critical thinking by making effective use of technology and pushing learning outside of the classroom.

The present chapter focuses on how we sought to promote student engagement in a large Introduction to International Relations course at the University of the Witwatersrand (Wits), South Africa. The strategies adopted are typically used in small-class settings where lecturers seek to deepen student engagement with the subject. However, contrary to the findings of many studies that problematise student engagement in large classes, we have found that a good design comes in adopting the teaching and assessment practices usually reserved for small classes. However, contrary to the findings of many studies that problematise student engagement in large classes, we have found that good curriculum design, combined with teaching and assessment practices usually reserved for small classes, can foster student engagement in large classes, too. Indeed, based on a survey-based study conducted in 2011, we found that the data suggested that such an approach can be just as effective in promoting student engagement in our large class. By focusing on this study in the present chapter, we hope to show that the innovations we adopted can be effective at facilitating deeper student engagement. To date, there is very little literature pertaining to student learning

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and engagement in large-class contexts, and even fewer contributions addressing this issue coming from institutions of higher education in Africa. We hope that this chapter may assist in broadening insight into this question.

TEACHING AND ASSESSMENT IN LARGE CLASSES

There is a popular perception that the main problems of large classes relate to low levels of student motivation, satisfaction and engagement (Exeter *et al* 2010). Relative to the number of students present, fewer students are able to contribute to discussions in large classes, and in fact many students not feel comfortable doing so in such environments (McKeachie 1980; Mulryan-Kyne 2010). Large classes are also conducive to an impersonal atmosphere and a culture of anonymity, giving rise to high absenteeism and enabling students to behave in ways they otherwise might not, such as arriving late or leaving early, and generally generating unnecessary noise – behaviour that their class mates find distracting and disruptive to their learning (Carbone 1999; Cooper & Robinson 2000; Mulryan-Kyne 2010). All of this would seem to suggest that big classes reinforce or promote surface learning strategies.

Nevertheless, it may not be the large class size *per se* that promotes surface learning approaches, but rather the implicit belief that this scenario limits teaching and assessment strategies to those that are least conducive to deep approaches to learning, namely the formal lecture and multiple choice tests (Scouller 1998). This notion negates the fact that it is possible to apply strategies to reinforce student engagement and deep approaches to learning in large classes. Yet, research shows that such strategies – for example, the promotion of active teaching and learning – can have a positive influence on student engagement (Exeter *et al* 2010; Mulryan-Kyne 2010). Active learning involves creating learning environments that are student-centred, acknowledge student diversity, and reduce student dependence on the teacher (Mulryan-Kyne 2010). This may be accomplished in a variety of ways, for example, by means of proactive use of visual aids, props, guest speakers, personal references and stories, brainstorming, short writing activities followed by class discussions, quizzes, surveys, debates, role playing, and student presentations (Carbone 1999; Exeter *et al* 2010; Mulryan-Kyne 2010). Trigwell and Prosser (1991) found that, irrespective of the size of the class or the physical venue, in order to facilitate deep approaches to learning, lecturers must make room within their subject discipline for students to actively engage with the material by enabling them to ask questions in class, debate issues, and learn independently. Their research also confirmed the link, first posited by Entwistle and Ramsden (1983) and Entwistle and Tait (1990), between learning environments and students' learning approaches.

Assessment techniques may also influence student engagement. Meyers and Nulty suggest that instructors should “set assessment tasks that are interlinked and cumulative in effect” and “oblige students to engage with the learning resources and adopt a deep approach to learning” (2002:np).

PART TWO • EVIDENCE AND CASE STUDIES OF LARGE-CLASS TEACHING**STUDENT APPROACHES TO LEARNING**

Marton and Säljö (1976a; 1976b) sought to identify different levels of processing information in an experiment that asked university students to read an article and then answer questions pertaining both to its meaning and the way in which they approached this task. They found that there were clear distinctions in terms of how students engaged with the task and processed the information. Their results showed that students adopted either surface-level processing – where they concentrated on memorising the text itself in order to reproduce it, or deep-level processing – where they focused on the meaning of the text in order to understand it.

Subsequent research into student approaches to learning has confirmed this deep/surface dichotomy, with a number of variables impacting on the choice of learning approach. Biggs (1979) found that learning approach preference is fluid, with context influencing whether a student uses a deep or surface approach; while further research by Marton & Säljö (1984) revealed that student motivation had an impact on which of these two learning approaches students adopt in a specific subject. Scouller (1998) contends that the type of assessment implemented in a given subject discipline is a strong determining factor as regards learning approach, while Scouller and Prosser (1994:268) identify assessment as “possibly the single most potent influence on student learning”, inasmuch as its design can promote the adoption of a specific learning approach. For their part, Entwistle and Ramsden (1983), as well as Trigwell and Prosser (1991), conclude that both the teaching environment and the types of assessment used strongly contribute to the learning approaches students choose.

For the purposes of the study discussed in this chapter, student engagement was measured in terms of the learning approaches identified above, so that ‘engaged students’ are those who reveal a deep approach to learning, where they seek to develop their knowledge, reflect on content, and relate issues to their own experience (Herington & Weaven 2008) – as opposed to ‘disengaged students’, who adopt surface learning approaches, whereby they typically attempt to memorise facts and simply reproduce knowledge made available to them through lectures and readings (Exeter *et al* 2010). Engaged students are considered as the ideal in terms of the kind of graduate one would hope to see emerge from a university degree programme.

SURVEY-BASED STUDY OF STUDENT ENGAGEMENT IN A LARGE CLASS AT WITS UNIVERSITY**Research design**

The Introduction to International Relations class that formed the sample population of our study comprised 373 students in total. The graph below disaggregates this number according to gender and race, clearly showing great racial diversity and a large majority of female students (259 compared to 114 males). Student engagement was measured by means of two questionnaires and participation was voluntary.

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FIGURE 6.1 Race and gender demographic in Wits Introduction to International Relations class (2011)

The first survey, using the Biggs revised two-factor Study Process Questionnaire (R-SPQ-2F), was administered during the last lecture of the thirteen-week course and was completed by 180 students. The R-SPQ-2F is a revised version of the original Study Process Questionnaire (SPQ) (Biggs 1987a; 1987b), a quantitative instrument devised by John Biggs to accurately categorise a student cohort's approach to learning within a specific context. The SPQ contained forty-two questions and categorised learning approaches according to three ideal types, namely surface, strategic and deep approaches. Although many studies have used the SPQ to label students individually as having either deep or surface approaches to learning, in his discussion of the R-SPQ-2F Biggs clearly states that these instruments are not designed to label specific students' learning approaches, but rather to determine which approach to learning a specific course encourages among its student cohort. We therefore used the R-SPQ-2F to gauge which type of learning approach our course fostered, so as to ascertain whether deep approaches to learning could occur in a large class such as this. The R-SPQ-2F comprises twenty statements that reflect either an attitude toward the course or a student learning approach. Using a five-point Lickert scale, ranging from A ('rarely true') to E ('almost always true'), students are asked to mark the letter that most closely reflects their praxis in the course. The ideal types in the R-SPQ-2F have been streamlined into two categories: the deep approach and the surface one.

The second survey, which was administered to 128 students in week nine of the course, was informed by Marton and Säljö's (1984) finding that students are more inclined to adopt deep learning strategies when they view the material taught and assessments as interesting and relevant. Based on their evidence, we deemed it necessary to supplement the R-SPQ-2F with a qualitative survey designed to provide detailed feedback about which teaching and assessment strategies most resonated with the class. The questionnaire comprised fourteen questions, two of which asked students to

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rank their preferences with respect to (i) the teaching and learning techniques employed in the course; and (ii) the various media through which they engaged with the subject outside the classroom, while the remaining questions probed student engagement with regard to the various modes of assessment used in the course (excluding the take-home examination, which had not yet been assigned). The questions were open-ended to allow for detailed comments.

Teaching strategies for student engagement

In designing the Introduction to International Relations course curriculum, we consulted three main pedagogical models or rubrics, namely John Biggs' constructive alignment model, Biggs and Collis' Structure of Observed Learning Outcome (SOLO) taxonomy, and Bloom's Taxonomy.

Constructive alignment advocates allowing students to learn subject matter through activities specifically created for this purpose, the rationale being that students 'learn by doing' and interacting with ideas, debates and course materials at a specific cognitive level that usually correlates with the year of study. Through this process, they create meaning from the discipline content. The role of lecturers is to facilitate this journey by creating learning structures that channel and focus students in ways that allow them to achieve the learning outcomes set by the course. Consequently, classes, activities and assessments should all be aligned, as this will assist students to achieve both the content and cognitive objectives of the course.

We used Biggs' SOLO model and Bloom's taxonomy to help us draft the curriculum content, design learning activities and set assessments at the requisite cognitive levels. The SOLO taxonomy is a model that conceptualises students' learning processes from simple to complex. It has five stages, the first three of which – pre-structural, uni-structural, and multi-structural – represent quantitative levels, with the last two – relational and extended abstract – representing qualitative levels. At the pre-structural level, students have failed to grasp the point of the assessment; at the uni-structural level, their work focuses on only one relevant aspect of the task; at the multi-structural level, students focus on several relevant aspects, but fail to integrate them; at the relational level, students are able to integrate these aspects into a whole; and at the extended abstract level, they are capable of applying their generalised knowledge to new domains. SOLO is not only useful for designing assessments, but also for constructing the learning outcomes of a curriculum, which also assists in implementing constructive alignment. The course was constructed in such a way that students moved away from the pre-structural level onto the uni-structural and multi-structural, and ultimately to the relational level, thus moving beyond just having knowledge of the course content and progressing to comprehension, application and analysis (Biggs 1996; Bloom 1956). Problem-based learning was the primary tool used to attain this objective.

During the first two weeks of class, the course is pitched at the uni-structural or knowledge level, as International Relations is a subject only offered at university level,

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and students are therefore unfamiliar with its basic concepts and discourse. From week three, problem-based learning scenarios are introduced into the lectures and tutorials, thereby incorporating the uni-structural and multi-structural levels and encouraging students to develop their comprehension and analytic skills. Problem-based learning also reinforces the relevance of International Relations as a discipline, linking it to contemporary world events. Each problem-based scenario is based on a current event that has been specifically chosen because it ties in with the content of a lecture. Situating concepts of power, interests, and class struggles within actual problems facing the international system demonstrates the applicability of what they are learning to students, which makes it an extremely effective way to promote student engagement (Meyers & Nulty 2002).

Throughout the course, we varied the modes of content delivery, incorporating podcasts, YouTube videos, DVDs and music during lectures to promote student engagement in the subject. In addition, classes were broken down into fifteen-minute segments, with the instructor introducing a new strategy to reinforce a concept every fifteen minutes. This does not mean that the explanation of a particular concept was finished after fifteen minutes; but rather that a new way to communicate that concept was employed. Integrating audio-visual aids into lectures improved student understanding and interest in the subject material. For example, students were shown short YouTube clips on such subjects as the formulation and influence of the World Trade Organisation (WTO) or the prisoner's dilemma, or listened to podcasts discussing environmental governance or the importance of Thucydides' account of the Peloponnesian War for understanding interstate relationships. To introduce the International Political Economy part of the course, the DVD *The Ascent of Money* was shown in class as a means to build understanding of the importance and interconnectedness of politics and economics while avoiding the often dry and dull didactic lectures on the subject. Music was used in the break period of the class, in part to revitalise students, but also to demonstrate the influence of globalisation on culture. Students were also encouraged to search out audio-visual material related to course concepts and make recommendations to the instructor.

In order to prevent the use of YouTube clips and DVDs resulting in a passive learning environment, class discussions on the material shown were implemented. It is important to mention that having a state-of-the-art lecture theatre – in terms of audio-visual and information technology (IT) hardware – at our disposal made this possible. If we were to teach a large class in a venue without these aids, it would be difficult to recreate this dynamic teaching environment. For this reason, we would argue that a well-equipped venue is a prerequisite for interactive large-class teaching.

In an attempt to further facilitate student engagement with the discipline, the course included a seminar series where practitioners of international relations were invited to address the students. Speakers included the High Commissioner to New Zealand, the United States and Indian Consul Generals to Johannesburg, the Clerk of the Pan-African Parliament, a representative from the International Crisis Group, and an

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eminent Canadian senator and representative of the Commonwealth. The seminars gave students an opportunity to extend their International Relations knowledge and engage in lively debates with speakers.

The course also utilised a textbook accompanied by a constructed learning management system (LMS) provided by the publishers. This website offered a different way for students to engage with the course material. Besides presenting the contents of the textbook, this online medium also provided additional features, such as content podcasts, videos, newspaper links, and online quizzes on current events or concepts.

Assessment strategies for student engagement

Assessment plays an integral role in encouraging student engagement and deep learning. However, in large-class contexts, pragmatism often militates against choosing assessment strategies that have been shown to promote student engagement. Using and grading such assessments may take up a disproportionate amount of time during the process of course delivery, which is why assessments such as self-marking online multiple choice quizzes present a more attractive option for lecturers of large classes than substantive critical writing exercises. Gradable moments that promote surface-level cognitive skills are therefore often chosen over those that promote deep-level cognitive functions, as they are easier to mark.

On the whole, there is also a tendency among lecturers of large classes to decrease the number of assessment opportunities in order to make their marking load more manageable. This is largely due to the fact that teaching represents only one component of an academic staff member's job; research and other services to the institution must also be factored into the equation. Although teaching assistants may be employed to alleviate the marking load, issues of quality, consistency and fairness invariably compel instructors to play a substantial role in the grading process by providing detailed marking outlines, overseeing the marking process, and reviewing outcomes. Some universities also require instructors to personally mark a certain percentage of assessments. As a result, there is strong motivation for lecturers of large classes to decrease the number of assessments set, despite the fact that continuous assessment has been shown to have extremely positive effects on student engagement and deep approaches to learning (Meyers & Nulty 2002).

Despite the above challenges, we nevertheless opted for continuous assessment in the Introduction to International Relations course. Six assessment opportunities were incorporated into the course: three multiple choice quizzes, featuring questions pertaining to the textbook readings; an article analysis; a policy brief; and a take-home examination requiring students to apply their knowledge and critical thinking skills.

The first assessment task was a current events multiple choice quiz (MCQ). Although MCQs are said to encourage surface learning approaches, we deemed them to be appropriate, as one of the learning outcomes of the course is to acquaint students with the basic concepts and content of International Relations (IR). A further two MCQs,

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focusing on more complex content and concepts (such as international organisations and international political economy), were given over the course of the following three months, providing a snapshot of how well students were able to recall more complex material. Another rationale for including MCQs was to incentivise students to read the prescribed textbook on which they were based – in our experience, many first-year IR students adopt a surface approach to the prescribed readings in that they engage with the least possible amount of material they judge necessary; in other words, if something does not count for marks, there is no incentive to do it. Fostering a culture of reading is one of the biggest challenges in teaching today, and it is impossible for lecturers to monitor each and every individual student's progress in this regard. Thus, however maligned they may generally be, MCQs can be a useful assessment tool, provided that they are not overused or used as a substitute for higher learning activities (Scouller 1998; Scouller & Prosser 1994).

The fourth assignment, an article analysis, was given after a month of classes. The task focused on the IR area of foreign policy making and used two high-level governmental meetings that had recently taken place between South Africa and France and France and the United States as case studies. In order to complete it, students were required to read material on foreign policy and foreign policy decision-making models, as well as government policy statements and newspaper articles pertaining to the case studies.

The final class assignment was a problem-based task. Students were given a fictional scenario that closely mirrored the 2011 civil unrest in Libya, as well as a fictional United Nations resolution (a shortened version of *UN Security Council Resolution 1973* passed in March 2011). As South Africa was a non-permanent member of the Security Council at the time, students were asked to write a policy brief advising whether or not South Africa should vote in favour of the 'resolution', taking into account the domestic context, national interests, and foreign policy objectives.

Finally, instead of a formal examination, we opted for a take-home paper. Students were advised of this at the beginning of the course and were also made aware of the rules and procedures of the exam from the outset. The exam required students to apply their academic knowledge to analyse the United States' foreign policy response to the Arab Spring uprisings. They were given four days to research and complete the exam.

Results

The existing literature suggests that it is very difficult to foster student engagement in large classes and that students generally do not adopt deep learning approaches in these contexts, which means that they fail to develop critical thinking skills or engage with the subject matter in a profound way. This can be especially problematic in developing countries, if the aim of education – and higher education in particular – is to promote knowledge-based societies where innovation and entrepreneurship are key drivers of the economy.

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Yet, despite the literature suggesting evidence to the contrary, the results of both the R-SPQ-2F and qualitative survey showed that the participating students had in fact engaged with the subject and had also adopted deep learning approaches during the course. While it is acknowledged that discouraging surface learning approaches is a relatively simple matter compared to promoting deep ones (Trigwell & Prosser 1991), the Introduction to International Relations course successfully facilitated deep learning approaches, in spite of the large class size. The results of the R-SPQ-2F (see Figure 6.2) support this conclusion.

FIGURE 6.2 Results of the Biggs R-SPQ-2F

The second survey revealed further evidence that students had shifted from a surface to a deep approach as the course progressed, as indicated by the participants' responses to the question about whether they had engaged with the subject through the various media on offer either before or after taking the course. Despite the students being divided relatively equally in their responses to this question, the majority stated that their engagement had been very superficial prior to the course, but that they were engaging with the material on a deeper, more meaningful and informed basis at the time of taking the survey (in week nine of thirteen), as illustrated by the following remarks (reproduced here verbatim):

- [...] since taking the course I engage with material more actively and critically than before. Before taking the course I engaged in current affairs just to have a bit of knowledge of what is happening around the globe, but now I engage more critically and actively.
- I did engage with the materials before enrolling for INTR1004. Just after taking the course, I made it a daily habit to want to know, understand and question both domestic and international current political and economic events.
- I engaged with these materials before the intro course, but only afterwards could I understand the materials. The course has given me the tools to know how to analyse the material as well as form opinions on related issues. It has been

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empowering, since it has allowed me to generate new perceptions about the world I live in. Although I probably won't continue with IR, the skills I have learnt will have relevance in my career.

Based on these and other responses to the same effect, we may therefore reasonably conclude that the Introduction to International Relations course increased student engagement with the subject matter and also promoted deep learning approaches, both inside and outside of the formal learning environment.

In order to provide further evidence regarding student engagement, the participants were also asked to indicate whether they had engaged in any of a number of activities outside the classroom that fall outside of the course requirements, for example, reading newspapers, news periodicals, academic journals, media websites, or blogs; watching television; having discussions or debates with family or friends; attending political party events or speaker events; and visiting official institutional websites. Seventy-nine per cent (79%) of respondents stated that they had in fact engaged in such activities, the majority of which revolved around the popular media (newspapers, television and media websites), followed closely by discussing and debating IR issues with family and friends (see Figure 6.3). (While not included in the survey questions, we also noticed students using Twitter as a platform to discuss issues raised in class.) More 'academic' forms of engagement outside the classroom, such as reading academic journals or specialised news magazines and websites, featured less prominently in the students' responses, as did the attendance of political events.

FIGURE 6.3 Student engagement with IR beyond the course requirements

The respondents' extracurricular IR-related activities also reflect the level and range of their engagement with the subject. The preference for mainstream media is not really surprising, as it is probably the most accessible way to engage with international events. What is interesting, is the percentage of students who indicated engaging in the

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atypical activities, such as attending political and speaker events, or reading academic journals and blogs or the websites of official international institutions or foreign ministries. These kinds of modes imply a greater intent on the part of these students to pursue an understanding of International Relations. In order to engage with these modes, a student must actively desire to find them and search them out, as opposed to the news media, which is more readily accessible and may be accessed without much effort. While the relatively low response rate in favour of these modes might suggest that the level of engagement was not quite as overwhelming as originally thought, we prefer to consider it as a demonstration of the evolution of engagement in the discipline. As the student comments quoted earlier show, most students always maintained a certain interest in the subject, but were thinking about IR-related issues in a more critical way subsequent to having taken the course. As such critical thinking develops, students will tend to seek out more sources of information offering differing views and analysis.

In terms of student engagement with the various teaching strategies and learning activities employed in the course, the YouTube clips, guest speaker seminars, and tutorials proved consistently popular (see Figure 6.4). It appears that including audio-visual components renders lectures more interesting and enjoyable. This finding supports neuropsychology literature, which has shown that varying presentation media strongly assist student learning (Willis 2010).

FIGURE 6.4 Student preferences in terms of specific teaching strategies and learning activities

It is interesting to note that, although the respondents rated standard lectures relatively low, they rated the problem-solving discussion scenarios that were incorporated

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into these lectures as the fourth most enjoyable activity. Thus, contrary to prevailing practice, introducing opportunities for discussion into large classes appears to be a positive teaching and learning strategy for promoting student engagement.

In order to ascertain which activities most resonated with them, respondents were asked to indicate their preferred teaching and learning activities. In considering the various learning strategies adopted on an active to passive learning activity continuum, respondents showed a marked preference for activities encompassing elements of both active and passive learning (Figure 6.5). A characteristic shared by the five most preferred activities (watching DVDs and YouTube clips, guest lectures, problem solving and tutorials) is that they are all interactive. In addition, all of these activities were accompanied by class discussions or opportunities to engage in critical dialogue. The least favoured activities were those that were either totally passive or required independent active learning. This suggests that the interactive aspects of the course, despite occurring in a large-class context, were popular among students and promoted engagement with the topic. Considering that the course involved a group of first-year students in their first semester at university, it is understandable that these interactive elements should be the most popular, as they offer students immediate reinforcement or clarity on their ideas, as opposed to the completely active elements, which require much more independent activity.

FIGURE 6.5 Passive to active continuum of preferred student learning activities

As regards the teaching strategies employed in the course, it appears that the interactive aspects of the course also resonated most with students, and promoted engagement and deep learning approaches. This suggests that, in large-class contexts, promoting interactive activities with students in the main lectures, as well as in smaller group situations, has a positive impact on the student experience and engagement, as well as on the level of critical thinking that emerges.

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The qualitative survey also explored the role of assessment in promoting student engagement in the Introduction to International Relations course. Figure 6.6 suggests that the respondents favoured those assessments that required analysis, critical thinking and application over those that merely required the recall of facts. However, it is interesting to note that they did find two out of the three MCQs helpful for learning some of the content of the discipline. When asked why they found the MCQs helpful, the majority of respondents stated that it had given them an incentive to read the textbook, which in turn had provided them with more insight into the lectures. Feedback included comments such as the following (again reproduced here verbatim):

- It made me realise that I need to read the textbook in more detail.
- It made me understand the textbook. It motivated me to read the textbook.
- [It] forced us to really study and know what was in the chapter. Also a nice recap of class lectures on this material.

Most of the comments of students who did not find the MCQs beneficial revolved around the fact that they only required and rewarded surface learning.

FIGURE 6.6 Student preference with regard to assessments

The majority of the respondents indicated that they had enjoyed the problem-based learning incorporated in both the article analysis and the foreign policy brief. They enjoyed these assignments because they were challenging, in that they required critical analysis and the application of abstract knowledge and theories to real life events or events that mirrored real events. This theory/practice nexus really peaked students' enthusiasm. Including South Africa as a case study in both assignments also appeared to motivate students to delve deeper into the course material. Although the foreign policy brief required more extensive research and reading than is usual for first-year students, most saw this as a positive activity that added to their knowledge and deepened their understanding of international relations:

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- [...] it challenged me to think critically as to whether it was justified or not to invade Libya in the manner Western authorities did.
- I feel it gave us an opportunity to use the theory we have learned and apply it. It also challenged me to think critically rather than just regurgitating the facts.
- I learnt the complex processes involved in intervention. It is not as simple as I previously thought it was.

The respondents who did not find these tasks useful appeared to prefer surface learning activities, as they focused on issues such as the length and level of complexity of the assignments (both of which require engagement and critical thinking to work through), as exemplified in the following statements:

- I just didn't see the point of the whole scenario and analysis, or interpreting it.
- It was long and challenging.
- It was long and not the most interesting topic.

The overall pass rate for the course was eighty-seven per cent (Figure 6.7 shows the mark distribution), but it must be noted that this is of limited value for determining the predominant learning approach adopted by the cohort, as researchers have not yet been able to establish a firm correlation between learning outcomes and learning approaches (Trigwell & Prosser 1991).

FIGURE 6.7 Mark distribution

Discussion

Our study offers compelling evidence that class size does not predetermine student learning approaches, and that it is possible to promote deep learning approaches in large classes. It also confirms existing research findings that the learning environment is probably the most crucial element in facilitating engagement: what matters is that the learning environment is expressly designed to facilitate this type of student

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engagement. Moreover, good practices that have been shown to promote deep learning approaches in smaller classes may also be used in large classes, often with no or minimal adaptation. Curriculum designers should be conscious of the fact that they do more than just determine course content; they shape the entire learning environment in which a student will experience this content. This contradicts the belief held by many lecturers that students are exclusively responsible for their academic success, in spite of the fact that research has proved that learning environments have a considerable impact on student performance (Marton & Säljö 1984; 1976a; 1976b; Trigwell & Prosser 1991). The implication is that the onus lies with lecturers to purposefully construct spaces that will motivate student engagement.

We found that variation, both in the presentation of content and in assessment, was a key element in promoting student engagement. In line with good teaching practices, we tried to accommodate a range of learning styles through this variation. Presenting content in different forms or media and creating varied learning environments also assisted in reinforcing what was being taught. Studies conducted in the emerging field of Mind, Brain and Education has found the above practices to be particularly effective tools for promoting learning (Sousa 2011), and this is corroborated by the results of our study, which indicate that this variation resonated well with students, promoting engagement and facilitating the development of deep learning approaches. While none of the techniques employed constitute a 'new' approach, their combined use seemed to appeal to the students. One may presume that using varied techniques kept things interesting for the students, because they participated and assumed ownership of their own learning process – that is, the teaching and assessment techniques required them to build and apply their knowledge, instead of just passively receiving information. In a context where the Socratic ideal is no longer the norm, finding ways to engage students in the pursuit of learning requires new thinking and the application of innovative techniques. Moreover, given that we know that the average person can only pay attention optimally for approximately twenty minutes, the variation in delivery methods – and particularly the fact that we broke our ninety-minute classes down into sections where different types of activities were employed – probably contributed substantially to sustaining student engagement. Co-teaching and tutorials provided further variation: not only was content presented in different formats; it was also presented by different people. Respondents of the qualitative survey confirmed that this factor enhanced their engagement with the course.

Linking assessments to contemporary real-life events proved another effective way of encouraging and sustaining student engagement. In this regard, our study validated research findings showing that students engage more easily and their ability to think critically is expanded when they are able to relate new knowledge to the world around them.

A potential area to explore further as a means of promoting student engagement is Twitter. This social networking tool was engaged with towards the end of the course, once one of the instructors discovered students tweeting comments and questions to

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each other during lectures. While this realisation occurred too late in the course for us to incorporate Twitter as an alternative forum to promote interest in international relations, it holds great potential for the future, especially as one of Twitter's main imperatives is to share information across the world. This suggests that this tool is well-suited for international relations discussions. In addition, the technology may be used within the class context to allow students to submit questions during the course of a lecture, which may be of great help, as noticing student queries can sometimes be challenging in large classes. Alternatively, Twitter may offer a 'safe' forum for those students who are too intimidated by the sheer size of the class to ask questions and engage in the content of the lecture.

The logistical, resource and time implications of successful large-class teaching demand some comment at this stage. The construction of any course that strives to inspire and engage students requires a considerable amount of time, creativity, and planning on the part of lecturers. However, large classes add certain complexities. The logistics involved in employing a variety of good teaching and assessment practices in a large-class setting requires careful consideration, and often modification, to ensure that these practices are effectively used. Failing to do so may result in chaos, which would result in student disengagement. Securing a large enough lecture venue equipped with multimedia facilities was also pivotal to the success of the Introduction to International Relations course – without it, creating and maintaining an environment conducive to engagement would be impossible (see also Chapter 11, by Derek Moore). In addition, there should also be adequate library and IT resources available on campus to enable students to engage with the course outside of classes.

Feedback is another factor that affects engagement. Students need to know whether or not they have grasped the concepts or contents of a given course at the cognitive level required by an assignment. If feedback is not sufficiently comprehensive to enable students to understand why they achieved the grade they did, and how they may improve on it, they often become demotivated, which results in disengagement. Conversely, ample and appropriate feedback encourages further engagement. In the Introduction to International Relations course, tutors are provided with clear assessment criteria tailored to each assignment, as we believe that generic assessment sheets are inadequate, since they do not provide enough detailed feedback. Lecturers and tutors hold workshops in order to ensure consistency and quality in grading and feedback, while lecturers also check all papers before they are returned as a last quality insurance exercise. The disadvantage to good assessment practices in a large class is that managing the process is extremely time-consuming for lecturers.

In closing this discussion, it should also be noted that being innovative does carry a certain amount of risk should things not go as well as planned, especially if the innovation involves IT. The textbook used in the 2011 Introduction to International Relations course was linked to an Internet site that offered students a myriad of creative ways to engage with the discipline. There were, however, several problems: the login process was complicated, and many students found that their initial login codes were

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rejected and had to be replaced; students frequently forgot their usernames and passwords; and the support desk took a long time to respond to students' queries, and once they did, their suggestions invariably proved ineffective. Thus, instead of facilitating engagement in the discipline, as intended, the web companion actually became a hindrance for many students, while dealing with student queries became onerous for lecturers. Although technology can be a great asset in encouraging engagement in large classes (see Chapter 5, by Elisabeth Brenner), in light of the above experiences it is recommended that lecturers ascertain the following before adopting IT-based teaching innovations:

- the technology must work well;
- it must be fairly easy for first-year students to use; and
- IT support must be available and respond promptly to student queries.

CONCLUSION

This chapter seeks to contribute empirical evidence to the debate about how large classes may become effective learning environments. By adapting tried and tested pedagogical practices and ensuring variation in lecture delivery, it is possible to see students engaging in large-class courses and adopting deep approaches to learning. Our experience with the Introduction to International Relations course suggests that the challenges associated with large-class lectures can be overcome and that a core element of quality education, namely fostering higher order cognitive skills, can be achieved in large-class contexts.

Employing varied assessment practices also appear to be helpful in fostering student engagement in large classes. While continuous assessment does present challenges in large classes in terms of the time and organisation required to administer and manage it, the use of technology and sufficient tutorial or teaching assistant support can offset the burden faced by lecturers in this respect. Indeed, as other chapters in this volume show, technology, and especially online content, can assist with both lecture and assessment delivery.

In combining the developmental aspect of higher education with the push to enrol more students and increase class sizes, it is important that consideration be given to how best to facilitate a quality educational environment that encourages students to apply and push the boundaries of their knowledge. By giving due consideration to the approaches that students adopt when learning and accounting for these approaches, it is possible to ensure that critical thinking – a key requirement for innovation-based economies – is fostered.

In South Africa, where economic and societal development objectives are directly tied to higher education, determining how best to facilitate student engagement in large-class scenarios not only has ramifications on the learning environment, but also on the advancement of the development project.