

Challenges of Large Class Teaching at the University: Implications for Continuous Staff Development Activities

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Abstract

Class size is a major concern to any educational system. At university, a class of any size (small or large) appears to be an acceptable norm. However, when classes are too large, they are considered to contribute some complex challenges related to the teaching and learning process. Whether the class is big or small, instructors are expected to teach and assess students effectively. This paper presents a general reflection on the author's personal experiences with teaching two large classes at undergraduate level at a university. The paper aims at sharing this personal account of experiences with fellow educators who may find themselves in similar situations of teaching and assessing large groups of students at any level of education. Although what constitutes a large class has been a subject of debate in literature, the author adopts from previous authors to define "a large class as one in which characteristics and conditions present themselves as inter-related and collective constraints that impede meaningful teaching and learning". Therefore, in the context of this paper, this meaning is adopted as a working standard that sets the parameters of the discussion of the concept of a 'large class'. Furthermore the paper is based on the critical reflective practices and experiences as the author draws most of the evidence based on narrative practices and principles. A narrative representation of the author is found to be the most appropriate method of telling this experience.

Contextual Background of Large classes

Like many institutions of higher learning at their initial inception, the University of Namibia which is a public institution, started with a small number of students. For example, it only managed to enroll 3,727 students in 1992. With the Namibian government commitment to providing better access to higher education, the number of students increased considerably

to 17,500 in 2013 (Ihemba, 2013). The increase in enrollment has been called the massification of higher education and has happened worldwide (Mohamedbhai, 2008).

Given the high demand of higher education and the worldwide phenomenon of educational expansion, large class sizes become a part of a teaching setup at the university especially at undergraduate level. Mulryan-Kyne (2010), has found out that large classes of between 300 and 1,000 and even more at the undergraduate level are common at institutions of higher learning in a number of countries. This occurrence, according to research, poses challenges to both experienced and inexperienced educators who are assigned to teach large classes (Lantz, Smith and Branney, 2008).

As pointed out in the preceding paragraph, the issue of large classes is not unique to the University of Namibia, but is found at other higher institutions all over the world. It is believed that since the 1970's, class sizes in universities across the world have been increasing (Gibbs and Jenkins, 1992). Stanley and Porter (2002) note that, "large classes are very prevalent in many universities and are often gateway courses to students' major fields of study (p.xxii). Twigg (2003) however, reveals that, "failure rates in these courses contribute heavily to overall institutional drop-out rates between the first and second years" (p.24).

...Yet at most universities, introductory courses or classes that fulfill general education requirements often carry enrollment of hundreds of students. These large-class settings have historically been heavily lecture-centered, requiring minimal student engagement and expecting little more than memorization of terms and concepts as evidence of student learning. The sheer size and anonymity of large classes seem to militate against the very elements that promote students' involvement and intellectual development, learning, and success. Inattention or absence from class and mediocre student performance seem to be tolerated simply as unfortunate realities. Macgregor, Cooper, Smith, and Robinson (2000, p.1)

The situation quoted above may create more challenges to both students and instructors and can consequently lead to less effective teaching and learning. Botha, Fourie and Gyser (2005, p. 63) observe and caution that:

Large classes are often cited as 'proof' that higher education institutions care more about generating income than educating students. Defenders of big classes have to acknowledge that these large classes can turn into big disasters. ... Too often, young and inexperienced lecturer [sic], who have not even had the time to frame their qualifications, are pushed in front of a sea of staring students, handed a piece of chalk, and told to teach them something.

The realities in some universities would be that reducing classes to a smaller number would not be economically viable in terms of the availability of human resources and teaching and learning facilities. With this condition, large classes will continue to exist.

Literature Review on Large Class Teaching

Since the objective of this paper is to present the author's own personal reflections on practices and experiences of teaching large classes, the literature review focuses on establishing the definition of a large class first. Secondly, this section identifies common challenges experienced in teaching large classes. Finally it offers the divergent views on the possible relationships or links between class sizes and student performance.

Definition of a large class

What constitutes a large class? It appears that there is not a commonly accepted definition of a large class in the literature but a considerable amount of literature has alluded to what could be viewed as large classes. For instance, a report from a workshop organized by UNESCO (undated) focusing on teaching and learning in higher education held at Moi University in Kenya indicated that participants who were senior academics could not agree on a single definition of what a large class is (unesco-bamako.org/guide/fp/modules.pdf). In their attempt to define a large class, they expressed the following understandings:

- There is nothing like a large class. The large class is only in the mind of the orthodox teacher;
- A large class is one with more students than available facilities can support;
- A large class has more than 100 students enrolled;
- There is no fixed number. The large class depends on the discipline- smaller number for engineering, science and medicine and large number for arts, humanities, and social sciences.

Ur (1996, p.302) specifically proposes that "the exact number does not really matter: what matters is how you, the teacher, see the class size in your own specific situation". This view is also supported by Baker and Westrup (2000, p.2) who suggest that "a large class can be any number of students, if the teacher feels there are too many students for them all to make progress". The same thinking is held by Todd (2006, p.1) who adds that "what is taught influences teachers' judgments of the size of classes" which later can influence their definition of a large class. Mulryan-Kyne (2010) offers a different view by arguing for the importance of taking into consideration the nature of the course and the resources and facilities available. For example, Mulryan-Kyne explains that "Meeting the needs of a class of 50 in a science laboratory designed for 30 is likely to be more challenging than

presenting a history lecture to 220 students in a lecture room designed for 200" (p. 176). However, Jungic and Kent (2006) further define large classes as classes with students above 200 in large university lecturing rooms.

Other scholars define a large class from the context point of view. For example, writing from an African context, Onwu (1999) defines a large class as, "one where the majority of characteristics and conditions present themselves as inter-related and collective constraints that impede meaningful teaching and learning" (p. 126). According to this definition, the factors which can affect the learning environment may include:

- Lack of physical space for moment due to overcrowding;
- Diminished opportunities for all learners to participate actively in the learning process;
- The impersonalizing of teaching;
- Teachers resorting to predominantly lecture and teacher demonstrations;
- Excessive workload, and a long homework assignment turnaround;
- Limited opportunities to meet individual student needs for self-activity and inquiry, motivation, discipline, safety and socialization (Onwu and Stoffels, 2005, p.79).

From what has been presented so far in the literature, it becomes evident that the concept of large class size is subjective, largely contextualized and situational based. Therefore, a large class in the Western world can be a small class in Africa or Asia or vice versa. This is because the teaching contexts differ.

Challenges Confronting Teaching Large Classes

The report on the UNESCO workshop (undated) that took place in Kenya identified some problems associated with large classes teaching, for example:

- Students become faces instead of people.
- It is hard to give individual advice and guidance to students.
- Organizational problems are compounded, making it difficult to schedule tutorials, laboratory sessions, and field work.
- There can be technical problems working with large classes e.g. difficulties in projecting slides that are clearly visible to all students.
- Monitoring of attendance can be difficult, thus encouraging students to cut classes.

- Coping with large numbers of assignments and examination scripts is a source of difficulty.
- The quality of feedback to students can be much reduced in large classes (unesco-bamako.org/guide/fp/modules.pdf).

Some researchers also argue that large classes are perceived by the instructors as troublesome, difficult and problematic as compared to smaller classes (see, e.g., Coleman, 1989). Research further pointed out that the majority of universities in South Africa shared the most stereotyped view that class size plays a decisive part in teaching and learning success among students and lecturers (Papo, 1999). Exley and Dennick, (2004) and Bligh (2000) established that when educators are confronted with large classes, they tend to present their lessons using lecture based format rather than engaging themselves in other teaching strategies that promote discussion, critical thinking, change attitudes or behavioral skills. Biggs (1999) also notes that university lectures are less effective in presenting the information and are also ineffective for encouraging higher order thinking skills. Laurillard (2002) concludes that higher education is made up of students with different academic abilities and as such most students will have to struggle to learn materials presented to them through lectures. He argues that,

The success of lectures depends on the lecturer knowing very well the capabilities of the students, and on the students having very similar capabilities and prior knowledge. Lectures were defensible, perhaps, in the old university systems in which students were selected through standardized entrance examinations. Open access and modular courses make it most unlikely that a class of students will be sufficiently similar in background and capabilities to make lectures work as a principal teaching method (Laurillard, 2002 p. 93).

Non-attendance of lectures of large classes also appears to pose challenges. Deed (2007) reports that one of his senior colleagues at La Trobe University in Australia commented that “300 students in his first lecture in February had gradually eroded to 17 by late May” (www.theaustralian.com.au). In a case study of an Introductory Macroeconomics Course conducted by Snowball and Wilson (2005), non-attendance of students and poor lecture quality were found to be the most common challenges of teaching a large class. In Taiwan, Lin and Chen (2006) found a strong relationship between class attendance and performance in the course of Public Finance. Their findings are in agreement with that of other studies conducted by Thatcher, Fridjhon and Cockcroft (2007), Marburger (2001) and Romer (1993).

Relationships Between Class Size and Student Performance

Literature reveals there is conflicting evidence from the research that smaller classes have effect on student achievement (Toth and Montagna, 2002). Hoxby's (2000) study on the effects of class size established that smaller classes had insignificant or no effect on student achievement. Similarly, Milesi and Gamoran (2006) report in their research study that there was no evidence of class size effects on student achievement. The conclusion made by this study was that class sizes do not have an impact on student performance. Papo (1999) who did a study on large class teaching at one of the South African universities found strong evidence which revealed that the size of the class did not have an impact on teaching effectiveness and choice of teaching strategies used by instructors. According to him, instructors can be effective in their teaching approaches regardless of the class size because large class teaching does not negatively affect students' learning. The Center for Excellence in Learning and Teaching (1992), has clearly also indicated that reducing the number of students in class does not necessarily improve the quality of instruction, so also, increasing class size need not to necessarily worsen it.

With opposite views to the ones above, Slavin (1989), cautions, based on research findings done on class size that:

Teachers do change their behavior in small classes, but the changes are relatively subtle and unlikely to make important differences in student achievement. Class size could have a substantial effect on achievement indirectly; there may be highly effective instructional programs that could not be successfully implemented in large classes. However, although this possibility seems logical, at present there is no hard evidence. (p. 106)

However, as Ives (2000) states, which the author also concurs with, that there is no single strategy to teach large classes, but the following should be taken into consideration, (1) *ones' teaching style*, (2) *the characteristics of the students*; and (3) *the goals and the objectives of the course*.

If the argument is that what is important is not the size of the group but the quality of teaching and learning that goes in there (Papo, 1999), then, educators need to re-think their teaching strategies as suggested by Kerr (2011, p. 181).

Modifying large group teaching approaches requires a change in mindset, not only on the part of the faculty in breaking with tradition and taking the risk of implementing new strategies, but also of students, in that more of the responsibility for learning will lie with them. Success of the teaching approach will depend, in part, on student understanding and acceptance of the concept that learning is a

collaborative experience between instructor and learner. A shift in institutional culture in terms of the value placed on teaching is a further necessary condition for success in modifying teaching approaches.

Methodology

Since this paper is based on the account of personal experiences of teaching large classes at a university level and the reflections on those experiences, the author is guided by narrative research practices and principles.

Schon (1993) has recommended that professional careers such as teaching require a person to reflect when faced with new problems or difficulties for which s/he does not have sufficient skills or training in. A narration as a form of presentation is found to be a suitable method of sharing and exchanging these experiences and reflections because the author narrates his experiences of teaching large classes.

Narrated Findings of teaching large classes

The findings are presented in accordance with the following themes: author's first encounter with large class teaching, challenges arising during larger class teaching, possible teaching strategies employed in large classes regarding classroom interactions and contextualized teaching, classroom attendance and managing student assessment. In addressing these themes, where possible, the author makes direct connections to the literature.

Author's First encounter with a Large Class Teaching

The author joined the university as a lecturer in the Department of Curriculum, Instruction and Assessment Studies. In the first year of employment at the university, the author was assigned to teach two core modules in the teacher training programme namely: Assessment and Evaluation of Learning and Educational Research. These modules are at levels 7 and 8 respectively of Namibia's National Qualification Framework (NQF) and are taught in the third year of studies to all undergraduate students who are training to be secondary school teachers. The Assessment and Evaluation of Learning module introduces students to principles, practices and policies associated with assessment both in general and local contexts. Educational Research module requires students to apply research concepts to practical situations. Each of the two is a semester module with an intake of close to 170 students excluding distance learning students that the author was teaching face to face during vacation schools.

As pointed out in the literature review, large enrollment can become a daunting task to a person who has never taught at a university level before. At one point the author

considered giving up because he thought there was little chance for him to get such a group of students to learn meaningfully and to provide them with quality teaching. He was also worried that he would not be able to control the discipline aspects of the class. The primary concern was how he would effectively teach and assess a group of close to 170 students in one class group. Another equally important concern was how he would manage and control the class. While there were other numerous logistical and practical issues related to the size of the class to contemplate, the author made sure that his module content and teaching strategies were closely aligned with the learning outcomes which always enlightened his assessment approaches in order to promote quality teaching and learning. As the author taught the modules, he applied the philosophy of reflective practitioner especially when he was confronted by new challenges, worries and concerns of teaching larger classes.

Teaching a large group of students can be intimidating for both students and lecturers (Jungic, Kent and Menz, 2006). Although the author was quite intimidated by this large group, he was also excited that he would have diverse views and learning styles in that large group of students. In addition, the author also thought at the time that students would have an advantage of forming study groups to work on real classroom based issues. His views reflected the conclusions of earlier research done by Hess (2001) who argues that large classes are characterized by rich human interactions because there are plenty of diverse students.

On his first day of class the author took a colleague with him to the lecture theater, that stayed with him for at least 20 minutes. This was purely for moral support and also to boost his confidence for standing in front of such a big group. Also, the author was a bit scared to stand in front of such a big class. This colleague was also new at the University and they had been sharing ideas about how to handle large classes as she was also assigned to teach a large class. The colleague spent 20 minutes helping the author distributing course outlines. After the colleague had left, I felt stronger in handling the class because her presence made a difference in boosting my confidence level. Although the author was professionally qualified and an experienced teacher he was not trained to handle large classes and he had neither worked with large classes in his previous duty stations nor worked with large classes when he was a tutor during his undergraduate studies. The maximum number of students I had handled in my previous work stations was 30 or even less.

Challenges and Teaching Strategies Employed in Large Classes

The following challenges were of serious concern and kept on challenging the author to the end of his first and second semesters of his first year of teaching at the university. The author has also discussed how he handled these challenges by looking at the teaching strategies he employed.

Classroom Interactions and Contextualized Examples

The first challenge that the author had with teaching a large class was regarding classroom interactions and maintaining students' interest in lessons that I was presenting in a classroom environment with permanent fixed furniture. The author's experience with rooms with fixed furniture is that it becomes difficult to organize activities that are student-centered such as group work/discussions. He was reverting back to his own experience when he was a student where he had these core modules where he got the feeling that he just had to take the courses because it was a requirement. Those feelings also haunted the author a lot as he thought they would also impact on classroom interactions. On the positive side, however, is that most lecture theaters at the author university are equipped with ICT facilities. The author took advantage of this opportunity. He considered himself highly proficient in the use and integration of ICT in teaching and learning. Although he was projecting information, he did not stand in front of the lecture theatre the whole time. He tried to move around the room and maintained eye contact with his students. But he was also careful that his movements would not distract the teaching and learning process.

The author also made it a point that his slides were designed in such way that students could process the information easily. Before the presentation of the lesson, he would have loaded the notes on the e-learning portal which is also accessible to both students and instructors at the university. He did not include animations or video clips, or pictures on the notes that he loaded on the e-learning portal because students found pictures to slow down the process of downloading the materials. However, one has to plan the alternative and be flexible enough to present the information if ICT equipment breaks down. This is why he always went early to the class to test the equipment in order to save himself from embarrassment and also not to let students' lose interest in the lesson.

Therefore, the author presented his lessons using Power Point in which he integrated animations, still pictures and video clips from YouTube. He found these to catch students' attention and stimulate their discussion on the topic. In one of the class presentations on defining concepts critical in understanding assessment, the author showed students a picture of one of his relatives cooking and preparing the traditional '*Oshigali*' soup (soup made of white beans, usually cooked by Oshiwambo-speaking people) and another picture of 'aayenda' (guests) who were smiling up to the end when they were eating this well prepared and delicious soup. He used the two pictures to demonstrate the difference between two concepts: formative and summative assessment that is summative being the finished product and no modifications on the soup needed, and formative being the process of improving and adjusting the soup in order to make the soup more delicious before it was served to the guests.

Another example the author used was to show a Power Point slide of two school buses (of different designs) involved in an accident, endangering other road users and close-by-passengers. He used this picture to illustrate to the students that one of the drivers failed to meet the criteria for good driving, and that is criterion reference assessment, while perhaps this driver was racing before getting involved into the accident thinking that his bus was faster than the other one, then that becomes a norm reference assessment. It becomes a norm reference, because the driver is comparing his bus's speed with the other one. Students easily got the meaning of the concepts, asking questions, as they relate things and issues to what they see on daily basis. Through this, the lessons became student centered, interesting and engaging.

As advised by Pascarella and Terenzini, (1991, p. 616), "the greater the student's involvement or engagement in academic work or in the academic experience of college, the greater his or her level of knowledge acquisition and general cognitive development". Morgan, Whorton and Gunsalus (2000) who did a comparison study lecture combined with discussion versus cooperative learning found that when the lecture presentation format is combined with discussions, students highly retain the material information being presented.

In his teaching, the author found through Power Point presentations, students to have constantly maintained interest in the lessons, always paid attention to what is being presented, and helped simplify explanations of concepts. This finding is consistent with similar findings of Szabo and Hasting (2000) and Apperson, Laws and Scepanisky (2006) with regards to the benefits of Power Point software in projecting and in facilitating the explanation of information.

Classroom Attendance

The author was fully aware of the attendance policy of the university in which the students are required to attend "at least 80% of lectures and to complete the required elements that make up the continuous assessment mark" (University of Namibia, 2012, p.17). He was then concerned on how to safeguard and implement 80% attendance policy of the lectures by a group of 170 students. He was also concerned that if students are not attending lectures, they might not perform well in both examinations and continuous assessment activities.

Reflecting back, two strategies worked quite well for the author. One, he gave randomly unannounced in-class quizzes requiring short answers either at the beginning or at the end of the lesson. These quizzes were always peer marked and the students appeared to enjoy that. This encouraged them to fully attend the class because the students did not know the day they would write these quizzes. It was also made very clear that if a student has missed the quiz, there would not be a make-up consequent task.

The second strategy was to give students case studies during class time after the lecturer had presented concepts and theories. Students liked this instructional strategy because it gave them an opportunity to get involved in solving real and practical problems related to school. For example, one of the case studies was requested the students to promote a learner to the next grade. It reads as follows:

Jade is a Grade 9 learner at Mureti Secondary School in Kunene Region. She has never repeated any grade at this phase level. Her school attendance and conduct are both satisfactory. She obtained the following results in the final examination, English Second Language D, Afrikaans First Language E, History F, Geography D, Life Science C, Mathematics E, Accounting D and Entrepreneurship C.

By studying this case the students would carefully read the policy on promotion requirements and the attendance policy as well as the policy on repetition and also used their own discretions to prevent worst scenarios that might occur as a result of their decisions. Case studies such as this one allowed the author to combine his lecture with discussion and also created an opportunity for students to form study groups to interrogate issues raised in the case study in depth.

Managing Student Assessment

Assessment at any level of schooling is an important component in student learning. Students generally like to know how they will be assessed and also understand the assessment tools to be used for evaluation. The author was confronted by the constant fact that his experience in handling large classes can result into poor management and planning of assessment issues. He was therefore worried that he would be left with no opportunity but to revert to his traditional way of doing assessment. That is a test and an examination assessment approach.

In addition to small continuous graded and ungraded class activities which counted for a significant percentage of the continuous mark, the author had initially planned two big tests. One with all multiple choice questions only and the other one with a combination of multiple choice questions and short questions but set in such way that verbs used require answers at the different levels of thinking of Bloom Taxonomy. He had also planned for a two page written assignment to be done in pairs for which he should assess using well defined rubrics. The author was afraid that if he gave students essay type of questions, he would not be able to provide immediate and quality feedback. For this, the author was also reminded by Botha, Fourie and Gyser (2005, p. 64) who argue that,

As class sizes go up, assuming the staffing remains the same, and the same assessment methods continue to be used, one of two things is likely to happen

with regard to assessment, and in both cases the effect on students is detrimental. It is either likely to be done well – less rigorously and with less and more superficial feedback to the student – and to take longer to be returned.

With all these assessment activities, the author wanted to provide an opportunity for the prospective teachers to understand that assessment is an essential element of teaching and learning development. As quoted in Black and William (1998, p.19) that,

Assessment is to be seen as a moment of learning, and students have to be active in their own assessment and to picture their own learning in the light of an understanding of what it means to get better.

Implications of Large Classes on Staff Development Activities

Evidence from literature and from the author narrated experience indicates that issues that confront teaching large classes are similar to those of teaching smaller classes as well. These issues include student motivation, provision of feedback, taking attendance, provision of quality instruction, classroom management, and designing quality assessment tasks. However, it is evident that these issues become more demanding when teaching large classes compared to smaller classes. Based on the author's experiences, and which are in line with what the literature has documented, large classes are not necessarily less effective than smaller classes. What is important is for a person teaching large classes to be more organized and put more effort in planning the teaching and learning activities that encourage active participation of students. This is a critical point when considering and planning staff development activities because the attitudes and behaviors of staff members are important to bring changes in the classroom. As proposed by Day (1999, p.4):

Professional development consists of all natural learning experiences and those conscious and planned activities which are indeed to be of direct benefit to the individual group or school, which contribute, through these, to the quality of education in the classroom. It is the process by which, alone and with others, teachers review, renew and extend their commitment as change agents to the moral purpose of teaching; and by which they acquire and develop critically the knowledge, skills and emotional intelligence essential to good professional thinking, planning and practice with children, young people and colleagues throughout each phase of their teaching lives.

The author's personal critical practices and reflections on these experiences of teaching large classes suggest that planning and designing of continuous professional development ought to be focused but not limited to the following:

- Use of time
- Management of large classes
- Planning for a large class
- Principles and strategies of teaching large classes
- Communication strategies in large classes
- Student motivation
- Flexibility and creativity in large classes
- Designing authentic assessment tasks
- Organization strategies.

In addition to continuous professional development activities such as suggested above, the author recommends that critical reflective practice and sharing of experiences with peers should be encouraged. There is a need for the University of the author of this paper or other universities with similar situations to bring together lecturers teaching large classes in order to reflect on their current teaching practices and experience in order to identify both short and long term solutions to challenges related to large classes. As Biggs (2003, p. 7) stated, "Learning new techniques for teaching is like the fish that provides a meal today; reflective practice is the net that provides meals for the rest of your life".

Conclusion

Teaching large classes is a worldwide phenomenon, especially when it comes to the provision of the university education. It is clear that teaching a large class requires hard work, effective planning both in terms of logistical arrangements and provision of learning activities, instead of relying on straight lecturers, which according to empirical evidence are not highly effective. These brief reviews of literature, accompanied by own narrated experience of teaching large classes highlighted some challenges associated with large classes. It is clear from this paper that lecturers assigned to teach large classes should be supported through continuous professional development activities in order to deliver meaningful learning activities in such settings. Had the author received professional development in teaching approaches of large class teaching, the author could have coped well and or could have done things differently in order to deliver better quality education.

References

- Apperson, J.M., Laws, E.L. & Scepansky, J.A. (2006). The impact of presentation graphics on students' experience in the classroom. *Computers and Education*, 47, 116-126.
- Biggs, J. (1999). *Teaching for quality learning at university*. Berkshire: Society for Research in Higher Education and the Open University Press.
- Biggs, J. (2003). *Teaching for quality learning at university* (2nd edition). Berkshire: Society for Research in Higher Education and the Open University Press.
- Black, P., & William, D. (1998). Raising standards through classroom assessment: A short version of assessment of classroom learning in assessment in education. *Principles, Policy and Practice*, 5(1), 1-62.
- Bligh, D. A. (2000). *What's the use of lectures? (1st Ed)*. San Francisco: Jossey-Bass.
- Botha, L.; Fourie, N. & Geysers, H. (2005). Teaching, Learning and assessment in large classes – a reality of educational change. *Education as Change*, 9 (1), 60-79.
- Center for Excellence in Learning and Teaching (1992). *Teaching large classes well: Solutions from yourepeers*. Available online from, http://www.psu.edu/celt/newsletter/ID_Oct92.html. Retrieved on, 12 January 2010.
- Coleman, H. (1989). *The study of large classes. Lancaster- Leeds language learning in large classes research project*. Report no 2.
- Day, C. (1999). *Developing teachers: The challenges of lifelong learning*. London: Falmer Press.
- Deed, C. (05 September 2007). Students walking out onelectures. *The Australian*. Available Online from, <http://www.theaustralian.com.au/higher-education/opinion/students-walking-out-on-lectures/story-e6fgrgcko-1111114343695>. Retrieved, 10 June 2012.
- Exley, K. & Dennick, R. (2004). *Giving a lecture – from presenting to teaching*. London: Routledge Falmer.
- Gibbs, G. & Jenkins, A. (Eds.). (1992). *Teaching large classes in higher education*. London: Kogan.
- Government of the Republic of Namibia. (1992). *University of Namibia Act 18 of 1992*. Windhoek: Government Press.
- Hess, N. (2001). *Teaching large multilevel classes*. Cambridge: CUP.
- Hoxby, C.M. (2000). The effects of class size on student achievement: New evidence from population variation. *Quarterly Journal of Economics*, 115, 1239-1285.

- Ihemba, R. (2013). *Enrollment figures*. Presentation to the Deans/Directors Committee, 25 February 2013.
- Ives, S.M. (2000). *A survival handbook for teaching large classes*. UNC: Charlotte.
- Jungic, V, Kent, D.& Menz, P. (2006). Teaching large classes: Three instructors, One experience. *International Electronic Journal of Mathematics Education*, 1, 1-15.
- Kerr, A. (2011). *Teaching and learning in large classes at Ontario Universities: An Exploratory study*. Toronto: Higher Education Quality Council of Ontario.
- Lantz, C., Smith, D., & Branney, P. (2008). Psychology postgraduates' perspectives on teaching-related support and training. *Psychology Learning and Teaching*, 7 (1), 37-45.
- Laurillard, D.M. (2002). *Rethinking university teaching: A conversational framework for the effective use of learning technologies*. London: Routledge.
- Lin, T. & Chen, J. (2006). Cumulative class attendance and exam performance. *Applied Economics letters*, 13, 937-942.
- Marburger, D. R. (2001). Absenteeism and undergraduate exam performance. *The Journal of Economic Education*, 32 (2), 99-109.
- MacGregor, J., Cooper, J.L., Smith, K.A & Robinson, P. (2000). Editor's notes. In J. MacGregor, J. L. Cooper, K.A. Smith & Robinson, P. (Eds.), *Strategies for energizing large classes: From small groups to learning communities. New Directions for teaching and learning, no 81*. San Francisco: Jossey-Bass.
- Milesi, C., & Gamoran, A. (2006). Effects of class size and instruction on Kindergarten Achievement. *Educational Evaluation and Policy Analysis*, 28, 287-313.
- Mohamedbhai, G. (2008). The effects of mass signification on higher education in Africa. Report from the working group on Higher Education of the Association for the Development of Education in Africa. <http://www2.aau.org/wghe/scm/meetings/mai08/adea/study-massification.pdf>
- Morgan, R., Whorton, J., & Gunsalus, C. (2000). A comparison of short term and long term retention: Lecture combined with discussion versus cooperative learning. *Journal of Instructional Psychology*, 27 (1), 53-58.
- Mulryan- Kyne, C (2010). Teaching large classes at college and university level: Challenges and opportunities. *Teaching in Higher Education*, 15 (2), 175-185.
- Onwu, G. & Stoffels, N. (2005, September). Instructional functions in large, under-resourced science classes: Perspectives of South African teachers. *Perspectives in Education*, 23(3), 79-91.

- Pascarella, E., & Terenzini, P. (1991). *How college affects students: Findings and insights from twenty years of research*. San Francisco: Jossey-Bass.
- Papó, W.D. (1999). Large class teaching: is it a problem? *College Student Journal*, 33 (3), 354-357.
- Romer, D. (1993). Do students go to class? Should they? *Journal of Economic Perspectives*, 7, 167-174.
- Schon, D. A. (1983). *The reflective practitioner: How professionals think in action*. London: Temple Smith.
- Slavin, R. E. (1989). Class size and student achievement: small effects of small classes. *Educational Psychologist*, 24 (1), 99-110.
- Snowball, J & Wilson, M. (2005). *What matters in large class and learning? A case study of an introductory Macroeconomics course*. Grahamstown: Department of Economics, Rhodes University.
- Stanley, C., & Porter, E. (Eds.). (2002). *Engaging large classes: Strategies and techniques for college faculty*. Bolton, MA: Anker Publishing Company.
- Szabo, A. & Hasting, N. (2000). Using IT in the undergraduate classroom: Should we replace the blackboard with PowerPoint? *Computers and Education*, 35, 175-187.
- Thatcher, A., Fridjhorn, And Cockcroft, K. (2007). The relationship between lecture attendance and academic performance in an undergraduate psychology class. *South African Journal of Psychology*, 29 (3), 375-394.
- Todd, R. W. (2006). Why investigate large classes? *KMUTT Journal of Language Education*, 9, 1-12.
- Toth, L., & Montagna, L. (2002). Class size and achievement in higher education: A summary of current research. *College Student Journal*, 36(2), 253-261).
- Twigg, C. A. (2003). Improving Quality and reducing cost: Designs for effective learning. *Change*, 35 (4), 23-29.
- University of Namibia. (2012). *General information and regulation*. Unam. Windhoek
- UNESCO (undated). *Learning and Teaching in higher Education*. Workshop Report, held at Moi University, Kenya. Available from <http://www.unesco-bamako.org/guide/fp/modules.pdf>. Retrieved, 11 June 2012
- Ur, P. (1996). *A course in language teaching: Practice and theory*. Cambridge University Press.