

MASSIFICATION AT HIGHER EDUCATION INSTITUTIONS; CHALLENGES ASSOCIATED WITH TEACHING LARGE CLASSES AND HOW IT IMPACTS THE QUALITY OF TEACHING AND LEARNING IN SOUTH AFRICA

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Abstract:

The paper engages with the phenomenon of large classes in higher education institutions in South Africa and its challenges to teaching-learning quality. In response to historical conditions, most public higher education institutions in South Africa have enrolled students more than their capacity, resulting in massification and negative consequences on educational quality. There has been a plethora of literature on the teaching of large classes. However, only some studies offer a comprehensive engagement on the challenges presented by teaching extensively and its impact on the quality of Education, as well as innovative strategies that can be used to teach and different learning pedagogies that can be used. This essay identified the challenges of teaching large classes in higher education institutions due to massification and large enrolments and their implications on sustaining and enhancing the quality of teaching and learning. In addition, I suggested several strategies that can be used to overcome the challenges of teaching large classes, and I monitored and evaluated these strategies to improve the quality of Higher Education in the era of massification. Accordingly, the human capital theory was adopted. Furthermore, a qualitative research approach was applied in this study, and a systematic literature review was used to collect and review information according to the guiding principles of the hermeneutic framework. The essay contributes to the literature with strategies to enhance the quality of teaching and learning, student engagements and teaching approaches aimed at reaching all students in large classes.

Keywords: Massification, Challenges In Teaching Large Classes, Quality Of Higher Education, South Africa



INTRODUCTION

South Africa has only 26 public universities and a few private higher education institutions and TVET colleges to meet the high demand for study places at higher education institutions. This has often resulted in increased enrolments beyond capacity. Academics are, therefore, under constant pressure to fulfill the teaching and learning mandate of quality education in the face of limited resources (Pravina, 2020). Moodley (2015) pointed out that higher education institutions face challenges in ensuring a high-quality education, which is worsened by massive class sizes. Teaching large classes has presented many challenges to lecturers today, and massification has become a reality in higher Education (Albertyn et al., 2016). Higher education institutions' challenges in ensuring quality education have been made worse by the large class sizes.

Massification refers to the significant increase in students enrolled in higher education institutions, resulting in the challenge of teaching large classes. According to Parhizgar (2010), massification means giving equal opportunities to all applicants or denoting a mass or universal education system, as proposed by Trow (1973). Scott (1995) further described massification as a rapid increase in student enrolment that has been witnessed towards the end of the twentieth Century and

has contributed to large classes at institutions of higher learning. Massification has challenged the traditional forms of universities, which were regarded as centers for elite minority groups of students to gain access to Education (Trow, 2000). Similarly, the South African government has aggressively moved towards improving its throughput levels, targeting 1.5 million enrolments and 400,000 graduates per year by 2030 (NDP, 2011). Teaching large classes in South Africa has been and will, therefore, remain commonplace at higher education institutions (Moodley, 2015). Biggs (1999) further pointed out that large classes at higher education institutions are familiar. In many countries, including France, Holland, Italy, and the USA, classes of between 300 and 1000 students have been identified as expected.

Lecturers have, in most cases, found themselves exposed to many challenges as they are expected to work within the massification model and, at the same time, to provide quality teaching. Within the social justice framework, lecturers have been identified as bearing a moral burden and teaching large classes is seen as something lecturers must do (Allais, 2014). Furthermore, teaching large classes at higher education institutions has quickly become a norm and has presented several physical, psychological, mental and emotional challenges impacting students and lecturers (Pravina, 2020). For instance, some of the main problems that students in large classes encounter include the following: physical discomfortment as they are cramped into a classroom with very little space for them to sit comfortably and to accommodate their learning tools and in the worst-case scenario having to sit on the floor or standing outside at the door; a sense of anonymity and feeling intimidated and voiceless in a large class, inadequate library resources to cater for the large numbers of students; inadequate functional equipment; lecture venue capacity constraints; shortages of student accommodation and facilities; abnormal student lecturer ratio and timetabling issues among others (Moodley, 2015; Pravina, 2020). Similarly, lecturers are not spared from the challenges of teaching large classes, loss of lecture time as it takes longer for students to enter the lecture venue and to settle down for the lesson, being unable to bond with students, and in the process not being able to discern the weaknesses and strengths of each student which is a cornerstone of quality teaching and learning; being frustrated by assessment demands and being forced to set assessments which are marker friendly rather than quality assessments and experiencing a general sense of not being in control of a large class.

Due to the significant challenges arising from massification in higher Education, there is a greater need to investigate and review how these challenges affect lecturers and students and their implications on the quality of teaching and learning. The author needs to identify more information in the literature about how massification and teaching large classes affect the quality of teaching and learning. Hence, the study focuses on this identified gap. This article reviews challenges associated with teaching large classes and its implications on the quality of teaching and learning at higher education institutions in South Africa. Additionally, the study will include ways to consider mitigating challenges associated with teaching large classes to improve the quality of teaching and learning in higher education institutions. The study further aims to assist the management of higher education institutions with ways in which challenges associated with massification can be reduced while promoting the quality of student development and motivating academic staff with new pedagogies that cater to teaching large classes.

In the global sphere, higher education institutions have been obliged to respond to the demands of globalization and the massification of education systems. Similarly, in the South African context, 1994 ushered in a new democratic settlement that had to comply, legally and morally, with the central imperative of addressing inequalities in all aspects of South African life, including

Education (Pravina, 2020). Education, notably higher Education, is now accessible to all South Africans, resulting in large enrollments and new challenges. The massification of higher Education has been aimed at reducing social inequalities and making Education accessible to all social groups (Kanyengo, 2007). This implicitly means that higher education institutions are aware of the socio-economic inequalities at all stages and in all educational processes to ensure that all students have equal access to Education and are encouraged to remain in and participate in the educational process.

Meyer et al. (2013) further argued that higher Education had become a necessity, not a luxury, and had an intrinsic value, such as the specialized knowledge acquired in higher Education. For this reason, academic staff now need to re-evaluate their current teaching practices and explore and implement creative and innovative methods for teaching large classes to ensure the quality of Education at higher education institutions is not compromised. In addition, lecturers are aware that they play a critical role in delivering quality teaching and learning practices to ensure that students succeed in achieving their academic qualifications (Chang & Yeh, 2012). Haung (2012) found that in Japan, where there has been a dramatic increase in student enrolment at higher education institutions, there has been a greater focus on accountability and quality teaching and learning to produce quality graduates. Therefore, the author focuses on the challenges associated with massification in the South African higher education system, the challenges of teaching large classes and its implication on the quality of teaching and learning, as well as strategies that higher education institutions should consider in addressing the challenges associated with teaching large classes and improving the quality of teaching and learning.

The study adopted the human capital theory. As per Martin Trow's (1973) study on the massification of higher Education, the human capital theory argues that the social dynamics of growth in a country drive the student's participation in higher Education. Human capital theory, therefore, provides the link between higher Education and the social dynamics of a country's economic growth. Higher education institutions increase their student enrolments in line with the country's economic growth demands for graduates with knowledge, skills, and certified professional competencies (Adetiba, 2019). Human capital theorists suggest that parents and students invest their time and resources in higher Education to improve their societal and educational position. However, most still need to learn the outcomes and challenges of massification in higher Education. Trow (2016), on human capital theory, concluded that there are no limits to people seeking to improve their knowledge in acquiring higher Education; therefore, there are no limits to participation in educational growth, regardless of how it is achieved. In South Africa, the Education served to the elite minority group in the past has been upturned. Now, there are equal education opportunities for all through massification in the higher education system (Adetiba, 2016; Lee, 2016).

METHODS

This study applied a qualitative research approach with a systematic literature review methodology. The study focuses on identifying the challenges associated with teaching large classes at higher education institutions and strategies that can be used to overcome the challenges of teaching large classes. The central propositions of this article are the quality of Education in large classes, challenges experienced by lecturers in teaching large classes, and teaching strategies employed by lecturers. A systematic literature review was used to collect the data according to the guiding principles of the hermeneutic framework. The framework is widely used to perform qualitative data synthesis. It was chosen because it offers multiple iterations of data synthesis for data sources to understand better and identify all relevant information for the study. The framework

states that literature can only be better understood through several iterations of the hermeneutic cycle (Boell & Cecez-Kecmanovic, 2014). The framework divides the literature review process into seven iterative steps: searching, sorting, selecting, acquiring, reading, identifying, and refining. The table below describes these steps in detail as they relate to the study.

Table 1. Activity description and application of the seven steps

| Activity | Description and application |
|-------------|---|
| Searching | Searching refers to finding relevant publications in multiple databases using the key search terms recorded in the section above. Search operators, database dependency, search logging, and field search helped refine the search. |
| Sorting | The search results were sorted according to relevance, citations, and publication criteria. |
| Selecting | Articles were carefully selected for reading from the list of sorted articles based on the selection criteria in row 1. The selection was based on a keyword search within the article and reading the abstract. |
| Acquiring | The complete texts of the carefully chosen articles were obtained for reading. The full texts of the carefully selected articles have been obtained for reading. |
| Reading | The preliminary reading should familiarise the researcher with the carefully selected articles and find references to other relevant articles. A systematic reading of all received articles was carried out. |
| Identifying | Additional search terms and articles could be identified based on the previous phase. This step found further publications after citation tracking and journals and conferences. |
| Refining | Search techniques were used to refine the newly discovered search terms. Successive fractions, building blocks, or subsequent citations from other studies were used to refine the search terms. |

Source: (Boell & Cecez-Kecmanovic, 2014)

RESULT AND DISCUSSION

Challenges of large classes and implications on quality of teaching and learning. South Africa has experienced a significant increase in enrolments in its higher education institutions in recent years, which has led to overcrowding in classrooms, a shortage of accommodation and other facilities, and a strain on resources such as funding and academic staff (Pravina, 2020). One of the consequences of massification in South African higher Education is the growing concern about the quality of Education. With more students entering the system, it is often difficult for institutions to maintain academic standards, provide adequate support, and ensure that students receive a high-quality education (Albertyn et al., 2016). This has led to various discussions and concerns around the employability of graduates and the impact of massification on the reputation of South African universities regarding producing quality and employable graduates. In addition, massification has also highlighted the issue of access and equity in the higher education system (Adetiba, 2019). While massification has brought benefits to the South African higher education system, it has also created significant challenges, including limited class interactions and feedback, lack of individual student attention and tracking, classroom management, assessments and grading, resources and capacity constraints, physical infrastructure, ineffective teaching methods, curriculum design, staffing and pressure on academics, educational quality and graduate employability (Mohamedbhai, 2008; Moodley, 2015; Pravina, 2020).

Limited interaction and feedback. In large classes, it is usually challenging for lecturers to engage with individual students and provide personalized feedback. This further makes it difficult for lecturers to identify and address individual student needs, which may lead to lower student

engagement and performance. In addition, large classes often limit the interaction between students and lecturers, resulting in a lack of feedback, opportunities for questions and discussions, and engagement with the course material. Jungic et al. (2006) pointed out that lecturers in large classes need help from students, which is one of the cornerstones of quality teaching and learning.

Lack of individual student attention. In large classes, lecturers find it difficult to provide individual attention to each student, which often results in some students feeling neglected or disengaged from the course and contributes to students' poor performance. Christopher (2011) concurred that large classes are unfair to lecturers regarding teaching workload and unfair regarding offering students quality education. Therefore, there often needs to be more meaningful interactions, dialogue, and discussions with students in a large class and more opportunities for lecturers to focus on the needs of individual students (Arvanitakis, 2014). Furthermore, one of the essential elements of successful teaching lies in the ability of the lecturer to respond efficiently to individual student's needs, which is a challenge when the class size is large (Wentling et al., 2007).

Classroom management. Managing a large class has been identified to be challenging for lecturers and may lead to disruptions and decreased instructional and teaching time. Ward and Jenkins (1992) identified that when teaching large classes, lecturers frequently have to deal with controlling large numbers of students entering and exiting lecture halls, which becomes very disruptive and negatively affects the quality of teaching. Ebrenberg et al. (2001) noted that there is a linear relationship between classroom size and the quality of Education received. Furthermore, it is also difficult for lecturers to ensure that all students actively participate in class discussions and learning activities. Similarly, lecturers need help with difficult large classes and maintaining discipline, which has often contributed to class disruption and a loss of lecturing time. Additionally, large classes require more work for lecturers to maintain two-way communication with their students, which is required to maximize student learning (Wentling et al., 2007).

Assessment and grading. Academic staff often need help with large volumes of marking and grading students' assignments or exams, leading to delays in providing adequate student feedback (Ward & Jenkins, 1992). Additionally, lecturers need help to ensure that marking and grading are consistent and fair across many students, mainly where budgets are allocated for independent markers (Moodley, 2015). In large classes, it is challenging for lecturers to assess students effectively, as shown in most cases where they resort to general assessments. This is because it takes much time to mark and grade many assignments or exams and provide timely individual feedback to students. The adoption of online assessments, on the other hand, has often been marred with disruptions due to system problems such as internet breakdown and learning management systems failures and resulted in the postponement of assessments or lecturers resorting to assessing through other mediums that do not promote assessment integrity and quality of results Pravina (2020).

Resources and capacity constraints. Due to the widespread lack of public funding for expansion, physical infrastructure at higher education institutions has remained the same to match the increased enrolments. For instance, large classes have contributed to the strain on limited resources, which include lecture halls, library resources, computer lab resources, teaching materials, and equipment. This resulted in a lack of access to resources by most students, negatively affecting the quality of their learning and understanding. Furthermore, Mulryan-Kyne (2010) pointed out that resources have also become a problem where few copies of prescribed books are often available in library centers and the challenges of prescribing extra reading to students, which are only sometimes readily available to students in a large class. According to Pravina (2020), the increased enrolment of students in higher education institutions resulted in inadequate and insufficient space at the computer laboratories, libraries, and writing centers, among other facilities, which negatively impact the quality of learning. Mohamedbhai (2008) identified that many institutions need more

infrastructure to cope with the increased enrolments, for example, lecture halls, student accommodation, shortage of books and periodicals, non-functioning equipment and lack of proper maintenance to infrastructure and equipment. The country has witnessed a growing trend of student protests in recent years, and most of these challenges have been the cornerstone of these student strikes. These strikes, in most cases, negatively affect teaching and learning.

Curriculum design and accreditations. The design of the existing curriculum may need to be revised for teaching large classes. Therefore, the curriculum must be revised to consider the challenges of teaching large classes, including the need for more interactive teaching methods and technology to facilitate quality teaching and learning. Furthermore, a direct consequence of poor-quality teaching provision resulting from massification has been increased programs offered by higher education institutions losing accreditation status. For instance, in 2017, four universities (Northwest University, Walter Sisulu University, University of South Africa and University of Free State) risked losing their accreditation for Bachelor of Laws qualification due to poor quality standards and curriculum in comparison to the Council on Higher Education standards (Amanda, 2017).

Pressure on lecturers. Lecturers have faced challenges with more time to fulfill their responsibility of teaching and learning in large classes while being involved in community engagement and research. Combined, these responsibilities are often overwhelming and have led to lecturers resorting to the traditional methods of teaching and assessment, which may yield poor results (Mulryan-Kayne, 2010). According to Kerr (2011), institutions of higher education value research more than teaching innovations, and the lack of institutional support for professional development has led to a shortage of experts who can evaluate the teaching methods and strategies adequately and appropriately to improve the quality of teaching large classes. This is further compounded in most higher education institutions where there are constant problems with poor infrastructure and technical problems, such as the unreliability of audio-visual equipment utilized in some large class venues, which hamper the effective delivery of the lesson (Pravina, 2020).

Kerr (2011) argued that many lecturers recognized that teaching large classes requires more resources and time for class preparation. Teaching large classes requires lecturers to be very organized and structured, which is only sometimes the case due to time constraints. With the growing numbers of students due to increased enrolments, most institutions have been unable to attract and recruit suitable and qualified academic staff, which resulted in an increased lecturer/student ratio, increased teaching workload and administrative responsibilities to the academic staff, leaving them with little or no time to devote to research which is a fundamental pillar of an institution of higher Education. Furthermore, a relatively low number of academic staff members with PhD, which means that the majority of academics are not in a position to be promoted to postgraduate programs or to supervise research, and this has increased pressure on the few academics to facilitate supervision of large numbers of postgraduate students (Mohamedbhai, 2008).

These challenges can significantly impact the quality of teaching in large classes. To address these challenges and improve the quality of teaching in large classes, institutions should consider implementing strategies such as reducing class sizes, providing additional resources and support to instructors, using technology to facilitate learning and assessment, and adopting more effective teaching methods that promote active learning and student engagement. By doing so, institutions will ensure that students receive a high-quality education, regardless of class size.

Ways to mitigate challenges of teaching large classes and its impact on the quality of teaching and learning. There are several ways that higher education institutions can consider addressing the challenges associated with teaching large classes to improve the quality of teaching and learning. Some of the various ways to address the challenges of teaching large classes include

reducing class sizes into discussion rooms to promote active learning, using technology to facilitate learning, creating a supportive learning environment, capacitating the library resource centers with adequate textbooks and other learning materials, new teaching methods which cater for students in a large class.

Reducing class sizes. One of the most effective ways to improve the quality of teaching in large classes is to divide them into small class sizes. This can be achieved by increasing the classes offered or implementing caps on class sizes. Cooperative learning is an essential element of small-class cooperative work during teaching sessions. This has been recommended in large-class teaching at higher education levels (Bryant, 1978). According to Cooper and Robinson (2000), small-group work or small class sizes can contribute to effective teaching and learning by promoting cognitive elaboration, enhancing critical thinking, providing feedback, promoting social and emotional development, and appreciating diversity.

Use technology in teaching. Mulryan-Kyne (2010) highlighted that advancement in the use of technology may be adopted to enhance teaching and learning as well as assessment in large classes. This can be through online discussion forums, online classes using Zoom or Microsoft Teams platforms, video conferencing, and automated assessment grading systems. The use of online teaching resources is considered an essential aid that helps solve the challenges of large-group activities through the involvement of other learners and the readily available electronic resources inside and outside the classroom (Jerez et al., 2021). Kerr (2011) recommends that lecturers keep abreast of advances in pedagogical approaches and new technologies to improve their considerable class teaching experience. Challenges of teaching large classes can be addressed through information and communication technologies, including learning management systems (Blackboard and Moodle) and blended learning. The use of learning management systems improves lecturers' accessibility to students. It encourages interactions and participation in online discussions, improves communication between students and lecturers and between students, and improves access to course content and other learning materials (Moodley, 2015).

Incorporate active learning methods. Traditional lecture-based teaching methods have been identified to be less effective in large class settings. Instead, lecturers should incorporate active learning strategies such as group work, peer instruction, and problem-based learning. Active teaching and learning methods can be defined as strategies that promote the participation of students in a way that encourages them to perform tasks and activities towards their learning process instead of the traditional passive experience (Jerez et al., 2021). Furthermore, to ensure that teaching and learning are more active in large classes, lecturers can include brainstorming, short writing activities, class discussions, formative quizzes, debates, and student presentations (Mulryan-Kyne, 2010). Voekl (1995) found that a reduction in active involvement by students in learning can lead to decreased course performance, and therefore, active participation by students in the context of teaching and learning is an integral part of quality education. Additionally, active teaching is essential as it creates student-centered learning environments, acknowledges student diversity, and reduces student dependence on the lecturer for knowledge acquisition (Mulryan-Kyne, 2010).

Providing adequate resources and support to staff and students. To ensure the quality of Education, lecturers should be equipped with adequate resources and support to teach large classes effectively. In addition, students should be supported with adequate learning materials on the online learning management systems and in library centers (Moodle, 2015). Moreover, further support services can be provided, which include training on effective teaching strategies and maximum utilization of online learning platforms and learning management systems (Mulryan-Kyne, 2010).

Higher Education should ensure adequate infrastructure, including lecture halls and ICT equipment, as well as constant maintenance to ensure the delivery of quality education.

Assessments are used to monitor and track student progress. Frequent assessments should be used to monitor student progress and provide constant feedback to students. In addition, lecturers and tutor assistants may use a variety of assessment methods, such as online quizzes, class activities, assignments, tutorial activities, and essays, to ensure that students understand the course material (Wentling et al., 2007; Pina, 2010)

A supportive learning environment. Creating a supportive learning environment will help students feel engaged and motivated. Lecturers should apply teaching styles that promote participation, provide timely individual student feedback, and create community in the class. Lecturers should incorporate more interactive teaching methods, such as group work discussions, peer instruction, and technology-assisted learning, to improve student engagement, performance and quality of teaching and learning (Jerez et al., 2021).

By implementing these strategies, higher education institutions can address challenges associated with large classes, improving the quality of teaching and learning and the number of graduates produced. This will help ensure students receive a high-quality education regardless of class size.

Monitoring the strategies of addressing challenges of teaching large classes. Monitoring and evaluating the challenges of teaching large classes and their impact on the quality of teaching and learning in South African higher education institutions can be done through a systematic and comprehensive approach. Here are some strategies that can be employed:

Class observations and evaluations. Regular classroom observations can assess students' and lecturers' instructional practices and engagement levels (Jerez et al., 2021). This may provide insights into the effectiveness of teaching strategies and the extent to which students actively participate and learn in large classes.

Conducting student surveys. Student feedback can be gathered through anonymous surveys or feedback forms to gather their opinions and experiences regarding large classes' teaching and learning and the quality of Education received (Westphalen, 2013). This feedback from student surveys will be necessary for evaluation as it highlights specific challenges they face, such as difficulty accessing resources, receiving individualized attention, and providing suggestions for improvement.

Academic performance analysis. Another way is by analyzing students' academic performance data in large classes compared to smaller ones. For instance, this may include examining pass rates, course completion rates, and student grades and identifying any significant differences where additional support or interventions may be needed.

Monitoring graduation and retention rates. An evaluation can be conducted by monitoring students' graduation and retention rates in large classes (Harding & Engelbrecht, 2017). Suppose there is a notable disparity between students in large and smaller classes. In that case, it may indicate the need for targeted interventions to enhance student success in more extensive class settings.

Evaluation using learning analytics. Learning analytics tools and technologies gather data on student engagement, participation, and progress in large classes (Lau et al., 2018). These tools will assist in providing insights into student behaviors, identify areas of improvement, and support lecturers in making data-driven instructional decisions.

Focus groups and interviews. Monitoring and evaluations can be conducted through focus group discussions or interviews with students and lecturers to gain qualitative insights into the challenges and opportunities associated with teaching and learning in large classes (Guest et al.,

2017). These discussions can provide in-depth perspectives and recommendations for improving the quality of Education in larger classes.

Professional development and training evaluation. Evaluations can be conducted to assess the effectiveness of professional development programs and training initiatives designed to support lecturers teaching large classes (Foschi, 2021). In addition, the impact of these programs on instructional practices, student engagement, learning outcomes, and the quality of teaching and learning will be assessed.

CONCLUSION

All stakeholders in the field of higher Education should prioritize quality teaching and learning that par excellence in all contexts. Class size has been identified as one of the most highly contested issues when discussing quality education. Providing a high-quality teaching and learning experience should be a priority shared between lecturers and students. Literature has provided strong evidence of lecturers being overwhelmed by the challenges of massification that have led to teaching large classes and students being combined into such large classes to the extent that they are voiceless. Although lectures will remain at the helm of teaching and learning, using ICTs is integral to engaging students to maintain contact with the lecturer and other students using forums and discussion boards. Higher education institutions should equip the lecturers and students with adequate resources and infrastructure to deliver quality teaching and learning. Lecturers must continually develop their lectures to be more interactive and student-centered to ensure the quality of teaching and learning. To ensure the quality of teaching and learning, lecturers are expected to find creative and innovative ways of engaging their students in an interactive environment that will remove the stigma that large classes equal inferior Education. This essay has provided ways and practical strategies that lecturers can employ to ensure that the student throughput and output are highly quality regardless of teaching considerable class challenges. Introducing and developing learning management systems and other technologies have significantly boosted extensive class pedagogy. Higher education institutions should create an environment conducive to teaching and learning that will generate quality students and lecturers who can live up to the student's expectations. Furthermore, all stakeholders in higher education institutions must embrace the tools available to turn large classes into an opportunity to make the teaching and learning process enjoyable, interactive and productive to produce quality graduates.

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