Teacher Perceptions on Effective Teaching Methods for Large Classes

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In the last twenty years , in most African countries, changing government approaches to higher education, along with funding cuts, have had significant effects on the role of the academics. One of the apparent manifestations of these changes has been the dramatic burgeoning of class size. Large classes are popular as an efficient and cost effective way to teach large numbers of students (MacLeod, 1998). At the University of Arusha, as is in any other African university, large classes are a common experience for many students and will remain so in the foreseeable future.

The issue of class size and its impact on student learning has been an issue of debate in tertiary level education. Although research carried out on the effects of large classes on student performance is inconclusive, much evidence does recognize large class size as a deterrent to students' active learning (Murdoch & Guy, 2002). There is also overwhelming agreement that the key to effective instruction and student learning, regardless of class size, is engaging students in active learning (Stanley & Porter, 2002).

The primary purpose of this study was to determine teacher perceptions on effective teaching methods for large classes at the University of Arusha. In addition, participants were required, through the use of a questionnaire, to determine the challenges they faced in large group teaching. Participants were also required to give recommendations on how to meet the challenges that they faced in large group teaching. The findings provide valuable direction for teachers in large group teaching.

Review of the Literature

Indeed, successful teaching and learning in large classes involves addressing many of the requirements of good practice in teaching relevant to all student learning. These include, among others, the ability to motivate students, to actively engage students in learning, to manage class room disruptions, being systematic and organized (Revel & Wainwright, 2009).

Delivering quality and value to a large class presents unique challenges which according to Kennedy and Siegfried (1997) include, difficulty to control the quality of student learning, dealing with student diversity, effectively dealing with formative evaluation, maintaining attention, and getting authentic student-centered learning.

The fact that widening access is bringing students from a broad spectrum of achievement and from diverse backgrounds into the university system, makes it imperative for teachers to be able to incorporate effective teaching methods in their classrooms.

Class Size and Learning

It is often believed that learning occurs in proportion to class size. The smaller the class, the more students learn. However, Gibbs *et al.*, (1996) has noted that small classes provide more opportunities for feedback and discussions than large classes. "It does not suggest that class size is necessarily a correlate of student learning. What counts is not the size of the class but the quality of teaching." Hence, in terms of student performance and class size, there is some conflicting research evidence. Research by Kennedy and Siegfried, (1997) suggested that there was no significant relationship between class size and student performance.

However, results vary based on the criteria used to gauge student performance as well as the class size measure itself. When traditional achievement tests are used, small classes provide no advantage over large classes (Kennedy & Siegfried, 1997).

On the other hand, Arias and Walker (2004) noted that when additional performance criteria were used, such as long term retention, and problem solving skills, and where assessment taped higher level outcomes, it appeared that small classes held an advantage over large classes.

Effective Teaching Methods

The traditional passive view of learning involves situations where material is delivered to students using a lecture base format. In contrast, a more modern view of learning is constructivism where students are expected to be active in the learning process by participating in discussions and or collaborative activities (Matiru, Mwangi, & Schelette, 1995). The findings of a study by De Caprariis, Barman, and Magee (2001) suggested that the lecture method led to the ability to recall facts, but discussions produced higher level comprehension. Further research on group – oriented discussion methods has shown that team learning and student led discussions not only produced favorable student performance outcomes but also fostered greater participation, self confidence, and leadership ability (Perkins & Saris, 2001).

Hunt, Haidet, Coverdale and Richards (2003) examined student performance in team learning methods, and found positive learning outcomes as compared to traditional lecture based methods. Furthermore, their research demonstrated that the use of the lecture combined with discussion resulted in superior retention of material among students. Gibbs *et al.,* (1996) argued that to engage students in large classes, teachers had to foster active learning techniques for group settings. The authors further noted that active learning allowed students to synthesize, analyze, and evaluate information under discussion.

Methodology

Instrument

In order to collect information related to teachers' perceptions on the effective methods of teaching large classes, a self administered structured questionnaire was developed. The questionnaire had four sections. The questions in section A were used to gather information regarding the sex of the teacher, the largest class size they taught and faculty or school where the teacher came from. Section B required the respondents to rate the teaching methods from most effective to least effective. Furthermore, it had two open ended questions that required the respondent to supply reasons why they felt a particular method was effective or not effective. Questions in section C were used to gather information regarding major challenges faced by teachers in large group teaching. A Likert scale of 5 points was used. (1-never, 2-rarely, 3-sometimes, 4-most of the time, 5- always). The fourth section required the participants to suggest solutions to the challenges of teaching large classes. The researcher personally distributed the questionnaires to each individual teacher. Out of the 45 questionnaires distributed, 30 (66%) were returned.

Participants

The study involved all the teachers at the University of Arusha. Out of a total of 45 teachers, 30 (66%) participated in the study. 16 came from the School of Education, 8 from the Faculty of Business, and 6 from the Faculty of Theology.

Analysis

In this study, the Statistical Package for Social Sciences (SPSS) was used to analyze the data captured from the questionnaire responses. The analysis was conducted using frequency tables and percentages. The fourth section on challenges faced by the teachers in large group teaching, was analyzed using means. An arbitrary cut off criterion of mean equal to three (on a five point scale) and above was used to determine the most significant challenges faced by majority of the participants, while less significant challenges were identified using an arbitrary cut off criterion of mean less than three. The study was descriptive in design.

Findings

In terms of sex of the respondents, there were three female and 27 male teachers. 16 of the respondents were from the school of education, 8 were from the faculty of business and 6 were from the faculty of theology. In terms of class size, 15 (50%) of the teachers had the largest class size consisting of 300-800 students. 9 (30 %) of the teachers had class size consisting of 100-200 students. 6 (20%) of the teachers had a class size below 100 students.

Table 1: Class Size

Class Size	Frequency	Percent
300-800	15	50%
100-200	9	30%
Less 100	6	20%

Analysis indicated that smaller teaching groups were the most favored class size.(57%)

In terms of the most effective methods of teaching large classes, the lecture/discussion method was rated the most effective 12 (40%) Lecture was next, 8 (27%). Team project followed 5 (17%). Problem solving, 3 (10%). Case study was rated the least effective, 2 (6%).

Table 2: Teachers' Perceptions on Effective Teaching Methods for Large Classes.

	Teaching Methods	Frequency	Percent
Most Effective	Lecture/Discussion	12	40%
	Lecture	8	27%
	Team Project	5	17%
Least Effective	Problem Solving	3	10%
	Case Study	2	6%

Participants were also required to state why they felt a particular method was effective or not. The most common reasons the participants gave why they rated the lecture/discussion method the most effective method for teaching large classes included , "involved students," "held students accountable for their own studies," and, "reduced teacher talk." Reasons for rating the lecture method next highest included, "saves time," "can cover a lot in a short time," "it is safe and easy," and, "students get uniform material." Reasons why the team project was also favored included, "makes students work," "develops other skills among students such as writing and team work spirit," and , "learning becomes concrete." Lecture/discussion, lecture, and team projects were rated the most effective methods for teaching large classes . Reasons for rating problems solving, and case study low included, "creates assessment problems," "only the smart students work."

The descriptive analysis showed that the most frequent challenges faced by teachers in large group teaching included; ensuring students pay attention (Mean= 3.6). Getting students to participate (Mean= 3.9). Difficulty in assessing tests, quizzes and assignments (Mean= 3.8). Identifying weak students (Mean= 3.6). Ensuring finishing class syllabus in time (Mean=2.1). Thus the major challenges faced by teachers in large group teaching included ensuring students pay attention, getting students to participate, identifying weak students and difficulties in assessment. All had a mean above three. Only finishing the syllabus on time in large group teaching was not considered a challenge because it had a mean of less than three (2.1).

Table 3: Challenges Faced by Teachers in Large Group Teaching.

Teaching Challenges	Mean
1.Getting students to participate	3.9
2.Difficulty in assessing tests, quizzes, and assignments	3.8
3. Ensuring students pay attention	3.6
4. Identifying weak students	3.6
5. Ensuring the syllabus is finished on time	2.1

The last section of the questionnaire required the participants to suggest solutions to the challenges faced by teachers in large group teaching. The common suggestions were, "divide the classes into smaller groups," "pay more money to those who teach large classes," "Reduce teaching load," "management should support by providing resources," "increase manpower," and , " be innovative in teaching."

Conclusion

The findings of this study demonstrated that most teachers (50%) were teaching large classes of more than 300 students. 30% were teaching classes between 100-200. Only (20%) were teaching classes less than 100 students. It therefore appears that large classes are the common form of teaching.

In terms of the most effective methods of teaching large classes, most teachers (40%), perceived the lecture/discussion method as the most effective. Teachers' comments as to their reasons for rating this method as the most effective seem to suggest that it involves students in active learning rather than passively listening to a lecture. Team project was perceived to be effective (17%) though less effective than the lecture and lecture discussion methods. A frequent comment why the teachers perceived the team project method to be effective was that it helped students to develop other skills. The problem solving and case study methods were perceived to be the least effective, (10%) and (6%), respectively. Overall, the findings indicated that teachers perceived methods that involved active learning as the most effective methods while at the same time, they found it difficult to implement such methods.

This study further indicated that the major challenges faced by teachers in large classes included; getting students to participate (M =3.9), getting students to pay attention (M=3.8), assessment challenges (M=3.6), and identifying weak students (M=3.6). All these factors had a mean above 3. However, finishing the syllabus on time was not found to be a challenge because it had a mean of less than 3 (2.1). These findings suggest that teachers are facing challenges that must be addressed if students are going to perform well.

The most frequent recommendations from the teachers on how to deal with these challenges included dividing classes into smaller groups so that active learning culd be implemented (57%).

Based on enrollment projections, large classes are going to become a way of life for most teachers. Therefore, further research on large class issues is imperative. Future research should include measuring improvement in higher level comprehension, critical thinking , and problem solving skills to give insight into the value of the teaching methods.

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Appendix (Survey Instrument)

This questionnaire has four sections to it. Please answer all the questions.

Section A.

1. Sex: ( ) Male ( ) Female
2. Faculty/School: ( ) School of Education ( ) Faculty of Business
   ( ) Faculty of Theology
3. What size is the largest class you are teaching? ( ).

Section B.

1. Of the following teaching methods, which, according to your perception are the most or least effective in teaching large classes. Rate them from 1 to 5. 1, being the most effective, -5 being the least effective.

Teaching Method	Rating (1-5)
Lecture/Discussion	
Lecture	
Team Project	
Problem Solving	
Case Study	

2. Give 3 reasons why you feel a particular method is effective in teaching large classes._____
   _____
3. Give three reasons why you feel a particular method is not effective in teaching large classes._____
   _____

Section C.

This section lists challenges faced by teachers in large group teaching. It uses a Likert scale of 5 points. 1- Never, 2-Rarely, 3-sometimes, 4- most of the time, and 5- always. Tick the section that applies to you.

	1	2	3	4	5
	Never	Rarely	Sometimes	Most of the time	Always
Challenges					
1.Ensuring that students pay attention					
2.Getting students to participate					
3.Difficulties in assessment					
4.Identifying weak students					
5.Finishing class syllabus on time					

Section D.

List three solutions that you would recommend to meet the challenges of teaching large classes.

_____
_____
_____.