

INSTRUCTIONAL, PSYCHOLOGICAL AND SOCIAL EFFECTS OF LARGE CLASSES ON STUDENTS OF THE DEPARTMENT OF BASIC EDUCATION, UNIVERSITY OF EDUCATION, WINNEBA, GHANA

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ABSTRACT

The quest for various countries, especially the developing ones to achieve universal education and the fast growing population have resulted in high enrolment of students in universities of many developing countries. The study therefore investigated the instructional, psychological and social effects large classes have on students of the Department of Basic Education, Winneba, Ghana. The purposive sampling technique was used to select all 893 students in the Department for the 2014/2015 academic year but 642 usable questionnaires were used for the analysis. The findings revealed that the instructional, psychological and social effects of large classes on the students were low even though the social effect was found to have higher mean score than instructional and psychological effects. It was also found out that there was no significant difference in the views of male and female students on the instructional effect of large classes. Again, no significant difference existed in the views of male and female students on the psychological effect of large classes. Similarly, no significant difference was established in the views of male and female students on the social effect of large classes. Among the recommendations were that workshops and seminars should be regularly organised for lecturers to enable them share their experiences and strategies in teaching large classes, and to adopt effective teaching and classroom management techniques, especially for large classes.

Keywords: Effects, Instructional, Psychological, Social, Students.

INTRODUCTION

Large classes, especially at the tertiary level, are very common these days in developing countries, of which Ghana is no exception. Moretti (2004) supports this by indicating that the organisation of university education has been and continues to be in the spotlight both in academic and policy circles, especially when the importance of higher education in providing positive externalities within the world of work, and fostering economic growth are being stressed.

The phenomenon of large or overcrowded classes could be attributed to the global initiatives to ensure universal education, and also, the rapid increase in population. Rapid population growth seems to be the foundation upon which issues concerning overcrowding in educational institutions lie. Also, the clarion and publicized calls to improve access to education for children of the world's school going age children since the 1990 World Conference on Education for All (EFA) in Jomtien, have had tremendous impact on student enrolments in education (Benbow, Mizrachi, Oliver & Said-Moshiro, 2007). According to Bandiera, Larcinese and Rasul (2010) the last decade has seen dramatic increases in university enrolment as a result of the adoption of supply side policies, thus making it very difficult for universities to immediately adjust all relevant inputs to match such increases in enrolment. As a result, faculty or teaching rooms are few, and this causes overcrowding in the few classrooms.

The quest for education, especially, higher education to attain better living condition of living is therefore seen as a major cause of overcrowded classrooms in most tertiary institutions. Lipinge (n.d.) asserts that high demand for higher education and the worldwide phenomenon of educational expansion have made large classes to be part of the teaching set-up in universities, especially at the undergraduate level. Mulryan-Kyne (2010) supports this view by pointing out that large classes of between 300 and 1,000 and even more at the undergraduate level are common in institutions of higher learning in a number of countries. This situation, according to Lantz, Smith and Branney (2008) creates a lot of challenges to both experienced and inexperienced lecturers assigned to teach these large classes. Such a phenomenon pertains in Ghanaian universities, including the University of Education, Winneba (UEW).

There is no exact answer to the question of what a large class is. Hence, the definition of large class is relative, and as indicated by Wang and Zhang (2011) there is no quantitative definition of what makes a large class because the perception of people of what a large class is varies from context to context. Amedahe (2010) emphasizes that class size is measured in terms of the number of students per teacher. That is, student-teacher ratio (STR). The STR regarded as large varies from country to country, and also according to the level of education (Basic, Secondary or Tertiary). One lecturer to 30 to 40 students could be seen as large in some countries while in other countries this may be considered as normal or even small. Thus, Amadahe (2010) points out that generally, class size is determined by the nature of the programme or course, availability of facilities, and the requisite resources needed in the management of the class. This implies that class size is the actual number of students that one teacher is responsible for every day.

All over the world, teachers and students face a lot of challenges during the teaching and learning process since most classes are deemed to be large. Such classroom conditions are specifically acute in the developing countries where class sizes mostly go beyond 100 students (Benbow, Mizrachi, Oliver & Said-Moshiro, 2007). These challenges affect the quality of teaching, assessment of students, and the quality of the products from the universities. The Ghana Government's White Paper (2002) on the report of the Presidential Committee on Review of Education Reforms agrees with this and notes that the quality of teaching and learning, and research is adversely affected by high STR. In Ghana, the existing policy and class size at the basic level is 35 and 25 respectively for primary and junior high schools (Government of Ghana, 2002). At the tertiary level, the STR's, as indicated by the National Council for Tertiary Education (NCTE) (2012:3) are 12:1 for Medicine, 15:1 for Pharmacy, 18:1 for Engineering, 18:1 for Applied Science, Technology and Health Science, 18:1 for Science, 27:1 for Business Administration, and 27:1 for Social Sciences and Humanities.

Available evidence shows that on the average, the ratio could be as high as 30:1 for the Sciences and 40:1 for the Humanities (Government of Ghana, 2002). In reality, these ratios seem to be an understatement. For instance, the student enrolment of the Department of Basic Education of UEW for the 2014/2015 academic year was 893 (609 males and 284 females). Out of this number, there were 353 (231 males and 122 females) students at Level 100, 278 (180 males and 98 females) students at Level 200, 153 (112 males and 41 females) students at Level 300, and 109 (86 males and 23 females) students at Level 400 (Department of Basic Education, UEW, 2014). At UEW, Ghana, the time table for lectures is structured in such a way that lecturers, especially those at the Department of Basic Education teach a cohort of more than 100 students at a go. Hence, considering NCTE's (2012) standard of STR for Social Sciences and Humanities of 27:1, it is clear that class sizes of the Department of Basic

Education of UEW are large. The unfortunate situation is that the increase in intake of students at the Department has not been matched with the number of teaching staff which stood at 14 for the 2014/2015 academic year. These figures show clearly that large classes exist in the Department of Basic Education of UEW, since the student enrolment at each level far exceeds the STR recommended by the NCTE (2012).

According to Lipinge (n.d.) large class settings have historically been mainly lecture-centred, requiring minimal student engagement and expecting little more than memorization of terms and concepts as evidence of student learning. To them, the sheer size and anonymity of large classes seem to prevent teachers from adopting those elements that promote students' involvement and intellectual development, learning and success. Again, inattention or absence of students from class and mediocre student performance are not easily noticed by lecturers. Such a situation may create more challenges not only to students, but to educators, and can eventually lead to poor teaching and learning. This study therefore investigated the instructional, psychological and social effects large classes have on the students of the Department of Basic Education of UEW, Ghana.

The findings of the study will highlight the instructional, psychological and social effects of large classes on students' learning. In addition, it will reveal some useful insights to lecturers to enable them adopt suitable strategies, and put in place effective measures to contain the challenges of large classes. Again, the study will bring out vital information on large classes in UEW which will be of great benefit to the management of the university, policy makers, and all stakeholders of education in Ghana in developing effective policies to address the problems of large classes. Last, but not the least, the findings of the study will add to literature on large class sizes in the context of UEW, Ghana, and also serve as a basis for further research. The study was guided by the following research questions and hypotheses:

1. What are the instructional effects of large classes on students of the Department of Basic Education of UEW, Ghana?
2. What are the psychological effects of large classes on students of the Department of Basic Education of UEW, Ghana?
3. What are the social effects of large classes on students of the Department of Basic Education of UEW, Ghana?
4. Which of the effects (instructional, psychological and social) of large classes is seen as the most outstanding for the students of the Department of Basic Education of UEW, Ghana?
 - H₀₁: There is no significant difference in the views of male and female students of the Department of Basic Education, UEW, on instructional effect they experience as a result of large classes.
 - H₀₂: There is no significant difference in the views of male and female students of the Department of Basic Education, UEW, on psychological effect they experience as a result of large classes.
 - H₀₃: There is no significant difference in the views of male and female students of the Department of Basic Education, UEW, on social effect they experience as a result of large classes.

LITERATURE REVIEW

The last ten years have seen a great transformation in the way higher education is delivered, and one of the most significant changes in the universities is the burgeoning rate of participation, especially in developed countries where participation of high school graduates

has increased over the last decade from between 5% and 10% to 30% (Newstead, 2000). He continues that most academics and critics of government policy have bemoaned the seeming inevitable fall in academic standards as a result of the universities lowering entry requirements to ensure that more students are enrolled. However, a lot of evidence suggests that this expected falling standards has not occurred and that the quality of the degrees produced by the universities have been managed and maintained.

Some people argue that intuitively, smaller classes have a positive impact on student achievement while others contend that there is no significant impact. Those in favour of smaller classes provide evidence from Europe and North America that small classes benefit young children and those from disadvantaged or minority backgrounds. These benefits are found to occur as a result of factors, including: increased teacher contact, differentiated instruction, improved classroom management, and improved teacher morale (Gates Foundation, n.d.; Vander Ark, 2002). On the other hand, evidence abounds to the contrary. An instance is Eherenberg, Brewer, Gamoran and Willms' (2001) study on the impact of class size on student achievement which concluded that there was no significant evidence that variations in class size explain improvements in student achievement. They suggest that even if some correlation did exist between class size and student achievement, the benefits were too small to warrant the implementation of expensive positive class size reduction programmes. Milesi and Gamoran (2006) also found out from a study that there was no evidence of class size effects on student performance. They therefore concluded that class size does not have any impact on student performance.

Researches on large class size exist in developing countries but the results are often inconclusive. In reviewing 96 studies that tried to link various educational inputs to student performance in developing countries, Hanushek (1995) found out that nearly a third (31) of the reviewed studies specifically investigated the effect of pupil-teacher ratio. Of these, only eight found reduction in class size to significantly explain improved academic achievement. Michaelowa's (2001) study on learning competencies in five francophone sub-Saharan African countries (Cameroon, Cote d'Ivoire, Burkina Faso and Senegal), concluded that an inverse relationship existed between class size and learning outcomes. That is, student learning decreased as class sizes increased. Another conclusion from the study was that 62 students per teacher was a threshold number and once class size went beyond 62, learning effectively stopped, or was so compromised that it did not make any meaningful impact on students. Despite this finding, Michaelowa (2001) indicates that large class sizes do have moderate adverse effect on teaching and learning.

In identifying trends with large classes, the major problem is that what constitutes a large class is determined by the nature of the class (whether it is a lecture, tutorial, or laboratory work), and the perceptions of lecturers and individual students. The preference of students with respect to class sizes and concerns about the impact of class sizes on their learning are almost always determined by their previous experiences. The Teaching and Educational Development Institute (2001) reports of a survey in which 246 higher-level undergraduate students (2nd, 3rd and 4th years) investigated learning problems associated with class size. The results showed that students at higher levels of study and with previous experience of various class sizes do not see large classes to pose significant challenges to their learning. This, to the Institute, confirms a previous research which found out that more experienced students express stronger preferences for large classes than do first year students, who usually are interested in the greater interaction involved with small classes. No matter the preference of students, it is real that there are mixed feelings about the effect of large

classes on student performance, though the quality of teaching and learning experience are important influences over student results.

Wilson (2006) opines that two important and interrelated aspects of teacher practice are adversely affected by large classes. These are instructional time and classroom management. On instructional time, there is evidence that teachers in large classes devote less time to instruction as compared to teachers in small classes who are likely to cover a range of subjects. It is assumed that large classes decrease the amount of time that can be spent on instruction and dealing with individual students. In Ghana, teaching in the universities is mostly by the lecture method. As lecturing is considered to be perhaps the most frequently used teaching method in most large classes in the universities, it is safe to argue that the teaching and learning process is more of lecturer-centered than student-centered in the universities. This makes the students to be less active (passive), even though that should not be the case. With this, Amadehe (2010) posits that some students may not understand certain things but will also not ask for explanation because of the size of the class. In a large class, students have diverse needs, and the use of the lecture method may not cater for these different needs of the students in terms of ability, interest and motivation. This calls for various teaching and learning strategies for managing large classes.

According to Wilson (2006) large classes take a toll on the teacher's ability to manage time, task management and behavioural management which leaves the teacher little time for actual instruction. Thus, in large classes it is difficult for teachers to spot problems and give feedback, identify specific needs and gear teaching to meet them, set individual targets for students, and be flexible and adventurous in the use of different styles of teaching. He continues that larger classes are noisier and that pushing, crowding, and hitting occur more often in larger classes than in smaller ones. In Ghanaian universities, some students capitalize on large classes and absent themselves without notice. Such students photocopy lecture notes from their colleagues instead of attending lectures. In some cases lecture rooms are small compared to the number of students. This leads to congestion and overcrowded classrooms which do not provide an enabling environment for effective teaching and learning.

Thafer (2005) found out that students' responses on instructional, psychological and social effects were all moderate, and another survey in Indonesian universities concerning classroom management, teaching and learning, evaluating students' progress, time allocation and instructional aids, suggests that the problem of large classes seriously affects classroom management, and solutions to those problems are urgently needed. Students' engagement, behaviour, and retention are affected in so many ways by the size of the class. This idea is supported by Finn, Pannozzo and Achilles (2003) who, in reviewing studies on the link between student engagement and class size conceptualized student engagement in two forms, namely, social engagement (how a student interacts socially with other students and teachers in either pro-social or anti-social ways) and academic engagement (students' attitude towards schooling and the learning process). They indicate that when students are placed in smaller classes, they become more engaged, both academically and socially, and argue that with strong social academic engagement, academic achievement improves.

Assessment and evaluation of students is seen as an integral part of the teaching and learning process (Amadahe, 2010). Large classes call for large volumes of marking to be done and feedback given to students. This is a major challenge, especially in Ghanaian universities. In the face of large classes, lecturers are overwhelmed with the workload and resort to traditional teaching and assessment methods. Most times, lecturers are unable to finish marking assignments, quizzes and examinations on time, and this delays the feedback given to students. Blatchford, Moriarty, Edmonds and Martin (2002) opine that finding time for

marking, planning and assessment in large classes is more of a challenge and this is seen by teachers as a direct threat to the quality of their teaching. Despite the numerous challenges of large class sizes, some researchers are of the view that large classes can provide richer human resources and greater opportunities for creativity. It is argued that more students mean more ideas, and this provides more opinions and possibilities. Also, large classes can provide more opportunities for co-students' interaction, foster an atmosphere of co-operation and encourage creativity and innovation (Qi and Wang, 2009). Thus, large classes do not only bring challenges but also opportunities for lecturers. The 'Condition of Education' Report by the US Department of Education (2005) reveals that undergraduate enrollment in colleges and universities will continue to increase steadily. The report indicates that class sizes are reaching unprecedented levels and this is making institutions of higher learning to push faculty to become better teachers. Carpenter (2006) thus opines that it is essential for faculty to identify effective methods of teaching in large classes, especially when large classes seem to have come to stay.

Several researchers propose the use of tutorials as a solution to help reduce the challenges associated with large classes. Tutorials, which are discussion sessions where the lecturer and his or her students talk to each other and express their views on topics they did not fully understand, could be used to curtail the shortcomings of large classes. Even though this suggestion is plausible, tutorial system in most Ghanaian universities, including UEW seems to have broken down as a result of large class sizes. For instance, a class of 200 students may need 10 tutorial groups made up of 20 students each for a course. However, the use of teaching assistants in the Department of Basic Education, and perhaps, UEW as a whole, is non-existent.

According to Benbow, Mizrachi, Oliver and Said-Moshiro (2007) teaching in large classes tends not to be a topic covered in most teacher education coursework and the result is that teachers are left unprepared for the unique challenges faced in large classrooms. They identify small group discussions, peer tutoring, and shift teaching as some methods that teachers can make use of when teaching in large classes. They add that increasing the numbers of qualified teachers, increasing or improving facilities, and adding additional resources to supply new facilities could reduce overcrowded classrooms. Other potential teaching practices recommended as effective in teaching large classes include the use of small groups, learner-to-learner support and mentoring, effective use of existing space (largest classes in largest rooms), use of the most effective teachers in the larger classes, use of volunteers and teaching assistants, team teaching, shift instruction, and effective classroom management. From the foregoing, if the quality of teaching and learning in large classes is what is important, and not the size of the group, then lecturers need to re-think their teaching strategies as suggested by Kerr (2011) that:

“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 instructional culture in terms of the value placed on teaching is a further necessary condition for success in modifying teaching approaches” (p.181).

METHODOLOGY

The design used for the study was the descriptive survey design. The descriptive survey design was used because it helps in getting a good number of responses from numerous people at a time, it provides a meaningful picture of events, and describes the characteristics of a particular individual, or of a group (Kothari & Garg, 2014). It was also used because it describes the existing variables in a given situation and, sometimes, the relationship that exists among those variables (Johnson & Christenson, 2012). The purposive sampling technique was used to sample all students of the Department of Basic Education, UEW, for the 2014/2015 academic year for the study.

The instrument used to collect data for the study was an adapted questionnaire from Thaher (2005). The questionnaire which was made up of four-point type Likert-scale (strongly agree, agree, disagree and strongly disagree) was validated by some professors and senior lecturers at the Winneba Campus of UEW, Ghana. Their comments helped in improving the items in the questionnaire. The pre-testing of the questionnaire was done using 200 students (50 from each of the four levels) of the Department of Early Childhood Education of the same university. The Department of Early Childhood Education was used for the pre-test because it has large classes comparable to the Department of Basic Education. A reliability co-efficient of 0.79 (standardized item alpha) which falls within the accepted range of more or equal to 0.70 (Dörnyei and Taguchi, 2010) was obtained. For the actual study, the questionnaire was administered in the second semester of the 2014/2015 academic year, implying that all the students in the department, especially the Level 100 students, had experienced large class sizes during lectures for at least one semester. Out of the 893 questionnaires distributed, 642 were correctly filled and returned, indicating a return rate of 71.9%.

RESULTS AND DISCUSSION

Version 20 of the Statistical Package for Social Sciences (SPSS) was used to code and analyse the data. Analysis of the data was done using frequency counts, mean, standard deviation, and the t-test.

Analysis of Bio-data

Students of the Department of Basic Education, UEW, Ghana, were used in the study. Table 1 shows the distribution of the students in terms of gender and levels. The data in Table 1 shows that out of the 642 respondents, 244 (38.0%) were in Level 100 and this was made up of 154 (24.0%) males and 90 (14.0%) females. The respondents from Level 200 were 204 (31.7%) comprising 119 (18.5%) males and 85 (13.2%) females. From the data in Table 1, it is also seen that respondents from Level 300 were 107 (16.7%) and this included 70 (10.9%) males and 37 (5.8%) females. For Level 400, the respondents were 87 (13.6%) and it was made up of 71 (11.1%) males and 16 (2.5%) females. The data from the table show that the male respondents were 414 (64.5%) while the female respondents were 228 (35.5%).

Table 1: Distribution of Respondents by Sex and Levels

Gender/Sex	Male		Female		Total	
	No.	%	No.	%	No.	%
Level 100	154	24.0	90	14.0	244	38.0
Level 200	119	18.5	85	13.2	204	31.7
Level 300	70	10.9	37	5.8	107	16.7
Level 400	71	11.1	16	2.5	87	13.6
Total	414	64.5	228	35.5	642	100.0

Source: Field Data (February, 2015)

Analysis of Research Questions

In analyzing research questions 1, 2 and 3, the following scoring keys were used:

SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree, WM = Weighted Mean, St. D = Standard Deviation and I = Interpretation. The interpretations of Weighted Means were 4 = Strongly Agree, 3-3.9 = Agree, 2-2.9 = Disagree, and 1-1.9 = Strongly Disagree. Similarly, the levels of effect of large class size were categorised as: 4 = Very High Effect, 3-3.9 = High Effect, 2-2.9 = Low Effect and 1-1.9 = Very Low Effect.

Research Question 1 sought to investigate the instructional effects of large classes on students of the Department of Basic Education of UEW, Ghana. The data in Table 2 helps in answering the question.

Table 2: Responses on Instructional Effect of Large Classes

Item In large classes,	Response						
	SA	A	D	SD	WM	St. D	I
1 The teaching of practical skills is neglected	190	358	91	3	3.15	0.66	A
2 The atmosphere is lecture-centred with passive students	185	330	120	7	3.08	0.72	A
3 I can study other subjects/topics without lecturer seeing me	125	416	80	21	3.01	0.67	A
4 There is the opportunity to cheat during examination	73	71	179	319	1.84	1.02	SD
5 It is difficult to find a front row seat when late for lectures	371	184	49	38	3.38	0.86	A
6 I hardly see writings on the board when seated at the back	290	214	79	59	3.15	0.96	A
7 Communicative activities are neglected	92	197	254	99	2.44	0.92	D
8 Students are very active	22	168	360	92	2.19	0.71	D
9 I evaluate myself by comparing answers with course mates	160	291	119	72	2.84	0.93	D
10 I can take my course mates' notes when I do not write notes	136	424	72	10	3.07	0.62	A
11 I can miss lectures without the notice of the lecturer	209	349	64	20	3.16	0.72	A
12 I have the desire to study hard and prove myself	336	231	53	22	3.37	0.78	A
13 The atmosphere encourages me to learn	151	229	181	81	2.70	0.97	D
14 The lecturer uses audio-visual aids to make lesson interesting	111	243	169	119	2.54	0.98	D

Source: Field Data (February, 2015)

From the data in Table 2, it is realized from the responses that the students agreed to items 1 (Mean = 3.15; Standard Deviation = 0.66), 2 (Mean = 3.08; Standard Deviation = 0.72), 3 (Mean = 3.01; Standard Deviation = 0.67), 5 (Mean = 3.38; Standard Deviation = 0.86), 6 (Mean = 3.15; Standard Deviation = 0.96), 10 (Mean = 3.07; Standard Deviation = 0.62), 11 (Mean = 3.16; Standard Deviation = 0.72), and 12 (Mean = 3.37; Standard Deviation = 0.78). This shows that the students' responses were high on those items. It is seen that the responses of the students revealed their disagreement with items 7 (Mean = 2.44; Standard Deviation = 0.92), 8 (Mean = 2.19; Standard Deviation = 0.71), 9 (Mean = 2.84; Standard Deviation = 0.93), 13 (Mean = 2.70; Standard Deviation = 0.97), and 14 (Mean = 2.54; Standard Deviation = 0.98). The meaning of this is that the students' responses on those items were low. With a mean and standard deviation of 1.84 and 1.02 respectively, the students strongly disagreed with item 4, indicating a very low response. From the data, a mean of means score of 2.85 was obtained and that of the overall standard deviation was 0.82. This means that the instructional effect on the students as a result of large classes was low.

It is clear from the data in Table 2 that students found it very difficult to have access to the front row seats anytime they were late for lectures. Sitting at the back row seats therefore made it difficult for such students to see clearly whatever the lecturer writes on the board, and this would affect their learning. Another issue of interest is that lecturers are perceived by the

students to neglect the teaching of practical skills probably as a result of the difficulty in effectively managing large classes. The implication is that students would have limited time for practical experiences of what they are taught since communicative activities, including classroom interactions would be neglected (Thaher, 2005). This corroborates the students' responses that they are passive during lectures because the atmosphere is mostly lecture-centred with very little or no student involvement in the teaching and learning process.

Even though the students disagreed that the atmosphere in large classes encouraged them to learn, their responses seem to indicate a sense of competition since they have the desire to study hard and prove themselves, and are able to share ideas with their colleagues and compare their answers for the purposes of evaluation of their performances. It is gratifying to note from the students' responses that they disagree that in large classes there is an opportunity to cheat during examinations. This suggests that lecturers are aware of the dangers large classes pose during quizzes and end of semester examinations, and as such, put in place good measures to eliminate or limit the incidence of examination malpractices. It is therefore prudent that in dealing with large classes, lecturers of the Department of Basic Education, UEW, Ghana, should adopt strategies that would enable the students work in groups and provide opportunities for discussion and sharing of ideas. Hayes (1997) stresses that adopting group work during teaching and learning processes serves so many purposes despite the fact that it requires a high degree of effective classroom management techniques.

Research Question 2 was to determine the psychological effects of large classes on students of the Department of Basic Education of UEW, Ghana. The data in Table 3 explains the psychological effect of large classes on the students. It is observed from the data in Table 3 that the students disagreed they experienced psychological effect as a result of large classes. This stems from the obtained mean of means score of 2.85 and 0.77 for an overall standard deviation. Thus, the psychological effect on the students as a result of large classes is low. Specifically, the students' responses show their agreement on items 15 (Mean = 3.11; Standard Deviation = 0.70), 19 (Mean = 3.17; Standard Deviation = 0.76), 23 (Mean = 3.58; Standard Deviation = 0.69), and 24 (Mean = 3.20; Standard Deviation = 0.70). This means that the responses of the students on these items were high. The students' responses however indicated their dissatisfaction with items 16 (Mean = 2.59; Standard Deviation = 0.94), 17 (Mean = 2.54; Standard Deviation = 0.93), 18 (Mean = 2.90; Standard Deviation = 0.60), 20 (Mean = 2.93; Standard Deviation = 0.61), and 21 (Mean = 2.76; Standard Deviation = 0.84). They also indicated that they strongly disagreed with item 22 (Mean = 1.76; Standard Deviation = 0.93). This portrays that their responses on the item was very low.

Table 3: Responses on Psychological Effect of Large Classes

Item	Response						
	SA	A	D	SD	WM	St. D	I
In large classes,							
15 I feel shy to speak	187	351	94	10	3.11	0.70	A
16 The opportunity to express myself is rare	119	222	217	84	2.59	0.94	D
17 I feel relaxed since my course mates do not know my name	107	222	221	92	2.54	0.93	D
18 I like sitting at the back to avoid the attention of the lecturer	78	429	126	9	2.90	0.60	D
19 I feel anxious and uncomfortable due to overcrowding	227	318	77	20	3.17	0.76	A
20 I feel relaxed	80	449	98	15	2.93	0.61	D
21 There is some freedom	108	332	143	59	2.76	0.84	D
22 I do not feel bad if I obtain low marks	43	87	187	325	1.76	0.93	SD
23 I feel proud to get high marks	429	174	21	18	3.58	0.69	A
24 The atmosphere is noisy and stressful	219	346	62	15	3.20	0.70	A

Source: Field Data (February, 2015)

It could be deduced from the responses of the students in Table 3 that the atmosphere in large classes is overcrowding, noise and stress, and this is likely to make it difficult for students to hear what lecturers say, and the ideas other students put up during discussions at lectures. This seems to result in anxiety, discomfort and boredom which eventually affect their learning and achievement. The students disagreed that opportunity to express themselves was rare. They also disagreed that they feel relaxed because their course mates do not know their names. Again, they disagreed that they prefer sitting at the back of the lecture hall to avoid the attention of the lecturer. What this means is that even in large classes, the students in one way or the other get the opportunity to share their views on issues being discussed, even though admittedly, majority of the students may not be called to answer or ask questions. Therefore, students felt that there was no room to relax in large classes irrespective of whether a student's name is known by the lecturer or the students.

The students' responses also suggest that sitting at the back of the lecture hall is not a means to avoid the attention of a lecturer because any student could be called upon to share a view. Hence, there is no absolute freedom during lectures in large classes. The issue of concern to the students is probably their shyness to speak in large classes. It is worthy to note that the responses of the students indicate that they feel proud when they get high scores in large classes. This underscores their strong disagreement with the statement that they do not feel bad when they obtain low marks. This situation is similar to the findings of Thaher (2005) that EFL students at An-Najah National University felt proud to get high marks in large classes. It is very essential for lecturers to note that psychological effects of large classes on students should be taken into consideration during the teaching and learning situations. Students must be encouraged by lecturers to ensure good classroom management, and ensure the establishment of good lecturer-student relationship. A safe and friendly learning atmosphere must be created by the lecturer, and students must be addressed by their names to bridge the gap between students and lecturers, and also avoid the feeling among students that they are neglected. Thaher (2005) therefore argues that no matter how bad the conditions are, lecturers could create an atmosphere of acceptance and security.

Research Question 3 aimed at investigating the social effect of large classes have on students of the Department of Basic Education of UEW, Ghana. The result in Table 4 explains the social effects of large classes on the students.

Table 4: Responses on Social Effect of large Classes

Item	Response						
	SA	A	D	SD	WM	St. D	I
In large classes,							
26 Lecturer-student interaction is neglected	159	350	115	18	3.01	0.74	A
27 I can send and receive messages through my phone	153	403	72	14	3.08	0.66	A
28 The lecturer does not care about me if I sleep during a lecture	60	126	260	196	2.08	0.93	D
29 The lecturer's gender does not affect my class participation	199	386	45	12	3.20	0.64	A
30 There is a lot of fun and humour	68	291	195	88	2.53	0.86	D
31 The lecturer does not remember all the names of students	269	299	43	31	3.26	0.78	A
32 I can exchange ideas/build relations outside the lecture hall	166	386	78	12	3.10	0.67	A

Source: Field Data (February, 2015)

From Table 4, students' responses show their disagreement that they experienced social effect as a result of large classes. This is because the mean of means score was 2.89 and 0.75 for an overall standard deviation. Therefore, their responses indicate that the social effect they experience as a result of large classes was low. Specifically, the students' responses show their agreement on items 26 (Mean = 3.01; Standard Deviation = 0.74), 27 (Mean = 3.08; Standard Deviation = 0.66), 29 (Mean = 3.20; Standard Deviation = 0.64), 31 (Mean = 3.26; Standard Deviation = 0.78), and 32 (Mean = 3.10; Standard Deviation = 0.67). This means that the responses of the students on these items were high. The students' responses however

indicated their disagreement with items 28 (Mean = 2.08; Standard Deviation = 0.93), and 30 (Mean = 2.53; Standard Deviation = 0.86). The explanation is that their responses on the items showed a low effect.

It is noticed from the data in Table 4 that even though students felt that in large classes lecturers do not recollect all the names of the students, and that lecturer-student interaction was neglected, they disagreed that lecturers did not care for them. The fact that the students admitted a neglect of lecturer-student interaction as a result of large classes indicates a social gap between students and lecturers. It must however be mentioned that calling students by their names encourages them to participate in large classes, and serve as a motivation for students to effectively get involved in the interactions in the lecture room. The students also disagreed that there is a lot of fun and humour in large classes but admitted that they could exchange ideas and build relations outside the lecture hall. The responses from the students in Table 4 show that the sex/gender of their lecturers has no influence on their participation in activities during lectures. This means that irrespective of the sex of the lecturer, the students would be comfortable and feel relaxed during lectures. The reason for this could be that the students to a large extent had been taught by both male and female teachers during their pre-tertiary education and as a result are used to both male and female teachers. In Thaher's (2005) study however, EFL students at An-Najah National University believed that their class participation was affected by the sex of the teacher. That is, female students felt relaxed when they were taught by female teachers and similarly, male students were relaxed when taught by a male teacher.

It is widely believed that social interaction between students and their lecturers is very important in ensuring effective teaching and learning. McMahon (1997) thus, advises that learning should be a social and a collaborative activity. Lecturers should as well encourage students to interact with each other to benefit from mutual learning based on friendship and exchange of knowledge and experiences. Lecturers must therefore build up a collaborative and lively learning atmosphere since according to Senior (1997) teachers judge the quality of their classes based on how far the students co-operate with each other, and that any class which lacks a spirit of group cohesion is unsatisfactory, even if it consists of high achieving students.

Research Question 4 was to identify which of the effect (instructional, psychological and social) of large classes was strongest on the students of the Department of Basic Education of UEW, Ghana. Table 5 helps in answering this question.

Table 5: Means and Standard Deviations for the Different Effects

Type of Effect	Mean	Standard Deviation	Interpretation of Effect
Instructional	2.85	0.82	Low Effect
Psychological	2.85	0.77	Low Effect
Social	2.89	0.75	Low Effect

Source: Field Data (February 2015)

A critical look at the data in Table 5 depicts that the effects of large classes on the students of the Department of Basic Education, UEW, Ghana, were low for each of the types (instructional, psychological and social effect). However, it is realized that the social effect of large classes on the students had the highest mean, and as such, the strongest effect on the students.

Analysis of Hypotheses

The first hypothesis was to determine if a significant difference existed between the responses given by male and female students of the Department of Basic Education, UEW, Ghana, on instructional effect as a result of large classes.

Table 6: T-Test Results for Instructional Effect Experienced by Male and Female Students

	Sex	Mean (St. D)		F	Sig.	t	df	Sig. (2-tailed)
Instructional Effect	Male(414)	2.85 (0.263)	Equal variances assumed	0.098	0.754	-2.92	640	0.771
	Female (228)	2.85 (0.259)	Equal variances not assumed			-2.93	474.662	0.770

Source: Field Data (February, 2015)

From the data in Table 6, it is observed that the result of an independent-sample *t*-test analysis conducted showed that there was no significant difference in the responses of male students (Mean = 2.85, Standard Deviation = 0.263) and female students (Mean = 2.85, Standard Deviation = 0.259); $t(640) = 0.234$, $p = 0.771$ (2-tailed). Since $p > 0.05$, it could be said that there is no significant difference between the responses given by male and female students of the Department of Basic Education, UEW, Ghana, on instructional effect as a result of large classes.

The second hypothesis sought to investigate if a significant difference existed between the responses given by male and female students of the Department of Basic Education, UEW, Ghana, on psychological effect as a result of large classes. The analysis of the hypothesis is presented in Table 7. An independent-sample *t*-test analysis presented in Table 7 reveals that there was no significant difference in the responses of male students (Mean = 2.86, Standard Deviation = 0.356) and female students (Mean = 2.85, Standard Deviation = 0.357); $t(640) = -.234$, $p = 0.815$ (2-tailed).

Table 7: T-Test Results for Psychological Effect Experienced by Male and Female Students

	Sex	Mean (St. D)		F	Sig.	t	df	Sig. (2-tailed)
Psychological Effect	Male(414)	2.86 (0.356)	Equal variances assumed	0.35	0.851	.234	640	0.815
	Female (228)	2.85 (0.357)	Equal variances not assumed			.234	466.200	0.815

Source: Field Data (February, 2015)

The analysis shows that $p > 0.05$ hence, there is no significant difference between the responses given by male and female students of the Department of Basic Education, UEW, Ghana, on psychological effect as a result of large classes.

The third hypothesis aimed at determining if a significant difference existed between the responses given by male and female students of the Department of Basic Education, UEW, Ghana, on social effect as a result of large classes. The analysis is shown in Table 8.

Table 8: T-Test Results for Social Effect Experienced by Male and Female Students

	Sex	Mean (St. D)		F	Sig.	t	df	Sig. (2-tailed)
Social Effect	Male(414)	2.91 (0.377)	Equal variances assumed	0.255	0.614	1.238	640	0.216
	Female (228)	2.87 (0.386)	Equal variances not assumed			1.230	458.846	0.219

Source: Field Data (February, 2015)

The result obtained from an independent-sample *t*-test analysis as presented in Table 8 indicates that there was no significant difference in the responses of male students (Mean = 2.91, Standard Deviation = 0.377) and female students (Mean = 2.87, Standard Deviation = 0.386); $t(640) = 1.238$, $p = 0.216$ (2-tailed). It is realised from the analysis that $p > 0.05$. Therefore, there is no significant difference between the responses given by male and female students of the Department of Basic Education, UEW, Ghana, on social effect as a result of large classes.

The analysis of the hypotheses reveals that there was no significant difference in the responses given by the male and female students of the Department of Basic Education, UEW, Ghana, on the instructional, psychological and social effects of large classes on their learning. This finding is in line with the outcome of the study by Thaher (2005) that the attitudes of non-English major EFL students towards large classes were not affected by the sex/gender of the students. The possible reasons for this finding could be that the students experience the same or similar conditions, environment and facilities. The students (both male and female) have the same or similar traditions, ambitions, environment, academic background, and they live in similar facilities and conditions. Again, they were exposed to and experienced the same ways of teaching at their previous schools and at the Department of Basic Education, UEW, Ghana. Hence, their responses were almost the same.

CONCLUSION

Generally, the study sought to investigate the effects of large classes on the students of the Department of Basic Education, UEW, Ghana. Specifically, it was to determine the instructional, psychological and social effects on the students as a result of large classes. It seems that in developing countries like Ghana, large classes have become typical features of the education system, and may be very difficult to be avoided, especially at the university level. It came to light from the findings of the study that large classes affect students of the Department of Basic Education, UEW, Ghana even though the responses from the students showed low instructional, psychological and social effects. Thaher (2005) argues that a large class is considered as a double-edged sword. This is because the students, on one hand, gave positive responses to some of the items in the questionnaire. For instance, they indicated that in large classes, they have the desire to study and prove themselves, they feel proud to get high marks, and they could exchange ideas and build relationships both inside and outside the lecture hall. On the other hand, some of the negative responses to some of the items are that the students believed in large classes the atmosphere is dominantly lecture-centred, resulting in the neglect of effective lecturer-student interaction. Again, the environment is noisy and stressful, making students anxious and uncomfortable. The findings of the study also showed no significant difference in the responses of male and female students of the Department of Basic Education, UEW, Ghana, on instructional, psychological and social effects as a result of large classes. Therefore, no significant difference was found between the views of male and female students on the effects of large classes.

RECOMMENDATIONS

- Lecturers in the Department of Basic Education, UEW, Ghana, should endeavour to identify the features of teaching in large classes so that they would be able to vary their teaching methods, techniques and strategies to suit the needs of the students in these large classes. This will go a long way to minimise the problems of teaching and assessing large classes which are mostly as a result of lack of teaching staff, facilities and space.

- Lecturers in the Department of Basic Education, UEW, Ghana, should have more training opportunities on the use of effective teaching techniques. For instance, lecturers should be trained and encouraged to adopt learner-centred approaches to teaching such as small group discussions, project work, demonstrations and drama related techniques and strategies to teaching. This will not only make lectures interesting, but also ensure active involvement of students during lectures.
- The Quality Assurance Directorate of UEW should organise regular workshops or seminars to bring together lecturers from the various Departments and Faculties with the aim of comparing methods and exchanging ideas about their experiences in addressing the challenges they face when teaching large classes.
- Lecturers should do their best to mark attendance register during lectures to check absenteeism among students. Again, security cameras should be installed in all lecture halls so that students who misbehave during lectures could be identified, cautioned and sanctioned where necessary. This will ensure effective management and control of students in large classes.
- As a long term measure, the Management of UEW should put up more lecture halls to enable lecturers put large classes into manageable groups to help address the needs of individual students. With small groups, lecturers will know almost every student and this will encourage full participation of students during lectures. Breaking large classes into smaller groups means that UEW should do well to recruit more lecturers to handle the numerous small groups. Alternatively, very large lecture halls fitted with modern technological gadgets such as projectors and public address systems should be built by UEW to accommodate the large classes. This will also eliminate overcrowding in relatively small lecture halls.

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