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**Large Class Size: Its Implications on Students and Teachers of Higher Institutions in Nigeria**

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**ABSTRACT:** *Emergence of COVID-19 across the world is more than enough for us to start pondering on how to address the issue of large class size in Nigerian tertiary institutions. Large class size is a common phenomenon in our higher institutions especially for core courses which every student in the department or faculty must offers. Over 1,000 students usually converge in a small lecture hall with capacity of 300 students and this inadequacy has been giving lecturers tough time during their lectures. Lecturers who are not that audible find it very much difficult to pass messages effectively to the students and this has been contributing to falling standard of education in Nigeria. More so, students who are supposed to get the best out of brilliant lecturers are denied of this opportunity, why? Because the classroom size is not bigger enough to accommodate students, therefore, discouraging them from attending classes on a regular basis and also making lecturers inactive in the lectures' halls. The researchers who have been working assiduously to ensure that the problems encountered by students as a result of class size have not done enough to provide lasting solutions to these problems, making the problems persist. Paradigm shift is one of the ways suggested by the researcher to tackle the problems of large class size in our tertiary institutions. The transnational ways of team teaching, group discussion are no longer effective for large class size as the population of Nigeria keeps increasing and the researcher believes it has become paramount importance to devise ways of overcoming difficulties encountered by the students and lecturers in a large class size. Division of large class size into half to encourage group work among the students and introduction of a blend of learning instructional methods are inevitable at this junction. Introduction of these two things in our tertiary institutions will go a very long way in addressing the issues of large class size. The researcher recommends that, government should employ more lecturers to increase performance of lecturers teaching core courses in our tertiary institutions after the division of large class size into small groups, government should build more lectures' halls to encourage blend of learning methods for overcrowded classes.*

**KEYWORDS:** large class size, classroom, management, implication.

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## INTRODUCTION

The emergence of COVID-19 across the world is more than enough for us to start pondering on how to address the issue of overcrowded classes in Nigerian tertiary institutions. Overcrowded class or large class is a common phenomenon in our higher institutions especially for core courses which every student in a department or faculty must offer. Over 1,000 students could converge in a small lecture hall with capacity for not more than 300 students and this has been giving lecturers and students tough time during lectures. Khan and Iqbal (2012) observed that overcrowded class is a place where students surpass the recommended capacity for which the class is designed. In overcrowded classrooms, teaching and learning processes are hindered and one of the primary objectives of lecturers in a lecture hall is to give attention properly to every student so that they can academically excel (Ayud, Saud & Akhtar 2018). Class size is one of the factors that affect students' academic performance in tertiary institutions; therefore, technical strategies are needed for lecturers to handle overcrowded classes (Tobih & Osunlana 2013). Earthman (2002) found that students' attention is prevented by overcrowded class and their progress get slow down. He also found that there is limited time for lecturers in the class to lecture and at the same time have time to spend with weak students.

Lecturers who are not that audible find it much difficult to deliver lectures effectively in an overcrowded class and this has been contributing to falling standard of education in Nigeria. More so, students who are supposed to get the best out of lecturers are denied of this opportunity simply because the classroom size is not big enough to accommodate students, this often discourage them from attending lectures regularly and also make the lecturers inactive in the lectures' halls. The researchers who have been working assiduously to ensure that the problems encountered by lecturers and students as a result of overcrowded classes have not done enough to provide lasting solutions to these problems and this makes the problems to persist. Paradigm shift using pedagogical method is one of the ways suggested by the researcher to tackle the problems of overcrowded classes in our tertiary institutions. The conventional methods of team teaching, group discussion are no longer effective for overcrowded classes as the population of Nigerian tertiary institution students keeps increasing and the researcher believes it has become of paramount importance to devise ways of overcoming the difficulties encountered by students and lecturers in overcrowded lecture rooms. It is no longer news that traditional lecture approach used by lecturers in Nigerian higher institutions is becoming outdated in such that the students and lecturers are becoming tired and frustrated due to the emergence of different kinds of challenges posed by overcrowded lecture halls. The frustration both the lecturers and students encounter during lectures is more than enough for academics to start thinking on how to get out of the problem.

The researcher is of the view that a blend of learning methods as a pedagogical method can be the best solution to the challenges of teaching and learning in overcrowded classes. A blend of learning

instructional methods, also known as mixed-mode instruction, is an approach to education that combines online educational materials and opportunities for interactions online with physical place-based classroom methods. A blend of learning instructional methods of teaching requires the physical presence of both lecturers and student, with some elements of student control over time, place, path, or pace. Strauss (2012) believed that, in a blend of learning methods, students still attend brick-and-mortar schools with a lecturer presents, face-to-face classroom practices are combined with computer-mediated activities regarding content and delivery. Oliver and Trigwell (2005) defined a blend of learning instructional methods as a mixture of online and in-person delivery where the online portion effectively replaces some of the face-to-face contact time rather than supplementing it. Graham, Woodfield and Harrison (2013) also defined a blend of learning methods as a combination of physical (face to face) modes of instruction with online modes of learning, drawing on technology-mediated instruction, where all participants in the learning process are separated by distance some of the time. Oliver and Trigwell (2005) revealed that there is no significant different between belief of male and female students regarding blend of learning method of teaching. Siemens, Gasevic and Dawson (2015) found that all evidence-based studies as regard a blend of learning concluded that student achievement was higher in blended learning experiences when compared to either fully online or fully face-to-face learning experiences. With the introduction of a blend of learning instructional methods of teaching, students are instructed to attend lectures online and at the same time their large classes are divided into manageable ones for physical interactions. Since most of the lectures' contents are taught online, this gives lecturer ample opportunity to divide the overcrowded classes into smaller ones and spend limited and equal time with each of the class. This idea will help to increase both lecturers' and students' performance if the government enacts a law that will enforce the use of a blend of learning methods of instruction for overcrowded classes in our tertiary institutions.

Boor, Aliyu and Buraimoh (2021) revealed that lecturers specifically believed that web based instructional package utilization for instructional delivery reduces stress lecturers face in an overcrowded classes and it also reduces students' dependence on textbooks. Mbonu, Oguezie and Nwankwo found that there is significant difference in the mean achievement scores of students taught using flipped classroom instructional strategy and those taught using the conventional method. Ghaith and Yaghi (2017) opined that undergraduate students can be provided with the necessary skills and knowledge to foster the growth of independent, creative and lifelong learners. Higher education institutions are expected to provide web-based teaching and learning environment or web-based teaching and learning space in which learners and teachers could communicate online and instructions or learning can take place through electronic means. This requires no physical interaction between the students and teachers; as such, instructional materials or any equipment needed in the university library or laboratories to facilitate the students' understanding of the concepts can be displayed on the internet. This approach will make physical interaction in a crowd hall unnecessary as the students can complete their course study programme from home. Abubakr (2010) in his research found that lecturers were far below the

expected mark in their performance in the lecture room and very few lecturers were interested in developing their skills once they get employment. Some lecturers in the university are of the view that cooperative and lecture methods are the best methods of instruction but in a crowded lecture hall, their effectiveness is reduced to some extent. This could be as a result of the inability of the lecturers to speak loud enough and noises emanating from the students especially those sitting at the back of the class during lessons could also be another contributing factor.

The use of Information and Communication Technology (ICT) is becoming wide spread in our tertiary institutions and there is need for both lecturers and students to be skillful in this area. Kattimani and Maik (2013) observed that ICT skills can be referred to as overall competencies in terms of knowledge, skills and attitudes necessary to create, store, analyse, organize, retrieve and disseminate digital information. According to Maidabino (2018), teaching and learning today have taken new shapes and dimensions in the sense that virtual methods of acquiring and gaining knowledge have immensely made a positive impact on the lives of lecturers and students. He also noted that, teachers and students of today are more familiar with electronic formats of learning, carrying out their teaching, learning and research activities than the use of physical access to library. Zaki (2002) observed that Information and Communication Technology has undoubtedly provided opportunities for the acquisition of variety of information services and the most popular among the information services offered by ICT is the internet services. Yushau (2006) opined that advancement in technology and software surrounding the internet, the conversion of courses from traditional face-to-face instruction to web-based courses has become easier and occurring more systematically in education. In another research conducted by Atiku (2018), the result showed that the use of Computer Assisted Instruction enhances students' academic achievement than the use of Conventional Method of Instruction. The fact that some lecturers are not Information and Communication Technology (ICT) compliance cannot stand as a barrier to the use of a blend of learning methods of instruction in tertiary institutions. The knowledge of ICT among students and lecturers is fast growing and tertiary institution managements have been investing a lot on subscriptions with the Internet Service Providers (ISP). In fact, some institutions on a periodic basis train and retrain their students and lecturers on the use of ICT

### **Statement of the Problem**

The problem of this study is as a result of inability of lecturers and students to have a healthy interaction due to challenges encountered during lectures in an overcrowded classroom. The lecturers are expected to have their lectures in a normal class size of 1 to 35 students as recommended by the National Policy on Education (2009) but the current situation in our tertiary institutions is that the class is overcrowded to the extent that a class of more than 500 students as against 1-35 students could be given to only one lecturer to handle in a small hall. A number of researches have been conducted to improve the situations but the problems persist and no lasting solutions have been obtained; instead it is increasing. Because of this, lecturers cannot put in their best which in turn has been contributing to poor academic performance of the students. The

problems encountered in Nigerian tertiary institutions by lecturers taking core courses that attract a large number of students cannot be overemphasized. It is always very difficult for lecturers even the most audible ones to convey their message to every student including those at the extreme end of the class. The use of a blend of learning approaches could be the best way of solving problem of teaching and learning in an overcrowded classroom. A blend of learning instructional methods involves the use of online instructional teaching strategy for a large class at a time, as well as physical interaction in the classroom after the class has been divided into manageable size. During the online teaching, students receive their lectures in different places, thereby, discouraging congestion. Dimitrios, Sdrolias, Nikolaos, Maria, and Athanasios (2013) attributed the falling level of academic achievement of tertiary institutions' students to non-use of ICT teaching method. It is in view of this that, the researcher became interested in finding out whether the use of a blend learning instructional approaches can minimize the problems of teaching and lecturing in overcrowded classrooms with the aim of providing lasting solutions to the problems.

### **Research Objectives**

The following objectives were formulated by the researcher:

1. To find out if a blend of learning methods is capable of overcoming teaching and learning challenges in an overcrowded class in Nigerian tertiary institutions.
2. To find out if there is significant difference between male and female belief regarding the use of a blend of learning methods in overcoming teaching and learning challenges in an overcrowded class in Nigerian tertiary institutions.

### **Research Questions**

1. Is a blend of learning methods capable of overcoming teaching and learning challenges in an overcrowded class in Nigerian tertiary institutions?
2. Is there significant difference between male and female belief regarding the use of a blend learning methods in overcoming teaching and learning challenges in an overcrowded class in Nigerian tertiary institutions?

### **METHODOLOGY**

The research design used was descriptive survey. The researcher used this design because questionnaire was chosen as instrument for data collection. The researcher attempted to describe how a blend of learning methods can be used for overcoming teaching and learning challenges in an overcrowded class in Nigerian tertiary institutions. The population of the study comprised of a large class of NCE two students offering core courses in all the three colleges of education in Katsina State; namely Isa Kaita College of Education, Dutsinma, Yusuf Bala Usman College of Education and Legal Studies, Daura and Federal College of Education, Katsina and their lecturers teaching core courses. The students and lecturers that constituted the population of the study were acquainted with the use of internets and more so, many a times the students receive their lectures



via zooms and webinars (online). Therefore, both lecturers and students have knowledge of a blend of teaching instructional strategies. The total number of the students was 5,390 while that of their lecturers was 122. Therefore, the population of the study was 5,512. Cluster sampling technique was used to choose all the three colleges in the state. This paved way for students and lecturers to be grouped under each of the three colleges for better selection of the research samples. Simple random sampling technique was used to select 357 respondents comprising of lecturers and students in accordance with the Research Advisor (2006). A Questionnaire for a Blend of Learning Teaching Method in a Large Class (QBLTMLC) was used as data collection instrument. Face validity was used to validate the instrument by a group of experts in Educational Psychology, English Language Education, Test and Measurement and Guidance and Counselling from Ahmadu Bello University, Zaria, Bayero University, Kano and Al-Qalam University, Katsina. The suggestions provided by the experts included reframing and removal of some items and these were observed in making the instrument. There were 12 items worded positively and 8 items were worded negatively, making a total of 20 items on the instrument. Items 1, 2, 3, 4, 6, 10, 12, 13, 15, 16, 18 and 19 were positive items on the instrument while items 5, 7, 8, 9, 11, 14, 17 and 20 were negative. The researcher used Cronbach Alpha formula to establish the reliability of internal consistency of the instrument by administering 30 copies of the instrument to 15 lecturers and 15 students who were not among the samples of the study. Pilot study was conducted because the researcher was interested in finding how compatible the items on the instruments are. The reliability coefficient of the instrument was 0.78 and it was adequately considered okay for the research.

## RESULTS

1. **Research Question one:** Is a blend of learning methods capable of overcoming teaching and learning challenges in an overcrowded class in Nigerian tertiary institutions?

**Table 1.**

S/N	Items	Yes	%	No	%
1.	A blend of learning is good for overcrowded classes	269	75	88	25
2.	A blend of learning makes it difficult to develop effective teaching in an overcrowded class.	91	25	266	75
3.	I feel comfortable with the idea of a blend of learning for overcrowded class.	194	54	163	46
4.	A blend of learning method reduces Stress lecturers and students undergo in an overcrowded class	278	78	79	22
5.	I do not enjoy a blend of learning instruction than traditional teaching method in an overcrowded	66	18	291	81

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class.				
6. I plan to develop my skills using a blend of learning when teaching overcrowded class	178	50	179	50
7. A blend of method of learning will not increase My achievement when in an overcrowded class	90	25	267	75
8. A blend of learning do not improve Students' academic performance in an overcrowded class	76	21	281	79
9. Lecturers do not prefer using a blend of learning in an overcrowded class	89	25	268	75
10. Use of a blend of learning requires more time when teaching an overcrowded class	60	17	297	83
11. Use of a blend of instructional method do not Requires good planning when dealing with an Overcrowded class	52	15	305	85
12. Use of a blend of learning helps students in an overcrowded class express their thinking in better and different ways	251	70	106	30
13. A blend of learning is used in an overcrowded class in Nigerian universities than conventional method	56	16	301	84
14. Use of a blend of learning in an overcrowded class makes me sceptical	68	19	289	81
15. Use of a blend of learning create good rappsots between lecturers and students in an overcrowded class	266	75	9	25
16. Use of a blend of learning provides better learning experience in an overcrowded class	240	69	117	33
17. I discourage the use of a blend of learning in an overcrowded class because conventional method of teaching is more easier.	149	41	208	59
18. Use of a blend of learning in an overcrowded class makes me feel okay because it saves time, cost and efforts.	232	65	125	35
19. I like a blend of learning in an overcrowded class because it plays an important role in e-learning nowadays and in the future	288	81	69	19
20. A blend of learning makes it difficult to develop good teaching skills in an overcrowded class.	105	29	252	71

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Table 1 above showed that 269 respondents representing 75% believed that a blend of learning methods is good for overcrowded classes while 88 representing 25% believed that the method is not suitable for overcrowded classes. 91 representing 25% respondents were of the opinion that a blend of learning methods makes it difficult to develop effective teaching in an overcrowded class while 266 respondents representing 75 % responded that it is effective in an overcrowded class. More so, 194 representing 54% responded that they feel comfortable with the idea of a blend of learning methods for overcrowded class while 163 representing 46% respondents said no. furthermore, from the table; it was showed that 278 respondents representing 78% believed that a blend of learning methods reduces stress lecturers and students undergo in an overcrowded class while 79 of the respondents representing 22% responded that it cannot reduce stress the lecturers and students undergo. 66 representing 18% responded that they did not enjoy a blend of learning instruction than traditional teaching method in an overcrowded class while 291 representing 81% were of the view that the method was more enjoyable than conventional method of teaching in an overcrowded class. 178 respondents representing 50% said they planned plan to develop their skills using a blend of learning teaching method when teaching overcrowded class while the remaining 179 representing 50% said no. 90 among the respondents representing 25% said a blend of method of teaching will not increase their achievement in overcrowded classroom while 267 respondents representing 75% believed that a blend of method of teaching will increase their achievement in an overcrowded class. 76 respondents representing 21% believed that a blend of learning do not improve students' academic performance in an overcrowded class while 281 representing 79% said it will improve students' academic performance. 89 respondents with 25% believed that lecturers do not prefer using a blend of learning teaching method in an overcrowded class while 268 representing 75% said they preferred the method. 60 respondents representing 17% believed that the use of a blend of learning requires more time when teaching overcrowded class while 297 representing 83% said it did not. 52 respondents representing 15% believed that a blend of instructional learning method do not requires good planning when dealing with an overcrowded class while 305 respondents representing 85% said it requires good planning. Moreover, 251 respondents representing 70% said the use of a blend of learning method helps students in an overcrowded class to express their thinking in better and different ways while 106 representing 20% said the method did not help students to do so. 56 respondents representing 16% believed that a blend of learning method is used in an overcrowded class in Nigerian tertiary institutions than conventional method while the remaining respondents responded that the method is not used. 68 participants representing 19% believed that the use of a blend of learning method in an overcrowded class makes the sceptical but 289 respondents representing 81% were not of that view. Also, 266 respondents said that the use of a blend of learning methods create good rapports between lecturers and students in an overcrowded class while 91 representing 25% said no good rapport can be created when using a blend of learning method in an overcrowded class. 240 respondents representing 69% responded that the use of a blend of learning provides better learning experience in an overcrowded class while 117 respondents representing 33% opposed the statement. 149 representing 41% of the respondents said they discouraged the use of a blend of



learning in an overcrowded because conventional method of teaching is easier while the remaining respondents said they did not. 232 respondents believed that a blend of learning in an overcrowded class makes them feel okay because it saves time, cost and efforts while 125 representing 35% of the respondents opposed the statement. 288 representing 81% of the respondents like a blend of learning method in an overcrowded class because it plays an important role in e-learning nowadays and in the future while the remaining 69 respondents representing 19% dislike blended learning teaching method in an overcrowded class. Finally, 105 participants representing 2% responded that a blend of learning method makes it difficult to develop good teaching skills in an overcrowded class while the remaining 252 respondents representing 71% said a blend of learning methods did not make it difficult to develop good teaching skills in an overcrowded class.

- 1. Research Question two:** Is there significant difference between male and female belief regarding the use of a blend of learning method in overcoming teaching and learning challenges in an overcrowded class in Nigerian tertiary institutions.

**Table 2.**

S/N	Items	Male		Female		Total
		Yes	No	Yes	No	
1.	A Blend of learning is good for overcrowded class	150	29	147	31	357
2.	A blend of learning makes it difficult to develop effective teaching in an overcrowded class.	31	148	27	151	357
3.	I feel comfortable with the idea of a blend of learning for overcrowded class.	137	42	131	47	357
4.	A blend of learning reduces Stress lecturers and students undergo in an overcrowded class	123	56	116	62	357
5.	I do not enjoy a blend of learning instruction than traditional teaching method in an overcrowded class	59	120	52	126	357
6.	I plan to develop my skills using a blend of learning method in an overcrowded class	141	56	134	44	357
7.	A blend of learning will not increase My achievement when in an overcrowded class	37	142	29	149	357
8.	A blend of learning do not improve Students' academic performance in an over crowded class	54	143	50	128	357
9.	Lecturers do not prefer using a blend of teaching method in an overcrowded class	31	148	34	144	357

10. Use of a blend of learning requires more time when teaching an overcrowded class	59	120	67	111	357
11. Use of a blend of instructional method do not Requires good planning when dealing with an overcrowded class	23	156	29	149	357
12. Use of a blend of learning helps students in an overcrowded class express their thinking in better and different ways	160	19	156	22	357
13. A blended of learning is used in Overcrowded class in Nigerian universities than conventional method	89	90	82	96	357
14. Use of a blend of learning in a overcrowded class makes me sceptical	68	111	72	106	357
15. Use of a blend of learning create good rapports between lecturers and students in an overcrowded class	136	43	148	30	357
16. Use of a blend of learning provides better learning experience in an overcrowded class	112	67	96	82	357
17. I discourage the use of a blend of learning in an overcrowded class because conventional method of Teaching is more easier.	50	129	56	122	357
18. Use of a blend of learning in an overcrowded class makes me feel okay because it saves time, cost and efforts.	132	47	123	55	357
19. I like a blend of learning in an overcrowded class because it plays an important role in e-learning nowadays and in the future	99	80	87	91	357
20. A blend of learning makes it difficult to develop good teaching skills in an overcrowded class .	46	133	43	135	357

Table 2 above showed that there is no significant difference in the number of male (150) and female (147) respondents who believed that a blend of learning is good for overcrowded class. Also, significant difference occurred in the number of male (29) and female (31) respondents that opposed the statement, meaning there is no gender difference in the belief that the method is good for overcrowded class. More so, there is no significant difference between the number of male and female respondents who believed that a blend of learning makes it difficult to develop effective teaching skills in an overcrowded class because from the table, it was showed that 31 male and 27 female respondents believed that a blend of learning makes it difficult to develop effective teaching skills in an overcrowded class while 148 male and 151 female respondents discarded the claim.

From item number 3 on the table, it can be deduced that there is no significant difference in the number of male (137) and female (131) respondents who felt comfortable with the idea of a blend of learning methods in overcrowded class. Only small number of male (42) and female (47) opposed the statement. Furthermore, there is no significant difference in the number of male (123) and female (116) respondents who believed that a blend of learning reduces stress lecturers and students undergo in an overcrowded class. Also, significant difference did not exist in the number of male (56) and female (62) respondents who opposed the statement. Significant difference did not exist in the belief of male (59) and female (52) participants who did not enjoy a blend of instruction than traditional teaching method in an overcrowded class. Significant difference did not also exist in the belief of male (120) and female (126) respondents who opposed the claim. There is no significant difference in the number of male (141) and female (134) respondents who planned to develop their skills using a blend of learning when teaching in an overcrowded class. Significant difference did not equally exist between the number of male (56) and female (44) who opposed the statement. There is no significant difference in the number of male (37) and female (29) respondents who believed that a blend of learning methods will not increase their achievement in overcrowded class. Significant difference did not equally exist between the number of male (142) and female (149) who opposed the statement.

There is no significant difference in the number of male (54) and female (50) respondents who believed that a blend of learning method do not improve students' academic performance in an overcrowded class. Significant difference did not equally exist between the number of male (143) and female (128) who opposed the statement. There is no significant difference in the number of male (31) and female (34) respondents who believed that lecturers do not prefer using a blend of learning method in an overcrowded class. Significant difference did not equally exist between the number of male (148) and female (144) who opposed the statement. There is no significant difference in the number of male (59) and female (67) respondents who believed that the use of a blend of learning method requires more time when teaching an overcrowded class. Significant difference did not equally exist between the number of male (120) and female (111) who opposed the statement. There is no significant difference in the number of male (23) and female (29) respondents who believed that a blend of instructional method do not requires good planning when dealing with an overcrowded class. Significant difference did not equally exist between the number of male (156) and female (149) who opposed the statement. There is no significant difference in the number of male (160) and female (156) respondents who believed that a blend of learning method helps students in an overcrowded class express their thinking in better and different ways. Significant difference did not equally exist between the number of male (19) and female (22) who opposed the statement. There is no significant difference in the number of male (89) and female (82) respondents who believed that a blend of learning is used in an overcrowded class in Nigerian tertiary institutions than conventional method. Significant difference did not equally exist between the number of male (90) and female (96) who opposed the statement. There is no significant difference in the number of male (68) and female (72) respondents who believed that the use of a

blend of learning in an overcrowded class makes the sceptical. Significant difference did not equally exist between the number of male (111) and female (106) who opposed the statement. There is no significant difference in the number of male (136) and female (148) respondents who believed that the use of a blend of learning create good rapports between lecturers and students in an overcrowded class. Significant difference did not equally exist between the number of male (43) and female (30) who opposed the statement. There is no significant difference in the number of male (112) and female (96) respondents who believed that a blend of learning provides better learning experience in an overcrowded class. Significant difference did not equally exist between the number of male (67) and female (82) who opposed the statement. There is no significant difference in the number of male (50) and female (56) respondents who believed that they discouraged the use of a blend of learning in an overcrowded class because conventional method of teaching is easier. Significant difference did not equally exist between the number of male (129) and female (122) who opposed the statement. There is no significant difference in the number of male (132) and female (123) respondents who believed that a blend of learning method in an overcrowded class makes them feel okay because it saves time, cost and efforts. Significant difference did not equally exist between the number of male (47) and female (55) who opposed the statement. There is no significant difference in the number of male (99) and female (87) respondents who believed that they like a blend of learning in an overcrowded class because it plays an important role in e-learning nowadays and in the future. Significant difference did not equally exist between the number of male (80) and female (91) who opposed the statement. There is no significant difference in the number of male (46) and female (43) respondents who believed that a blend of learning makes it difficult to develop good teaching skills in an overcrowded class. Significant difference did not equally exist between the number of male (133) and female (135) who opposed the statement.

## **DISCUSSION**

The finding of the research question one indicated that a blend of learning method is capable of overcoming challenges of teaching and learning in an overcrowded class in Nigerian tertiary institutions. This is due to factual references made to table 1. The results of the table showed that 269 respondents believed that a blend of learning is good for overcrowded class while 88 believed the method is not suitable for a large class. Since the number of those who supported the statement is greater than the number of respondents who objected it. Therefore, it was concluded that a blend of learning is capable of overcoming challenges of teaching and learning in an overcrowded class in Nigerian tertiary institutions. This study is in line with the study of Siemens, Gasevic and Dawson (2015) who found that all evidence-based studies as regard a blend of learning method of teaching concluded that student achievement was higher in blended learning experiences when compared to either fully online or fully face-to-face learning experiences. The opinions of respondents in relation to the remaining items that is item 2 – item 20 from table 1 on the use of a blend of learning for overcoming challenges in an overcrowded class indicated that majority of the respondents

responded that a blend of learning methods can be used in tertiary institutions to overcome challenges lecturers and students were facing in an overcrowded class.

On the issue of gender, the responses of the respondents from the table 2 were used to answer research question two which stated that “Is there significant difference in male and female belief regarding the use of a blend of learning methods in solving challenges of teaching and learning in an overcrowded class in Nigerian tertiary institutions”? going by the analysis of item one from table 2, it was concluded that there is no significant difference in male and female belief regarding the use of a blend of learning in overcoming challenges of teaching and learning in an overcrowded class in Nigerian tertiary institutions. This is because significant difference did not exist in the number of male (150) and female (147) respondents who believed that a blend of learning is good for crowded class. More so, a small number of male (29) and female (31) respondents opposed the statement, meaning there is no gender difference in the belief that the method is not good for crowded class. The general belief of male and female respondents is that a blend of learning is good for overcrowded class; this is because a large number of them believed the method is good for an overcrowded class. There is no significant difference in the opinions of male and females respondents regarding a blend of learning. The result also indicated that the positive opinions of male and female regarding male and female respondents were more than negative opinions they had for a blend of learning method which was an indication that male and female respondents supported the use of a blend of learning method to overcome challenges both lecturers and students face in a crowded class. The remaining items on the instrument in table 2 that is item 2 to 20 also indicated that significant difference did not occur in the opinions of male and female participants towards a blend of learning method as solutions for overcoming challenges in an overcrowded class in Nigerian tertiary institutions. This study is in line with the study of Oliver and Trigwell (2005) who found that there is no significant difference between belief of male and female students as regard a blend of learning method of instruction

## **CONCLUSION**

Two research questions were raised for the purpose of this study. The first research question was formulated to find out whether a blend of learning methods is capable of overcoming teaching and learning challenges in an overcrowded class in Nigerian tertiary institutions?. Data was collected from 357 respondents comprising of both lecturers and students of all the three Colleges of Education in Katsina State. The finding of the first research question showed that a blend of learning methods can be used to overcome challenges of overcrowded class in Nigerian tertiary institutions. Research question two was formulated in order to find out if gender difference exists in the opinions or responses of the respondents regarding a blend of learning methods as a problem solver to an overcrowded class in Nigerian tertiary institutions. It was found that significant difference did not exist in the responses of both male and female respondents regarding the question raised. The findings also showed that a number of male and female respondents believed

that the method can be used to solve problem of overcrowded classes while some opposed the statement. But, the number of male and female respondents who believed a blend of learning methods can be used to solve problem of an overcrowded class was far more than that of those who believed it cannot be used to overcome the problems.

### Recommendations

1. A blend of learning methods should be used in our tertiary institutions to lecture students in an overcrowded class.
2. Government should encourage both male and female students and lecturers by providing them with facilities that will encourage their participation in the use of a blend of learning methods in an overcrowded class.
3. Government should employ more lecturers to increase performance of lecturers teaching core courses in our tertiary institutions after the division of large class size into small groups.
4. Government should build more lectures' halls to encourage blend of learning methods for overcrowded classes.

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