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Teaching and Learning in Large Classes at Universities during the Covid-19 Pandemic: A view of Vietnamese Students

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Large class size is a challenge in many countries, affecting student performance and concerning educators, parents, and society. In Vietnam, during the Covid-19 pandemic, all teaching and learning activities in large classes at universities have changed into blended learning or online learning. The article focuses on the problems being faced by teachers and students in online teaching and learning with large class sizes. The purpose of this research clarified the level that lecturers and students taught and learnt in large class and the effectiveness of lecturing and learning in large class under the students' perspective. This quantitative research used a self-developed online questionnaire. Participants of this study were 655 first to final-year (i.e. fourth-year) students who enroled in the Bachelor of Education degree in Vietnam's universities and joined in large classes through online, blended learning, offline classes. The results pointed out that large classes have both positive and negative influences on the activities of lecturers and students. The interaction between lecturers and students in large classes is limited. There are many difficulties in teaching and learning in large classes that are related to classroom management, policies of universities, and the activities of lecturers and students. The problem cannot be completely resolved immediately. However, it is necessary to balance enrolment argets with available facilities and teaching staff. Universities also need to consider sending more teaching assistants to support lecturers and students in the teaching and learning process.

Keywords: covid 19, large class size, learning, teaching, Vietnam's universities

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INTRODUCTION

Class size is one of the important issues and concerns to any education system around the world. Student enrolment is significantly growing in recent years. The higher number of growth in student enrolment is, larger class is. When classes are overcrowded, there is some complex challenges related to the teaching and learning process (Toth et al., 2002; Al-Jarf, 2006; Lipinge & Choshi, 2013; Machika et al., 2014; Lowenthal et al., 2019). Juliana & Victoria (2016), Michael (2016), Hassan (2017) stated that there are many difficulties in teaching large classes that affect students and teachers. Difficulties include limited space, giving students a feeling of crowdedness, confusion, and sometimes frustration (Juliana & Victoria, 2016). Teachers may have difficulties in assessing learning capacity and helping students achieve learning goals in large-sized classrooms (Mulryan-Kyne, 2010; Amedahe, 2010; Allais, 2014, Juliana & Victoria, 2016). Monks & Schmid (2011) and Juliana & Victoria (2016) also emphasized the relationship between class size and quality of instruction. Large classes or overcrowded classrooms affect the quality of education delivered in the school system. When classes are large, effective teaching becomes a very vital problem. Teachers have trouble identifying and organizing students to work together as a group.

Efforts have been made to improve teaching effectiveness in large classes through applying active teaching methods. Several practicable measures have been suggested, one of which is that the government should implement strict rules and policies regarding the optimal number of students in the classroom and provide better facilities for schools.

The problem of large class sizes is becoming a problem affecting the effectiveness of education in numerous countries, especially in developing countries. These countries face several problems of human resources and economic efficiency (Juliana & Victoria, 2016).

The covid-19 pandemic has been having a strong impact on students' study habits in higher education as well as the activities of teaching and learning in Vietnamese higher education (Dilşat Peker Ünal, 2021). In response to the pandemic, Vietnamese universities have switched to teaching in the form of blended learning. Online teaching array adapted to a time of emergency worldwide (Asmahan Masry-Herzallah, 2022). Lecturers of large classes combined the learning management system (LMS) and interacted with their students through Zoom Meeting, Teams, Google Meet ect.

The focuses of this study are definition, evaluation as well as problems relating to teaching and learning in large classes from the view of pre-service teachers during their learning and teaching practice sessions at universities. The study also poited out the level of the effectiveness of teaching and learning performance in large class, the challenges facing students and teachers during their learning and lecturing in large classes. The result of the research support the suitable solution for universities in Vietnam during Covid 19 Pandemic.

Literature Review

Wang & Zhang (2011) showed that there was no quantitative definition of a large class because people's perception of a large class varies with context. Khan and Iqbal (2012) said that overcrowded classes where the number of students exceeds the optimum level caused problems and challenges for both teachers and students. Many studies also point out that a large class means that the number of students is crowded, which hinders the teaching and learning process (Mulryan - Kyne, 2010; Imane, 2015; Saeed et al., 2018). Parveen & Mohammad (2012) wrote, "A classroom is said to be overcrowded in which the number of students exceeds the optimum level such that it causes the hindrance in the teaching-learning process" (p.10162). Juliana & Victoria (2016) had a concept that a large class was determined by the student/pupil-teacher ratio (S/PTR).

Other studies on large classes focus on the number of students in a class or the number of students a faculty member is in charge of while teaching (Davis & McLeod, 1996 cited by Juliana & Victoria, 2016). The number of students comprising a large class is based on the program and conditions of each country (Amedahe, 2010). Some studies give specific numbers for a large class of students. For example, an overcrowded classroom has more than thirty (30) students (Hess, 2001); the ratio of one lecturer to 30 to 40 students could be seen as large in some countries (Amadahe, 2010). Mulryan-Kyne (2010) cited Bigg (1999) expressed that large class is not a new phenomenon. In many countries, including developed countries such as France, the Netherlands, Italy and the United States, at the undergraduate level large class size of up to 500 students is not uncommon. Khan & Iqbal (2012) cited Todd (2006, p.2) provided some minimum sizes of large classes. A class is considered large when the number of students exceeds the minimum size of large class.

Table 1
Some minimum sizes of large class (Todd, 2006, p. 2) cited by Khan & Iqbal (2012)

Author	Minimum size of large class
Barker (1976)	55
Chimombo (1986)	50
Dixon (1986)	40
Finocchiaro (1989)	65
George (1991)	60
Hyes (1997)	50
Halliday (1996)	50
Hubbard et al (1983)	45
Li (1998)	50
Long (1977)	60
Nolasco& Arthur (1986)	40
Sofnil (1991)	60
Samuda&Bruton (1981)	40
Touba (1999)	60

A number of advantages are found in large classes. Carpenter (2006) and Imane (2015) clarified that teachers of a large classroom may create a variety of interactive tasks that

sustain students' attention and motivate them to help each other using cooperative learning techniques. Wang & Zhang (2011) argued that more students means more ideas generation, and this provides more opinions and learning possibilities. Large classes create more opportunities for student interaction, foster a collaborative atmosphere, and encourage creativity and innovation. When students are crowded, the classrooms cannot guarantee enough capacity for students. Universities need to improve the existing resources and infrastructure that is used fir effective learning. Therefore, large classes stimulate the need to improve the school's facilities, infrastructure and resources (Michael, 2016, pp.96-97). Sajjad et al., (2007) clearly identify two positive aspects of large classes, namely time and management. The first one is the time of instruction which is spent on controlling the students, and the second is the classroom management. Large classes can also offer various opportunities for teachers to improve their teaching and demonstration, as well as organizational and management skills. Students can also take advantage of being a part of an overcrowded classroom. When there are a large number of students in a classroom, they can share several different opinions and life experiences with each other. This motivates the students to learn from each other.

There are some previous studies dealing with the number of problems relating to tearching and studying performance in large class. Large classes are a big challenge for teachers in classroom management (Asma, 2015; Lawrence, 2019). Classroom discipline is negatively impacted because larger classes are noisier and more prone to pushing, crowding and hitting. Teachers could lose valuable lesson time to control the learners, therefore time for real teaching is limitted teaching in the classroom has been trouble in time management, management of unexpected behaviors such as inattention or absence of students from class, difficulty applying class management and teaching methods effectively. It is also difficult for teachers to detect the mediocre student performance (Al- Jarf', 2006; Foley & Masingila, 2014; Sakaria, 2015; Petro Marais, 2016). Teaching in large classes is a challenging task (UNESCO, 2006). Thacher (2005) and Wilson (2006) found that in a large class, it is difficult for teachers to give feedback and set personal goals for each student. Teachers also have difficulty in identifying learning needs and the equipment to meet those needs. James (2015) agreed and added that a large classroom creates many other problems. Teachers are being overworked with more papers to grade. James (2015) reflected and confirmed that the majority of the teachers were of the opinion that it is difficult to involve students in practical work in overcrowded classrooms. Large classes cause considerable difficulties for both teachers and students. The academic performance of students in large classes is affected, as the average score of students in large classes is lower than in classes with small or moderate numbers of students (Petro, 2016). Parveen & Mohammad (2012) further confirmed that large classes reduce the chance of improving the quality of education because of teachers' stress and depression. Teachers in these classes have difficulties in applying strategy and achieving learners' learning goals. Having too many students in a class also causes disruptive behaviors such as talking, fighting, or causing troubles in the classroom.

Large classes affect all stages of the teaching and learning process (Parveen & Mohammad, 2012; Michael, 2016). The problems included are discipline, noise,

conducting evaluation, getting students attention, controlling the class, teachers' voice, students questioning, and sitting arrangement, and obtaining full attention of the class. Teachers are always struck in providing feedback on the assignment if there are too many students (Fauzia & Hywel, 2018; Fatima, Mushatq & Fatima, 2019). According to Parveen & Mohammad (2012), a large classroom leads to many troubles in maintaining discipline controlling and interacting with learners. The teacher has less attention and concern for students with lower rates of learning. Hassan (2017) agreed that large classes affect the learning environment and atmosphere for teachers and learners.

Omotere (2013) and Mutiara Ayu (2018) pointed out that large classrooms create barriers to effective teaching and learning. Teachers spend too much time on classroom control and management activities in large classes, which will affect their teaching strategies and reduce learners' interest and motivation. Due to the large number of students in the classroom, teachers find it very difficult to manage their teaching process effectively in order to achieve the set teaching goals. At the same time, teachers cannot create adequate interaction among students in a large group (Michael, 2016; Juliana & Victoria, 2016; Mutiara Ayu, 2018). Kweku & Theresa (2015) expressed that a large classroom leads to a lack of interaction between the teacher and students. They have less physical space to share ideas. Students have limited opportunities to meet individual needs, while teachers suffer from excessive workloads.

The problems of teaching and learning performance in large classes and their indicators that lecturers and student perform with authours being repeated above are synthesized and shown Table 2 below:

Table 2
The problems of teaching and learning performance in large classes

The problems	Authors
Teaching performance in large classrooms	
Managing student behavior in the learning process	Sajjad et al. (2007), Parveen & Mohammad, (2012); Michael, (2016)
Arranging layout of interactive classroom space	Parveen & Mohammad, (2012); James 2015); Michael (2016).
Moving in the lecture hall during lectures	Asma Tayeg (2015); James (2015); Lawrence (2019).
Interacting directly with students in the classroom	Al- Jarf's, (2006); Foley & Masingila, (2014); Sakaria, (2015); Kweku, E., & Theresa, A. (2015), Petro Marais, (2016),
Understanding the characteristics and needs of students	UNESCO, (2006), Parveen & Mohammad, (2012); Michael, (2016)
Monitoring students' progress in the learning process	Thacher (2005); Wilson (2006); Parveen & Mohammad, (2012); Michael (2016)
Organizing active learning activities in the classroom	Al- Jarf's (2006); Foley & Masingila (2014); Sakaria (2015); Petro Marais (2016); Michael (2016); Juliana & Victoria (2016); Mutiara (2018).
Evaluating each student's progress	Thacher (2005) and Wilson (2006), Fatima, Mushatq & Fatima (2019), Fauzia Shamim., & Hywel Coleman, 2018
Learning Performance in large classrooms	
Interacting with classmate during learning activities	Al- Jarf's (2006); Foley & Masingila (2014); Sakaria (2015); Petro Marais (2016); Akinsolu & Fadokun (2015); Kweku & Theresa (2015); Michael (2016); Juliana & Victoria (2016); Mutiara Ayu, (2018).
Interacting with lecturers during the implementation of learning activities	Al- Jarf's (2006); Foley & Masingila (2014); Akinsolu & Fadokun (2015); Sakaria (2015); Petro Marais (2016); Kweku & Theresa (2015); Michael (2016); Juliana & Victoria (2016); Mutiara Ayu, (2018).
Moving for learning activities	Parveen & Mohammad (2012); Michael, (2016); Omotere (2013); Mutiara Ayu (2018)
Choosing a position to listen to lectures and exchange	Omotere (2013); Akinsolu & Fadokun (2015); Mutiara Ayu (2018)
Having positive learning attitude	Parveen & Mohammad (2012); Omotere (2013); Michael (2016); Hassan (2017); Mutiara (2018).
Being keenly interested in the subject	Parveen & Mohammad (2012); Omotere (2013); Michael (2016); Hassan (2017); Mutiara (2018).
Expressing opinions and ideas during the lecture	Parveen & Mohammad (2012); Omotere (2013); Michael, (2016); Juliana & Victoria (2016); Mutiara (2018); Saeed, Muhammad & Zia (2018)
Practising essential soft skills (presentation, confidence, problem solving, etc.	Parveen & Mohammad (2012); Omotere (2013); Michael (2016); Hassan (2017); Mutiara (2018);

METHOD

Research questions

This study focuses on the performance of teaching and learning in large classes at higher education in Vietnam in terms of: the number of students in the class and the frequency of student participation in the natural and social sciences. In particular, the research pointed out the level and the way teachers and students interact in large classes.

To examine the online teaching and learning during the Covid-19 Pandemic, this study will ascertain answers to the following research questions:

- How often do lecturers and students teach and learn in large class?

- How do large classes affect teaching of lecturers and learning of student activities?

Sampling Strategy

We adopted an exploratory descriptive research method. A convenient sampling method was used. The resulting studies compared attitudes about teaching and learning in large classres of two student groups, the Natural Sciences and Others group (NSOG), and the Social Sciences group (SSG). Purposeful sampling was used to select 655 first to final-year (i.e. fourth-year) students who registered for the Bachelor of Education degree. We administered questionnaires to representatives of students of both groups and a wide age distribution (18 to 25 years). At the time of the survey, the majority of students were first-year (59.6%) and second-year students (35.2%). Among students participating in the survey, 86% are female students. By discipline, 60% of students are in Social Sciences and the rest are in Natural Sciences

Only one form of data collection was used, namely a structured questionnaire. In other words, this delimited the findings to exclude probes into students' experiences in a way that might arrive at more nuanced experiences. We collected data from pedagogy universities in Vietnam (two universities in the North and 1 in the Middle and 1 in the South of Vietnam). Convenient sampling was used. Three researchers distributed the questionnaire to students. Two researchers were involved in administering the questionnaires to students that had come for the lecturing at large classes at a university.

Instrumentaion

This quantitative study used a self-developed questionnaire to gather quantitative data simultaneously (Creswell, 2012). The questionnaire used closed-ended questions with 5-point Likert scales. By answering the questions, the perspective of students about teaching and learning in large classes in Vietnam's universities can be revealed and recognized.

A questionnaire was developed that included four sections. These were taching and learning in large classes, large classes effects on lecturers' teaching and students' learning activities, the interaction process in a large class and difficulties when teaching in large classes.

The number of students was synthesized through observations, discussions with lecturers, students and the authors' practical teaching experiences. The situation of large classes and teaching activities of lecturers, learning activities of students during the Covid 19 period include questions relating to the study space, class management of lecturers (behavior management, assessment based on student demand, interaction activities between lecturers and students. The interaction process of lecturers and students in large classes during the Covid 19 period includes: student interaction with

students, student interaction with lecturers, how lecturers create interactions in large classes. The difficulties of teaching large classes during the Covid 19 period are related to IT infrastructure, equipment, the competence of lecturers, readiness and activeness of students, and policies of universities.

The research used a ranking system and Likert scale to collect the information needed to answer the research questions. A ranking system was developed to capture information relevant to research questions. To capture information relevant to answering research questions, a 5-point Likert scale was developed, ranging from 1 to 5 (5 = very often/ very influential/ very effective, 4 = often/ quite influential/ quite effective, 3 = neutral, 2 = less often/little effect/less effective, 1= not never / does not affect/does not work.

Data Collection

Data were collected with the use of a research instrument, a structured questionnaire. Students were informed that their participation in this study was entirely voluntary, and their personal information would be kept anonymous. The survey consisted of the following two big questions with 3 sub-questions: (1) what is the number of students in large classes; (2) How are teaching activities organized at large classes? (3) How are learning activities taken place at large classes?The questionnaire required the student teachers to give answers based on his/her experiences of learning in large classes.

Data Analysis

The questionnaire provided raw data sources that were later assessed using SPSS software. Each survey item was compared based on the mean scores and standard deviation. The results from the SPSS assessment were read carefully by the authors to obtain a general sense of the information and reflect on the schools' role in teacher education training. Items whose mean scores were similar were grouped into the same categories, representing students' perspectives about teaching and learning in large classes in Vietnam's universities.

Accordingly, coherent interpretations of the findings were generated. The data analysis underwent several steps. A detailed descriptive analysis of the collected data was carried out by the authors. The analysis indicated means and ranges of scores for the variables. After that, the descriptive analysis was presented and intensively discussed several times with other researchers from the same field as the authors. In this way, the data were validated, and reliable findings were produced. This also led to a discussion about the implications of promoting the role of practicum in training teacher education.

To analyze the correlation of each item for the entire scale, the KMO coefficient was calculated. KMO index and Sig value <0.005 showed that the scale is eligible for factor analysis.

To evaluate the reliability of the toolkit in this study, the article uses internal consistency methods, using Cronbach's Alpha correlation model (Cronbach's). This model evaluates the reliability of the measurement based on the calculation of the variance of each item in each scale, the entire measurement and the correlation of each item's point of view with the scores of the remaining items on each scale and of the whole measurement. The results of analyzing the reliability of the tool to measure the situation of Teaching and

Learning at Large classes in Universities during the COVID 19 pandemic: A view of Vietnamese Students show that the sub-scales of this measurement have alpha reliability coefficients from 0.918 to 0.965 shows that the scale has acceptable reliability.

FINDINGS

Table 3
Frequency of learning participation in large classes

Number of student/classroom	Mean	Std. Deviation	Rank
100- 150	3.8473	1.03067	1
150-200	3.4427	1.02089	2
200- 300	2.6427	1.12682	3
300- 400	2.1405	1.05873	4
400- 500	1.9649	1.03471	5
Over 500	1.8641	1.02783	6

Students participating in large classes with the size from 100 to 150 people accounted for the highest value (having a mean of 3.8473), followed by the size of 150-200. The average mean value belongs to the class size of 200-300 and 300-400 students. The lowest mean value belongs to classes with over 500 students (a mean of 1.8641). From this result, it can be seen that the large class size of universities in Vietnam is generally between 100 and 200 students. Very few universities have classes of over 400 students.

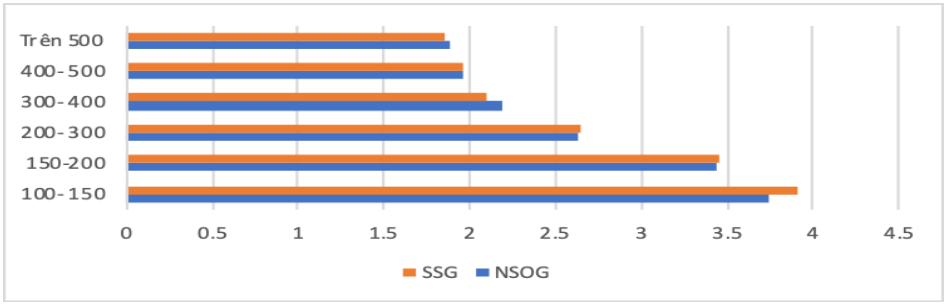

Figure 1
Frequency of learning participation in large classes between student groups

The bar chart describes the level of participation in large classes of students in NSOG and SSG, which is basically equal. The highest figure belongs to the classes with the number of students from 100 to 150. At this class size, the mean of the SSG group is 3.9137, while that of the NSOG is 3.7481. This value also has the highest disparity across industry groups. Regarding the remaining class sizes (from 150-200; 200-300; 300-400; 400-500; and above 500), the average mean values of the groups are similar. In second place is classes with a number of 150-200 students (with Mean NSOG = 3.4313, and Mean SSG= 3.4543), followed by classes of 200 -300 students (with Mean NSOG = 2.6374 and Mean SSG= 2.6472); classes with more than 500 students have the lowest mean in both the SSG group and the NSOG. From the table above, it can also be seen that there are not many classes with the number of 400 - 500 students or over 500 students; the most common classes are the ones with 100 to 200 students.

The increase of students in university classes is linked to the context of developing country like Vietnam. The need for high-quantity human resources to host socio-economic development has posed the problem of increasing the number of university students. The increase in the number of students is not incompatible with materials that has raised the problem of overcrowded students in the class. This problem put pressure on teaching and learning performance at universities.

Table 4
The situation of teaching activities at large classes

Items	Mean	Std. Deviation	Rank
Managing student behavior in the learning process	3.8611	.93059	1
Arranging layout of interactive classroom space	3.7802	.95330	5
Moving in the lecture hall during lectures	3.5282	1.04137	8
Interacting directly with students in the classroom	3.6626	1.03784	6
Understanding the characteristics and needs of students	3.8046	1.00685	4
Monitoring students' progress in the learning process	3.8092	.98858	3
Organizing active learning activities in the classroom	3.5725	1.03035	7
Evaluating each student's progress	3.8107	1.03938	2

This table shows how students evaluate the impact of class size on the active teaching activities of the lecturers (the activeness in the teaching activities of the lecturers). From the survey results, most students believe that the large class size has a significant influence on the active teaching activities of the lecturers. This is proven by the finding that all values are in the high average range, from about 3.5 to approximately 3.9. Among them, the most challenging thing for teachers when teaching large classes is managing student behavior in the learning process (with the highest mean value of 3.7802), followed by evaluating each student's progress (with the mean value of 3.8107), monitoring students' progress in the learning process (with the mean value of 3.8092). In large classes, understanding the characteristics and needs of students is also a difficulty for teachers (with the mean value of 3.8046). The lowest mean value is moving in the lecture hall during lectures (3.5282) and organizing active learning activities in the classroom (3.5725).

The problem of "organizing active learning activities in the lecture hall" generally has a high mean value (3.5725), but such value is smallest when compared to other items. This shows two things. Firstly, students might not see the full extent of the problems that teachers face. Secondly, although the class is crowded, the lecturer can still relatively well organize active learning activities in the lecture hall, which is proven by the finding that the student's satisfaction level with the organization of the lecturer's activities is higher than that of other items. However, in this survey, the standard deviation of some items is greater than 1, which resonates with the findings of the survey on the influence of large classes on active teaching activities of teachers from other subjects i.e. students. In the survey, the evaluation comes from the objective observations of outsiders (students), not from the position of the person who directly teaches in the classroom (teachers).

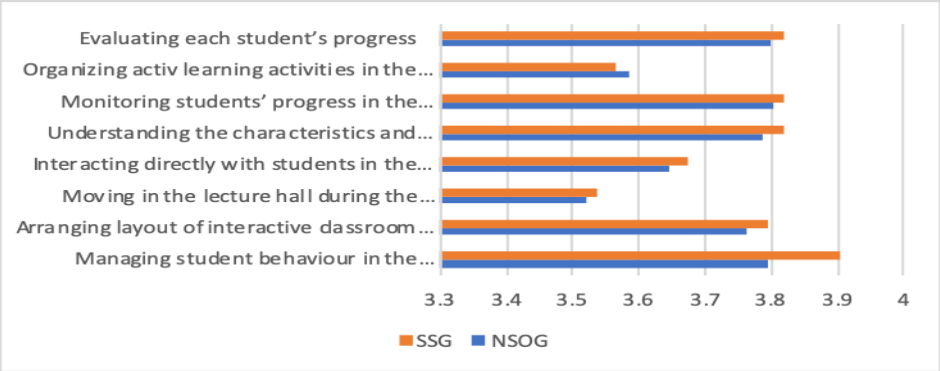

Figure 2
The situation of teaching activities at large classes between student groups

The bar chart shows that the large class has an equal effect on the active teaching activities of lecturers in both NSOG and SSG. This is proven by the survey results. They have a high average value, ranging from Mean = 3.5 to Mean = 3.9. All the mean of items in the SSG is higher than the NSOG. Isolated ventricular far as the average value of item 1, "Managing student behavior in the learning process" with Mean NSOG =3.7939; Mean SSG= 3.9036). For NSOG, the highest average value belongs to item 6 "Monitoring students' progress in the learning process" with Mean NSOG =3,8015, followed by item 8" Evaluating each student's progress" (with Mean NSOG =3.7977) and item 1 "Managing student behavior in the learning process" (with Mean NSOG = 3.7939). Items 3 "Moving in the lecture hall during lectures" has the lowest average value, with Mean NSOG =3,5191. For SSG, item 1 " Managing student behaviour in the learning process " with Mean SSG= 3,9036) has the highest number of Mean, followed by "Evaluating each student's progress" (with Mean SSG= 3.8198). Items "Monitoring students' progress in the learning process" and "Understanding the characteristics and needs of students "have the same value of 3.8173. The lowest mean value belongs to Item 3 " Moving in the lecture hall during the lectures ", with Mean SSG= 3.5355.

Table 5
The situation of learning activities at large classes

Items	Mean	Std. Deviation	N
Interacting with classmate during learning activities	3.5786	.95118	5
Interacting with lecturers during the implementation of learning activities	3.6595	.95709	2
Moving for learning activities	3.6137	.96520	3
Choosing a position to listen to lectures and exchange	3.8168	1.01669	1
Having positive learning attitude	3.6122	1.01178	4
Being keenly interested in the subject	3.5542	1.03592	6
Expressing opinions and ideas during the lecture	3.4748	1.03112	8
Practising essential soft skills (presentation, confidence, problem solving, etc.)	3.5527	1.07937	7

Similar to the influence of large classes on lecturers, the influence of large classes on active learning activities of students in the lecture hall is also in the range of 3.4 to 3.8. The highest value (3.8168) belongs to "Choosing a position to listen to lectures and exchange".

The facilities in general and classrooms in particular in universities in Vietnam have not met the basic requirements of teaching activities in terms of both scale and equipment. Because these universities are still dependent on the government or not completely financially independent. Therefore, with large classes (especially classes having from 300 to 500 students), students will face many difficulties in choosing a seating position. "Interacting with lecturers during the implementation of learning activities" is the second issue (3.6595) of large classes. On a large scale, interacting with lecturers is not simple in terms of both frequency and manner. If lecturers increase the level of interaction with each individual, or each group, it will affect the overall progress of the lesson. The third place goes to "Moving for learning activities" (3.6137), and this result is consistent with the above analysis of facilities.

Ranked in the next positions are issues related to positive learning attitude, interaction with friends, and interest in the subject. Finally, a large class affects the students' practice of skills (3.5527) and their expressing opinions (3.4748). Although there is a ranking arrangement of the items, the means of these items show little differences, which shows that the influence of the large class on all active learning activities of students is very significant.

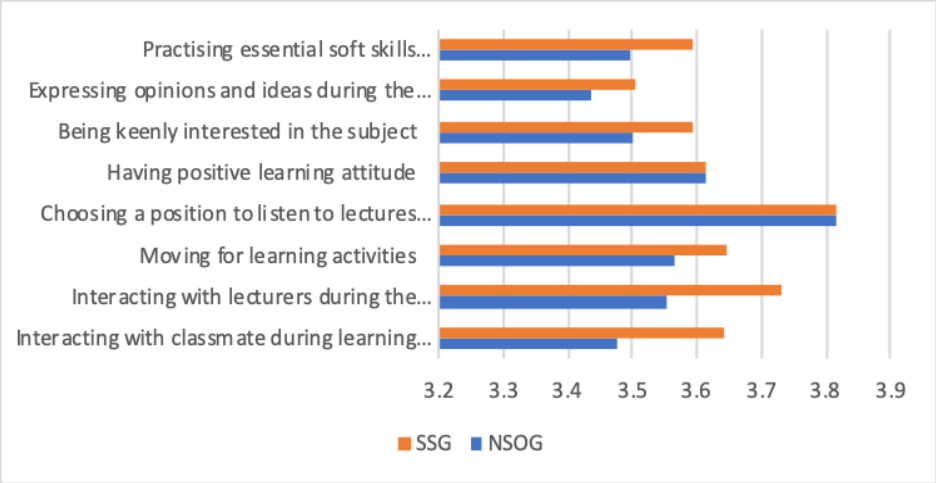

Figure 3
The situation of learning activities at large classes

The bar chart illustrates that large classes have an impact on student active learning in the lecture halls of both NSOG and SSG. This is proven by the survey results, with all 8

items belonging to these groups having a high average mean value, ranging from about 3.4 to 3.8.

Looking in greater details, the 7 items belonging to the SSG have an average value higher than the average value of the NSOG. The group of SSG items with a considerably higher average value than NSOG are "nteracting with lecturers during the implementation of learning activities" (MeanNSOG =3.731 and 3.5534), "Interacting with classmate during learning activities" (MeanNSOG = 3.6421 and 3.4771).

DISCUSSION

The situation of large classes is quite common in countries around the world, especially in developing countries that are renovating the country towards industrialization and modernization. Besides, the population of developing countries is also growing rapidly, putting pressure on the education system. Large class size is a problem for the whole education system, including higher education. Ayeni & Olowe (2016) expressed that the number of learners increases as a result of the population pressure and the pressure to raise educational standards. In the pandemic period, it took a long time for universities to get used to online teaching. In other words, both teachers and students need time to accustom themselves to online teaching and online learning. Therefore, the effectiveness of learning in online classes is limited.

In addition, there is a lack of infrastructure investment, and the investment has not kept up with the development progress. In the study, most of the large classes took place in general and core subjects, while the number of students in a class of specialized subjects was much smaller. The academic program is therefore a factor to consider when expanding the study. To assess the research problem more comprehensively and profoundly, it is necessary to have comparisons between the interaction of lecturers and students for each academic block and each specialized block. However, one important finding from the research is that both lecturers and students are negatively affected by large class sizes, beyond the control of lecturers.

One of the biggest difficulties for teachers is the organization of teaching activities to promote the activeness and initiative of learners during the COVID-19 pandemic through online platforms (Ronnie et al., 2020; Coman el al., 2020; Mean et al., 2021). This process requires the creativity and initiative of both learners and teachers. Some opinions show that when both lecturers and students work together, the large class size is not a big problem, as this could create positive interactions between lecturers and students. This is an important finding of this study. From the management and policy making point of view, large classes are the solution to financial problems and economic problems. With a large class of students, the number of teachers needed will be reduced, and the facilities will not be divided.

Large classrooms will save training costs, create competition on tuition fees, and therefore attract student enrolment. However, in the long run, when training needs to meet quality standards, especially according to the learner capacity approach to meet market needs, this strategy of large class size must be reconsidered, as this is not an appropriate form of classroom organization (Khashane, 2016; Mutiara Ayu, 2018,

Sajjad et al., 2017). In a special context like the current pandemic, most universities will switch to online learning, and large classes are really a big challenge for teachers in terms of class management. In fact, classroom learning has too many shortcomings. When switching to online teaching, teachers face even more difficulties such as the level of software access used by the lecturers, the Internet connection quality, and controlling learners' concentration during the teaching process. These difficulties cause increasing pressure on both teaching and learning.

CONCLUSION

Research results show that large classes have a significant influence on the activities of lecturers and students, especially during the COVID–19 pandemic. This influence is more inclined to the negative direction. Teachers and students lack the physical space and time to engage in interactive activities. On the other hand, teachers and students also find it challenging to give feedback during class or after lessons. In the classroom, one-way teaching activities are often taken place, as learners do not or rarely actively engage in interactive activities.

Lesson contents are delivered mainly through lectures, sometimes purely through teachers asking questions without receiving feedback from learners. Many students' opinions could not or were not recorded in a timely manner. As a result, the effectiveness of learning is affected. Many teachers are under pressure, stressed and depressed, and some are even afraid of going to class. Many teaching strategies or intentions cannot be realized. Teachers feel a sense of isolation whenever they are in online classes. The students' learning goals and the class objectives cannot be achieved. Students will develop unexpected behaviors.

Learning interest and motivation are also affected. Students cause noise in class, drop classes uncontrollably, become distracted or even doze off. From the research results, there are many factors affecting teaching in large classes, including insufficient learning space for lecturers and students to interact with each other. Interaction time is also limited. The distance between the rows of tables and chairs is too dense to accommodate many people, making physical movement such as walking, moving, standing up or sitting down inconvenient. Lecturers are physically far away from learners, so they cannot understand the needs and establish positive relationships and interactions with learners.

Large classrooms have had a direct impact on learning and teaching performance. The effect was disadvantages especially in the context of covid 19 when teaching and learning activities took place in various forms such as online, blended learning, offline. In particular, in online classes, the teaching effectiveness is significantly reduced. The research results are the basis for proposing measures to improve the effectiveness of teaching and study performance in large classrooms at universities in Vietnam.

The immediate proposal is to balance enrolment **q**uotas with current facilities and teaching staff. In addition, it is recommended to open more classrooms and fully assess the impact of the number of students/classes on training effectiveness to meet the

schools' social needs. The universities also need to consider appointing more teaching assistants to support teachers and students in the teaching and learning process.

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