Print ISSN: 2790-3508 Online ISSN: 2790-3516



The Cambodia Journal of Basic and Applied Research

journal homepage: https://cjbar.rupp.edu.kh



## Students' Responses on the Application of Active Learning Strategies in Open and Distance Learning (ODL): A Study on Bangladesh Open University (BOU)



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#### ARTICLE INFO

Editorial responsibility: Prof. SOK Serey Received: 13 June 2024 1st Revised: 26 September 2024 2nd Revised: 22 October 2024 Accepted: 14 November 2024 Published online: 30 December 2024 © 2024 Published by Research Office, (RUPP) All rights reserved.

#### Keywords:

Active learning strategy, Open and distance learning, Institutional difficulties, Bangladesh.

### សង្ខិត្តន័យ

ការសិក្សានេះបានព្យាយាមបញ្ជាក់ពីប្រតិកម្មរបស់និស្សិត ចំពោះ ការអនុវ័ត្តយុទ្ធសាស្ត្រសិក្សាសិកម្ម (Active Learning) ក្នុង បរិយាកាស់ នៃការរឿនដោយបើកចំហ និងពីចម្ងាយ (ODL)។ ដើម្បីស្វែងយល់អំពីស្វានភាពជាក់ស្វែងនៃការសិក្សាសកម្មដោយ បើកចំហ៍ និងពីចម្ងាយ សំណូរស្រាវ៉ជ្រាវពីរត្រូវបានបង្កើតឡើង ដោយផ្អែកលើចំណ័ងជើងស្រាវ័ជ្រាវ័។ ការសិក្សានេះត្រូវបាន រៀបចំទៀងដោយប្រើវិធីសាស្ត្រចម្រុះ (mixed method) សម្រាប់ ការស្រាវជ្រាវ។ ទិន្នន័យត្រូវប៉ានប្រមូលពីនិស្សិតសរុបចំនួន 110 នាក់ ដែលបានបំពេញកម្រងសំណូរសព្វគ្រប់ និងការពិភាក្សាក្រុម (FGD)។ ការជ្រើសវើសសំណាកដោយមិនគិតលក្ខខ័ណ្ឌ (Convenience Sampling) ត្រូវបានប្រើដើម្បីជ្រើសរើសនិស្សិត 6នាក់សម្រាប់ការពិភាក្សាក្រុម។ លទ្ធផលនៃការសិក្សាបង្ហាញថា សាស្ត្រាចារ្យមិនអនុវត្តយុទ្ធសាស្ត្រសិក្សាសកម្មជាប្រចាំនោះទេ ដោយសារបញ្ហាប្រឈមរប់ស់ស្តាំប័ន និងការជំរុញផ្ទាល់ខ្លួនរបស់ គ្រូបង្រៀន។ ក្នុងចំណោមយុទ្ធសាស្ត្រសិក្សាសកម្មចំនួន រ៉ែ8 ដែល បានជ្រើសរើស មានតែចំន៉ូនតិច័តូចប៉ុណ្ណែះ ដែលត្រូវបាន ប្រើប្រាស់ញឹកញាប់នៅក្នុងថ្នាក់រៀនបច្ចុប្បន្ន។ 50% នៃយុទ្ សាស្ត្រសិក្សាសកម្មត្រូវបានប្រើប្រាស់ជាបន្តបន្ទាប់ ហើយយុទ្ធ សាស្ត្រ៍ដែលនៅសល់ គឺមិនសូវបានប្រើ ឬមិនដែលបានប្រើ។ និស្ស៊ីតបានបង្ហាញការពេញចិត្តចំពោះការអនុវត្តយុទ្ធសាស្ត្រសិក្សា សកម្មក្នុងថ្នាក់សិក្សា។

### Abstract

This study tries to ascertain the reactions of students toward the implementation of active learning strategies in the open and distance learning (ODL) environment. In order to investigate the real situation of active learning in the ODL environment, two research questions have been formulated in relation to

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E-mail addresses: omarsujon@gmail.com (BHUIYAN Md. Omar Faruk) DOI: https://doi.org/10.61945/cjbar.2024.6.2.02

the research title. The study has opted for a mixed-method research design. Data has been collected from students through the use of survey questionnaires and focus group discussions (FGDs). A total of 110 students completed the questionnaire in the survey. Convenience sampling was used to pick six students for FGD. The study's findings indicate that faculty members are not consistently implementing active learning strategies due to institutional challenges and teachers' personal motivation. Out of the 18 chosen active learning strategies, only a small number have been frequently used in the present classroom. About 50% of the active learning strategies are employed intermittently, and the remaining strategies are hardly or never used. The students express contentment with the implemented active learning practices in the classroom.

### Background

There exist 108 private universities and 50 public universities in Bangladesh (Bhuiyan, 2022). Bangladesh Open University (BOU) is one of the public universities that operates its education programs through open and distance learning (Jahan et al., 2012). In 1992, BOU Act 1992 was passed in the parliament in order to make education accessible to all, irrespective of age, gender and place, by using different information and communication technologies. BOU has six schools that conduct different academic programs in both distance and face-to-face mode. BOU operates under a blended learning approach where day-long face-to-face tutorial services are provided only on Fridays and Saturdays in its own campuses and affiliated institutions. BOU provides printed text materials and broadcasts recorded audio and video programs prepared by a subject expert in national TV and radio channels which is a one-way technological use and has several drawbacks (Rahman & Sadat, 2010). Recently, BOU commenced a paradigm shift from traditional ODL to technology-enabled ODL through LMS and web 2.0 technologies (Mannan, 2016). In the tertiary level of Bangladesh, i.e., in universities, faculty members are not aware of student-centered learning and do not have appropriate pedagogical training to apply active learning strategies in the classroom (Mamun et al., 2011). The absence of faculty members' familiarity with various instructional methods in the classroom has negative impacts, i.e., surface learning and passive learning (Ritchhart et al., 2011) on students' involvement and motivation (Uddin, 2014) because it hinders student's development of higher-order thinking skills (Habib, 2015), therefore impeding their educational advancement (Duckworth, 2009).

Wide use of teacher-centered pedagogies and use of traditional lecture methods hinder students' development of critical thinking skills which job markets require. Moreover, skill-based and interactive learning activities are not prevalent in the current education system of Bangladesh (Mahmuda, 2016). In student-centered learning environments, active learning strategies enhance student engagement, increase relevance, and boost learner motivation (Gleason et al., 2011). In active learning, when teachers stop lecturing, students work on a particular question or task to understand a concept

(Andrews et al., 2011). In active learning, students play the role of a partner in the teaching-learning process, which helps them to take responsibility for their own learning (Gleason et al., 2011). McLaughlin et al. (2014) in their study found that students' learning outcomes are enhanced and motivation as well as attitudes are improved with the introduction of active learning in the classroom.

Rahman and Sadat's (2010) study found that faculty members at BOU continue to rely on conventional lecture methods and teacher-centric learning methodologies. Therefore, students become passive learners and shared responsibility for learning is not practiced. Students fail to connect theoretical knowledge to practical fields. Ahmed (2018) argues that faculty members sometimes use active learning strategies in the classroom as a result of institutional challenges, i.e., classroom arrangement, small budgetary allocation on teaching aids, learning environment, services support, course evaluation, and instructional practices at the university. These factors hinder the growth of students' learning in open and distance learning (ODL) environments.

Most of the faculty members of BOU fail to apply the latest and effective learning strategies in the classroom because they do not have pedagogical degrees or educational training regarding active learning (Rahman & Sadat, 2010; Ahmed, 2018). Like other universities, the lack of application of active learning strategies in the BOU's current classroom fails to meet the needs of 21<sup>st</sup>-century learners. Employers in Bangladesh recruit those who have sufficient higher-order thinking skills and decision-making capacity (Rahman et al., 2019). The prevalence of traditional lecture methods in BOU affects student's employability skills in the job market. With a view to changing the scenario, reformation in the learning strategies in the ODL environment is needed. The lack of active learning strategies in the classroom has a major impact on students' ability to acquire higher-order thinking skills (Islam & Shafiq, 2016). In order to alter the current situation, it is necessary to implement reforms in the learning tactics inside the ODL environment. Prior to the reformation, it is crucial to ascertain the active learning strategies employed by the teachers in the ODL environment and the corresponding response of students to these strategies in the present classroom setting.

There is a limited number of research that examines students' reactions to the use of active learning strategies in the classroom within the context of Bangladesh. There is currently no research available in the field of higher education, including Open University, that demonstrates the effectiveness of active learning strategies. The data gathered from this study can provide ODL educationalists with insights into the implementation of active learning strategies in the ODL classroom. This study will assist the BOU authority in establishing instructional practices and institutional objectives in the near future. The objective of this study is to ascertain the reactions of students toward the implementation of active learning strategies in the ODL setting. Additionally, this study aims to explore the reasons behind the lack of utilization of active learning strategies by faculty members in the ODL setting.

## Conceptualizing Active Learning Strategies in Bangladesh

In the last few decades teachers and education researchers have tried to explore new instructional methods which will enhance students' learning experience. Active learning has been considered as a promising alternative solution to this exploration which can be applied in various disciplines (Freeman et al., 2013; Prince, 2004). Active learning strategies refer to a range of teaching strategies, including collaborative learning, inquiry-based learning, cooperative learning, problembased learning, inverted or flipped classroom learning, think-pair-share, peer review, and case study (Bruffee, 1984; Prince, 2004; Deslauriers et al., 2011; Freeman et al., 2014). Active learning strategies encompass a range of teaching methods, as opposed to relying on a single approach. These strategies shift the role of the teacher and foster a conducive learning environment (Prince, 2004; McGivney-Burelle & Fei Xue, 2013).

Various educational methods such as brainstorming, cooperative learning, project-based learning, concept mapping, collaborative learning, role-playing, simulation, and peer teaching are considered active learning strategies. These strategies are particularly effective for adult learners because they involve paired activities, individual activities, and informal small-group activities (Zayapragassarazan & Kumar, 2012). Active learning tactics are regarded as a comprehensive method of learning that allows students to participate in various learning activities, hence meeting the requirements of futuristic learners (Prensky, 2010). It is observed that in the classroom where active learning strategies have been used students found lessons more interesting and participate attentively in the class lessons (Karamustafaoglu, 2009). The study by Kay et al. 2019 found that there were no significant differences between lecture-based teaching and active learning with respect to cognitive presence or learning performance. However, the study of Karamustafaoglu (2009) found that the success as well as interest of the students are highly improved in the group where active learning strategies are used than in the group where active learning strategies are not used.

Active learning is a very effective teaching approach that is beneficial not just in traditional educational settings but also in open and online learning environments (Brown, 2014). Considine and Dean (2003) utilized active learning strategies in the ODL setting and observed favorable outcomes in terms of student achievement and attitude. Various active learning strategies, such as group work, presentations, field studies, simulations, case studies, brainstorming sessions, workshops, question-answer sessions, mind mapping, and the use of audio-video tools, are implemented in the master's level program of an ODL based university, yielding satisfactory outcomes (Ahmed, 2018). Furthermore, these active learning strategies facilitate the retention of knowledge over an extended period and foster the development of diverse abilities. The utilization of active learning strategies as alternative instructional methods enhances academic performance and fosters positive attitudes among learners (Weinstein et al., 2011). Jeong et al. (2019) discovered that implementing active learning strategies in a science distance learning course enhances learners' positive emotions, self-efficacy beliefs, and overall learning outcomes.

In the ODL setting, the use of case studies as well as interactive instructional tools, such as lecture presentations, conceptual maps, podcasts, summaries of theoretical concepts, and hot potato exercises (Gikandi et al., 2011), helps compensate for the student's lack of practical abilities. In addition, the implementation of active learning tactics in ODL enhances both the cognitive and meta-cognitive abilities of students, qualities that are highly valued by employers when hiring (Bahri & Corebima, 2015). The implementation of active learning tactics, such as reflective questioning using online journals, collaborative group discussions through online discussion boards, case studies, group activities, projects, and the use of multimedia content in open and distance learning, enhances the critical thinking abilities of learners (Hidayat et al., 2012).

Multiple global research has investigated the impact of active learning in the conventional classroom setting (Hasnine et al., 2020; Walker, 2003; Pernia-Espinoza et al., 2021; Kiani, 2021). Only a limited number of research have been undertaken in the context of ODL with a focus on active learning strategies (Brown, 2014; Khan et al., 2017; Abakumova, 2019). There is a limited amount of research in Bangladesh focused on active learning strategies (Chowdhury, 2016; Kim et al., 2013). However, no research has been carried out in the ODL setting to investigate the significance of active learning. This study aims to address the existing vacuum in the literature on students' responses to the implementation of active learning strategies in the ODL environment. It will also contribute to enhancing the effectiveness of ODL in Bangladesh by improving students' learning outcomes.

### **Research Methodology**

This study employed a mixed methods research design to perform its investigation. To ensure a thorough reaction to the research questions, the method of mixed methods research (Creswell, 2014) has been used. This approach is advantageous as it establishes a strong link between theory and practice (Greene, 2008). Statistical Package for Social Sciences (SPSS) has been used to analyze the quantitative data, focusing on descriptive statistics, including percentage and mean scores. Mean has been used to get an overall idea or picture of the active learning strategies applied in the current classroom. To gather quantitative data for the study, a meticulously designed questionnaire has been created for the students. The questionnaire has been prepared using Google Forms. The link was disseminated over many digital media. To collect quantitative data, quota sampling was employed in this study, where 200 students (i.e., 100 males and 100 females) from the six different schools of Bangladesh Open University. These students were asked to complete the structured guestionnaire one time within a one-week period. About 110 questionnaires were completed and returned to the researcher, resulting in a response rate of 55.0%. They were chosen to find out the actual situation of active learning and to know their reaction when active learning strategies have been applied.

We also conducted focus group discussions (FGD) in order to collect in-depth information about the application of active learning strategies in the present classroom. Moreover, due to having different advantages like cost effectiveness, simplicity, and less time consuming FGD has been chosen as a method of data collection. Convenience sampling was utilized in FGD to collect qualitative data. FGD consists of 6 students from 6 different schools of BOU to ensure equal participation of all schools. Students are invited at a particular time to attend the FGD session, where the researcher acts as a moderator of the session. An online focus group discussion (FGD) has been organized via the Zoom video conferencing app to gather qualitative data. The process of FGD was conducted with the participant's consent, specifically for the purpose of transcription and analysis.

The survey's demographic data (Appendix A) revealed that out of 200, About 110 questionnaires were completed and returned to the researcher. The response rate of the male is 57% and female is 43%. Among the 110 participants, the distribution of students per program was as follows: 51 (46%) were pursuing a Bachelor's degree, 56 (50%)

were pursuing a master's degree, 3 (3%) were pursuing an M.Phil. degree, and 1 (1%) was pursuing a PhD. Students from Bachelor to PhD programs have been included as a sample in order to make better representation in the data set and to find out their reaction to the application of active learning strategies in Bangladesh Open University's tertiary level education. The school participants reported the following distribution: School of Business 24 (22%), School of Social Sciences, Humanities, and Languages 16 (15%), Open School 36 (33%), School of Education 21 (19%). The School of Agriculture and Rural Development accounts for 7% of the total, while the School of Science and Technology accounts for 6%. The age distribution of the respondents is as follows: 1 individual (1%) is aged 56 and above, 16 individuals (5%) are aged 51 to 55, 13 individuals (12%) are aged 46 to 50, 7 individuals (15%) are aged 41 to 45, 24 individuals (22%) are aged 36 to 40, 22 individuals (20%) are aged 31 to 35, and 27 individuals (24%) are aged 30 and below.

Cronbach's alpha was employed to assess the reliability of the gathered data. The study demonstrates a satisfactory level of internal consistency for the scale of this sample, as indicated by the value of Cronbach's alpha being 0.804, which is above the minimum threshold level of 0.70 (Tabata & Johnsrud, 2008; Mohajan, 2017). The data collected from the interview schedule has been validated by the member checking technique to authenticate the data.

Ethical consideration guidelines have been followed while conducting the study. To provide a clear view of the study, project obligations, expectations, potential risks, and other issues general information sheet, ethical consent forms for a survey and FGD (Appendix B) have been given to the research participants so that they can give informed consent. For qualitative data, focus group discussion (FGD) data is transcribed and then categorized into corresponding themes and sub-themes based on the study questions. The findings of the theme were presented in a descriptive manner.

A few limitations were evident in this study. If the responses of the other stakeholders, e.g., faculty members and university authority, have been included in this research, the findings may be different. This is small-scale research. The sample size of the students is small. If a large sample size has been included, the results may vary. The use of the convenience sampling technique was one of the limitations as it prevents the generalization of findings to the population.

### **Results and Findings**

### Responses to active learning strategies

According to Table 1, overall, the respondents were satisfied with the application of active learning strategies in the present classroom and perceived active

Table 1: Responses on the active	learning strategies (n = 110)
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Response on active learning strategies	WAI	Overall assessment
1. I am satisfied with the application of flipped learning in the classroom.	3.88	Α
2. Gallery walks make us engaged and involved in the classroom.	3.89	Α
3. Group work activities are helpful for our learning.	4.30	SA
4. Video demonstrations are more effective than traditional lectures in the classroom.	3.99	Α
5. Jigsaw as an active learning strategy is appropriate for BOU.	3.76	Α
6. In BOU's classroom Think-Pair-Share is considered as an effective active learning strategy.	3.88	Α
Overall	3.95	Α

Notes: Strongly disagree (SD) = 0.00-1.00, Disagree (D) = 1.01-2.00, Neutral (N) = 2.01-3.00, Agree (A) = 3.01-4.00, Strongly agree (SA) = 4.01-5.00.

learning strategies as engaging, helpful, effective, and appropriate. In Killian and Bastas' (2015) study, it was observed that students had significantly more favorable attitudes towards active learning strategies compared to lecture-based classes.

Students have a favorable disposition towards the present active learning strategies implemented in the BOU's classroom while encountering certain challenges identified during the FGD session. Initially, they maintain a state of rigidity. However, when academic staff members broke the ice later on, they found the session enjoyable. The study conducted by Sesen and Tarhan (2010) and Einat and George (2008) discovered that students have a favorable disposition towards active learning in the classroom. Regarding this matter, a student expressed during the focus group discussion:

The active learning strategies applied by the faculty members are appropriate for the BOU's context. As almost all the students are adults, the application of new active learning strategies will help us in our learning. We are happy with the current active learning that has been applied by the faculty members in the classroom. (FGDP-5)

Active learning strategies enhance student involvement, enjoyment, and academic success (Armbruster et al., 2009). The students' reactions during the FGD are remarkably intriguing. A student provided an explanation:

In our classroom faculty members apply active learning strategies frequently. We enjoy those strategies because they improve our critical thinking skills. (FGDP-4)

In this regard, another student added that:

I am satisfied with the current active learning strategies applied by the faculty members. Most of the faculty members along with lectures, apply those active learning strategies which align with our course content. (FGDP-2)

## Usage of active learning strategies in the classroom

According to Table 2, it was found from students' responses that 98% of the faculty members used active

learning strategies in the present classroom, whereas 2% of the faculty members never used active learning strategies in the classroom.

The survey form queried students about the frequency with which faculty members utilize active learning strategies in the present classroom. Table 3 provides an overview of the frequency of employment of all-active learning strategies in different programs of BOU.

According to Table 2, it was found that faculty members always apply presentation, often employ video demonstration, group work and group discussions, whereas sometimes use brainstorming, think-pairshare, case study, concept map, flipped learning, oral questioning, quiz, and jigsaw. Debate, gallery walks, socrative seminars, exit cards, role-playing and peer review have never been used in the present classroom setting. With the exception of a handful, the majority of active learning tactics are not consistently used in the current classroom. This suggests that teachers lack the motivation to implement active learning tactics in the ODL environment.

Active learning strategies are not frequently implemented in the ODL context due to several constraints and challenges. According to Ahmed (2018), faculty members at BOU have institutional challenges that sometimes prevent them from implementing active learning strategies in the classroom. The implementation of active learning strategies in the ODL environment is a challenge due to the need for frequent changes in the physical layout of the classroom, as dictated by the nature of these strategies (Petersen & Gorman, 2014).

One of the most rewarding aspects of teaching is having one-on-one interactions with students. However,

 Table 2: Usage of active learning strategies in the present classroom (n = 110)

Usage of active learning strategies in the present classroom	Percentage (%)
Yes	98
No	2

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Active learning strategies	Bachelor program		Mater's program		M.Phil. program		PhD program		Overall	
	WAI	ΟΑ	WAI	OA	WAI	OA	WAI	OA	WAI	OA
1. Usage of brainstorming	0.27	R	0.45	S	0.28	R	0.65	0	0.41	S
2. Usage of think-pair-share	0.42	S	0.54	S	0.33	R	0.35	R	0.41	S
3.usage of case study	0.45	S	0.5	S	0.36	R	0.68	0	0.50	S
4. Usage of debate	0.21	R	0.33	R	0.12	Ν	0.10	Ν	0.19	Ν
5. Usage of video demonstration	0.65	0	0.73	0	0.66	0	0.67	0	0.68	0
6. Usage of gallery walks	0.17	Ν	0.18	Ν	0.11	Ν	0.12	Ν	0.15	Ν
7. Usage of concept map	0.46	S	0.76	0	0.56	S	0.58	S	0.59	S
8. Usage of group work	0.74	0	0.85	А	0.48	S	0.47	S	0.64	0
9. Usage of socrative seminar	0.06	Ν	0.08	Ν	0.07	Ν	0.05	Ν	0.07	Ν
10. Usage of flipped learning	0.46	S	0.54	S	0.38	R	0.66	0	0.51	S
11. Usage of oral questioning	0.56	S	0.72	0	0.42	S	0.58	S	0.57	S
12. Usage of quiz	0.74	0	0.75	0	0.30	R	0.35	R	0.54	S
13. Usage of exit card	0.18	Ν	0.17	Ν	0.12	Ν	0.11	Ν	0.15	Ν
14. Usage of role playing	0.19	Ν	0.16	Ν	0.14	Ν	0.13	Ν	0.16	Ν
15. Usage of peer review	0.16	Ν	0.19	Ν	0.13	Ν	0.14	Ν	0.16	Ν
16. Usage of group discussions	0.84	А	0.82	А	0.42	S	0.43	S	0.63	0
17. Usage of jigsaw	0.16	Ν	0.18	N	0.11	Ν	0.12	Ν	0.14	S
18. Usage of presentation	0.85	А	0.86	А	0.77	0	0.75	0	0.81	А

Table 3: Usage of active learning strategies in the classroom (n = 110)

Note: WAI = weight average index measured on a five-point scale [Never (N) = 0.00-0.20, Rarely (R) = 0.21-0.40, Sometimes (S) = 0.41-0.60, Often (O) = 0.61-0.80, Always (A) = 0.81-1.00]. Not Relevant = 0.04 = Overall assessment.

in ODL, the restricted availability of physical classrooms and limited class time hinder effective interaction between teachers and students, therefore discouraging the application of active learning strategies (Bower, 2001). Furthermore, in the ODL setting, faculty members encounter challenges in building rapport among students due to the restricted availability of in-person tutorial sessions (Moore & Kearsley, 2005).

One of the participants in focus group discussions (FGD) said the following

Time is very limited in BOU's tutorial session. Due to time constraints, faculty members are not interested in applying active learning strategies in the classroom as there is a limited scope of interaction and rapport building among the students and teachers. (FGDP-1).

However, a participant makes an argument based on those points. He gave a contrasting response in this regard, saying that

I think faculty members prefer traditional lectures most. That's why they are not interested in applying active learning strategies in the classroom. (FGDP-4).

### Discussion

It was found that the students of BOU were satisfied with the application of active learning strategies in the present classroom and considered active learning strategies more effective than traditional lectures. Similar findings have come out in the study of Einat and George (2008) and Sesen and Tarhan (2010) where they demonstrated that students have positive attitudes towards active learning in the classroom. The study by Soundariya et al. (2021) depicted that students consider active learning strategies enjoyable and effective. Active learning strategies improve student engagement and satisfaction and increase academic performance (Armbruster et al., 2009). From the students' FGD, it was found that students respond differently based on each active learning strategy. In the presentation some of the students hesitate to present and want to skip. In group work, some of the group members become a free rider and do not want to work. In role-playing, students want to play the role of teachers but not the role of students. Despite these limitations most of the students enjoyed and were satisfied with the current active learning strategies applied in the classroom. The students who were introverted and shy also participated in the class activities. They can internalize the lessons without rote learning within the classroom and have a better understanding. In the first few sessions, they could not adjust the systems. But after a few classes, they started to enjoy the strategies because it enhanced their thought and rebuilt their knowledge. Their participation and presence in the classes were also increased.

In order to investigate the role of active learning in the ODL environment, it was the first question whether active learning strategies had been applied in the classroom or not. In the current classroom of BOU, why faculty members were not applying active learning strategies had been asked to students. Institutional difficulties and teachers' personal demotivation had been considered in asking the guestion. From the FGD session, classroom arrangements, lack of infrastructural support, number of students, curriculum, class time, attendance of the students, and assessment system had been identified as the institutional difficulties from the teachers' responses. Rahman and Sadat (2010) in their study stated that due to the instructional practices of BOU most of the faculty members did not apply active learning strategies in the current classroom. From the students' responses, it was found that large class sizes, limited tutorial sessions, tight class schedules, back-to-back classes, and instructional practices are the institutional difficulties that did not permit faculty members to apply active learning strategies in the current classroom. Similar findings had been come out in the study of Cheawjindakarn et al. (2013) where they stated that due to the institutional difficulties' faculty members do not find interest in applying active learning strategies in the ODL environment.

Lack of having a pedagogical degree or educational training, provision of not including active learning in the curriculum, lack of monitoring and evaluation on the active learning strategies implementation, students low attendance in the classroom, non-participation of the students in the active learning, lack of appreciation from the university authority for applying active learning strategies in the classroom was considered as the personal reasons which demotivate faculty members to apply active learning in the current classroom. Students are the center of active learning. Suppose the students fail to understand the basic concepts and demonstrate apathy in participating in the applied active learning strategies. In that case, faculty members will not find interest in applying active learning strategies in the ODL environment (Lehtovuori et al., 2013). From the students' responses, it was found that due to the short duration of the class time, lack of supporting equipment, vast course

content, and faculty members' preference for traditional lectures, active learning strategies were not applied by the faculty members in the current classroom.

In the Open University context, there exist few studies which discuss active learning in the classroom. Therefore, this study reveals uncovered unknown facts about the role of active learning in the ODL settings. It provides new findings in the field of higher education in Bangladesh, especially in the open and distance learning context. During FGD valuable information about the current practice of active learning came out. The findings of this study demonstrate the current practices of active learning strategies in the ODL environment and enable researchers, academicians, stakeholders, and policymakers to conduct further research on the implementation of active learning strategies in the ODL environment. Active learning is a recognized teachinglearning practice around the world. It is very challenging to incorporate active learning in ODL due to the special learning environment (Considine & Dean, 2003). However, proper institutional support and instructional practices may improve the status of active learning in the ODL environment. Moreover, the personal motivation of the students and teachers may help both students and faculty members to enjoy active learning strategies in the classroom.

## Conclusion

According to the students who took part in the survey and focus group discussion, they reported that active learning strategies are being used in the current classroom. However, they face challenges in implementing these strategies in the ODL setting due to institutional obstacles, systematic constraints, and personal demotivation. Students exhibit varying responses depending on the specific active learning approach employed. Initially, inertia affects the learners' level of engagement and involvement. Subsequently, during the commencement of the ice-breaking session, students engaged in the applicable active learning strategies with spontaneity and liveliness. Both faculty members and students appreciate the implementation of active strategies in the ODL environment. However, due to limitations, including few in-person tutorial sessions, short class lengths, strict schedules, low student attendance, inadequate infrastructure, and teaching methods, these strategies are not regularly used in the current classroom environment. The majority of students had good sentiments regarding the application of active learning in the BOU's classroom, with only a few exceptions.

Faculty members should undergo pedagogical training. Providing pedagogical training to faculty members enables them to implement active learning strategies in the classroom (Mirkouei et al., 2016;

Graffam, 2007). The frequency and duration of the tutorial classes should be augmented. Expanding the quantity and length of tutorial sessions will assist faculty members in applying active learning strategies (Marbouti et al., 2018). The classroom should be reorganized to facilitate the implementation of active learning strategies by faculty members. The provision of infrastructure such as multimedia, computers, sound systems, and the internet in the classroom is necessary to establish an efficient learning environment. The curriculum and evaluation system should be restructured to incentivize faculty members to implement active learning strategies in the classroom (Cheawjindakarn et al., 2013).

### Acknowledgment

The author would like to thank his academic supervisor, Dr. Pradip Kumar Mishra, Associate Professor, Centre for Academic Partnerships and Engagement CAPE), the University of Nottingham Malaysia, who helped him to understand the research context.

## Declaration of Competing Interest

The author has no competing interests to declare.

# Credit Authorship Contribution Statement

Md. Omar Faruk Bhuiyan: Research design, data collection, data analysis, writing- the original draft of the article, reviewing and editing.

## Data Availability Statement

Professional research assistant collected raw data. The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

### **Funding Declaration**

No funding was received to assist with the preparation of this manuscript.

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