Promoting Students' Meaningful Engagement in Active Learning Within a Group Setting: Reflections on Teaching and Learning Using Brookfield's Four Lenses Model

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There is broad recognition for using group discussion to enhance students' active learning in face-to-face and online teaching models. However, our efforts to engage students in active learning through Moodle-based group discussions have largely been unsuccessful. We applied Brookfield's four lenses framework to guide the reflection on teaching practices by building on personal teaching experiences, the perception from 20 students, the experience of three peers, and surveying related literature. The findings indicate a broad acknowledgment of online group discussions. However, small groups, grading discussions, and computer skills development were proposed to enhance active learning engagement through online group activities.

Keywords: group discussion, active learning, online education, teaching and learning, Tanzania, Africa

BACKGROUND AND CONTEXT

Active learning is an essential component of the education system and is key in students' academic performance. Evidence indicates that promoting active learning encompasses embracing teaching approaches where students actively participate in the learning process by directly interacting with the learning contents or materials (Barr, 2017; Freeman et al., 2014). Factors such as how the learning activities are designed, the use of prompts in the teaching process, instructors' capacity to incentivize students to participate, and the recognition of group dynamics and effective response methods to such dynamics have been identified as highly shaping the active learning process (Hodges, 2020; Barr, 2017). Furthermore, the organization of the learning environment may also impact students' active participation in learning. Some research, for example, has cited the arrangement of movable learning infrastructures such as tables and chairs and a set up where students sit facing each other as important to promote interactive, collaborative, and experiential learning (Harvey & Kenyon, 2013) and may facilitate critical thinking and knowledge creation (Warger & Dobbin, 2009). Nevertheless, the learning environment encompasses more than the physical environment. It includes learning resources and technology, means of teaching, modes of learning, connections to societal/global contexts, and human behavioral and cultural dimensions (Warger & Dobbin,

2009). Therefore, recognizing how these factors interact is essential to promote students' engagement in active learning process.

We teach various courses at the School of Nursing and Midwifery at Aga Khan University to students enrolled in the Bachelor of Science in Nursing (BScN) program. The BScN program aims to upgrade the knowledge and skills of nurses with two or more years of experience in providing nursing care in the country. Based on the students' diverse experiences, we encourage them to reflect on their practices, share insights and critique the views of others to help them develop critical thinking and reflective learning. One of the courses taught is Community Health Nursing which involves 12 weeks of classroom learning and four weeks of field practice in areas with a high risk of prevalent health problems in the country. We use a range of face-to-face and technology-based teaching and learning methods, including interactive classroom sessions, case reviews, team-based and individual reflections, and discussion forums. These have long been documented as effective methods for promoting active learning in diverse settings (Harris & Bacon, 2019; Ho Van Han & Vu Thi Thu Trinh, 2016; Gleason et al., 2011). Ability and skill-based learning have been promoted as key active learning components (Harris & Bacon, 2019; Gleason, 2018). Therefore, we use community field practice to address this dimension. During field practice, each student identifies the actual or potential health problem among families in selected communities and presents it to peers within a larger group. Afterward, small teams (each with six members) are created considering similarities of the health problems identified by individual students, and group discussions are encouraged because using team-based learning in a large classroom to solve problems is one of the essential strategies for enhancing active learning (Gleason et al., 2011). The team consensually selects one topic, designs a small study, conducts a community visit to gather data on the problem, analyses the data, and prepares a poster presentation to showcase their project outcomes. The instructors provide technical inputs throughout the topic selection, problem identification, data collection, and final product analysis.

One of the key challenges experienced when teaching Community Health Nursing course is the skepticism of how to effectively promote students' meaningful engagement in active learning in both face-to-face and online sessions. Take the class of 2019 for example, which comprised 20 students, and a need for an institution to blend classroom learning by complementing face-to-face with online sessions through Moodle. Our institution embraces an online learning model whose value and roles were heightened during the Covid-19 pandemic (Isangula et al., 2021). Despite using various strategies for teaching the community health nursing course, we struggled with the best ways to maximize meaningful engagement and self-directed learning among some students whose participation in group discussions was minimal for both online and face-to-face sessions. To partly address this challenge, we examined existing evidence to enhance active learning among higher-education students. A large body of literature exists on active learning, and a range of 'simple and straightforward active-learning strategies' have been proposed. Examples of these strategies include think-share-pair, minute writes, muddiest point, notes exchange, Socratic questioning, debates, fishbowls, role plays, student presentations, games, polling devices, case studies, and online assignments (Harris & Bacon, 2019; Ho & Vu, 2016; Gleason et al., 2011). Our attempts to use some of these strategies faced three main issues. First, there was poor self-motivation for engagement in active online learning and group activities in some assignments, particularly among students from rural settings with minimal exposure to technology-based learning. Poor motivation and reduced engagement in online group activities have been recently documented to impact active engagement among students in Malaysia (Mohd Basar et al., 2021). Second, there was an issue of teaching context. Most of our students came from a harsh and unconducive learning environment where some teachers considered students empty vessels needing knowledge filling with the limited promotion of active learning. Similar challenges have been noted in Zimbabwe as contributing to ineffective teaching and learning (Mupa & Chinooneka, 2015). Third is the learning culture where students are accustomed to conventional face-to-face learning and somewhat resistant to new approaches. Most students consider teachers as authority figures responsible for teaching and not engaging them in active learning activities. The wide acceptance of conventional learning methods partly explains why 98% of students in Malaysia consider face-to-face teaching important to their learning compared to online approaches (Mohd et al., 2021). A scan of local literature on strategies for enhancing active learning indicated a generalized paucity of evidence on the topic. As a result, the question

of what acceptable context-specific and culturally relevant strategies can promote active learning was largely unanswered, highlighting the need for a much broader study. Therefore, this research was guided by the following broader question: What are the effective context-specific and student-friendly strategies could be used to promote meaningful engagement in active learning through group discussions?

METHODOLOGY AND THEORETICAL FRAMEWORK

Design

We used Brookfield's four lenses framework to guide reflection on teaching practices, including personal teaching experiences as learners and teachers, students' eyes, our colleagues' perceptions, and surveying related literature (Brookfield, 1995). Therefore, we used this framework for personal reflection, exploring students' opinions, obtaining colleagues' perspectives based on their experiences and considering educational research evidence regarding students' engagement and active learning in group discussions. This framework has been widely used for pedagogical evaluation across various settings, such as South Africa (Ndebele, 2014) and Australia (Kamardeen, 2015). The study was conducted between 2020 and 2021.

Settings

The study was conducted at the School of Nursing and Midwifery at the Aga Khan University located in the Ilala district of the Dar es Salaam region. The school of Nursing and Midwifery comprised about 80 students at the time of data collection. Only students undertaking community health nursing course were involved in the study.

Data Collection: Tools and Strategies

We used different data collection tools and approaches for each of the four lenses of Brookfield's framework as follows:

- **Lens I: Students' Opinions:** According to Brookfield (1995), we need to find out how our students perceive our actions in promoting active learning and what actions they find affirming or inhibiting to their engagement in group discussions. Although students can provide feedback on the teaching and contents of the curriculum (through the student evaluation report), limited data exist on their views of the methods used in various courses to actively engage them in teaching and learning. We believe that gathering students' views (primary beneficiaries of our actions) on strategies to promote meaningful engagement for active learning may improve the teaching and learning process more broadly. As mentioned above, we have noted inadequate engagement in active learning, a lack of students' views on effective and acceptable strategies for motivating them to engage in active learning, and aversiveness or slow use of technology (Moodle platform used by the University) in active learning. Three links of Padlet walls, each containing one question, were created to gather student data. Padlet is an online tool (www.padlet.com) that may be used to gather ideas and feedback on teaching from individuals and groups. The Padlet tool also allows ideas to be presented privately and anonymously by users. The links and the consent forms were shared individually with 20 students, along with an email requesting their voluntary participation and signing of the consent form upon acceptance to participate. This approach allowed students to freely present their views using either mobile phones or laptops. The questions guiding the Padlet survey in English were:
    1. *What are your views on promoting meaningful engagement for active learning in group discussions/assignments?*
    2. *What should be improved to facilitate meaningful engagement and active learning during group discussions/assignments?*
    3. *What are your opinions regarding using technology to support meaningful engagement and active learning in your group?*

- **Lens II: Personal Reflection:** According to Brookfield (1995), our teaching experiences provide rich material for us to probe (the effective strategies for enhancing students' active learning in this context). This paper used EP's reflection on teaching practice. EP's teaching philosophy includes a belief that teaching and learning methods should be able to produce confident, critical thinkers, innovators, and creative-minded graduates who can address complex and dynamic health problems independently, innovatively, and confidently, particularly in low-income countries. Theories supporting this belief are Constructivists approaches and facilitation theory (Bada, 2015). Constructivists believe that cognition (learning) happens when new information is blended with what students already know (Bada, 2015; Berta et al., 2015). Facilitation stimulates higher-order learning through experimenting with, generating learning about, and acting as a learning mechanism (Berta et al., 2015).
- Therefore, an honest self-reflection of teaching approaches for the "Community Health Nursing" course was conducted and validated with pedagogical evidence. This involved reflecting on EP's role as a teacher and how she facilitated classroom learning. Personal reflection goes further to tap into students' feedback on teaching and course delivery obtained during and at the end of the semester.
- **Lens III: Peer Instructors' Views**: One of the lenses proposed by Brookfield's (1995) Model is gathering colleagues' perceptions and experiences. For this, we interacted with peers (three senior instructors) who teach similar students and have used group discussion as a teaching or evaluation method in their practice. The aim was to gain insights into their challenges and strategies to promote meaningful engagement and active learning during group discussions/assignments.
- **Lens IV: Evidence:** Brookfield (1995) proposes viewing practice through the lens of literature. Examining the evidence in literature within and beyond one's area of practice is considered useful in locating what one does within alternative empirical and theoretical frameworks. Therefore, we conducted a non-systematic literature review by using a combination of various search teams (active learning, education, group discussion, online, face-to-face) in various search engines (Google Scholar, Google Books, Microsoft Academic, WorldWideScience, Science.gov, Wolfram Alpha, Refseek, PubMed Central, ResearchGate, Bielefeld Academic Search Engine, and Educational Resources Information Center) to shed light on the pedagogical approaches used elsewhere in comparison to the findings of the current study.

Data Management and Analysis

English Padlet data were deductively coded and analyzed online. Coding maps were generated from common themes emerging from the data complemented by relevant quotes. Likewise, manual deductive coding was applied for analysing peer instructors' perspectives. First, EP developed an initial coding frame and consensually agreed with KI on the potential categories. Then, EP continued coding and occasionally conducted joint meetings with KI for reflective discussion on the coded data.

Ethical Considerations

This study received approval from the Aga Khan University ethics review committee. Thereafter, permission was provided by the management of Aga Khan University. Students who voluntarily agreed to participate in the study signed the consent form (Appendix 1) before embarking on this study.

RESULTS

Participants' Demographics

The Padlet survey involved 20 students, the majority of whom were female (60%), aged between 26 and 30 years (55%), and from rural settings (52%). The study also engaged three peers (two female and one male; two with a master's degree and one with a PhD) (Table 1).

TABLE 1
PARTICIPANTS' DEMOGRAPHICS

Category	Number/ Percentage
Students	(n=20)
Gender **Male** **Female**	 8 (40%) 12 (60%)
Age **21-25** **26-30** **31-35** **35-40**	 3 (15%) 11 (55%) 5 (25%) 2 (10%)
Area of primary nursing practice **Rural** **Urban**	 13 (65%) 7 (45%)
Peer Instructors	
Gender **Male** **Female**	 1 (33.3%) 2 (66.7%)
Education level Master's degree PhD	 1 (33.3%) 2 (66.7%)

Feedback From Students

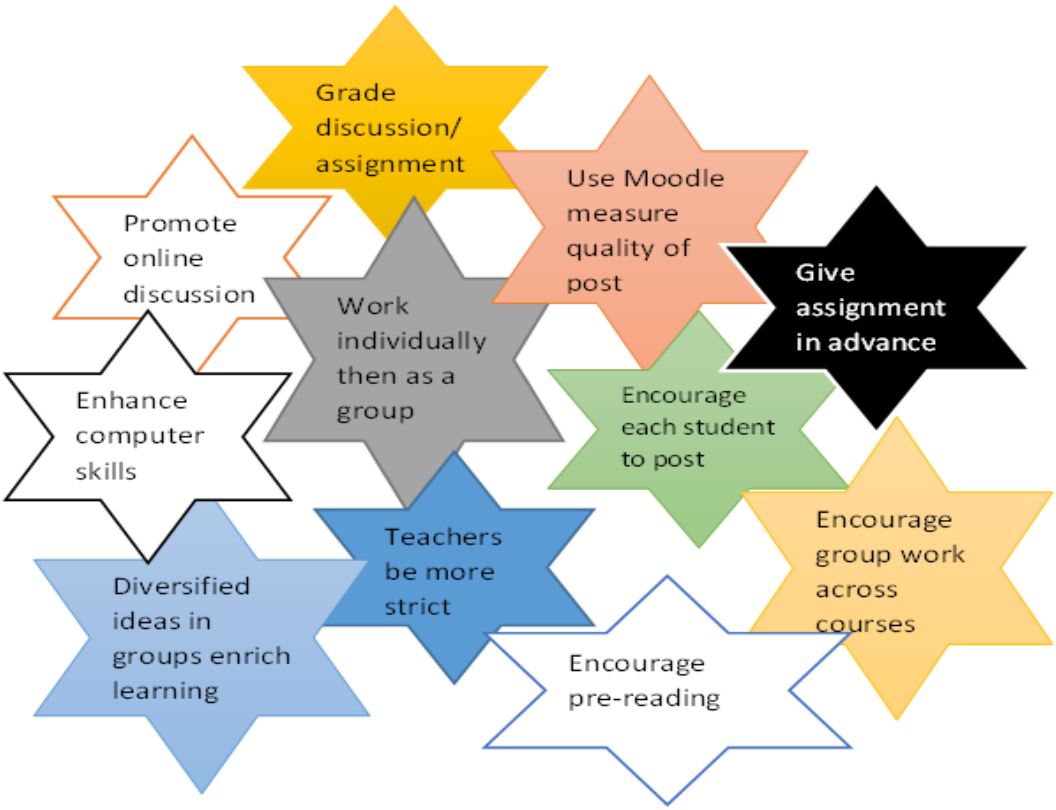
There is a strong desire for active engagement in learning through group discussions among students. Most students valued group discussions as a useful approach for sharing diversified knowledge, skills, and experiences as they come from various backgrounds and have different academic abilities. Interestingly, most students viewed their diversity in experience and skills as a "wealth of knowledge" to enrich teaching and learning processes. However, students expressed that group discussion has not been applied with considerable weight as it should be; some teachers use this method without grading or a close follow-up.

Diversity in experience and skills has been previously documented to influence group-based teaching and learning in different cultures (Yosso, 2005). It is important to note that group discussions have been described by Brookfield and Preskill (2005) as disciplined and focused on mutual concern, which enhances self-critique, fosters an appreciation for diverse views, and helps participants to take informed actions. Furthermore, group discussions embrace collaboration and cooperation among students and provide a ground for exchanging views and knowing each other (Brookfield, 2005).

When asked about their views on promoting meaningful engagement in active learning through group discussions**,** students offered suggestions for the strategies teachers can use to encourage individual participation during group discussions. Common strategies proposed included: encouraging the use of group discussions across different courses within the institution, assigning grades to group discussion activities, orienting students on online group discussion activities, setting online group activities to be conducted beyond regular teaching schedules, diversifying group activities, and stricter teachers. These suggestions can be visualized in the code map below (Figure 1). Nevertheless, commenting on the value and strategies for enhancing online group discussion, one student suggested:

"Group discussion is good because we have different learning abilities, so it will help get different concepts from students with different capabilities. In order to promote group discussion, it would be better if this method is encouraged in every subject. Also, students should be assisted to fully familiarize themselves with the online group discussion platform and encourage them to participate even after school hours because of difficulty in meeting each other as we have different working schedules."

FIGURE 1
CODE MAP OF STUDENTS' SUGGESTIONS FOR PROMOTING MEANINGFUL ENGAGEMENT IN ACTIVE LEARNING THROUGH ONLINE GROUP DISCUSSIONS

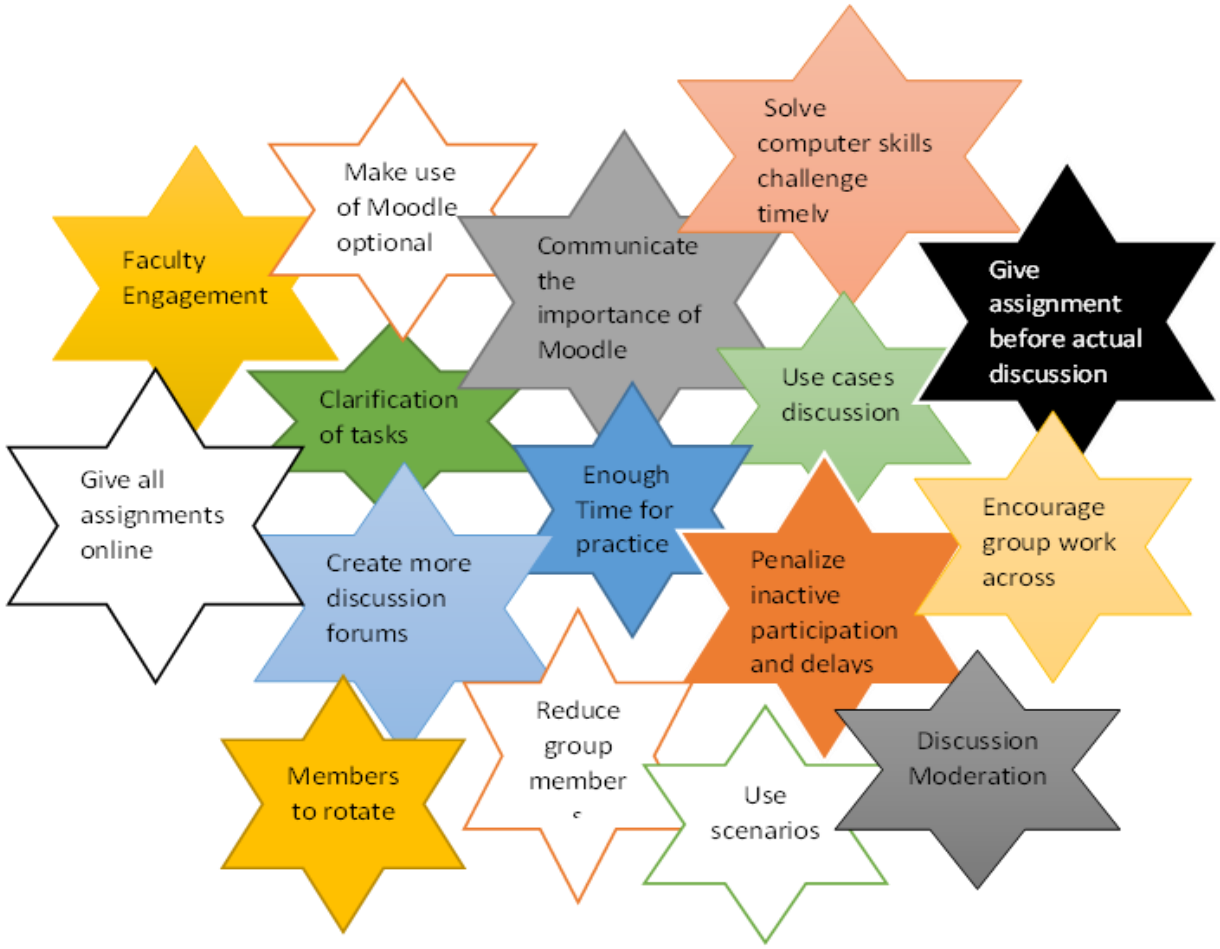


Students offered various suggestions when asked about specific activities to facilitate meaningful engagement and active learning during group discussions. Almost half of the students recommended adequate preparation before group discussions among teachers and students to enhance engagement and active learning. Teachers are considered the principal players in education and are the most important driver of student engagement through facilitation. This is because they have been described as artists and artisans; therefore, they must be at the center of curricula design, delivery, assessment, and refinement (Flynn et al., 2017). Furthermore, the unsuccessful discussion is associated with failure to set realistic expectations, prepare students, set ground rules, reward systems, and teacher modeling (Brookfield, 2005). Consequently, suggestions for teachers included giving discussion topics, assignments, and pre-readings before the session to allow conceptualization. Other activities include the use of scenarios and case-based discussion, reducing the number of students per group to preferably less than four, rotating members across groups, and penalizing non-participants. Some of these strategies have been highlighted in the literature as facilitating active engagement/learning, deep learning, and academic success (Harris & Bacon, 2019; Barr, 2017; Ho Van Han & Vu Thi Thu Trinh, 2016; Gleason et al., 2011). Figure 2 summarizes these suggestions; however, two students commented:

"I think scenarios may help the students be active as they reflect on the situation and articulate the discussion topic. The number of students in a group should be small (three to four) so that everyone feels engaged in a group and reduces time wasters." (Student 1)

"During group discussion, we have to improve on managing group member number (four), and the group should change so as students we interact among ourselves because we do differ in many ways; therefore, rotating group members will help." (Student 2)

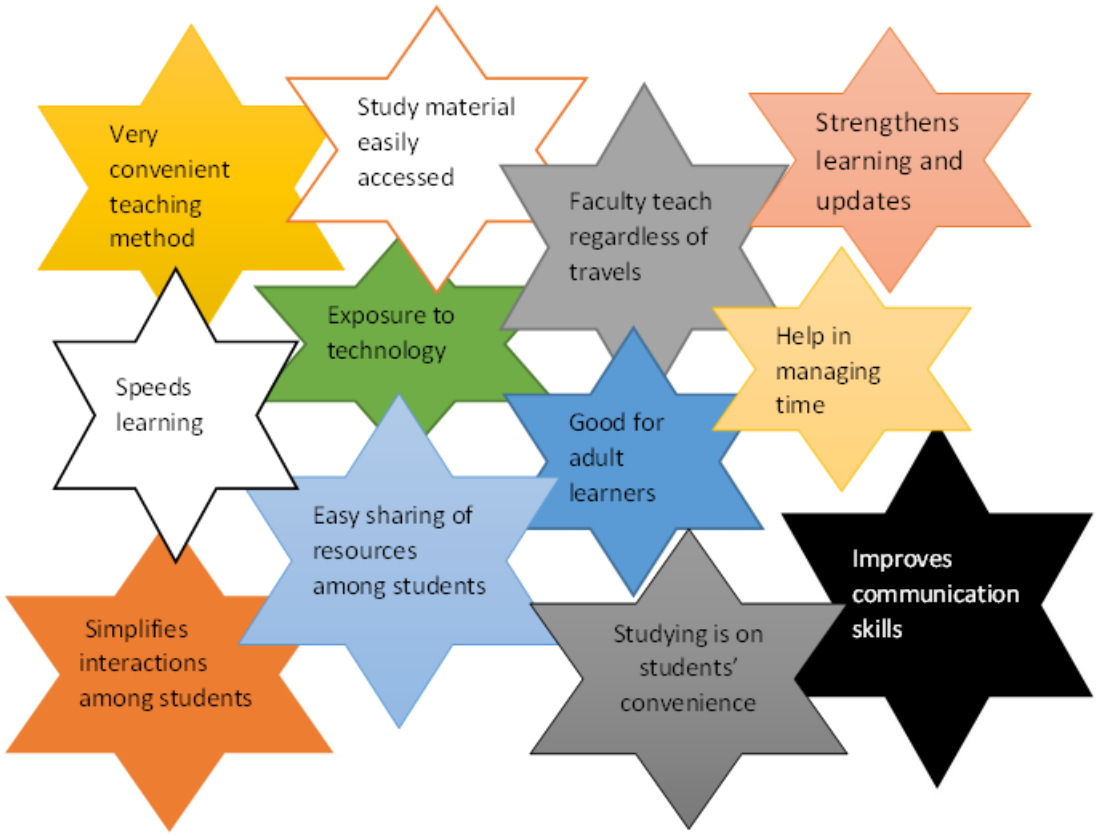
FIGURE 2
CODE MAP OF SPECIFIC ACTIVITIES PROPOSED BY STUDENTS FOR IMPROVING GROUP DISCUSSIONS



We further inquired about students' opinions on using technology to support meaningful engagement and active learning in their group. Unexpectedly, most students were enthusiastic about using the Moodle platform to improve group dynamics and engagement in self-controlled learning at their own time and place. Students called for all teachers to maximize online learning and engage students in group discussions, assignments, and other learning-related tasks in all courses. Most described other advantages of online learning, including easy accessibility of learning resources shared by faculty and colleagues, exposure to and using the growing technology, and ability to reach teachers despite their absence from the campus (Figure 3). Some of these advantages have been described previously and have become more evident during the Covid-19 pandemic (Isangula et al., 2021; Bai, 2020; Soler et al., 2017). One student commented:

"It is important to use technology to support active learning because it allows students to engage in their studies even if they are not gathered in the classroom. Also, the world has advanced a lot, and the students should be taking advantage of the growth in technology in learning."

FIGURE 1
CODE MAP OF STUDENTS' OPINIONS ON THE BENEFITS OF USING TECHNOLOGY FOR GROUP DISCUSSIONS



Some students shared their experiences of facing difficulties in using technology at the beginning of the program. This is partly because they come from a background where learning platforms such as Moodle are uncommon. However, practice in using Moodle facilitated acknowledgment of its value in sharing learning materials and user-friendliness. One student commented:

"Honestly, before understanding of how Moodle is helping us in learning, it was like something new and confusing…but after being familiar with this online tool, I realized how it was helpful and user-friendly in getting most of the information related to academic issues. Moodle is now playing a part in sharing materials even when we do class presentations. Our class and group materials can be seen by all of us."

Although students in the current study expressed views inclined toward online learning, some literature indicates that blended learning, which involves both online and face-to-face sessions, may be more effective for better outcomes (Soler et al., 2017). EP's personal reflections, peer insights, and students indicated that most learners are aversive towards online learning because of computer illiteracy. This was among the reasons why they engaged less in discussion forums conducted on Moodle.

RESULTS OF PERSONAL REFLECTION AND PEER FEEDBACK

It is important to note that the results of personal reflection on teaching practice formed the basis for this paper. The aim and nature of the course taught (Community Health Nursing), the teaching modality (face-to-face and online models), and current strategies used to promote active learning were discussed. Additionally, the challenge of minimal engagement among students, particularly with online group activities and barriers to promoting active learning, was highlighted due to poor self-motivation among students, teaching context, and the learning culture. These formed the building blocks upon which this study was constructed.

Nevertheless, a review of feedback from students about the teaching strategies and the course content is commendable. They specifically appraise that discussions are set to incorporate lived work experiences and the use of various online tools, e.g., Padlet. However, students have consistently highlighted in the course evaluations that the time allocated for such assignments is insufficient for engaging and critical group assignments. We are therefore indebted to making changes to group discussion activities and aligning this with the available time. However, the time allocated for each course in the curriculum is limited, and there are teaching demands from other courses. As we are reviewing the curriculum, we plan to use the findings of this study to inspire changes in course content in an entire school.

The feedback received from colleagues was insightful. Like students' opinions, peers acknowledged the potential benefits of group discussions in teaching and learning experiences and recommended utilization across courses. To improve individual engagement in group discussion, like students' insights, peers strongly suggested that such groups should comprise of a maximum of four students and consider assigning grades to discussion activities. It is important to note that there has been a debate in the literature regarding the number of group members (Wester, 2021; Cashin, 2011). Some have recommended small groups (two to three) for simple tasks, reaching a consensus and allowing students to speak up, and large groups (four to five) for more complex tasks and generating lots of ideas (Cashin, 2011). Therefore, the number emerging in our study (four students) appears to be the midpoint of the proposed group members.

CONCLUSION AND RECOMMENDATIONS

The result of this study provides useful insights into teaching and learning for community health nursing course and across academic programs in the school. The findings indicate a high interest among students in group discussions, mainly through online learning platforms. Although we use online group learning activities alongside face-to-face sessions in our courses, we do not have evidence of students' insights on these strategies' potential benefits and value. Publication of these results is one step towards dissemination to students, faculties, and educational curriculum designers more broadly. However, we believe that more studies that include large sample sizes are needed to generate a pool of evidence for locally relevant strategies for enhancing engagement in online group discussions taking stock of the value of technology in teaching during the Covid-19 pandemic (Isangula et al., 2021). Our findings, therefore, provide crucial insights and act as a baseline for a much larger study. Our research process highlights the need for the continued embracement of simple technology such as Padlet in governing learners' views and complementing such views with personal and peer insights. Brookfield's Four Lenses Model provided a useful framework for examining these views from triangulated data sources. We welcome instructors, curriculum developers, and education regulators to encourage the use of online group discussion models and proposed activities for enhancing active engagement. This is because online group activities were acceptable and allowed learners to take stock of the changing teaching and learning technologies.

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APPENDIX 1: INFORMED CONSENT FORM

You are invited to participate in the project entitled **"**Promoting student's meaningful engagement to active learning: exploring views for improving group discussions." Please read this form carefully and ask any questions you may have.

Purpose

Investigating students' views in promoting meaningful engagement for active learning may contribute to improving teaching and learning.

Method

Three URL link will be posted to you through emails, and this will lead you to padlet walls created by myself containing three questions for you to respond to. The padlet is an online tool that may be used to obtain teaching feedback or gather ideas from individuals or groups of students. This tool also allows ideas to be presented, kept private to a user, or shared with specific individuals. This tool will post three questions on separate padlet walls to individual students. You will present your views freely using your laptops or mobile phones.

Potential Risks & Benefits

No major risks are anticipated in this study. However, the time required to respond to questions may cause stress. I will wait for the responses for two days, to allow you to respond at your convenience. The direct benefits to participating in this study is minimal. However, the findings will be useful in promoting meaningful engagement in group discussions for active learning.

Confidentiality

The responses for this study will be obtained and data analyzed online. The files will be password protected and accessible by researchers only. All collected raw data will be destroyed five years after study completion. The findings of this study will be shared with you if requested. Your name will not appear in

any report, conference presentation or publication about this study. Direct quotations from responses may be used in publications without identifying codes.

You may ask any questions concerning the study at any point. You may also ask researchers questions via emails or phone numbers provided below. Please note that participation in this study is voluntary. You may withdraw at any stage of the study if you wish to do so, without any repercussions to your studies.

Consent to Participate

I understand the purpose of this study and have read and understood the description provided above. I also understand that my participation is voluntary, and I may withdraw if I wish to do so. I was allowed to ask questions that were answered satisfactorily.

_____	_____	_____
(Signature of Participant)	(Date)	Phone number +255716008884
_____		
(Signature of Researcher)	Date	Phone number

Email: eunice.siaity@aku.edu

APPENDIX 2: ETHICS CLEARANCE FORM

THE AGA KHAN UNIVERSITY

Institute for Educational Development – East Africa

Ref.: *AKU/2019/033/fb* **Date:** *March 04, 2020*

Dr. Eunice Pallangyo,
Aga Khan University,
School of Nursing and Midwifery,
P. O Box 125,
Dar es Salaam - Tanzania

ETHICAL CLEARANCE CERTIFICATE

Dear Dr. Eunice Pallangyo,

This is to acknowledge that your application for ethical clearance for a research study entitled ***"Promoting students meaningful engagement to active learning"*** was received and reviewed by the Aga Khan University Ethical Review Committee (AKU-ERC, EA).

We would like to inform you that the committee has approved your proposal and advise you to proceed with your research project in line with the Aga khan University policies, laws and regulations and ethical guidelines.

I wish you all the success in your research.

Yours Sincerely,

Dr. Fortidas Bakuza
Assistant Professor
Chair, Ethical Review Committee

CC: National Institute for Medical Research

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