A Flipped Learning Experience in Geography: A Qualitative Study using Focus Group Discussion

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ARTICLE INFO	ABSTRACT
	Flipped learning (FL) is gaining broader acceptance in geography education. This study aims to explore the remaining question concerning how the FL approach is associated with students' understanding of Geography course content. A focus group discussion (FGD) was conducted in a protocol through nine groups of students consisting of six to ten members per group. In total, eighty-eight undergraduate geography students had taken part in the discussion. Qualitative data obtained from the FGD were coded and thematically analyzed. The qualitative analysis revealed four major themes: (i) attention to learning geography, (ii) personal needs in learning geography (iii) confidence to succeed in learning geography, and (iv) satisfaction in learning geography associated with students' understanding of the course content. The results reveal that the understanding of the students of the course content was high through the application of the FL approach to teaching and learning. The finding is very significant to provide a guideline for FL application at the university level, specifically for Geography Module to increase students' understanding of the course content.

1. Introduction

Traditionally, the concept of education and learning was always associated with the physical presence of schools, classrooms, examination halls, teachers, textbooks, and examinations. However, the emergence of technology in education has transformed our education and more modern conceptions of learning have been introduced. Technology innovation has resulted in various advantages and benefits in the development curriculum and pedagogy, notably in the sphere of education [1]. Educators, on issues of current concern, must work and study the variety of educational approaches available to increase the learning qualities, skills, and strategies so that teachers can help to improve the learning process among students and make them become efficient

and informed through the use of technology in teaching and learning. Technology does not only offer online teaching and learning processes but also refers to the use of information and communication technology to enable access to learning resources or online learning [2]. The concept of FL is acknowledged to be one of the best approaches that can help students in their learning process. It is rooted in the idea that learning is not just a one-time event but a continuous process of learning. That said, the process of learning will not end in the classroom, but the students are encouraged to become independent students outside the classroom [3,4].

System's diversity and interactive characteristics, any reform program in a technology-based education system should be administered as a whole [5]. In Malaysia, Technology plays an essential part in education, and it is progressively being integrated into the educational process [5]. The learning mode is believed to provide students with the best methodologies, by giving students the high level of attention and guidance that can be achieved in the actual classroom as well as the flexibility and openness of self-paced learning through online learning methods. Web 2.0 tools were mainly a 2nd generation of web applications that can assist the user to collaborate and share online information. Examples of Web 2.0 applications used in teaching and learning are Padlet, Facebook, Twitter, Edmodo, etc. Web 2.0 in education, provides space for collaboration and idea contribution between the student and lecturer. The application also allows the student and lecturer to seek and gain information conveniently. For example, Padlet enables its user to collaborate online synchronously. By using this application, users may enhance ideas or improve something through online [6]. The emergence of newer forms of technology has created enjoyment and interest sufficient to support pedagogy and learning [7-9]. Learning itself is believed to be effective when it takes place through real and virtual interactions between students and tutors via self-managed learning, face-to-face interactions, and online learning methodologies [3]. With the advancement of technology, it is possible to embrace the changes in students, teachers, and institutions for flexibility and ubiquity, that is, learning can take place 'anywhere, anytime, and using any device'.

In teaching geography, for example, geography teachers must accept the fact that traditional classroom learning has benefited greatly from globally networked computers and rich multimedia applications. Therefore, today's geography learning has not just changed incrementally from those in the past, but more and more attention has been paid to the exploration of the potential of applying technology in education, by integrating blended learning (BL) with traditional face-to-face classroom learning to make them suitable to be applied in teaching and learning geography. Many higher education institutions have started to adopt and exploit exciting activities for students to use information and technology effectively other than bringing the knowledge closer and making it more accessible to everyone. Traditional classroom learning is slowly being replaced by the emergence of technology such as e-learning technology [3].

FL is a subset of blended learning (BL). "Flipping the classroom" is referred to as a pedagogical concept that replaces the standard lecture-in-class format with an opportunity to find out concepts as well as to review materials from outside of class. The term *flipping* is driven by the concept that a usual classroom is historically a place where the delivery of content is done through some type of lecture format. In the such classroom, the students are given assignments to take and do outside class hours, on their own. The novel idea "flips" any typical classroom in which most of the content is now gained outside of the classroom, as homework assignments, and problems are worked through collaboration during class. There are numerous styles of "flipping the classroom" and there is no one fixed way to employ this idea. Indeed, most scholars concur that lectures are still appreciated in the classroom if appropriate; however, the focus on the lecture will significantly be decreasing during classroom time [10]. Gerstein [11] defined the flipped classroom as a place to work out problems, advance concepts, as well as engage in collaborative learning.

Similarly, Rodriguez [4] and Berrett [12] present the idea of FL in higher education classrooms and how it can enhance traditional lectures along with student learning. This newly termed style encompasses interactive engagement, peer instruction, just-in-time teaching, and placement of the course content on the student. Here, students are required to obtain most course information outside of class by way of listening to the recorded lectures, podcasts, and/ or by reading on their own. This fact contrasts the standard lecture-style course in which students normally come to class prepared to absorb information and subsequently apply their understanding of that information by completing homework assignments. The essence of FL revolves around a shift in the teaching and learning paradigm.

When it comes to student acquisition and learning, the flipped classroom can have a great influence on higher education. Generally, the largest gains are likely to be associated with student engagement, an area that most instructors want to improve. According to Makice [10], engaged students retain a greater amount of information compared to non-engaged students, with 90% lies in the retention of things that we "say and do" in comparison with only 10% retention of what we "read" and also 20% retention of what we "hear".

As a leading education university in Malaysia, Universiti Pendidikan Sultan Idris (UPSI) is moving towards BL and FL. It combines times and modes of learning, integrating the best aspects of face-to-face, community-based and online interactions for each discipline. UPSI embeds the latest technology into the business including teaching and learning management. The e-Learning portal is integrated into the University Integrated Management System (UIMS). Teaching and learning processes are carried out via MyGuru, a platform with various functions and features designed to support the teaching and learning process and monitor their students' activities like forums, assignments, etc. With all of the e-learning systems and online facilities provided, FL practices among educators in UPSI will be easier.

1.1 Why Flipped Learning (FL) in Geography?

Justifying the implementation of FL in Geography, Fulton [13] has listed the following criteria among the merits of the FL; i) students can move at their own pace; ii) as they do their "homework" in class, teachers can get better insights into students' difficulties and learning styles; iii) teachers will be able to customize and update the course curriculum more easily and effortlessly and provide it for students anytime; iv) the classroom time will be utilized more effectively, efficiently and creatively; v) teachers who have been using the method reported that student achievement has demonstrated an increased interest and engagement; vi) this approach is supported by learning theories; vii) technology use is flexible and appropriate for boosting learning in "21st century; viii) there will be more time available to spend with students on authentic research; ix) students can get more time handling and working with scientific gadgets and equipment that are only accessible in the classroom; x) those who miss classes focusing on debate/ sports/ etc. will be able to watch the lectures while they are on the go; xi) this method contributes to the promotion of thinking inside as well as outside of the classroom; xii) students can be more dynamically involved in the process of learning; and xiii) they will also really appreciate it.

The Learning Pyramid, researched and created by the National Training Laboratories in Betel, Maine in 1960 illustrates the percentage of student recall that is associated with various approaches. The first four levels (lecture, reading, audiovisual, and demonstration) are passive learning methods. In contrast, the bottom three (discussion group, practice by doing, and teaching others) are participatory (active) learning methods. The Learning Pyramid clearly illustrates that active participation in the learning process results in higher retention of learning. Therefore, it is best to

design lessons and activities with this information in mind to ensure that the students are actively engaged in the learning process. This is achieved through group discussions, practices, collaboration, and teaching others [14]. Thus, it can be highlighted that active participation in the learning process through practicing and teaching others results in higher retention of learning compared to the lecture. It is brilliant if the teaching and learning process is aligned with the way people learn best. Study results revealed that the flipped course students performed better than the standard lecture-based students, in terms of higher final exam scores as well as an overall success during the course. Based on the above review, even though quite many recent studies on FL have been established, studies on FL applications in Geography education are still limited.

Learning any subject including geography in today's technologically driven age requires tapping into the available online and mobile learning spaces for both students and educators to engage and embrace meaningful learning. To facilitate the engagement of teaching and learning as a preparatory step toward embracing the future, an educator, their role is to ensure that students engage with the subject matter in the way that they would in their everyday life – in any situation, both online and face-to-face [6]. Like other disciplines, FL in geography is gaining broader acceptance in higher education. To date, however, no study has specifically looked into the implementation of this approach in a geography module at the university level. Thus, to fill the gap, this study aims to explore students' experiences of the implementation of FL in a geography module, particularly for the undergraduate program at UPSI.

2. Methodology

This study focuses on a geography module taught at UPSI, which is the module of HGM3063 Geography of Malaysia. The module is one of the 17 Geography modules offered over a four-year duration, leading to a bachelor's degree in teaching (Geography). The module was delivered using the FL approach throughout the second semester of 2018/2019 session, which takes the form of online tasks using Web 2.0 Tools. Besides, MyGuru was also employed to promote meaningful learning experiences among students. The methodology of FL was delivered to facilitate learning. The module of HGM3063 Geography of Malaysia is well suited to FL delivery based on several reasons; The module explores the various physical and human geography scenarios of Malaysia. Other than the real experiences, the exploration is well suited to watching videos produced using many sophisticated technologies such as drones, using screen-cast videos, etc. The class sessions allow students to develop the skills of working together, teaching others, and improving their presentation skills, aided by experienced tutors who can provide immediate feedback.

2.1 Design and Intervention

A qualitative design was used, with focus group interviews conducted at the end of the semester. Throughout the semester, Geography of Malaysia's students were engaged with the FL approach using both physical and virtual learning spaces. The module provided students the opportunity to understand and explore the physical and human elements in the context of the geography of Malaysia. It also exposed the students to the aspects of demographics, economy, society, urbanization and development as well as to environmental issues in this country. In addition, contemporary issues in urbanization and development in Malaysia were also discussed. Students were exposed to the content of this module through the use of a variety of methods offered in the Web 2.0 tools. The teaching intervention was converted to FL with screencast-o-matic, videos, Prezi, questions using cahoots and padlet.com, and other activities prepared for each week. There are two

to three 5-15 minute long videos each week, that was produced and posted to e-portfolio to be watched by students before the teaching session. With the knowledge gained, the students proceeded to perform the task on their own. The lecturer then joined the students in an online real-time chat and discussion based on the input from students. The lesson further continued in the physical classroom and in a reflective forum. Formative self-assessment was also provided for students to test their understanding. Answers to the questions were supplied immediately after use. In class, students worked in small groups on a variety of tasks to practice their skills. In short, students were provided with the opportunities to engage in FL by learning with the technology to support their knowledge construction.

2.2 Data Collection

Nine FGD interviews were conducted, with six to ten students participating in each interview. The FGDs were placed face-to-face to facilitate interaction and data collection. Each focus group was led by two researchers, who facilitated and took field notes. A semi-structured interview protocol was developed to encourage participants to give in-depth answers. Each focus group lasted 50-60 minutes when data saturation was reached, and no new themes emerged. Among the issues that emerged from this FGD session are regarding the activities and processes in the FL approach that help improve students' understanding of the course content, how FL aids students' understanding of the course content, how the FL approach develops students' attention, relevance, confidence for success and satisfaction in learning the geography module and how teaching and learning by using the FL approach can be improved to develop students' understanding in learning geography. FGD is a popular qualitative method used in many fields of study. This method provides an opportunity to share and make comparisons about the experiences and views of participants as well as the fact it provides an opportunity to discuss things that happen in the real world. This method is very suitable to be used in this study, as the evaluation of the FL approach in understanding a course content can be determined.

3. Findings and Discussion

Qualitative data from the FGD were coded and thematically analyzed. After the screening, the data in the form of transcripts were coded and transcribed to determine patterns or topics, themes, writing sentences as category codes to represent patterns or topics, listing categories alphabetically or numerically, giving marks for each unit, and constructing pattern codes to identify emerging themes or descriptions. Finally, the theme was proven and perfected by re-examining the raw data and confirming the interpretation. The themes are (i) attention in learning geography, (ii) personal needs in learning geography (iii) confidence to succeed in learning geography, and (iv) satisfaction in learning geography. Suggestions for improving the application of FL for teaching geography to enhance students' understanding of the course content are also discussed.

3.1 Theme 1: Students' Attention in Learning Geography

FL is an approach that encourages students to move actively in the lecture and outside the lecture room [3]. Attention refers to the student's interest. It is critical to get and hold the students' interests and attention [15]. According to the ARCS motivational model, students' attention can reinforce and sustain their motivation in order to develop their understanding of the course content [15]. Based on the findings from the FGD sessions that have been delivered, all 9 groups of students involved in the

discussion have agreed that delivery methods, activities, materials and teaching mediums including the media and video used throughout the intervention process can attract their attention during the teaching and learning sessions while improving their understanding of the course content. Some of the comments given by the respondents representing the opinions of their respective groups are shown in Table 1.

Table 1
Comments on the students' attention in learning geography using FL approach

FL Application	Group Code	Comments
Method of delivery	G1	"The variety of delivery methods has attracted students who are not interested in reading. This method is more fun than the conventional method"
	G9	"Yes, this method is very good because the activities implemented are interesting and easy to understand the content of the course discussed. Musical interludes while answering questions are also very helpful in motivating students"
Activities	G2	"The variety of activities done in the classroom has made the learning sessions more interesting. For example, documentary video screenings and acting activities are done in class"
	G4	"FL learning succeeds in attracting students because the activities carried out are student-centered and integrate the use of technology in learning"
	G7	"FL learning succeeds in attracting students because the activities carried out are student-centered and technology"
	G8	"Students can focus in class, many variations of learning methods have been implemented together"
	G9	"The activities carried out are interesting, and the music used while answering questions is also good to attract students"
Teaching Materials, Media, and Video	G2	"The variety of activities done in the classroom has made the learning sessions more interesting. For example, documentaries and acting videos done in class"
	G3	"Attractive graphic media makes students excited"
	G5	"FL used can attract attention and develop students' understanding because it uses interesting graphic media and makes students excited"
	G6	"Videos and applications used are very interesting (use of multimedia) and able to attract attention and make it easier for students to understand the course content"

The method of delivery using the FL approach and activities used throughout the course includes group discussions, presentations, games, quizzes, use of video, and the application of technology in learning. According to the findings of FGD, the FL approach implemented, for example, the use of learning videos, has been successful in making the students understand better because they need to delve into a topic before completing the task given by the lecturer or discussion in class. The videos displayed have also attracted students' interest in the course content and turn, improved students' understanding. Among the comments given by the respondents representing the opinions of their respective groups regarding the method of delivery that can develop students' understanding of the course content are as shown in Table 2.

Table 2
Comments on the method of delivery, activities, and learning materials in FL approach to develop students' understanding of the course content

Method of Delivery	Group Code	Comments
Presentation	G1	"Presentation activities (find your own content, strengthen knowledge"
	G2	"The real experience of each documentary has managed to explain the real issues that are going on around"
	G4	"The variety of activities during the presentation session has attracted the interest and understanding of the students"
	G5	"A more in-depth study on the topic will be presented. Present topic-related input"
	G7	"Video presentation can give an initial impression to students"
	G8	"Improving soft skills (communication)"
Discussion of issues/ ideas/ that require students to think creatively and critically	G4	"The real experience provided in each documentary presentation has successfully clarified the real issues going on around"
	G7	"Able to encourage students to think creatively and critically in the activities carried out"
	G8	"Developing creative thinking"
Games/ Activities	G1	"Games have attracted students' attention in learning and strengthen their knowledge)"
	G4	"All activities are student-centered"
	G7	"These activities are more interesting for students to know more about the course content in-depth"
Quiz (using web 2.0 tools)	G4	"Media such as Padlet, Socrative, Kahoot and the use of video in learning have attracted interest in learning"
	G5	"Can strengthen understanding"
	G5	"Post-video activities such as online quizzes attract students to focus more on course content"
	G9	"Students are more focused during learning with Kahoot and quizzes"
	G9	"Quizzes can help students remember each content of the lesson"
Teaching Materials, Media, and Video	G2	"Understanding can be gained through videos and pictures displayed"
	G3	"The use of videos such as documentaries requires students to delve into a topic to produce a video. The use of various media can stimulate students to understand the topic because it involves various senses"
	G5	"The videos provided are interesting and help the learning process"
	G6	"Video-can be more dense important content with the presence of (subtitles)"
	G7	"Video presentation can give an initial impression to students"

In addition, game activities played in the lecture such as the Kahoot quiz after the lecture session made the students more focused. This is because the quiz questions are based on teaching sessions or presentations that have been implemented. Students also thought that quiz activities also allow them to think creatively and critically in the activities carried out. Next, the students also stated that FL exposed the students to presentation activities to increase the student's understanding of the course content. Through this activity, students delved into the topic of their presentation first in groups or search for information on their own. This makes it easier for students to understand the content obtained for the presentation session. In addition, they also stated that this presentation activity also improves students' soft skills, especially in communication skills.

The method of delivery, activities, and learning materials that takes place in the FL process plays an important role in improving students' understanding of the course content. In addition, the fun that takes place in the lecture is also able to influence the motivation of students [3]. Also, the production of various teaching materials that contains a mixture of various media (multimedia) or

fun activities will be more interesting and will make students more motivated. Therefore, educators need to stimulate students' interest in various ways such as being able to use various interesting methods and techniques, also encouraging them to think of interesting and effective activities so that the learning and teaching process allows students to move actively and have fun in the lectures.

There is a variety of activities that is optional in helping to increase students' understanding of the course content. The transcript analysis in the discussion was an overall mix of group and individual activities. This can show more clearly that various activities of FL successfully attract students' interest and in turn provide understanding to them. The presentation activities that have been held have encouraged students to find their own content as well as to strengthen their knowledge. Content search on its own gives more in-depth knowledge to a person. According to Nicholas [16], this self-access learning helps students to delve into facts on their own by exploring on their own about what they are learning as well as following the set criteria. Thus, it is clear that the search for information on their own helps to improve students' understanding especially when the knowledge gained is presented or presented to other students. This has been in line with the learning pyramid model whereby 90% of the average rate of students had mastered the course content through the process of teaching others. In addition, elements or activities in FL that use a multi-intelligence approach also enhance students' understanding of the course content. These multi-intelligence approaches include musical, kinaesthetic (acting and sketching), interpersonal (collaborative skills, discussion, communication, and cooperative learning), and linguistics (debate and poetry).

3.2 Theme 2: Students' Personal Needs in Learning Geography

The learning process should show the usefulness of the content so that students can bridge the gap between content and the real world and feel the relevance of the knowledge. 'Relevance' is defined as meeting the personal needs or goals of the student to affect a positive attitude. During the FL process, the educator shows the relevance of the course content to students by explaining why and how this content has helped them today, and explaining why and how this content can help the students in the future (e.g. finding a job, getting into a college, etc.), allowing students to achieve, exercising responsibility, authority and influence, allowing students to choose their instructional method and strategies, giving students a sense of continuity by allowing them to establish connections between new information and what they already know and showing students role models using the content that the educator presented to improve their lives.

FGD findings revealed that students were provided with assignments related to real and current issues. Students have stated that they can relate the course content to current issues such as the Klang River project that was given to the students as an assignment. This approach also touches on better ways of caring for the environment. The usefulness of the content was also realized through class discussions that present real examples that have happened in Malaysia, aiming to inculcate awareness and values among students. Some comments given by the respondents representing the opinions of their respective groups regarding the relevance of the course content are shown in Table 3.

Table 3
The relevance of course content to students

FL Application	Group Code	Comments
Real World Situation	G1	"Yes, the content of this course reveals current issues and the FL conducted has linked the theory to real-world situations. This approach has given new awareness and knowledge to students"
	G3	"Yes, the assignment is related to current issues"
	G6	"Yes, the assignments are related to current issues and real-world situations such as the Klang River project"
	G7	"The knowledge learned is useful for daily life. Science is adapted to real-world situations. For example, more practical ways of caring for the environment"
	G8	"The science of geography taught can be linked to the daily lives of students"
Activities	G4	"Yes, the FL activities carried out are relevance and very useful"
Teaching Materials, Media, and Video	G2	"Yes, the video content can answer all questions that arise on a topic or issue. Students can also relate knowledge to practice in the real world through videos and documentation presented as well as examples that occur in Malaysia"
	G5	"Yes, video content can instill awareness and values in students"

3.3 Theme 3: Students' Confidence to Succeed in Learning Geography

'Confidence' is about helping the students to believe or feel that they will succeed and they will be able to control their success. This component focuses on developing success expectation among students, and success expectation allows students to control their learning processes. During the FL process, the educator provided students with learning standards and evaluation criteria so that they can establish positive expectations and achieve success. The students were allowed to be successful by providing multiple and varied experiences. The educator has given feedback to the students about their improvements and deficiencies during the process so that they can adjust their performance. Students were given control over their learning process so that they can feel that their success does not depend on external factors. Instead, they have internal factors that have affected their success.

The results of the FGD session found that the majority of the students stated that the FL approach undertaken had developed their confidence to succeed in getting good results in the course. According to students, this approach makes them more prominent and confident after exploring knowledge on their own. This approach also involves all students interacting in class and they are required to give an opinion individually. Presentations delivered with various approaches such as acting, singing, poetry, debate, and so on in the classroom have also increased their confidence in communicating and sharing opinions. Some of the comments given by the respondents regarding their confidence to succeed in the course are shown in Table 4.

Table 4
Confidence to succeed among students

FL Application	Group Code	Comments
Confidence to Succeed among Students	G1	"Students were provided with learning standards and evaluation criteria so that they can establish positive expectations, and achieve success"
	G2	"Students were allowed to be successful by providing multiple and varied experiences. Students were given feedback about their improvements and deficiencies during the process so that they can adjust their performance"
	G3	"Yes. A lot of exposure is gained by students. Students are more prominent and more confident through the exploration of knowledge on their own"
	G5	"Yes: the learning process involves all students interacting in class and each needs to give an individual opinion"
	G6	"Yes. Students' confidence is developed through a presentation, acting, singing, and poetry activities in the classroom. Learning activities in the classroom are more relaxed as well as being able to exchange various ideas without feeling stressed"
	G7	"Yes. Learning activities using padlet.com and other ICT-based mediums make students more confident in answering questions given by lecturers and classmates"
	G8	"Presentations that need to be done by all students had increased confidence in students"
	G9	"Students are more confident to answer exam questions well because this learning method makes it easier for students to understand the content of the lesson through presentations, discussions, and videos watched"

3.4 Theme 4: Students' Satisfaction with Learning Geography

'Satisfaction' is about reinforcing accomplishment with internal and external rewards. There is a direct relationship between motivation and satisfaction. FL application in this course encourages an intrinsic enjoyment of the learning experience so that students have fun, continue the learning process without expecting any reward or other kinds of external motivational elements. The educator also provides students with positive feedback, rewards, and reinforcements. The educator uses consistent assessment rubrics and shares them with students so that consistent standards can be maintained and there will be consequences for success. The comments given by the respondents regarding their satisfaction with the course are shown in Table 5.

The results of this FGD found that students are interested in assignments related to current issues, the activities carried out, and the use of video in lectures. This can also prove that the FL approach succeeds in attracting students 'attention to the teaching and learning process in addition to improving students' understanding of the course content. Students gain more useful knowledge because the lecture session does not end the lecture only, but it can be continued and applied in the real world. Students also enjoy doing activities in lectures.

Table 5
Satisfaction in learning

Application	Group Code	Comments
Satisfaction in Learning	G1	"Yes. This method of learning does not depend entirely on the lecturer. Students will be more understanding and satisfied when they do their exploration from various sources"
	G2	"Yes. This method of learning is eye-opening, exploring knowledge in more depth than conventional methods"
	G3	"Yes. positive reinforcement from the lecturer gives satisfaction to the students"
	G5	"Yes. This method can achieve student satisfaction because students can gain many new experiences through various activities"
	G6	"Yes. there is positive reinforcement, motivating students and recognition that gives students satisfaction"
	G7	"Yes. This method opens the eyes and explores knowledge in more depth than the conventional method"
	G8	"Yes: Increased student satisfaction because every week various issues are presented and improve the position in answering quizzes"
	G9	"Yes. this method can create thinking skills. The sharing of ideas takes place through multi-directional communication, i.e., students with students and students with lecturers"

The use of technology in learning is also useful to students because students understand better through the real picture than with the help of the technology used. Students' confidence and interest increased during the FL process. Question and answer sessions have increased students' confidence and understanding of the course content. Norhaiza *et al.,* [17] also support this finding that students obtain satisfaction from communication and partnership with lecturers as well as through cooperative learning.

3.5 Suggestions for Improvement in the Application of FL for Teaching Geography

The proposed improvement results were obtained from FGD discussions. Participants identified several strategies to increase students' understanding of the course content; *"... Not focused on technology alone, but also off-class activities such as environmental exploration/environmental issue observations in the outside-class areas... "(G5)*, *"... Doing field studies or study visits... "(G6)*, *"... External studies may be able to further enhance students ' understanding as students can see what is going on... "(G6)*.

In addition, increasing Internet network access should also be implemented to facilitate the implementation of FL; *"... Increase the Internet access/facilities needed to implement the FL to facilitate students to access information... "(G4)*, *"... Enhance the Internet and ICT access which is FL 100% using technology. Can make it easier for the activity... "(G5)*, *"... Upgraded and constantly ensuring that the Internet network system in the campus is easily accessible... "(G8)*.

The result of this proposal was supported by Rahim [18] stating that Internet access was very necessary before implementing this method. Gündüz and Akkoyunlu [19] state that a weak Internet network can be one of the barriers to the implementation of this approach perfectly. Therefore, recommendations on the improvement of the Internet network are needed to launch this approach. In addition, students also propose discussion activities after a quiz should be carried out so that students who answer wrongly can find out the right answers more clearly at the same time; *"... An extensive discussion regarding the topic of less understandable students... "(G9)*, *"... Make discussions*

with a focus on quiz questions where students tend to give the wrong answer... "(G9), *"... Discuss after the quiz... "(G9)*.

The suggestion was supported by Jasmi *et al.,* [20] that making discussions upon the completion of the question and completion of the questionnaire is necessary so that the students are more understanding of the contents at the same time. As such, the discussion after conducting training or quizzes is the recommended proposal to be used to improve the understanding of the content in students. As a whole, there are several proposals submitted by the students to make improvements to the flipped learning approach to enhance students' understanding of the course content. The proposals of upgrading the Internet network, holding post-quizzes, holding discussions, and conducting fieldwork are top choices among the students. Hence, the next step should be carried out to realize the improvement in the FL approach.

4. Conclusions

This study explores students' experiences of the implementation of FL in a geography module taught at the university level. The findings show that the teaching approach using FL methods and strategies in the geography module has received positive views among the students. Almost all participants reported an increase in attention, relevancy of personal needs, confidence, and satisfaction in learning geography and ultimately enhanced understanding of the course content. These findings further support the previous studies, in which these positive effects appear to be driven by a strong and positive relationship between the student's emotional and cognitive interests and the FL method conducted in the geography module [3]. The findings also support studies from other fields such as in the field of Biology studied by Adnan *et al.,* [21]. who found that the majority of students felt that the FL approach assisted them to understand the knowledge content clearly.

FL can have numerous advantages for higher education, specifically in the subject of Geography. Students learning in such an environment may initiate a better learning atmosphere by educating each other more effectively and efficiently, and embark upon taking the responsibility for their learning. Moreover, student-learning outcomes will be better since students are more involved with the content. The FL increases students' engagement and enhances higher-order thinking as students are required to apply the given information to various scenarios. To flip a classroom, Makice [10] suggests launching with the end in mind, as well as setting a goal according to what the teacher/lecturer expects the student to acquire and do. After setting the goal, the next step is to collect quality learning resources that are specific to the course requirements that can be accessible outside of class anywhere, anytime. Lastly, class time should be structured by putting the contents into context via learning activities. Following these steps, a flipped class can be evolved in which students are more involved and engaged, and they can develop sophisticated thinking skills. The finding of this study is very significant to provide a guideline for FL application at the university level, specifically for geography module to increase students' understanding of the course content.

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