

# Flipped Classroom: Impact on Student Engagement among First-Year Management Undergraduates at the Open University of Sri Lanka

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## Abstract

In the 21st century, every corner of our lives is filled with digitalized technologies, which we cannot bypass. The educational landscape is also embarking on novel technology. Both learners and teachers should understand the novel technological paradigms, vice-versa to get a win-win situation. The flipped classroom is a pedagogical model in which traditional lecture and homework elements of a course are reversed. When looking at the Sri Lankan context, it is important to investigate whether we are adopting this novel teaching and learning paradigm. The recent literature lacks empirical investigations on the impact of the flipped model on student engagement, specifically in the Sri

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Lankan context. Hence, this study keeps a keen eye on the impact of the flipped classroom method on students' engagement. As a leading state university whose foundation lays upon open and distance learning, the flipped classroom method is inherently practiced with the students. Therefore, a sample was drawn from the Open University of Sri Lanka, Faculty of Management Studies, using the convenience sampling technique. The participants were undergraduates who took the Principles of Management course in their first year. Researchers' main investigation was to find the impact of the flipped model on student engagement. Therefore, behavioural responses and perceptions of students were considered as foremost factors, and therefore, a purely qualitative study was undertaken. In order to collect data, semi-structured interviews, self-administered questionnaires, and direct observations were used. Moreover, student engagement was investigated in terms of behavioural, cognitive, and emotional aspects. The collected data were analyzed using thematic analysis. Findings revealed that the flipped classroom method is an innovative teaching and learning method that can be effectively implemented to boost student engagement. In conclusion, the study highlighted the positive influence of the flipped classroom model on enhancing student engagement across behavioural, cognitive, and emotional dimensions. These findings underscored the potential of this learner-centered approach to transform traditional teaching practices within the Sri Lankan higher education context.

**Keywords:** *Flipped classroom model, student engagement, behavioural engagement, emotional engagement, cognitive engagement*

## **Introduction**

### **Background of the Study**

Until the 1900s, world knowledge has been doubling every century; shortly after World War II, world knowledge doubled approximately every 25 years (Schilling, 2013). These days, however, world

information is doubling every one to two years. As cited by Avery et al. (2018), in the future, as the internet and technology become exceedingly more powerful, influential, and ubiquitous, knowledge is expected to double every 12 hours. Life in this information-rich future will be evidently different. To address these societal shifts and the breakneck speeds of these changes, educational institutions need to assume new teaching and learning styles that align with 21st-century ways of thinking, acting, and being (Gardner, 2008). As part of this transformation, teachers tend to use innovative ways to make the students interact with the curriculum. A style of pedagogy that meets the requirements of modern students is the flipped classroom method.

As cited by Aljaraideh (2019), the most recent modern learning visions focus on students as the centre of the learning and teaching process. However, most teachers and lecturers deliver the basic knowledge to their students with less concentration on developing their innovative skills, such as scientific research skills, critical thinking, and creative thinking skills. The flipped classroom is a pedagogical model where traditional lecture and homework elements of a course are reversed. It inverts traditional teaching methods, delivers instruction outside of class, and moves homework into the classroom (Shi-Chun et al., 2014). The flipped classroom is a unique educational method that emerged during the last few years, and it quickly gained popularity among educators all over the world. In the flipped classroom model, the role of the teacher has changed from a provider of knowledge to a guide, facilitator, and organizer (Basal, 2015). In a flipped learning classroom, students complete pre-class preparatory work, which can take the form of short online videos, audios, or readings designed to enhance the attainment of topic content. As cited by Smallhorn (2017), face-to-face contact time is then focused on problem-solving, application of learning, synthesis, and collaborating with peers, which means that students are engaged with the content in a productive way, facilitating a deep understanding of the lesson. Moreover, as cited by Avery et al. (2018), in this method, students enter the classroom ready to

critically analyze the content through open discussions, pair-share activities, student presentations, quizzes, and mini-lessons.

Norazmi et al. (2017) assert that educators worldwide have been advocating for a more student-centered teaching approach to promote active learning among students. Active learning is a term for teaching practices that emphasize student activity and their involvement in the process of learning (Prince, 2004). The flipped classroom approach encourages active learning because activities done in the classroom require high levels of student participation. Active learning, such as teamwork, self-reflection, and case studies, engages and motivates students to attain more knowledge and improve their skills (Prince, 2004). This classroom model was also favoured because it encourages students to think critically and take responsibility for their own learning. As cited by Norazmi et al. (2017), since lecture time in institutions of higher learning is usually limited to one or two hours at a time, using the flipped classroom model also allows instructors to focus on students' different learning styles instead of relying entirely on lecture content.

Student engagement refers to students' willingness to participate in and be successful in their learning process. It represents the range of actions students take to advance from not knowing, not understanding, not having skill, and not achieving to knowing, understanding, having skill, and achieving (Reeve, 2013). Student engagement consists of emotional, behavioural, and cognitive aspects. Emotional engagement reflects students' feelings towards their instructor, classroom, and sense of belonging. Behavioural engagement indicates how attentive and involved students are in their classes. Cognitive engagement demonstrates the extent of students' intrinsic motivation in their learning process. A flipped classroom engages and focuses on students' learning by combining active, student-centered learning with content mastery that can be applied in the real world (Herreid & Schiller, 2013).

Thus, focusing on this new style of learning, this study aimed to find out the impact of the flipped classroom on management

students' engagement and student perception of this method. By synthesizing existing research and identifying key findings and gaps, this study sought to contribute to the existing body of knowledge and inform educators, researchers, and policymakers about the potential benefits and challenges associated with the flipped classroom as an innovative teaching method, and provide valuable insights into harnessing its potential for pedagogical improvement. By leveraging this style of pedagogy effectively and responsibly, educators can promote more engaging and effective learning environments that encourage modern learners to engage in the learning process for success in today's interconnected world.

### **Research Objectives**

1. To examine the impact of the flipped classroom on student engagement of the first-year management studies students of the Open University of Sri Lanka
  - 1.1 To examine the impact of the flipped classroom on behavioural engagement
  - 1.2 To examine the impact of the flipped classroom on emotional engagement
  - 1.3 To examine the impact of the flipped classroom on cognitive engagement
2. To examine the perception of the flipped classroom on student engagement

### **Research questions:**

1. Does the flipped classroom impact student engagement of the first-year management studies students of the Open University of Sri Lanka?
  - 1.1 Does the flipped classroom impact behavioural engagement?

- 1.2 Does the flipped classroom impact emotional engagement?
  - 1.3 Does the flipped classroom impact cognitive engagement?
2. What are the perceptions of the flipped classroom on student engagement?

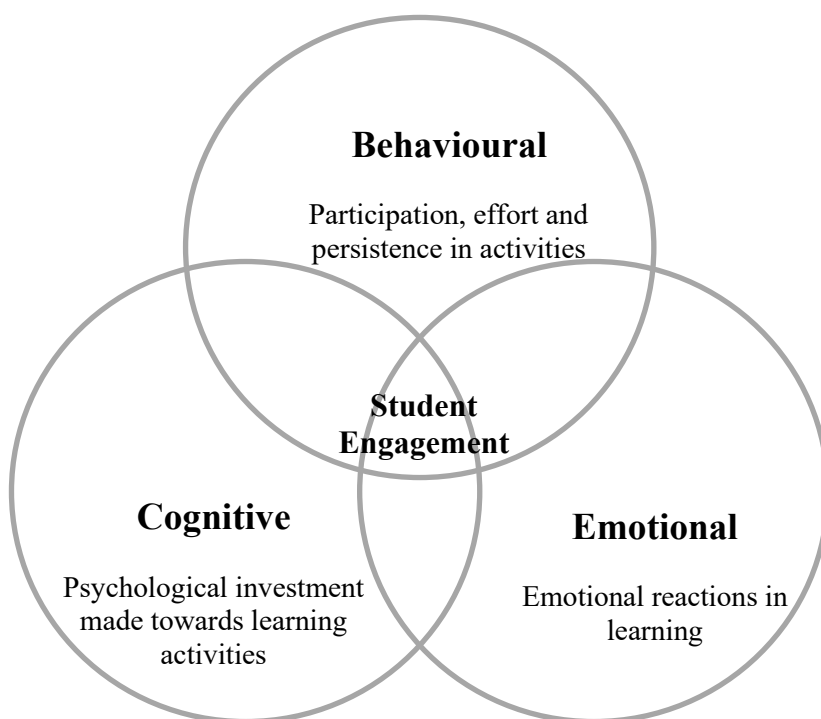
## **Theoretical Framework**

Figure 1 shows the theoretical framework of this study. This study was grounded in Reeve (2013) theoretical framework of student engagement, which conceptualizes engagement through three interconnected dimensions: behavioural, cognitive, and emotional. By applying this framework, the research examined how the flipped classroom model influences first-year Management undergraduates at the Open University of Sri Lanka across these three domains—how actively they participate (behavioural), how deeply they process and internalize learning (cognitive), and how positively they feel about their learning experience (emotional). This theoretical lens provided a structured and comprehensive approach to assess the multifaceted nature of engagement in an open and distance learning environment.

## **Literature Review**

### **Student Engagement**

As noted by Alsowat (2016), recent developments in educational methodologies are aiming to increase student-centered teaching and learning paradigms. This entails empowering students to assume the responsibilities of their learning journey within supportive environments that foster active engagement, critical thinking, problem-solving, diverse activities of group work, and meaningful interactions. This shift stands in contrast to traditional approaches reliant on rote memorization, which often results in passive students who are incapable of growth and development.



**Figure 1.** Theoretical Framework. *Source: Reeve (2013)*

Despite the term ‘student engagement’, it is worth notifying what engagement means. According to Reeve (2013), “Engagement represents the range of action students take to advance from not knowing, not understanding, not having skill, and not achieving to knowing, understanding, having skill, and achieving”. According to Vinson et al. (2010), engagement is “the extent to which students are contributing to activities”. According to Coates (2005), it is “the extent to which students are actively involved in a variety of educational activities that are likely to lead to high-quality learning”. Going in the same direction, Kuh (2009) stated that student engagement should have a high level of participation and a high quality of effort in the learning process. As cited by Alsowat (2016), in every teaching method, students need to engage with and utilize it. Therefore, educators must provide captivating,

interesting, and inspiring activities to ensure students' active engagement. The design of the course can impact engagement. Hence, flipped classrooms are believed to be effective as they require students to participate in both in-class and out-of-class activities. Additionally, flipped classroom methods empower students to take charge of their learning and foster autonomy, encouraging a personal investment in activities and potentially enhancing engagement. A flipped classroom can increase engagement and focus of the student's learning by combining student-centered learning with content mastery, which can be applied in the real world (Herreid & Schiller, 2013). As cited by Jamaludin et al. (2014), real-world scenarios and project-based activities can be implemented during class time to enhance students' understanding and comprehension.

### **Behavioural engagement**

Bouvier et al. (2013) utilized the Activity Theory and Trace Theory to discern behavioural engagement, focusing on interaction indicators within activities. As cited in the article by Jamaludin et al. (2014), it is suggested that effective communication, displaying caring concern for student learning, offering active learning opportunities, and employing cooperative learning methods enhance behavioural engagement. Furthermore, Kahu (2013) indicates that student behaviour correlates with satisfaction, achievement, time spent on tasks, social and academic integration, and teaching methods. Consequently, a supportive learning environment fosters high behavioural engagement, facilitating active learning. Therefore, with the support of the learning environment, high behavioural engagement will lead to active learning.

### **Emotional engagement**

As cited by Jamaludin et al. (2014), there is a correlation between emotions and learning, asserting that "Less emotion means less learning and more emotion means more learning". This implies

that students who do not receive feedback during the class or on discussion boards may not effectively absorb material related to that specific topic. Conversely, as cited in the article by Kahu (2013), it is argued that students can still complete their work and learn adequately even without emotional engagement with the subject. Nonetheless, emotional engagement encourages students to take responsibility for each other, thereby motivating them to fulfill tasks. Emotional engagement through activities like discussion boards and problem-solving in a flipped classroom can lead to active learning (Jamaludin et al., 2014).

### **Cognitive engagement**

Reeve (2013) research indicates that students' willingness to participate is influenced by teachers' attitudes and behaviours; teachers who predominantly used lower-order questioning in class restricted discussions on problem-solving methods and cognitive processes (Smart & Marshall, 2013). Conversely, this study further cites that when teachers employ higher-order questioning, characterized by complexity, students have the opportunity to engage in explanations, justifications, and discussions with peers. This cognitive engagement through questioning leads to students feeling confident to participate actively in class discussions (Barr, 2014). Therefore, it becomes evident that fostering cognitive engagement through questioning, whether in-class or on discussion boards, is a pathway to achieving active learning in the classroom.

### **Flipped classroom**

With respect to digitalization, the educational landscape has also changed during recent years. As cited by Jamaludin et al. (2014), the flipped classroom concept was first introduced by Jonathan Bergmann and Aaron Sams for students who had missed classes. They tend to use live video recordings and screen-casting software to record lectures, demonstrations, and slide presentations with annotations and then post them for students to watch and read.

Flipped classrooms in this regard are a modernized concept of teaching and learning. According to Alsowat (2016), because flipped classrooms integrate face-to-face with online learning, flipped instruction is a type of blended learning. However, it is different since outside activities are used in flipped classrooms that do not always have to take place online; they can also use paper and hard copies. Consequently, the use of instructional videos is not mandatory in the flipped model.

As per the definition by Akçayır & Akçayır, (2018) the flipped classroom is a pedagogical mode in which traditional lecture and homework elements of a course/subject are reversed. It flips conventional teaching approaches, gives instructions outside of the classroom, and brings homework into the classroom (Shi-Chun et al., 2014). This method allows lecturers to spend greater amounts of time tutoring students in place of lecturing them (Wallace, 2014). The teacher's function in the flipped classroom paradigm has evolved from that of a knowledge provider to that of a guide, facilitator, and organizer (Basal, 2015). As cited by Alsowat (2016), reversing inside and outside classroom activities is the foundation of the flipped classroom concept. Students assume responsibility for the outside classroom activities they engage in, such as watching videos, visiting websites related to the course, listening to audio, and reading relevant references. Teachers must establish an interactive inside-classroom atmosphere conducive to pair and group work, hands-on activities, and advanced cognitive activities. According to Ogden et al. (2014), the flipped classroom teaching method is a pedagogical model wherein the traditional in-class lecture (characterized by passive knowledge transfer) is replaced with interactive activities, while the lecture itself becomes homework for students to independently complete outside of class.

Within the flipped classroom, educators employ various instructional approaches like differentiated instruction, problem or project-based learning, and inquiry-based learning, rendering flipped learning fundamentally centered around the learner and

considered as “learner-centric” (Bergmann & Sams, 2015). As cited by Minocha et al. (2017), flipped classrooms are a great platform for students to manage complex problem-solving skills, especially in business schools. According to Lopes & Soares (2018), this method is a new way of designing technology and learning that involves online material being made available prior to the class (Albert & Beatty, 2014). This method allows students to free up their class time for class discussion and questions (Graham et al., 2017) which ultimately improves the students' conceptual understanding (Burke & Fedorek, 2017). In the Australian context, Fang et al. (2022) evidenced that fully flipped classroom pedagogy triggers student engagement in relation to self-efficacy, emotion, well-being, and belonging. The findings may guide educators in full adoption of the flipped classroom in other undergraduate courses. Also, in the context of Bangladesh, Sarker et al. (2023) indicates that the flipped classroom model has the potential to be the ideal education system in the 21st century. According to Walsh & Risquez (2020), the flipped classroom approach is more important for students who are learning subjects that are not in their native language. Further, the prior availability of materials is very much beneficial to non-English-speaking students in several studies (Asef-Vaziri, 2015; McCarthy, 2016; Walsh & Risquez, 2020; Zainuddin & Attaran, 2016). This is because non-native students can watch recorded lectures more than once at their own pace (Asef-Vaziri, 2015). McCarthy (2016) argues that some international students have difficulties comprehending materials immediately, and they will eventually prefer the flipped classroom platforms, as this allows students to re-listen and re-watch materials. Additionally, students who struggle with their native tongue might boost their confidence by practicing ahead of time for class discussions (Zainuddin & Attaran, 2016).

Flipped model is convenient in many ways, scholars have also found some challenges with the flipped model (Chen et al., 2016; McCarthy, 2016). Students may become more prone to procrastination due to the constant availability of online videos (He

et al., 2016). Balaban et al. (2016) found that there is an improved student effort in Economics and Organizational Behaviour within the flipped classroom model. Missildine et al. (2013) on the other hand, state that there can be a high number of dissatisfied students due to the self-discipline needed to complete additional pre-class work. Moreover, although flipped classrooms pose the difficulty of managing students who have not finished or comprehended the material (Telford & Senior, 2017), Fadol et al. (2018) discovered that the flipped model leads to reduced absenteeism. However, they acknowledge that students' perception of a learning approach could influence their adaptation to its demands.

Similarly, Beenen & Arbaugh (2019) discovered that autonomously motivated Business students were more inclined to opt for flipped classrooms because flipped classrooms depend on students absorbing material before class. More so, Fadol et al. (2018) found that students who watched video content missed fewer face-to-face classes. With the flipped model, the lecturer no longer must teach for two hours while students take notes; the entire class time is not used for the lecture. Instead, this time is used for activities and problem-solving. Conversely, students who have learned materials before the class tend to become bored during class time compared to the students in the traditional class setup (Strayer, 2012). A study conducted by Flumerfelt & Green (2013), screencast video technology showcased impressive academic achievements and behavioural improvement. This ultimately led to a good interaction between the teacher and student, which in turn, could create opportunities for active learning (Leicht & Zappe, 2012).

## **Problem Statement**

Technological development and digitalization are aspects that we cannot bypass. The educational industry is also benefiting from technological advancements, and indeed, it will become a strength of the industry. Sri Lanka is an educational hub, but there is a

crucial problem whether, as a country, we are utilizing the novel teaching and learning paradigms. This study, therefore, pays a greater deal of attention to the modernized learning and teaching concept of the “flipped classroom”. Within the Asian context, especially within the Sri Lankan context, there is little research in general on the flipped classroom; more specifically, there is a noticeable absence of work exploring the flipped model in the field of Management Studies students. The majority of studies that have been conducted in other countries have mainly focused on language learning (Alsowat, 2016; Walsh & Riskey, 2020).

This study, to the researcher's best knowledge, is a fresh attempt to suggest the flipped classroom teaching model to enhance student engagement, specifically targeting students who learn Management-related subjects. Hence, this study can be considered a crucial work that attempts to fill the existing literature gap and knowledge gap in the available literature.

## **Methodology**

### **Research Design and Instrument**

This research was designed as a qualitative study. Semi-structured interviews, self-administered questionnaires, and direct observations were used to gather the primary data. Semi-structured interviews were conducted with students to gain deeper insight. Both physical and telephone interviews were conducted, which enabled the researchers to find out the impact of the flipped classroom model on student engagement and students' perceptions of this method. A self-administered online questionnaire was also used to gather data. It was comprised of several open-ended questions, and it was conducted using Google Forms to collect insights on students' perceptions. The final data collected included direct observations of the flipped classroom method during their Principles of Management first-year course.

The following are the open-ended questions included in the self-administered questionnaire, and these were asked from the

students after briefing them about the flipped classroom method, which they experienced during the above course.

- Do you think the flipped classroom method is an interesting method? (screening question)

If yes, why?

- What are the new skills you have acquired due to the flipped classroom method?
- What are the challenges you experienced in the flipped classroom method?

This research aims to understand the impact and students' perceptions of using the flipped classroom method to enhance their engagement in coursework.

### **Research Participants**

The respondents of the study are first-year undergraduates of the Open University of Sri Lanka. The selected respondents of the study were deemed appropriate due to the fact that the Open University is built upon Open and Distance Learning (ODL), in which students hold a higher percentage of responsibility for their learning. Hence, the flipped classroom method can be applied effectively among the students of the Open University.

In this research study, 20 students were selected for the interviews, and 41 students were selected as participants for the questionnaire based on a convenience sampling technique under a non-probability sampling method. These participants were students of the Open University of Sri Lanka, representing the Kandy Regional Centre. All the participants were first-year students who were following the core course of Principles of Management, which was a compulsory course for all four departments: Department of Organizational Studies, Department of Marketing Management, Department of Human Resource Management, and Department of Accounting and Finance. The participants were chosen based on their willingness to be involved in the research. Convenience sampling was employed in this study

due to the practical and logistical considerations associated with accessing a specific population within a limited timeframe. The participants were selected from the Kandy Regional Centre of the Open University of Sri Lanka, as they were readily available, accessible, and willing to take part in the study. Given the qualitative nature of the research and the focus on first-year undergraduates enrolled in the Principles of Management course, convenience sampling allowed the researcher to gather in-depth insights from a relevant group while ensuring voluntary participation. Additionally, as the flipped classroom model was already integrated into the learning structure of these students, they were considered well-suited to provide meaningful responses aligned with the objectives of the study.

### **Ethical Considerations**

The inquiry was conducted with careful adherence to ethical rules. Measures were made to ensure participant identity and confidentiality, and informed consent was obtained. All aspects were kept transparent, including procedures, analysis, and reporting. The measures were implemented with the aim of maintaining the research's integrity, cultivating trust between participants and the academic community, and producing precise and courteous knowledge.

### **Data Collection and Analysis**

Interviews were the main method of collecting data, and as cited by Bikowski & Vithanage (2016), semi-structured interviews were chosen due to their increased flexibility over structured interviews. Physical interviews were conducted at the Kandy Regional Centre. Moreover, the questionnaire was another method of data collection, and the Google Forms survey link was sent to students at the Kandy Regional Centre. The survey link was sent through multiple media such as WhatsApp groups, Messenger, and Instagram. Finally, direct observations were carried out in order to gain insight into the flipped classroom method on student engagement (Bikowski & Vithanage, 2016) and several sessions

were systematically observed by one of the researchers. Observations focused on students’ body language, facial expressions, their interest in the method and their behaviour. Using these strategies, answers from a varied range of students were obtained, and observations were made in order to better understand the impact of the flipped classroom method on student engagement and students’ perceptions towards this method.

Answers from the semi-structured interviews with the first-year Management Studies undergraduates, the answers from the open-ended questions of the questionnaire, and the direct observations were coded according to the themes that emerged, and they allowed for an initial summary of the data. This allowed the summaries to be grouped into themes and analyzed using thematic analysis.

**Table 1.** *Themes of analysis*

<b>Theme</b>	<b>Theme definition</b>
Benefits of the flipped classroom method	Statements or examples about specific ways that the flipped classroom method helped students engage in coursework
Skills acquired using the flipped classroom	Statements or examples about skills that students acquired and developed to engage in coursework
Observations about the flipped classroom method	Observations or examples about student behaviour in the classroom
Challenges of the flipped classroom method	Statements or examples about how students encountered challenges when using the flipped method

*Note.* developed by the author

## **Results and Discussion**

The students of the Principles of Management course were given the opportunity to access course materials, PowerPoint presentations, library links, additional reading, and related videos. Also, hard copies of the relevant course materials were provided to the students. Therefore, the students attend the classroom after prior self-study of the online and offline materials and are ready for the lessons. In one such instance, students were given the opportunity to post their own definition of “what is management?” on a Padlet, in which the link was shared in the Learning Management System (LMS). Then, in the physical lecture series, the definitions were displayed to the students, and they were satisfied with the outcome. Likewise, students experienced the flipped classroom method throughout their course.

The questionnaire was circulated to 96 students. However, only 61 respondents were entitled to the survey, and 35 respondents were eliminated from the screening question, representing a 64% response rate.

Comments from the semi-structured interviews with the management studies undergraduates, the answers to the open-ended questions from the questionnaire, and the direct observations were coded according to the themes that emerged and were categorized in the form of a table for ease of reference (Table 2). These focused benefits of the flipped classroom method, skills acquired using the flipped classroom, observations about the flipped classroom method, and challenges of the flipped classroom method.

Table 2 highlights the impact and student perception of the flipped method on student engagement. Most participants stated that the flipped classroom method is an effective way to enhance student engagement. One of the main reasons for this is that the students find this as a more convenient method. Since they have access to all the lesson materials and additional reading materials, they can

refer to them in the comfort of their home in their own time. Participant 1 said that “It is very easy to access lesson notes using our phones”. Therefore, many students found the flipped method to be a convenient, comfortable, and accessible way to learn. At the same time, many participants explained that the flipped classroom required that they need to be more responsible for their own learning, especially outside of the classroom, making them independent learners. Participant 2 claimed that “the flipped classroom helped me to learn on my own,” while participant 3 made the same point, saying that “it helped me to take charge of my own learning”. Thus, in this method, the learners have to take greater responsibility for their own learning, and this can be considered as an effective way for adult learners. Also, this method is an experiential learning method since it provides time and space to engage in subject-related activities such as discussions, presentations, quizzes, debates, and group activities. As a result of this, the students find it less boring and they see the activities in the classroom as more interesting and exciting. Hence, the students have a huge role to play in the classroom, and they become more active, involved, and invested in classroom activities. Participant 4 mentioned that she “... started to express her views and ask questions about the unclear things from her teacher and peers”. Thus, the overall idea of the students was that the flipped method made them motivated and engaged in the classroom work.

Secondly, the students identified certain skills that they think they acquired due to the flipped classroom. The main answers included visual learning, questioning skills, critical thinking skills, listening skills, attentiveness, socialization skills, and open-mindedness. Many participants said that they were able to improve visual learning skills as they experienced learning through their Learning Management System (LMS) by viewing PowerPoint presentations, reading materials, links, and videos.

**Table 2.** *Comments expressed by the respondents*

<b>Theme</b>	<b>Comments</b>
Benefits of the flipped classroom method	<p>The flipped model helped students in the following:</p> <ul style="list-style-type: none"> <li>• Convenience</li> <li>• Independent learning</li> <li>• Greater responsibility for their own learning</li> <li>• Experiential learning</li> <li>• Provided time and space to do activities</li> <li>• Less boredom in the classroom</li> <li>• Make things more interesting</li> <li>• Become more involved and invested in class</li> <li>• Active way of learning</li> <li>• Student motivation</li> </ul>
Skills acquired using the flipped classroom	<p>The flipped model helped students acquire the following skills:</p> <ul style="list-style-type: none"> <li>• Visual learning</li> <li>• Critical thinking skills</li> <li>• Questioning skills</li> <li>• Listening skills</li> <li>• Attentiveness</li> <li>• Socialization skills</li> <li>• Open-mindedness</li> </ul>
Observations about the flipped classroom method	<p>The following things were observed during the physical class setting:</p> <ul style="list-style-type: none"> <li>• Behaviour</li> <li>• Interest</li> <li>• Body language and facial expressions</li> </ul>
Challenges of flipped classroom method	<p>The following challenges were identified</p> <ul style="list-style-type: none"> <li>• Access barriers</li> <li>• Poor technological know-how</li> <li>• Not all students learn at the same pace</li> <li>• Adjustment issues</li> <li>• Student contribution</li> </ul>

*Note.* Developed by the author

Then, several students stated that they could improve their questioning skills as they got the opportunity to ask questions from the teacher and peers and clarify their doubts related to the topic. More importantly, the majority of the students mentioned that this independent learning method enhanced their critical thinking abilities. Participant 5 said, “This method made me more responsible with my own work, and I put more effort into my work”. Participant 6 believed that “instead of just listening, he explored more on the topic and saw the other side of things”. Further, this technique helped the students to improve their listening skills by listening to others’ opinions, and thereby they became more attentive learners. Also, they became more socialized as they got the chance to interact with their peers and share their ideas.

Although many students were satisfied with flipped learning, a few students saw little or no difference in their learning experience. Participant 7 stated that “At the beginning, I felt lost and frustrated not knowing the material,” and participant 8 said, “I am kind of lazy and I came to the class without any preparation, and I was helpless in the class”. Likewise, certain students were struggling with this method as they were used to traditional learning.

Thirdly, the direct observations allowed the researcher the freedom to observe students, and their interest towards this method as well as identify the success and needs of students. A greater number of students recognized that their class hours were allocated for collaborative forms of learning because they were given the content to go through on their LMS. The researcher observed that certain students were more responsive during class time, and they were comfortable speaking and expressing their thoughts. This is due to the fact that they were prepared for the lesson, and they were confident about their answers due to the homework. Also, the students were more engaged with the tasks as they collaborated and interacted with their peer learners. Most of them took part in all the activities confidently displaying their creative abilities, critical thinking abilities, and presentation skills. Similarly, they

managed their allocated time and demonstrated their self-learning abilities. Accordingly, all these instances showcase that the participants displayed active engagement, and thus, they consider this an interesting method.

On the other hand, several students did not show interest and they were not comfortable, which was mainly because they had not gone through the lesson material outside the class, and therefore, they were not prepared. Certain other students showed less contribution to the discussions and activities as they were somewhat introverted. Hence, a few students show a lack of interest towards flipped classes due to less preparation, their personal preferences, as well as their learning pace.

Finally, the participants encountered certain challenges when experiencing the flipped classroom. One major challenge was access barriers, which the majority of the students faced due to a lack of technological devices and internet facilities. Simultaneously, several other students faced difficulties due to poor technological knowledge. They need to have a proper understanding of how to access course materials through their LMS, download them, and utilize them for their study purposes. Therefore, some students were not prepared for the class, and this was troublesome because it did not allow those unprepared students to delve deeper into the subject matter. Moreover, some students spoke about the adjustment phase that they had to go through. Participant 9 said, "It was somewhat difficult for me to adapt to this, and it took some time for me to get used to this," while participant 10 believed that "He used to come to class prepared with a hard copy of the notes". At the same time, even though many students liked receiving their study material online, some students preferred taking notes during the class as they thought they made meaning of the content through note-taking. Participant 11 explained, "For me, I miss taking notes during class". In the same way, several students found it challenging to adjust to the method since not all students learn at the same pace.

They take time to shift from the traditional method and adjust to these new methods. Consequently, their contribution to classroom activities can be minimal.

To sum up, the results of this study indicate that the participants were comfortable in the flipped classroom setting, and it helped most students to become confident and active learners. As cited by Jamaludin et al. (2014), past research has confirmed that students' behavioural, emotional, and cognitive engagement helps them to make academic progress and to have a more motivationally supportive learning environment. The findings of the study confirm that students' behavioural, emotional, and cognitive engagement is enhanced when using a flipped classroom. This indicates that the students were more emotionally engaged with the course materials provided, and as a result, they felt interested in the class, enjoyed the learning activities, and had fun while getting involved in the tasks. This was followed by their behavioural engagement when the lecturer directed them to the activities in class, and the students listened carefully, paid attention, tried hard to do well, and participated in the class activities (Jamaludin et al., 2014). Furthermore, when the lecturer assigned the tasks in the classroom, the students were cognitively engaged by trying to make connections with their own experience and connect the ideas with what they had prepared at home. Thus, many students believed that the flipped experience provided them with new skills that they believed were needed for their future, and the learning success was noticeable in their engagement and performance in the class.

## **Conclusions and Recommendations**

The study attempted to identify the impact of the flipped classroom model on student engagement with a sample drawn from the first-year undergraduates who learn the Principles of Management course. The study utilized a qualitative research approach to collect data with the focus of explaining the subject matter in detail. For data collection purposes, 61 respondents were selected

for the questionnaire. Direct observations and 20 semi-structured interviews were also held for an in-depth understanding of the subject. The findings suggested that the flipped model is a good method that can be used to increase student engagement.

More specifically, within the modern technological paradigms, the flipped model is a novel way of getting student engagement. Moving beyond the traditional teacher-centered learning methods, the flipped model offers a greater engagement from the students, in which the student holds a large portion of the responsibility for learning. As per the findings of the study, lecturers should provide the necessary environment and engagement activities for students to learn by themselves by providing necessary guidance for students. Based on the direct observations made in the physical classroom, introvert students who are not very social in the classroom do not like to engage in classroom activities with other students. They may still prefer the traditional teacher-centered classroom method and prefer to take notes on what his/her lecturer says. On the other hand, extroverted students are more likely to engage with classroom activities, and they like the flipped model. Therefore, based on the findings of the study, it can be suggested that the flipped model is a novel method to induce students' engagement.

Empirical studies inherently hold some limitations. Considering this study, the sample size is too small to generalize the findings to the entire population. On the other hand, the study is basically targeted at a sample drawn from the Open University of Sri Lanka and students who are learning a specific theory-based course. Future researchers could tap the same concept using different universities and a subject to find out whether the findings differ.

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