

# EXAMINING FLIPPED LEARNING IN ENTREPRENEURSHIP EDUCATION: OPPORTUNITIES AND CHALLENGES

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## ABSTRACT

*The study is based on a qualitative approach using open-ended questionnaires with students purposively selected on researcher's convenience. It aims at examining opportunities and challenges of flipped learning in Entrepreneurship Education. 16 students were given open-ended questionnaires to complete on their perspectives on flipped learning in their class. Data was analysed using themes formed from students' responses. The results revealed that flipped learning creates independence on students that they are able to control their learning. The results of the study also revealed that flipped learning helps students to digest the content at home at their own pace engaging with the content or materials without a teacher. It is also important to those who are absent because they are able to catch up for the lost time. The study results further revealed that flipped learning helps students retain the materials for longer. However, the study revealed that students rarely go through loaded materials and owing to the fact that one does his or her work without a teacher or facilitator. One of the challenges is that not all content can be learned without a teacher in-front and it becomes difficult for those who would be struggling to understand and gain any skill such problem solving. It was also found that it is very expensive for students to access internet. Finally, they hardly have time to look at the loaded materials because of the family activities they have to do as well.*

**Keywords:** Flipped learning, Entrepreneurship Education, Independence, Internet Connection, Facilitator.

## INTRODUCTION

The 21<sup>st</sup> century has brought a number of changes in all social levels caused by access to information during and after Covid-19 pandemic forcing both students and teachers to do online teaching and learning. These changes have a direct impact on education systems encouraging them to integrate the use of Information Technology (IT) in their curricula. These changes had also made teachers to be more flexible to try new teaching methods approaches that suit the existing situation (van Wyk, 2021). On the other side, these changes have helped students to become autonomous in their learning, continuing to develop even beyond university live and in their workplaces in future. In some secondary and post-secondary education, these new approaches remain as practice especially in Entrepreneurship Education class. In Entrepreneurship Education class, students are expected to be effective decision-makers and analysts in their businesses and workplaces. Subsequently, they can only learn best when they are active and immersed in the teaching and learning process which stimulates their curiosity as they ask questions and debate in and outside the classroom (Nerantzi, 2020). Therefore, for teaching and learning process to effectively take place, there is a need for action than just telling

and listening, hence teaching and learning has to focus on creating opportunities for students to discuss, debate and inquire as a way of taking active part in the process. As online learning did not require infrastructure, post-secondary education had an opportunity to expand to more flexible learning approaches that mix or combine pre-recorded materials and other appropriate resources through online and deliver to students to do outside class (Caleb et al., 2020). One of those innovative pedagogies that have received attention is flipped learning which mixes both traditional and online learning engaging and supporting students in a blended environment. Unlike the simple online teaching and learning, flipped learning tries to reduce the burden experienced by students during covid-19 by trying to reach individual student through personalized learning. While these previous studies have made contributions to the implementation and benefits of flipped learning in the classroom, none of them have focused on its benefits in 21<sup>st</sup> century skills developed in Entrepreneurship Education class (Caleb et al., 2020). In the light of this, this study aims at examining importance and challenges of flipped learning in Entrepreneurship Education class. The study mainly focuses on development of 21<sup>st</sup> century skills, opportunities as well as the challenges of flipped learning in Entrepreneurship Education.

## RESEARCH METHODOLOGY AND DESIGN

The study is based on a qualitative approach using open-ended questionnaires sent to students to complete and return in two days through email (Leavy, 2017). 16 first year students were selected in terms of convenience as they are within researcher's confinement and its power in eliminating some practical constraints, such as geographical location, this sampling method was adopted in this study (Leavy, 2017). These open-ended questions allowed students to express their feelings on how they perceive flipped learning (Creswell 2014). Data collected was analysed forming themes (Creswell & Clark, 2018). These results showed themes that matched against the research objectives and literature. The analysed data showed a number of benefits that students gain from flipped learning.

### Self Determination Theory (Sdt)

The study is framed under Self-Determination learning theory developed by Deci & Ryan (2008). It focuses on the role of motivation in the learning process. According to them, learning is dependent on motivation which in turn depends on how well the cognitive needs of competence (mastery of knowledge and skills), autonomy (need for control, independence) and relatedness (social belonging). They explain that there is a complex relationship between intellect, ability and motivation. A flipped classroom is likely to satisfy the needs of autonomy and relatedness as a student centric flipped classroom provides opportunity for students to take a lead in designing and implementing the flip as well as be part of groups in problem solving and active learning through collaboration. SDT also makes a distinction about different types of motivation—*intrinsic* and *extrinsic* and how it relates to learning. Flipped classroom is more likely to enhance *intrinsic* motivation among students by allowing them opportunities for autonomy, competence allowing for extensive pre flip meetings with student groups to fill conceptual gap and relatedness, making them work in groups that they self-select.

## LITERATURE REVIEW

An extensive review of literature has been done reflecting the effectiveness of flipped learning among students in teaching Entrepreneurship Education. Flipped learning is defined by Caleb et al. (2020) as an approach that engages students in online learning activities meant for their consumption on their own time, opening class time to individual support and higher-level engagement with the concept. Alternatively, it is defined as an approach that involves the use of technology, providing audio-visual learning materials to students in advance to prepare for discussion during face-to-face class time (Cevikbas & Kaiser 2020; Han & Røkenes 2020). Conversely, Han & Røkenes (2020) articulate that students often watch these short video clips or slides related to the course they are doing or reading the materials, analyzing and comprehending it outside class as a preparation for coming class. This shifts learning to student-centred approach as students explore given content on their own, inquire about the content, interact with one another in hands-on activities and check their skills by applying knowledge learned from the class to real world situations (van Wyk, 2021; Sakulprasertsri, 2017). Hence, development of 21st century skills as real classroom activities are related to world outside school. Students become the agents of their own online learning and that increases time for a teacher to deal with individual student during class and actively act as facilitator or mentor to students (Fung et al., 2022). This means teacher's time for telling or lecturing is reduced as more time is spent on offering support and discussion of the concepts with students rather than lecturing. Teachers also have more opportunities to give feedback on each learner's learning progress and help clarify some misconceptions from learning at their own pace (Fung et al., 2022). The class discussions are focused on improving understanding of the course core issues and sometimes on controversial topics as problematic issues dealt with in class. Since it involves students actively in their learning, Han & Røkenes (2020); Shao & Liu (2021) consider it as a model that moves most of the teacher-centred instruction out of the classroom to free up time in the classroom for more student-centred learning activities which is relevant to the teaching of Entrepreneurship Education.

Flipped learning plays a significant role in helping students gain the 21st century skills. As indicated earlier, it helps students learn at their own pace, given materials outside class and this gives them control over their learning and ability to control their time which matches their own personal activities (Fung et al., 2022). Unlike the traditional teaching, each student is able to absorb and understand the new content at own given time and pace as they can revisit it for clarity, ask questions during in-class and preparation for examinations or tests in advance. Hence, flipped learning supports autonomous learning, self-efficacy, personal and optimal learning opportunities for all students (van Wyk, 2021). Flipped learning encourages students to prepare before class as they engage with content before class hence prepare ideas for discussions and questions if any. This helps them to shape their session as well as nurturing their responsibilities because they are flexible to choose when and where to learn. Moreover, it enhances interaction and engagement among students and teachers in learning through application and practice (van Wyk, 2018). Hence it helps in development of the 21st century skills needed in the workplace.

Sun et al. (2018) attest that it increases digital literacy levels and application of students' learning experiences which are the higher order skills for Entrepreneurship Education. Fung et al.(2022) articulate that it increases students' higher-order thinking capacity and promotes peer-to-peer interactions, academically as teachers give them some work to do at home, at their own time and place, flipped learning increases time for teachers to deal each student in class. This also allows students time for collaborating with their peers, so it increases social skills which are needed in the 21st century. Flipped learning encourages problem-solving skills that Entrepreneurship Education students use to develop ways of handling problems. Since more time is spent outside class, teacher's role during class is to tackle misunderstandings of the content by students (Brewer & Movahedazarhouli, 2018). Meanwhile it is a project-based approach which is appropriate for teaching Entrepreneurship Education, a teacher is able to decide on the appropriate content for each session. It also a challenge that it becomes cost-effective because students buy their own devices to do their work at home and this saves time and money for schools to buy these for students even infrastructure. It synthesizes to make meaning by fostering deeper understanding of concepts (Aidoo et al., 2022). Finally, studies show that flipped learning positively increases students' intrinsic motivation and enhances critical thinking and problem-solving skills (Joy et al., 2023).

However, there are factors that hinder the effectiveness of flipped learning. The main challenges that students faced were it required more time and more work and limited preparation time for both teachers and students (Joy et al., 2023). Teachers have to look for content that suit the situation recording and forwarding it ready consumes a lot of time for both teachers. Even students must create time to refer to these materials several times for better comprehension and preparation for face-to-face class. Aidoo et al. (2022) argue that it is difficult for teachers to find videos that are relevant to the content to be taught since not all materials can be learnt through instructional materials without a teacher in-front of class. As a result, students find it not fitting well for students fail to understand these materials or grasp concepts in teachers' absence. Although interaction with peer increases as they share learning experiences, encouraging creativity, it becomes difficult for teachers to monitor and communicate with individual student during group-work. Some students do not afford these devices to do the assignments at home and this results in these students being left behind others. Network connectivity in some areas is very poor making it difficult for other students to get access and engage with the materials given in advance (Aidoo et al., 2022). In an online environment, lecturers carefully need to prepare assignments, take-home examinations and tasks and increases burden for teachers to do all these in a very short span of time hence it creates a negative attitude and unwillingness to change to student-centered pedagogies (Joy et al 2023). Students do not prepare well for the in-class time and those that struggle, cannot keep up with the pace and can easily become discouraged in the learning process. So this gives assurance that flipped learning does not work in every context. It is further argued that it is costly for students to access the assigned tasks as students have to rely on high costs of internet bundles on their phones (Fung et al. 2022).

## **Entrepreneurship Education**

Entrepreneurship Education (EE) defined this phenomenon as the process of equipping learners with an enhanced capacity that will help them to generate ideas and the skills to make

them happen (Ratten & Usmanij, 2021; Jena, 2020). It is argued to foster creative skills that can be applied in practices, education and environments supporting innovation (Wei et al., 2019). It is a skill-based or oriented course that comprises of three distinctive categories of technical skills, business management, and personal entrepreneurial skills. Among all these skills, decision-making, communication, analysis, and evaluation skills play an important role in creativity and innovation (Jena, 2020). It also includes development of social skills that encompasses the ability to work together in a group, communicating effectively amongst these groups. On the other hand, it is steered at developing self-confidence and independence that help one to cope with the future demands of work. Since it is a work-related course, it is embedded in learner-centred approaches where most of the activities are done by students while teacher's role is to facilitate learning.

## RESULTS AND DISCUSSIONS

The study results show that flipped learning has obvious paybacks over the traditional teaching approach. Students reveal that they are able to read and prepare ahead of class as they are provided with the materials before class. Unlike in the traditional approach, students are given materials to read at home (outside class), internalize that and prepare questions for face to face class. As indicated in literature it makes teachers' work easy and simple to attend to each student. Allowing students to read the provided materials before class, helps them to gain presentation skills, self-confidence as well as communication skills which are the skills developed in Entrepreneurship Education and needed in the work places. This concurs with self-determination theory by Deci & Ryan (2008) that learning occurs as a result of motivation and students become motivated to participate in face to face class because they would have prepared themselves for it well. It also coincides with Fung et al. (2022); Ratten & Usmanij (2021); that delivering content to students to do at home increases students' autonomy and they also have control over their learning. They learn at their own time they created, and their own pace which is independence. At this time, they can ask for help from other people (peers) or even making research to get better understanding as preparation to the next face-to-face class. Being able to control own time is characterized a skill developed from Entrepreneurship Education where one has to make decisions for the organisations she or he working for. This agrees with van Wyk 2021 that it increases the higher-order thinking skills gained from Entrepreneurship Education. When teachers rely on using lecture method, students become passive and sometimes lose interest in class.

The study results also reveal that flipped learning helps students retain the materials for longer. Engaging with the materials, reading or watching it for several times helps in retaining the learned material by students and it is unlikely that they can easily forget it. This coincides with van Wyk (2021) that it improves academic performance because student can spend more time and rewind it several times and even for preparation for tests and examinations. Similarly, this approach is not limited to the acquisition of the knowledge in Entrepreneurship Education only rather can be applied to own life as the subject is practical hence students give practical examples. These accords with Sun et al. (2018) that the pre-flipped materials can be used as referral in preparation for tests and examinations as students can revisit such materials several times as revision. These results also match self-determination theory that prior knowledge remains as the basis of the development of cognitive maps for students and is likely to be applied later in their lives or workplace.

The results further showed that flipped learning promotes student-centred learning where they all participate during face-to-face meetings and that they do not feel pressurized to take part. Unlike in traditional class, only teachers know what is going to be discussed in class and only those with idea take part. In that way, it is considered an approach relevant in the teaching of Entrepreneurship Education. It coincides with Sakulprasertsri (2017) that shifting learning to student-centred approach gives students to explore given content on their own, inquire about the content, interact with peers well ahead of class and are able to apply gained knowledge in real world. Applying knowledge gained in real world situations verifies relevance of Entrepreneurship Education in the 21<sup>st</sup> century. The results show that flipped learning further helps even absent students with content material and are likely not to be left behind. Providing students with content ahead of class through internet at the comfort of their homes, leaves no student missing the content.

It was also revealed from the study results that as materials are sent through network, students are able to read from anywhere and this lessen content for both teachers and students because more content is sent through and done at home. This is the time when creativity, high order skills and communication skills are being developed. This concurs with Fung et al., (2022) that teachers also have more opportunities to give feedback on each learner's learning progress and help clarify some misconceptions from learning at their own pace. Since students engage with class material outside class at their own home, they grasp it, collaborate with their peers when need rises and use class time to ask for clarification of the questions they prepared which teachers have to attend to. This influences teachers to attend to individual student's problem during this time. This concurs with Shu & Huang (2021) that students have time to externalize the content and create knowledge in their own language during the teaching process and this helps them to take active part in-class. Study results further revealed that network sometimes is not accessible because of poor network connection. Poor connection in some areas result in some dragging behind because of connection cut offs and failing to link all parts of the lesson. Poor network connectivity is also making it difficult for other students to get access and engage with the materials given in advance.

This proves what Aidoo et al. (2022) showed that students experience poor network connectivity in certain areas and homes, make it difficult for students to access learning materials and even to do more research as part of learning. This is what most authors refer to it as autonomy. Sometimes it is expensive to buy data and connection devices by students. If they cannot connect or face some problems for some reasons, students cannot access the assigned tasks as they have to rely on high costs of internet bundles on their phones or laptops (Fung et al. 2022). Results also showed that students hardly have time to look into the delivered materials before coming to class because some of them are working during the day and hardly get excess time for their school work. Although interaction with peer increases as they share learning experiences, encouraging creativity, it becomes difficult for teachers to monitor and communicate with individual student during group-work. This was echoed by Aidoo et al. (2022) in their study that network connectivity in some areas is very poor making it difficult for other students to get access and engage with the materials given in advance. Sometimes it occurs as a result of electricity outreach in some areas where there is no electricity at all and this becomes obstacle for learning for some students for they are not able to charge their devices.

It increases overload of students because their given too much content to do at home or even during their work time. It becomes a main challenge that students faced where it required more time and more work and limited preparation time for both teachers and students. This

agrees with what Joy et al. (2023) indicated in literature. Study revealed that students rarely go through loaded materials and owing to the fact that one does his or her work without a teacher or facilitator, they might be lazy to do their work at home knowing that everything will still be dealt with in class. Students do not prepare well for the in-class time and those that struggle, cannot keep up with the pace and can easily become discouraged in the learning process. Sometimes students do not do their work at home because they have other family activities they have to attend to and this may hinder them to watch or read such materials.

Study results further showed that it is difficult to understand the materials without a teacher in-front. In other words, as better understanding serves as a foundation on which students can connect and extend their knowledge to other aspects failing to understand these materials given in advance may also fail to boost creativity. Hence skills that are expected to be developed in Entrepreneurship Education are not. This corresponds to Joy et al. (2023) that it becomes difficult to comprehend content because they come across it for the first time and are not familiar with it. Hence do not prepare well for the in-class time and those that struggle, cannot keep up with the pace and can easily become discouraged in the learning process. Failing to keep up with content during face-to-face interactions demotivate other struggling students and their performance is affected negatively. It also tells that flipped learning does not work well with every content as indicated earlier. It concurs with what Aidoo et al. (2022) argued that it is difficult for teachers to find videos that are relevant to the content to be taught since not all materials can be learnt through instructional materials without a teacher in-front of class.

## CONCLUSION

Flipped learning is viewed by students as an approach to teaching where materials to be discussed during face-to-face class is delivered in advance for them to watch or read. It reduces teaching time as class time is used to attend to individual student's problems or clarification when needed. It is argued as creating independence as students read, watch materials given on their own, internalize it and even prepare questions for face-to-face if they are not clear. It helps them digest the content at home at their own pace engaging with the content or materials without a teacher. Hence, it creates autonomy as students are responsible for their own learning, gaining skills that are demanded in the 21<sup>st</sup> century. Dealing with this material, that is, reading, re-reading it helps students retain it while on the other hand encourages or promotes student-centred teaching. It also important to those who are absent because they are able to catch up for the lost time, as content is sent to them and are not left behind.

However, not only flipped learning is an important approach in the teaching of Entrepreneurship Education but have some challenges. One of the challenges is that not all content can be learned without a teacher in-front and it becomes difficult for those who would be struggling to understand to gain any skill such problem solving and even applying it to other aspects. Sometimes, there is poor network connection that result in other students' areas that prohibit them to participate fully. It was also found that it is very expensive for students to access internet because they have to buy data bundles for their laptops and phones as well as buying devices such as phones or laptops. For those who are working, they hardly have time to look at the materials even though they are delivered in time and this means they feel overloaded.

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