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Students' Perspectives of Flipped Classroom Strategy in Undergraduate Classes at King Abdulaziz University

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Abstract

The flipped classroom, in which students obtain first-exposure learning before class and practice what they have learned in class, is becoming popular at higher education institutions and may lead to many benefits for both students and faculty. However, the adoption of the flipped classroom for undergraduate students in Saudi higher education has not been much discussed in the existing literature. This research aims to investigate students' perspectives concerning their flipped classroom strategy experiences at King Abdulaziz University. A qualitative design is used to identify possible themes that influence the effectiveness of flipped courses. This study's findings may offer faculty a deeper understanding of how students perceive flipped classrooms to get prepared and to what extent this teaching strategy is beneficial. Finally, the study provides recommendations that may affect students and faculty at Saudi higher education institutions.

Keywords: flipped classroom, inverted classroom, reverse instruction classroom, teaching strategy, teaching method, university teaching, undergraduate studies.

Students' Perspectives of Flipped Classroom Strategy in Undergraduate Classes at King Abdulaziz University

In the previous decade, educators have undergone radical developments, particularly in regard to how they make learners more active in their learning environments (Ferrer & Martínez, 2022). Furthermore, as technology has grown and infiltrated our classrooms, novel learning strategies have been developed with its support (Ferrer & Martínez, 2022; Ölmefors & Scheffel, 2021). These strategies may move away from a teacher-centered approach to a more engaging student-centered approach (Akçayır & Akçayır, 2018). The flipped classroom strategy, a teaching and learning strategy, has become popular as a possible alternative to “teacher-center” instruction and has gone beyond simply enhancing lectures (Jeffries et al., 2022; Palazon-Herrera & Soria-Vílchez, 2021).

Because more students can access technological tools and the internet inside and outside classrooms (Oliván-Blázquez et al., 2022; Ölmefors & Scheffel, 2021), the flipped classroom has become more prevalent (Ferrer & Martínez, 2022; Walker et al., 2020). Over the last three decades, the flipped classroom has become popular in higher education and has been developed and explored in various disciplines (Ferrer & Martínez, 2022; Öncel & Kara, 2019; Ölmefors & Scheffel, 2021) such as science, the social sciences (Oliván-Blázquez et al., 2022), the humanities (Deslauriers et al., 2011), business, and health sciences (Verdonck et al., 2022).

Although researchers have begun to explore this instruction strategy, many factors related to the flipped classroom are yet to be investigated. These include specific strategies for out-of-class activities, in-class technologies and strategies, faculty training, and student perspectives. Student perspectives are a critical factor in providing unique opportunities for insights into whether the practices of the flipped classroom have successfully met instructional objectives. These practices play a crucial role in promoting student attitude, understanding, and motivation for the learning process. Thus, this paper investigates how students perceive the flipped classroom experience and what its influence on learning is.

Literature Review

Definition of Flipped Classroom

The flipped classroom (sometimes called inverted or reverse instruction classroom) implies a reversal of the traditional classroom setup and a switch between this traditional classroom instruction and homework (Zhang, 2022).

The flipped classroom has been defined as follows:

A pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter. (The Flipped Learning Network, 2014, p. 1)

Based on this definition, Moran and Milsom (2015) discussed some fundamental features of the flipped classroom. First, faculty members should pay more attention to the appropriate knowledge to motivate students' self-learning with online materials and what is the best areas for transformation within the classroom through active learning (AL) strategies. Another key feature is the faculty's responsibility to work on moving from a learning environment that is teacher centered to one that is student centered while concentrating on addressing the needs of each student. The final feature is an emphasis on creating a flexible learning environment that enables faculty to meet different student learning preferences.

Design of Flipped Classroom

The flipped classroom turns the traditional classroom on its head, delivering lectures online outside the classroom and moving homework into the classroom (Jeffries et al., 2022; Stein & Graham, 2020). Thus, the conventional in-class and out-class activities are reversed (Öncel, Kara, 2019). However, there are no fixed guidelines on how many or how few activities or materials should be used for flipping, so the flipped classroom structure can vary dramatically (Öncel, Kara, 2019).

In the flipped classroom format, students should be exposed to knowledge by themselves,

they should be taught asynchronously, and the teaching should be completed before class (Jeffries et al., 2022; Yu & Gao, 2022). This knowledge should come from digital resources (audiovisual or written) that students can use to investigate, understand, and study curriculum topics independently (Ruiz-Jiménez et al., 2022). Examples of online activities are assigned reading, podcasts (“audio-only recordings”), videos (Jeffries et al., 2022; Walker et al., 2020; Yu & Gao, 2022), narrated presentations (Öncel, Kara, 2019), study guides, prerecorded lectures, and simulations and cases (Ruiz-Jiménez et al., 2022). Then, class time is devoted to student-centered learning activities where students should be actively involved to fully enjoy the advantages of the course content (Walker et al., 2020; Öncel, Kara, 2019). Examples of in-class activities are practice exercises, projects, group discussions (Jeffries et al., 2022; Yu & Gao, 2022), presentations, role-play, debates (Ruiz-Jiménez et al., 2022), quizzes (Öncel, Kara, 2019), and hands-on activities (Li et al., 2022).

Theoretical Foundation of the Flipped Classroom

The theoretical framework for the flipped classroom has been derived from the nature of the interaction between students and faculty members (Fattah, 2017). First, the flipped classroom is a sort of **blended learning** (BL) strategy that mixes the delivery of face-to-face instruction with online learning instruction (Alsowat, 2016). The desired goal of BL is to maximize the

benefits of both onsite and outside classroom experiences in an integrated way (Aldosemani et al., 2019).

Second, the foundation of the flipped classroom is AL, which refers to any instructional methodology that engages students in the learning process (Fattah, 2017, Oliván-Blázquez et al., 2022). The main objective of AL is to generate a high standard of student involvement, dynamism, and interaction with course content (Oliván-Blázquez et al., 2022).

Third, personalized learning (PL) has excellent potential in flipped classrooms to fit each student's unique needs (Ruiz-Jiménez et al., 2022). The fundamental purpose of PL is to meet educational requirements, which should be tailored to students' learning preferences and specific interests (Keller, 1968).

Opportunities of the Flipped Classroom

There is a great deal of excitement about the opportunities that the flipped classroom presents for students. In the flipped classroom, students are provided with learning content before the class and must prepare in advance (Hoshang et al., 2021; Zhang, 2022). Thus, students are free to learn the content at their own pace, take breaks, go back and forth, and pause and review their learning (Hoshang et al., 2021, Öncel, Kara, 2019). Additionally, the implementation of the flipped classroom provides students with a variety of digital learning resources appropriate for their learning preferences. Personalization is achievable because the

learning environment is adjusted to meet the needs and preferences of students and help them overcome their learning obstacles (Walker et al., 2020).

During class, students practice and apply what they have learned and receive immediate assistance and feedback from faculty and classmates. This encourages class participation (Playfoot, 2021; Walker et al., 2020). Ideal utilization of the flipped classroom provides students with different active instructional practices through collaborative projects, discussion, debates, and so on (Playfoot, 2021). These practices motivate students to reflect on their learning activities, allowing them to gain confidence in what they have learned (Playfoot, 2021) and to teach each other with the guidance and support of their faculty (Jeffries et al., 2022; Walker et al., 2020). Therefore, students reach the ultimate goals of their learning objectives and obtain deep knowledge that improves their academic performance (Beek, 2021; Jeffries et al., 2022; Playfoot, 2021; Walker et al., 2020).

To sum up, the flipped classroom focuses on encouraging students to be active (Playfoot, 2021; Yu & Gao, 2022), responsible (Hoshang et al., 2021, Walker et al., 2020; Öncel, Kara, 2019), and motivated (Zhang, 2022) in their learning environment.

Challenges of the Flipped Classroom

Despite the opportunities the flipped classroom provides, students encounter some barriers to its adoption. First, some students disengage from preclass learning. They do not adapt to this learning strategy and ignore the pre-class materials (Lo & Hew, 2017). However, class

time is successful with students' participation in what they have learned from the lectures at home (Lo & Hew, 2017) and a failure with poor participation (Jeffries et al., 2022). There is no way of guaranteeing that students will prepare for class beforehand (Wang, 2016). However, Lo and Hew (2017) stated that faculty can discuss the flipped classroom strategy with students to provide them with a comprehensive description of the strategy's requirements at the beginning of the semester. Further, faculty can require participation through "mandatory attendance policies" or ensure that preparing for class contributes to student grades (Jeffries et al., 2022, p.66). Jeffries et al. (2022) recommended conducting a short quiz at the beginning of the classroom session or an online assessment that addresses the key points of the content learned in the preparatory session and that counts toward the students' grades.

Another key challenge is that some students could think this strategy increases their workload. They have to learn new concepts by themselves, which can take time and overwhelm them before class even starts (Wang, 2016). Some students are highly likely to give up on their required activities if they find the activities particularly formidable (Walker et al., 2020). Faculty can resolve this issue by designing flipped classrooms for specific lessons. The most difficult content can be addressed in a classroom session (Jeffries et al., 2022).

Additionally, students may not ask questions immediately while learning the content, so they should be provided out-of-class support. Faculty can conduct online discussions where

students can post their questions. This will give students an opportunity to conduct discussions with their faculty and peers.

Some students may not be able to pay attention to their learning materials because they are “long, boring, and passive” (Lo & Hew, 2017). Therefore, faculty may identify and assign readings from concise learning materials such as “review articles or textbook chapters.”

Alternatively, they may create handouts with specific explanations that are most relevant to the curriculum content (Jeffries et al., 2022, p.64). Regarding audiovisual resources, Guo et al. (2014) advised faculty to apply the “cognitive theory of multimedia learning” to guide students on productive lectures of appropriate length (such as 20 mins). Students’ engagement average time of perception knowledge from multimedia is 6 mins. Beatty and Albert (2016) stated that the best duration for recorded lectures is unclear; however, it is a good practice to ensure the duration is not more than 15 minutes. Students prefer shorter recorded lectures.

It is extremely challenging to make a flipped classroom work effectively when students do not have access to computers and the internet to work with online learning materials. This lack of access to technology could be for “geographical or socioeconomic reasons” (Sota, 2016). To deal with the issue, faculty can advise students to use computer labs on campus or borrow laptops from student services. Faculty can also save copies of learning materials in flash drives or DVDs for students who have restricted access to the internet at home (Lo & Hew, 2017).

Students should have the opportunity to voice their concerns about “infrastructure, resources, access, and training for the use of technology” (Walker et al., 2020, p. 9) to have an effective flipped classroom experience.

The Study Problem

The flipped classroom has been envisaged as a significant teaching strategy in the higher education field. Many analyses of flipped classes have been conducted in the context of worldwide higher education, but little rigorous evidence exists concerning the effectiveness of learning in flipped classrooms in Saudi higher education.

Therefore, faculty members need a deeper understanding of how students perceive the flipped classroom and its impact on their academic performance. Thus, this qualitative study used a phenomenological research design with the aim of describing undergraduate students’ lived experiences of the flipped classroom.

Phenomenological research explains the core of an occurrence or phenomenon by examining the views of people who have experienced this phenomenon (Creswell & Poth, 2018). This study’s phenomenological design offers the possibility of conducting a comprehensive review of student observations about flipped classroom strategy. Thus, this study focuses on students’ views of the flipped classroom’s influence on their learning.

Research Questions

The research questions for this study are organized into one central research question and one related research question. The central research question is as follows: What are undergraduate students' lived experiences of the flipped classroom? The related research question is as follows: How do students perceive the flipped classroom's contribution to their learning in undergraduate classes?

Ethical Considerations

All participants were asked for informed consent and notified of their right to withdraw their participation at any stage of the research. Participants' identities were kept confidential, and any identifying markers related to their grades were excluded. They were given the opportunity to choose the day and time of their interviews. Participants also had the opportunity to review their transcripts and clarify or retract any statements before the data analysis was conducted.

Data Collection

Data were collected to better understand the phenomenon of the flipped classroom based on the lived experiences of students in university thinking and learning skills courses. Participants were administered a short online survey via email and interviewed to elicit their opinions about how the flipped classroom model affects students' attitude, understanding, and motivation. The purpose of the online survey was to ask demographic and general personal experience questions. The interview, meanwhile, aimed to obtain in-depth responses about students' experiences in their own words and to provide them an opportunity to read verbal and

nonverbal cues. The interviews were recorded, and the audio recordings were transcribed in Microsoft Word. From these data gathering tools, four categories of overall student perceptions were coded: flipped classroom features, attitude, understanding/comprehension, and motivation.

Sample Size

Qualitative researchers should strive to recruit participants who meet the study criteria and who represent the richest and most complex source of information relevant to the phenomena being studied (Denzin & Lincoln, 2005). For this study, participants who experienced flipped learning at the College of Science & Art, Business at King Abdulaziz University in Saudi Arabia were chosen (Table 1). This ensured that students had sufficient background knowledge to share their perceptions about flipped learning (Table 2).

Table 1

Background of All Participants in the Online Survey

Age	19–24
Level	Sophomore, Junior, Senior
College	Science & Art, Business
Flipped Classroom Experience	0–3 courses

Table 2

Background of Participants in Interviews

Name	Age	Level	Major	Flipped Course Experience
Alanoud	20	Sophomore	Translation	3
Fai	22	Junior	Law	2
Nada	20	Sophomore	Finance	2
Nouf	21	Junior	Management Information Systems	1
Rawan	21	Sophomore	Accounting	1
Reem	23	Senior	Physics	2

Data Analysis

Once all online surveys and interviews were completed, data were coded to identify relevant themes. Data were analyzed from the interview transcripts according to the steps Creswell and Poth (2018, p. 79) provided for phenomenological research. Creswell and Poth proposed a four-step method for phenomenological data analysis. This method encompasses using data from research questions. Data analysts go through interview transcriptions and highlight “significant statements,” sentences, or quotes, and the investigator produces groups of

meanings from these major declarations into themes. By following these steps, the transcripts in this study were analyzed and coded for common themes.

Online Survey

The purpose of the online survey was to ask demographic and general personal experience questions. Data on age, subject of flipped course, and experience level were gathered via e-mail.

Interviews

The aim of the interview was to obtain in-depth responses on students' experiences in their own words and to read their verbal and nonverbal cues (Appendix A). A total of 50 students completed surveys, and six participated in interviews. The interviews were conducted one on one. The interviews ranged in duration from 45 to 75 minutes. Students with different experiences of flipped course and different majors gave interviews. Using the data gathering tools, seven categories of overall student perceptions were coded. The data were coded by using a coding dictionary to identify relevant themes.

The related research question was, "How do students perceive the flipped classroom's contribution to their learning in undergraduate classes?" The primary purpose was to identify some of the themes that influenced students' perceptions. Seven prominent themes emerged: (1) accessibility and availability, (2) achievement, (3) assistance, (4) communication, (5) engagement, (6) learning preferences, and (7) learning process (Appendix B).

A) Accessibility and availability of resources: Participants shared their experience of how easy or how difficult it was to access digital resources via the learning management system (LMS). Some students mentioned that the internet and computers were everywhere, and they could access learning content at any time. The out-of-class materials were simple to access and available all the time through the LMS (Blackboard). Nouf mentioned, “Digital resources were available and easy to reach.” Some students faced challenges in accessing the materials, however. Rawan pointed out, “The internet speed inhibited me to watch the recorded lecture in my home.” Participants appreciated the availability of resources at LMS when they were absent because of illness or any other issue. This helped them catch up on missed lectures. Fai mentioned “not to fall behind when absent.” She added, “It was great to stay on track with the class.”

B) Achievement: Participants’ responses revealed that the class built their confidence. They learned the content before the class and participated in learning activities during class, which facilitated their learning and enhanced their academic achievement. Reem mentioned, “I got positive academic results.” Alanoud said, “I examined the content topics thoroughly before class and did extra practice in the class, so I could understand the lessons and do my best in the assessment.” Most participants witnessed development in not just their grades but also their different skills throughout the course taught using the flipped classroom method. Rawan said, “I am being a self-regulated learner.” Alanoud added, “Becoming a centered student encouraged to

participate well in lessons.” Fai stated, “The strategy supports me become more accountability and take control of my own learning.” Participants felt positive about learning content using the flipped classroom strategy. Nada stated, “Learning became more enjoyable, useful, achieving.”

C) Assistance: Participants discussed the pedagogical support and technical support provided to them. They mentioned that during online sessions, they could post questions and discuss them with instructors and peers after watching recorded lectures via the discussion board in Blackboard. Some students faced technical challenges such as navigation of the LMS, lack of high-speed internet connections in rural areas, deficiencies of their computer devices, or their lack of digital literacy skills. Rawan pointed out, “The internet speed inhibited me to watch the recorded lecture in my home.” Fai stated, “I receive immediate assistance from instructor and classmates online.” Alanoud added, “Peers and instructor aid me when facing technical problem.” In class, participants pointed out they obtained assistance and feedback easily from instructors and peers, which improved their understanding of the study topic. Nada stated, “I got comments from instructor when practicing in classroom session.” Participants agreed the online sessions would be difficult without any technological support or guidance from their instructors.

D) Communication: Participants indicated that group interactive activities inside (in person) and outside (online) the classroom were appealing. They had further opportunities to interact with their classmates and instructors, which made the learning environment prolific and meaningful. Nouf said, “I received plenty of response from peers who also attended online

discussions, which were valuable to address my weaknesses.” Alanoud mentioned, “I could clearly express my understanding and refer to other classmates’ opinions.” Participants stated that individual activities conducted during class with constructive feedback from instructors were appreciated. Reem remarked, “Me and my instructor work together to complete the activities.” Students noted that they could deal with complicated problems and share their opinions with instructors and classmates through their social interactions. Nada stated, “I collaborate with my classmates.” Rawan stated, “We teach each other with the guidance of instructor.”

E) Engagement: Participants reported on the recorded lectures and forms of learning activities they liked during online and classroom sessions. They stated that the instructional lectures were short and useful and employed multiple sensory channels such as words, sounds, and pictures. This made information processing more effective. Fai articulated, “The lectures provided by instructor arouse my interest; there were helpful photos, colors, graphs.” Many students stated that in-class activities such as, discussions, debates, and hands-on activities motivated them to state their views and helped them focus on understanding concepts. Rawan mentioned, “I usually am involved in different activities; I enjoy the hands-on activity.” Alanoud stated, “I am fascinated by discussions; they give me inspiration to talk.”

F) Learning preferences: Participants shared their views about proper representation of learning materials and types of representation. Participants noted that their instructors combined visual and verbal representations in the learning materials. Nada mentioned, “I read the

instructor's brief notes that accompany the recorded lectures.” Nouf said, “I like to pick up and read the instructor note before watching the lecture.” Rawan stated, “I prefer to listen to my instructor's voice.” Participants mentioned that both audiovisual and written resources enhanced their understanding. Fai stated, “Having text, images, audio, and graphics enables learning.” They agreed that additional ways to present the same content were needed to match their learning preferences.

G) Learning process: Participants talked about how they learned by implementing the flipped classroom strategy. They stated they gained knowledge and understanding of concepts before going to class, which made them feel more motivated and active during class. They pointed out that it was helpful for them to obtain knowledge through self-pacing. Nouf mentioned, “I work on content based on my own pace.” Nada said, “The strategy helped me to learn on my own.” Fai stated, “Using the pause and rewind buttons was convenient.” Reem stated, “I independently review recorded lectures and the accompanying instructor notes for homework and exams at home.” Participants also claimed the instructors conducted different productive learning activities both individually and in teams during class. Students agreed that they benefited from these activities and from the chance to receive feedback from their instructors and peers. Rawan said, “There is time in class to discuss topics.” She added, “Implementation, analyzing, synthesizing, or evaluating activities are beneficial.” Alanoud

added, “Different practical activities are reached in the classroom session to reflect what we have learned.”

Discussion

The research question focused on determining students’ experiences with flipped classroom in undergraduate classes.

The related research question was, “How do students perceive the flipped classroom’s contribution to their learning in undergraduate classes?” The question was answered using findings from the surveys and interviews. The data were analyzed for recurring themes, revealing seven closely related themes: (1) accessibility and availability, (2) achievement, (3) assistance, (4) communication, (5) engagement, (6) learning preferences, and (7) learning process.

Accessibility and availability of resources was a major theme. The flipped classroom has contributed to students’ ability to access learning content 24/7 through web-based applications. The content is available at any time to review. Therefore, access to available materials is crucial to students’ learning and to increase students’ comfort level with flipped classrooms. Especially in this digital era, students need readily available technological tools to access learning materials and meet their learning needs. This theme aligns with that in other studies (Palazon-Herrera & Soria-Vílchez, 2021; Verdonck et al., 2022).

Achievement is another key theme. The flipped classroom has contributed to students' achievement based on their positive attitude toward attending courses and achieving better grades. This demonstrates that a positive attitude leads to positive results whereas a negative attitude leads to negative results. The flipped classroom provides students with a satisfactory learning environment that encourages pleasurable learning and major achievements, and provides proper preparation for 21st-century workspaces. This theme aligned with that found by other researchers (Hoshang et al., 2021; Ruiz Jiménez et al., 2022).

Regarding assistance, the flipped classroom has contributed to students' ability to ask for technical and academic support online and during class. An instructor or peer is available to help students with questions online and during class time regarding the course content and technology. This proves that sufficient direction and active support from instructors and classmates are vital to achieve an effective flipped course. Scholars have affirmed that flipped courses should offer students preclass and in-class support and scaffolding through "personalized and diversified instruction" with instantaneous responses (Clark et al., 2022; Huynh & Nguyen, 2019).

Communication is another important aspect to consider. The flipped classroom has contributed to students' communication, including their interaction with fellow students and instructors. This suggests that increasing interactions among students in a flipped course leads to a creative and meaningful learning environment by giving students more opportunities not only

to cooperate with each other but also to robustly absorb learning materials. Scholars indicated that student-instructor and student-student interactions should be encouraged in flipped class (Huynh & Nguyen, 2019; Zhang, 2022).

Engagement is another vital theme. The flipped classroom has contributed to students' engagement through recorded lectures and learning activities. There is a great deal of support for the claim that multiple interesting and motivating recorded lectures, learning activities, and learning resources from different sources positively affect participants' engagement in flipped class. According to Awidi and Paynter (2019), to guarantee this engagement, students must play a key role in the process of learning and must contribute actively to assigned tasks rather than being submissive receivers of information. Educators have reported that the flipped classroom allows higher engagement (Ferrer & Martínez, 2022; Hoshang et al., 2021).

Regarding the learning preferences theme, the flipped classroom contributes to students' learning preferences using a variety of multimedia. Each student has unique learning preferences, so learning experiences tailored to these preferences advance academic performance (Bishop & Verleger, 2013). Faculty may recognize that students have different preferences and needs and may provide them with multiple information formats to enhance their learning (Nebel & Sumeracki, 2022). According to (Chapman, 2022), student learning preferences such as “visual, verbal, social, solitary, physical, logical and aural” (p. 245) preferences should be taken into consideration in flipped courses. The learning preferences theme aligns with other scholars'

assertion that meeting different learning preferences is essential to have a successful flipped course (Chapman, 2022; Nebel & Sumeracki, 2022).

Regarding the learning process theme, the flipped classroom has contributed to students' learning process, namely, their depth of learning and self-based learning. Students understand the depth of their learning through the activities they are requested to do before and during class. Additionally, they have the ability to pause, rewind, and revisit content for review or additional practice. There is a radical change in students' learning process in flipped courses (Nja et al., 2022). Students do not sit passively in class while instructors give knowledge to them; however, students are strongly engaged in the process of education based on their "capacities" and their "uniqueness" (Nja et al., 2022). The flipped strategy fortifies students' prior knowledge before they attend class, preparing them for the more demanding cognitive work during class. In general, at every stage of the flipped course process, learning switches from instructor-centered teaching to student-centered learning (Jeffries et al., 2022; Walker et al., 2020; Öncel, Kara, 2019). In this respect, many researchers concluded that the use of flipped courses was effective in the learning process (Nja et al., 2022; Zhang, 2022).

Conclusion

The findings of the investigation demonstrated that the flipped classroom strategy in art and science courses is generally supported by students. Students were satisfied with their ability to access learning materials at any time and any place. Students had further opportunities

to practice self-centered learning, actively participate in activities, and collaborate with their instructors and peers. They appreciated support for their diverse abilities and preferences, which helped them accomplish greater academic outcomes. Based on the research findings, the researcher offers some recommendations for practice. First, students may need continuous support and training to use technological tools. Students may need to be informed about the process of flipped classrooms. They also have to manage their time and show sustained commitment to flipped classroom instruction. Faculty can provide students with coherent goals for acquiring knowledge and access to learning materials. These learning materials should be “concise” and “focused” to enable students to finish them before coming to class. Faculty may consider selecting activities that require students to engage in higher-level cognitive tasks. Faculty can provide regular, timely, and specific guidance and feedback to students before, during, and after the flipped class to solidify their understanding.

Limitations

Phenomenological studies rely heavily on participants’ ability and willingness to share their own thoughts (Groenewald, 2004). This is one of the most significant limitations of the current study. Moreover, the focus in this study is on six students’ perceptions within one, two, or three classroom settings. These student perceptions cannot be generalized to larger populations or other courses. Another limitation is that all of the data come from online surveys and interviews. However, Creswell and Poth (2018) discuss three other data types of value to

qualitative studies: observations, documents, and audiovisual materials. I believe the researcher's observation notes would be helpful to give depth to the investigation and provide information on the extent to which the flipped classroom provided positive attitude or motivation to students. Finally, translating the interview questions into Arabic is one of the most important limitations. The English ability of some students was weak, so I asked them to provide responses in Arabic. The collected data were then translated into English and interpreted accordingly. It was time consuming and difficult to find the most suitable English translations for participants' Arabic responses.

Implications

Educators may better understand the impact of flipped instruction based on how students perceived their learning and classroom experiences in this study. A better understanding of how students view flipped learning can help with planning of class activities both in and outside the classroom in ways that increase students' attitude, understanding, and motivation for learning. Additionally, instructors can use what they have learned from this study to modify current instructional strategies and improve student acceptance of flipped learning. Finally, students can benefit from this study by adopting best practices for a better flipped learning environment for the next generation of flipped learners.

Plans for Future Research

Findings from this research contribute to the literature on whether students perceive the flipped learning strategy as helping or hindering learning in the education environment. The insights gained from this study can also inform planning instruction. Last, when considering the differences that exist in flipped classrooms vs. traditional classrooms, there are several potential areas for further study.

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Appendix A

Questions' Interview with Participants

1. What was your preliminary anticipation for the flipped course?
2. How well do you feel you are meeting the course requirements?
4. How do you feel about your current progress?
5. In which areas do you feel you have made progress?
6. What has helped maximize your learning in this course?
7. What is your view of the flipped course activities?
8. Is there anything that prevents you from learning effectively?

Appendix B
Coding Dictionary

Initial Codes	Focused Codes	Definitions	Themes	Definitions
<ul style="list-style-type: none"> -easy access to digital resources. -easy to download the instructor's note. -easy to upload assignments. -accessible anytime and anywhere. -view the lecture on a mobile device. -Internet access makes it hard to reach the content. 	Accessibility of resources	Access knowledge via Blackboard easy to upload and download resources.	Accessibility & Availability	The flipped classroom has contributed to the students' ability to access learning content 24/7 through a web-based applications, and the learning content is available at any time to review.
<ul style="list-style-type: none"> -availability of digital resources at all times. -not to fall behind when absent. -stay up with classmates. -stay on track with the class. -required resources are convenient. 	Availability of resources	Having recorded lecture available anytime and anywhere in good connection to the Internet.		
<ul style="list-style-type: none"> -learning become more enjoyable. -useful. -satisfied. - participate well in lessons. 	Positive attitude	A positive feeling about learning content by using flipped classroom strategy.	Achievement	The flipped classroom has contributed to the students' achievement based on a positive attitude and better grades.
<ul style="list-style-type: none"> -achieving -better academic results. -a good grade. -do better in the assessment. 	Better grade	A better grade about learning content by using flipped classroom strategy.		

<ul style="list-style-type: none"> -ask via online discussion. -receive immediate assistance. -instructor and classmates' answers. -comments from the instructor when practicing. -support from peers and instructor. -instructor available. -instructors interact with us. -instructor answers questions. 	Academic support	An instructor or peer available to help students with questions when needed online and in class time regarding the content.	Assistance	The flipped classroom has contributed to the students' ability to ask for technical and academic support during online and class time.
<ul style="list-style-type: none"> -technical problem solved. -difficulties in exploring the content. - digital literacy skills. -the availability of the technological tools. -online sessions seem difficult without technological support 	Technical support	An instructor or peer available to help the participants with questions when needed online regarding technology		
<ul style="list-style-type: none"> -work with the instructor. -social interaction facilitated classroom practice. -social interaction facilitated the online problems. -guidance of an instructor. 	Interaction with instructor	The way the participant /instructor interacted.	Communication	The flipped classroom has contributed to the students' communication based on interaction among students with faculty, and students with their classmates
<ul style="list-style-type: none"> -teach each other with the guidance of instructor. -collaborate with classmates. -plenty of responses from peers. -clearly express my understanding. -refer to other classmates' opinions. 	Interaction with peers	The way the participant/participant interacted.		
<ul style="list-style-type: none"> -engagement lecture. -lectures arouse my interest. -lecture is never boring. 	Instructional recorded lectures	Instructional recorded lectures are engageable that gain participants' attention.	Engagement	The flipped classroom has contributed to the students' engagement based on recorded lectures and learning
<ul style="list-style-type: none"> -involved in the activity. -enjoy the hand on-activity. 	Learning activities	Learning activities are engageable that gain		

-fascinated by discussions.		participants' attention.		activities.
-read the instructor's brief notes that accompany the recorded lectures. -pick up the instructor's note before watching. -match preferences in learning. -audiovisual and written resources. -additional references in need. -having text, images, audio, and graphics enable learning. -I preferer to listen to my instructor voice.	A variety of representation	Diverse representation of resources is effective.	Learning Preferences	The flipped classroom has contributed to the students' learning preferences based on using verity of multimedia.
-learn the concepts before and during class. -feeling more prepared for class. -gain knowledge before class. -reflect learning in class. - productive activities. -doing the activities by myself. -work in a group. -avoiding being a passive recipient.	Depth of learning	Participants refereed to depth of learning to activities that requested before and during class time.	Learning Process	The flipped classroom has contributed to the students' Learning Process based on the depth of learning and self-based learning.
-self-paced strategy of instruction likes a tutor. -work on content based on own pace. -using the pause and rewind buttons.	Self-paced learning	The ability of the participant to pause, rewind, and revisit content soon and later time for review or additional practice.		