Borneo International Journal eISSN 2636-9826; Vol. 5 (2); 2022; 39-45
Published by *Majmuah Enterprise*
www.majmuah.com

Student Perceptions On A Flipped Online Learning Classroom For Auditing Course

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Received: September 01,2022
Accepted: September 04, 2022
Online Published: September 15, 2022

Abstract

The aims of this study are twofold: first to examine student perception of a flipped online learning model used in accounting discipline between student perceptions and student's seniority, achievements and experience in flipped learning. Second, to examine the effectiveness of flipped learning among students enrolling auditing paper. The data set used in this study was collected through a questionnaire survey on students' perceptions of flipped learning adopted from a previous study and students' performance report. An independent sample for equality of means was used to explore the possible association between the variables. The result indicates t students perceived online flipped learning is effective in the learning process. This study also found a significant difference in terms of online flipped learning effectiveness among junior and senior as well as between students who are experienced and non-experienced in flipped learning. This study also found a significant difference in the means subject's achievements between the flipped classroom and the non-flipped classroom. This paper only examines students in their early years' tertiary education. As such, the result of the study is still premature to generalise the effectiveness of flipped learning in andragogy. Further investigation needs to be conducted among the various level of students in tertiary education to examine its effectiveness and challenges. The result of this paper is expected to provide a basis for the faculty and administrator to identify the current need of Melania students and their learning preference. It can also be used by the faculty to review or redesign their curriculum to meet the current information-seeking behaviour of the students. The traditional learning approach needs to be review to ensure the ability to achieve the cognitive, affective and psychomotor goal of education domain among Melania students.

Keywords: Accounting Education, Andragogy, Flipped learning, Online learning, Cloud-based learning

1. Introduction

Over the years, educators in both pedagogy and andragogy have consensually agreed that active learning environments are more effective than passive and lecture dominated learning. Previous studies have shown active learning contribution in enhancing students learning, achievements as well as engagement (Gilboy, Heinerichs, & Pazzaglia, 2015; Missildine, Fountain, Summers, & Gosselin, 2013; Nouri, 2016). Active learning approach called the " flipped-learning model" had been applied in higher education during the past several years. It was initially referred to as "inverted instruction" that focus on more active learning through active students engagement in the learning process (Lage, Platt, & Treglia, 2000). Active learning engages the student to actively participate in interactive discussion, solving application-oriented problems and also group exercises. According to Hwang, Lai, & Wang (2015), the flipped classroom has been recognised by educators as an innovative and effective instructional approach. It overthrows traditional instruction by switching in-class instruction time with at-home practising time. Modern flipped classroom uses information technology in managing the classroom. It includes providing a platform for students to get information about the courses such as course content, learning materials, student assessments and link to other resources (Hwang et al., 2015).

Several studies had profoundly identified the benefit of flipped learning. Through flipped learning, the student is expected to have a general idea of the subject matter before attending the lecture in class. This learning approach consequently has a positive effect on students performance as they became more focus and attentive in a classroom (Albert & Beatty, 2014). However, the success of the flipped classroom depends on several critical success factors. According to Hwang et al., (2015), effective class learning design is very crucial in supporting students to learn across

at home and in the classroom. Other factors that need to be taken into consideration are the characteristics of the students, the educational objective of the flipped learning in meeting the scholarly domain of the particular subject. Excellent infrastructure and infostructure played an essential role in the success of modern flipped learning. It includes integrating the features of online and wireless communication technologies into the flipped classroom model. Such integration has become a success pillar of effective flipped learning due to the current developemnt and information seeking behaviour of the Melania students that very much dependent on information technology in their learning process. The use of leraning managemnt system (LMS) provided by eduacational institution and over the web LMS has been soundly applied in both developing and developed countries. (Hwang, Lai, & Wang, 2015; Talley, 2013; Wang, 2016)

Considering the benefits gained from online flipped learning, this study aims to examine Malaysian students on their perceptions towards online flipped learning. This study investigates students preference on the flipped learning methodology that perceived to be effective in their learning process. This study also examines the effectiveness of online flipped learning in helping them to obtain a good score in their course. In the case, the auditing paper. Findings from this study paper provide a basis for the faculty and administrator to identify the current need of Melania students and their learning preference. It can also be used by the faculty to review or redesign their curriculum to meet the current information-seeking behaviour of the students.

2. Literature Review

Previous studies have shown that the traditional teaching method has become not effective as it limits students absorption of the course content. It is because conventional teaching methods mostly rely on the use of textbooks and lecture notes given by the instructors. With the new development of teaching and learning technology, multiple researchers have introduced several nontraditional teaching methods that are tailored to learners' abilities that were effectively addressing the course objectives. The advancement of online and wireless communication technologies has encouraged an increasing number of studies concerning online learning, in which students are able to learn via online devices without being limited by space and time; in particular, the students can be situated in a real-world scenario associated with the learning content. Several researchers have emphasized the need for well-designed learning support in order to improve the students' learning achievements. It has become an important issue to develop methodologies or tools to assist the students in learning in a online learning environment for improving the learning achievements of the students.

Educators have widely recognised on the use of online and wireless communication technology in flipped learning as an important pedagogic approach in the 21st century (Chaipidech & Srisawasdi, 2016). This approach is very effective as it enables students to be more accessible to knowledge not limited to location, time and level of knowledge. The results of the study showed that students who have learned with the online flipped inquiry learning have better perceptions and engagements than students who are not. This finding implied that flipped inquiry teaching with online technology could be a better pedagogic strategy for engaging high school students into scientific laboratory class than conventional flipped online learning. Also, the integration of online technology into the classroom with effective strategy could enhance students' development of affective domain for learning science. Another study conducted by O'Flaherty & Phillips (2015) reported that the combination of online lectures and the conventional way of learning had stimulated greater involvement in the teaching and learning processes. The results reflected that there is an improvement in academic performance and student and staff satisfaction with the flipped approach.

The flipped or inverted classroom is a new and popular instructional model, in which activities traditionally conducted at the school (e.g., content presentation) become home activities, and events typically constituting homework become classroom activities (Sohrabi & Iraj, 2016). In the flipped classroom, the teacher helps the students instead of merely delivering information, while the students become responsible for their learning process and must govern their own learning pace (Lai & Hwang, 2016). Today, the concept of the flipped classroom has been implemented in many different disciplines and in schools and universities around the world (Hao, 2016). Another benefit of "Flipped" learning is that students who miss days of school are able to catch up to their peers quicker than while under the traditional learning system. Students who miss class are still able to keep up with lecture material while away from class, thus finding it easier to catch up on their work.

The traditional homework setting is where most students need help, but while the student is at home studying, the teacher is not available to answer questions. Flipped learning benefits students by allowing them to prepare their questions from the lecture before class, then come into "homework" time where the teacher has the full class time to answer questions. Students come to class prepared with questions, leading to discussion and deeper thinking on the concepts. Students will also feel more comfortable asking questions since they've had plenty of time to review the material before class. Another benefit of Flipped learning is how the system has been improving the education of special needs students. Experts have found that, in the Flipped classroom, special needs students have more one-on-one

time with the teacher during instruction time. The "learn at your own pace" philosophy of Flipped learning works particularly well with special needs students. Studies have found that students with attention issues can have an easier time focusing on the lesson, as they can freely move about the room during instruction time without disrupting the class. Under Flipped learning system: teachers can utilise technology to provide translation during the lecture, and the constant communication between teacher and student improves conversational skills.

The success of the flipped learning approach depends heavily on the student's involvement in the learning process. Based on the student's perceptions, once they become perfectly aware of the procedures and benefits of the approach, they will be willing to participate in the flipped class actively. Hence, thorough preparation is considered as the key to flipping the classroom successfully and limit the challenges (Adnan, 2017). For students to deal with such challenges, it is suggested that some measures should be taken by both teachers and students. First of all, pre-class activities, especially instructional videos, should be kept short enough to avoid distraction, and well planned to make content readily digestible (Adnan, 2017). They should also be created in an interesting way in order to fully gain students' concentration and passion in flipped learning approaches. While some studies indicate that flipped classrooms offer many positive educational outcomes, other studies draw attention to limitations associated with the flipped classroom. For example, in the flipped model student learning achievement and satisfaction may be enhanced (Missildine et al., 2013)); students may be more satisfied with the flipped method; and it can be more economical than traditional instruction (O'Flaherty & Phillips, 2015). However, challenges can include more required time to redesign the course as a flipped classroom (Schlairet, Green, & Benton, 2014), low self-regulated behaviours by some students (Sun, Wu, & Lee, 2017), and the resulting failure of some students to properly schedule their time to comprehend the out-of-class learning content (Hwang et al., 2015).

Based on reviews of previous studies, this paper aims to test the following hypotheses:

H1 = There is a difference in students flipped learning perception between senior and junior students

H2 = There is a difference in students flipped learning perception between excellence and average students

H3 = There is a difference on a score between the flipped classroom and non-flipped classroom

H4 = There is a difference in students flipped learning perception between experienced and non-experience students

4.0 Methodology

A questionnaire survey was conducted to accountancy students to assess their perceptions on online flipped classrooms. The survey consisted of 14 items adopted from the previous study conducted by Beatty & Albert, (2016) to evaluate students' perceptions of a flipped classroom. The survey was conducted at the 12^{h} week of 14^{-} week semester distributed online through google-form. In total 111 students voluntarily completed the survey representing 23.61 per cent of the enrolled students. Students were asked to indicate their 5 Likert scale levels of agreement with the 14 statements (see, Table 1 for survey items). Group of students was divided into three groups; Seniority (measured by current learning semester), students achievements (measured by their CGPA) and their experience in flipped learning. The other set of data was also collected from the five semester's university examination report on student's achievements in Auditing paper for both flipped and non-flipped classrooms. An independents samples test for equality of means was conducted to examine the difference in the level of agreement between the student groups

5.0 Result

The result of this study is divided into two main categories. The first result discusses the overall mean score of the survey item and the significant difference between the three groups. The second result presents the comparison of the mean score of student's performance in Auditing paper between the flipped classroom and non-flipped classroom in the five semester's series.

5.1 Survey item and result

Table 1 depicts each survey item, followed by the mean score and standard deviation for the elements as well as the mean level of agreement of the three different groups of students. Significant differences (based on an independent sample test for equality of means, $p < 0.05$) in the level of agreement between students groups are noted in Table 1.

Findings from the surveys listed as follows:

1. Generally, the respondents reported a preference for a flipped class over a lecture class.
2. Overall, the respondents reported a preference for flipped online / online class over a lecture traditional class

3. Overall, most students preferred the instructor or lecturer to present lecture material in a classroom.
4. Generally, the respondents agreed to enrol another online flipped classroom.
5. Overall, the respondents strongly agreed discussion in class helped in understand better in a flipped classroom.
6. Overall, the respondents agreed that their interest in my subject increased from taking this flipped class.
7. Overall, the students agreed to recommend this flipped class to other students
8. Generally, most students agreed that the CourseStream videos helped them learn the key course and concept. Senior students significantly show higher agreement than junior students ($p < 0.05$).
9. Overall, the respondents agreed that class discussion during flipped learning helped them learn the fundamental concept.
10. Generally, most students found the content of the Tes.com to be interesting and useful to them. The result shows senior and flipped learning experienced students significantly agreed highly that Tes.com application is interesting and useful to them ($p < 0.05$).
11. Overall, most of the respondents agreed that the average time for flipped class discussion and presentation was about right for them. This level of agreement was significantly pronounced among senior students ($p < 0.05$).
12. Generally, most students prefer the CourseStream video to be shorter. There is a significant difference between senior and junior students.
13. Overall, most respondents disagreed the CourseStream Video to be longer.
14. Overall, most respondents rated online flipped learning as very effective in their study. The result shows senior and flipped learning experienced students significantly rate highly that online flipped classroom is effective ($p < 0.05$).

Table 1: Student survey response

	Student category	All	Seniority		CGPA		Flipped Learning Experience	
		N=111	N=34:77		N=38:73		N=49:62	
	Survey items	Mean & SD		Mean & SD		Mean & SD		Mean & SD
1.	I would prefer a flipped class to a lecture class	3.315 (.7860)	Jr	3.206 (.8450)	<3.00	3.395 (.8555)	Yes	3.334 (.7000)
			Sr	3.364 (.7593)	>3.00	3.274 (.7502)	No	3.286 (.8898)
2.	I would prefer an flipped online / online class to a lecture class	3.279 (.8860)	Jr	3.206 (.8450)	<3.00	3.342 (.8146)	Yes	3.258 (.8285)
			Sr	3.364 (.7593)	>3.00	3.247 (.9247)	No	3.306 (.9619)
3.	I would have preferred the instructor / lecturer present the lecture material himself in class	3.991 (.8474)	Jr	3.971 (.9040)	<3.00	4.158 (.8551)	Yes	3.952 (.9131)
			Sr	4.000 (.8272)	>3.00	3.904 (.8361)	No	4.041 (.7627)
4.	I would enrolled in another flipped online classroom	3.315 (.6177)	Jr	3.265 (.75111)	<3.00	3.316 (.5745)	Yes	3.307 (.5892)
			Sr	3.3377 (.5528)	>3.00	3.315 (.6428)	No	3.326 (.6579)

5.	Discussion in class helped in understand better in flipped classroom	4.045 (.7433)	Jr	4.029 (.8343)	<3.00	4.156 (.7543)	Yes	4.048 (.7560)
			Sr	4.052 (.7052)	>3.00	3.986 (.7359)	No	4.041 (.7348)
6.	My interest in my subject increased from taking this flipped class	3.270 (.6598)	Jr	3.118 (.6860)	<3.00	3.368 (.6333)	Yes	3.242 (.6190)
			Sr	3.338 (.6409)	>3.00	3.219 (.6718)	No	3.306 (.7131)
7.	I would recommend this flipped class to a2ther students	3.414 (.7067)	Jr	3.324 (.68404)	<3.00	3.474 (.7618)	Yes	3.436 (.7157)
			Sr	3.4545 (.7172)	>3.00	3.384 (.6797)	No	3.388 (.7017)
8.	The CourseStream videos helped me learn the key course and concept	3.369 (.8194)	Jr	*3.147 (.7440)	<3.00	3.500 (.8929)	Yes	3.452 (.8032)
			Sr	3.468 (.8364)	>3.00	3.301 (.7761)	No	3.265 (.8361)
9.	The class discussion during flipped learning helped me learn the key concept	3.496 (.7119)	Jr	3.353 (.6458)	<3.00	3.605 (.7548)	Yes	3.516 (.6952)
			Sr	3.558 (.7344)	>3.00	3.438 (.6869)	No	3.469 (.7389)
10.	I found the content of the Tes.com to be interesting and useful	3.694 (.7839)	Jr	*3.294 (.5239)	<3.00	3.842 (.8862)	Yes	*3.823 (.8001)
			Sr	*3.870 (.8168)	>3.00	3.616 (.7194)	No	*3.531 (.7389)
11.	The average time for flipped class discussion and presentation was about right for me	3.405 (.6520)	Jr	*3.1765 (.57580)	<3.00	3.500 (.6877)	Yes	3.435 (.6683)
			Sr	*3.507 (.6614)	>3.00	3.356 (.6318)	No	3.367 (.6355)
12.	I prefer CourseStream Video to be shorter	3.531 (.7239)	Jr	*3.265 (.6656)	<3.00	3.684 (.8090)	Yes	3.548 (.7170)
			Sr	*3.649 (.7212)	>3.00	3.452 (.6675)	No	3.510 (.7394)
13.	I prefer CourseStream Video to be longer	2.856 (.8295)	Jr	2.941 (.7361)	<3.00	2.868 (.9911)	Yes	2.871 (.7785)
			Sr	2.818 (.8695)	>3.00	2.849 (.7392)	No	2.837 (.8978)
14.	Overall, my rating to this online flipped learning in my study is effective	3.423 (.7077)	Jr	*3.177 (.6729)	<3.00	3.579 (.7930)	Yes	*3.581 (.6665)
			Sr	*3.533 (.6993)	>3.00	3.343 (.6502)	No	*3.225 (.7149)

Notes: Differences between groups of students significant at *5 per cent ($p < 0.05$)

5.3 Comparison of students performance

The application of online flipped classroom has shown a positive impact on students performance in auditing paper. Table 2 depicts the mean student's score among the flipped classroom is higher as compared to the non-Flipped classroom. The results show a significant difference between the two classes in all five series of students result ($p < 0.05$).

Table 2: Mean Difference of Student's Score between flipped and non-flipped Classroom

Semester	1-2019	2-2019	1-2020	2-2020	1-2021
	N=39:38	N=66:38	N=44:82	N=49:54	N=52:30
Classroom	Mean & SD	Mean & SD	Mean & SD	Mean & SD	Mean & SD
Flipped classroom	*55.077 (10.4916)	*57.803 (8.4147)	*56.659 (8.9882)	*60.061 (12.9686)	*57.943 (9.4504)
Non-Flipped classroom	*50.000 (8.1074)	*51.711 (9.4980)	*41.695 (11.0271)	*51.278 (12.214)	*50.967 (14.1604)

Notes: Differences between flipped and non-flipped classroom significant at *5 per cent ($p < 0.05$)

5.2 discussion and Conclusion

Findings on the effectiveness of the flipped classroom approach in teaching and learning have been supported by previous studies (Beatty & Albert, 2016 and Albert & Beatty, 2014). It can be summarized that the flipped learning approach helped the students to more proactive and created better students involved in teaching and learning process. Albert & Beatty (2014) Indicated that grades of students enrolling flipped classroom are higher than those who are not. The learning process in flipped learning is more student-centred. Students are required to explore certain key-concept and have a general view of the concept prior to lecture class. The process encouraged the students to be more focus and created a "puporsive-listening" to the lecture or discussion. The students could compare and are able reconcile their understanding of certain key concept. The pattern of students perceptions on flipped learning was generally positive for all group of students. In most item analysed, it is no significant difference in the level of agreement between the three groups of students. This implies Melania students prefer online flipped learning as compared to traditional *"chalk and talk"* learning approach. Students nowadays are more receptive on online learning due to the current development of information technology. The online flipped learning approach fits Melania students information-seeking behaviour that is sourced mostly from the internet through a cloud-based information system.

Detail analysis of the items shows senior students preference on the use of Couse-Stream videos as compared to junior students. The findings imply that students maturity and learning experience have developed student ability to be more exploratory and independence. Senior students may be more independence as compared to junior students that may require close guidance from the instructor or lecturer. As such, online flipped learning if very useful in student-centred learning. The students mostly preferred short Course-stream video as it may be seen as an effective way of information seeking. A short video may be more focus in terms of content as well as a straight forward concept. Shorter videos help students to organise their knowledge in a smaller cluster. It helps them understand better, rather than longer videos that may lead to confusion due to information overload. Despite solely dependent on online learning, students still in favour of discussion session in a classroom facilitated by the lecturer. Discussion process is essential for students to have direct feedback from their lecturer that could enhance better understanding of the crucial concept to be applied in problem-solving. As such, blended learning is still relevant for students, particularly among new students in tertiary education. Result of the study provides a basis for the faculty and administrator to identify the current need of Melania students and their learning preference. It can also be used by the faculty to review or redesign their curriculum to meet

the current information-seeking behaviour of the students. The traditional learning approach needs to be review to ensure the ability to achieve the cognitive, affective and psychomotor goal of education domain among Melania students. The respondents of this study are limited to students in their early years of tertiary education. As such, the result of the survey is still premature to generalize the effectiveness of flipped learning in andragogy. Further investigation needs to be conducted among the various level of students in tertiary education to examine its effectiveness and challenges.

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