

Importance of Using Flipped Classroom to Teach Health Education during Movement Control Order (MCO) in Malaysia

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Abstract: Flipped Classroom is an instructional technique and a form of blended learning that reverses the conventional learning experience by providing online and outside the classroom educational content.. It consists of engaging activities, such as homework and discussions. In a flipped classroom, students watch online teaching and then collaborate with the teacher in online discussion (Sadiya & M. Farooque, 2020). Flipped mastery classrooms apply a mastery learning model that requires each student to master a topic before moving to the next one (Ramakrishnan et al., 2016). This study was conducted to find out the importance of using the Flipped Classroom to teach Health Education during movement control order (MCO) in Malaysia for Year Six students. This research will also show the teacher's effectiveness in teaching Health Education subject during this pandemic. Few videos based on Health Education syllabus were made by the researcher and uploaded in Google Drive, and the link was shared to the students. This research was conducted for the past three weeks since the movement control order been implemented by the Malaysian government. The videos were made using video Power Director 17 software. Survey method (questionnaire) was used in this research. It was used to gain data regarding students' encouragement, interest, motivation, interaction, involvement to learn Health Education from the usage of the Flipped Classroom method. Findings of this research show that there is an increase in students' encouragement, interest, motivation, interaction, involvement after flipped classroom was conducted.

Keywords: Flipped classroom, Health education, Malaysian movement control order

1. Introduction

The flipped classroom is a form of education in which students learn new content out-of-class time instead of the traditional review exercises that are usually given, which schedule class time for activities, problem-solving, and other forms of instruction (Raymond Szparagowski, 2014). The Flipped Classroom method helps to create an active learning environment (Siegle, 2013). The advantage of the Flipped Classroom

method is that it has two phases that provide room for students to learn at self-rate and build knowledge through experience or teachers and friend's guidance.

Flipped classroom requires pupils to watch the videos before they go to the school. The essence of this flipped approach is that pupils have to watch the video clips provided by the teachers which have to be sent online or given through a device such as a CD, then the lesson occurs at home or a suitable place for the student. Teaching materials can be in the form of podcasts, the digital media material consisting of one unit (one chapter) in audio, video, a digital radio or other formats. The content provided should be easily reached and watched. Besides, teachers and pupils interact with a scientific understanding of the materials provided. The flipped method stimulates students' involvement actively by making a classroom atmosphere like a workshop where students can ask their lessons and interact with them in hands-on activities. Another feature of this study is incorporating 21st century as teacher playing the role of a facilitator, catalyst or trainer to help pupils learn, test their skills and strengthen the intellectual and procurement of knowledge in a conducive learning environment and effective communication among students and teachers.

Moreover, due to this pandemic situation, the Malaysian government has implemented a movement control order (MCO) to the entire students. This has led to the shut down of all the schools in Malaysia. However, teachers are required to finish their syllabus. Hence, this flipped classroom is highly recommended as the most appropriate method to resolve the issue. The flipped classroom is one of the many teaching methods that would offer teachers, lecturers, and curriculum developers to inculcate interest and attention among their students. Many studies and researches have claimed that the use of flipped classroom had motivated and accelerated their student's performance (Graham Brent Johnson, 2013). Not only that, adopting the flipped classroom as a method in teaching would be motivating for teachers to teach elective subjects like Health Education also.

According to Anspaugh and Ezell (2007), Health Education is explained as the knowledge that should be learned by everyone to form a good health practice in one's daily life. It is also a complementary role that can maximise the potential and capability of an individual. Meanwhile, according to Wee (2009), Health Education is a tool that allows an individual to become a member of the community who can make voluntary decisions, modify and change social conditions to improve self- health. This proves the importance of learning Health Education by students, although Malaysia is facing such a pandemic situation. To teach Health Education, researchers have used video as a tool in the Flipped Classroom.

Usage of video in the Flipped Classroom can make the teaching and learning more enjoyable. Video is one of the best audio-visual media used to describe an object that moves together with sound naturally in an appropriate frequency. Video capabilities depict live images as the sound provides its charm. Videos can give information, expose the process, explain complex concepts, teach skills, shorten or extend time, and influence attitudes as mentioned by A.Arsyad (2011).

2. Research Method

This study uses a quantitative descriptive method. Quantitative research assesses the nature of the conditions, as noted by Sugiyono (2016). It involves the utilisation and analysis of numerical data using specific statistical techniques. There are 600 students enrolled in Arumugam Pillai Tamil school which is located in Kedah. As stated by Chua (2006), sampling is related to the process of choosing the number of

samples than the population made by research respondent. Sampling techniques are not random, but sampling used in this study focused on Year 6 students from the above-stated school. According to Yamane (1967), the sample size determined the schedule, 90 students elected with $\pm 10\%$ error to become the research samples. The researcher used a questionnaire adaptation from Graham Brent Johnson (2013). Few videos based on Health Education syllabus was made by the researcher and uploaded in Google Drive whereby the link has been shared with the students. The online quiz was given to the students after a day which was regarding the videos that they would have watched via Google Form. The students' answers has been recorded by the researcher, and the discussion regarding online quiz was implemented via WebEx. The researcher obtained data regarding students' encouragement, interest, motivation, interaction, involvement after Flipped Classroom teaching in the third week. The data collected is analysed with percentage, mean and standard deviation.

3. Result

All the respondents (students) for this research were selected from Year Six aged 12 years old. The total number of respondents is 90. The research consists of 43 boys and 47 girls. However, these 90 respondents were considered adequate to represent the population of this study as it covers all the population in the Arumugam Tamil school. The analysis of this study is a quantitative data from the feedback given by 90 respondents and managed to get the result about the students' encouragement, interest, motivation, interaction, involvement after Flipped Classroom was conducted due to Malaysian movement control order.

Student perceptions of the flipped classroom survey questions were analysed in terms of mean, standard deviation according to Likert Scale. It is categorised to five scales being 1 (strongly disagree), 2 (disagree), 3 (neither agree or disagree), 4 (agree) and 5 (strongly agree). Mean score guide was adapted from Jainabee and Jamil (2009), whereby the statistical data indicates very low (1.00-1.80), low (1.81-2.60), medium (2.61-3.40), high (3.41-4.20) and very high (4.21-5.00).

Table 1 Survey questions on student perceptions of the Flipped Classroom

Questions	Yes	No	Percentage of acceptance
The Flipped Classroom is more engaging than traditional classroom instruction.	85	5	94.4%
I regularly watch the Health Education video uploaded by my teacher.	90	0	100%
I am more motivated to learn Health Education in the Flipped Classroom.	89	1	98.8%
The Flipped Classroom has improved my learning in Health Education.	85	5	94.4%
I would rather watch lesson via video than a traditional teacher-led lesson.	80	10	88.8%

The Flipped Classroom gives me more time to learn Health Education.	86	4	95.5%
I feel that Flipped Classroom learning has improved my understanding of Health Education.	87	3	96.6%
The Flipped Classroom gives me greater opportunities to communicate with other students.	86	4	95.5%
I find that Flipped Classroom is very useful to me to learn Health Education due to movement control order.	84	6	93.3%
I like that I can take my online quizzes via Google Forms at my own pace.	85	5	94.4%

Table 1 shows student's encouragement, interest, motivation, interaction, involvement by using Flipped Classroom during Movement Control Order (MCO) in Malaysia in terms of percentage. There are ten questions in that section related to the topic of the research.

Table 2. Survey questions on student perceptions of the Flipped Classroom

Question	Mean	SD	Interpretation
The Flipped Classroom is more engaging than traditional classroom instruction.	4.72	.738	Very High
I regularly watch the Health Education video that was uploaded by my teacher.	4.88	.757	Very High
I am more motivated to learn Health Education in the Flipped Classroom.	4.78	.634	Very High
The Flipped Classroom has improved my learning of Health Education.	4.67	.777	Very High
I would rather watch lesson via video than a traditional teacher-led lesson.	4.55	.758	Very High
The Flipped Classroom gives me more time to learn Health Education.	4.61	.783	Very High
I feel that Flipped Classroom learning has improved my understanding of Health Education.	4.72	.610	Very High
The Flipped Classroom gives me greater opportunities to communicate with other students.	4.83	.607	Very High

I find that Flipped Classroom is very useful to me to learn Health Education due to movement control order time. 4.44 .711 Very High

I like that I can take my online quizzes via Google Forms at my own pace. 4.67 .718 Very High

Table 2 shows student's encouragement, interest, motivation, interaction, involvement by using Flipped Classroom during Movement Control Order (MCO) in Malaysia in terms of mean and standard deviation according to the Likert Scale.

4. Discussion

This study was conducted to determine students' encouragement, interest, motivation, interaction, involvement by using the Flipped Classroom during Movement Control Order (MCO) in Malaysia. As explained in the research methodology, data is obtained through a questionnaire after flipped classroom teaching on the third week, and it has been analysed by percentage, mean and standard deviations. Approximately 94.4 percent of students agree that the Flipped Classroom is more engaging than traditional classroom instruction and shows that students admit that Flipped Classroom teaching attracts students to learn Health Education and that the questionnaire was significantly higher (mean = 4.72, SD = .738, n = 90). Furthermore, 100 percent of students indicated agree with 'I regularly watch the Health Education video that was uploaded by my teacher'. This result shows that all the students don't want to miss the opportunity on learning Health Education via Flipped Classroom and the result of mean also very high (mean = 4.88, SD = .757, n = 90).

For the 'I am more motivated to learn Health Education in the Flipped Classroom' with findings from the questionnaire has indicated 98.8 percent with the mean which is also high (mean = 4.78, SD .634, n = 90). The results show that studying Health Education via Flipped Classroom method makes them more motivated to participate in the learning process. The findings of Mohd Zairi bin Husain, Muhammad Furqan bin Abd Manan (2017), are in line with the findings of this study. For the student motivation criteria, the data showed that the average number of pupils who responded in week 1 (before action) was 19.85 percent, the average number of pupils who responded in week 1 (after action) was 33.07 percent while the average for pupils who responded in week 4 was 96.32 percent. This shows an increase in motivation for learning using the Flipped Classroom method.

In addition to the questions of 'the Flipped Classroom has improved my learning of Health Education.' has received 94.4 percent acceptance. It was also significantly higher (mean = 4.67, SD .777, n = 90). This statement explains that Year Six students learning ability and understanding have increased by this method on Health Education subject. The flipped classroom has helped to improve their learning of Mathematics too. Item 17 stated 'The Flipped Classroom has not improved my learning of mathematics'. The answers showed 79 percent of students

disagreed with this assertion, and only 6 percent of students agreed. This finding supports the conclusion that the Flipped Classroom would have a positive effect on the perceptions of learning mathematics among students.

Then would be the next question that reads as 'I would rather watch lesson via video than a traditional teacher-led lesson' with 88.8 percentage acceptance with high mean values (mean = 4.55, SD .758, n = 90). The percentage for this question is a little lesser than the percentage of the other questions. It shows that few students still prefer teachers to teach them face to face. However, 80 over 90 students want to learn Health Education with the new method in adhering to the pandemic prevalent in Malaysia. Subsequently, 95.5 percent of students agree with the question 'the Flipped Classroom gives me more time to learn Health Education. This question also has a high mean (mean = 4.61, SD .783, n = 90). This result illustrates that students are more likely to enjoy Health Education through Flipped Classroom because this method gave them flexible timing, and the students can study Health Education whenever they want due to the movement control order.

For the question 'I feel that Flipped Classroom learning has improved my understanding on Health Education' has the acceptance rate of 96.6 percent and it also has a very high mean (mean = 4.72, SD .610, n = 90). This shows students agreed that learning Health Education via Flipped Classroom increase their knowledge and understanding of the subject. Based on the attempts made by the researcher and the findings of the related studies, the researcher feels that the Flipped Classroom on Mathematics has affected positively on students' achievement in Mathematics. This result proved that the Flipped Classroom could improve students understanding effectively.

The next question, 'the Flipped Classroom gives me greater opportunities to communicate with other students' resulted with a high acceptance rate of 95.5 with high mindfulness too (mean = 4.83, SD .607, n = 90). This shows that the researcher and the Flipped Classroom has provided a great platform to Year Six students to communicate between them during this crucial situation which doesn't permit them to meet each other face to face. Not only communication between them but Flipped Classroom is also a fantastic method that encourages them to discuss with each other on Health Education.

Whereas for the question 'I find that Flipped Classroom is very useful to me to learn Health Education due movement control order time' marked the percentage of student acceptance with 93.3 percent with a high mean (mean = 4.44, SD .771, n = 90). These results prove that students felt that this platform is handy to learn many subjects. This data is in parallel with G.Shanta & Jamalul Lail Bin Abdul Wahab's (2019) study, who stated that the flipped classroom method was very beneficial to students with a high result of 77.1 percent agreement with a high mean (mean = 4.11, SD = 0777). This shows that this Flipped classroom method is beneficial for students.

The final question, 'I like that I can take my online quizzes via Google Forms at my own pace' has gained 94.4 percent acceptance and high mean values (min = 4.67, SD .718, n = 90). The results prove that students like to take new method assessment via online at their own free time.

5. Conclusion

The usage of Flipped Classroom as a method in learning the Health Education subject during movement control order is considered as a very vital process to ensure students do not miss out on the subject. Precisely, this Flipped Classroom is also effective for standard six students to study and revise Health Education. The teaching method not only saves time and makes learning more flexible but allows students to master the syllabus through this method. Besides, student's encouragement, interest, motivation, interaction, involvement in Health Education also increased. Researchers can, therefore, conclude that Flipped Classroom for Health Education subjects is well-matched to situations where students and teachers are unable to meet face-to-face.

6. Suggestions

Although there are many teaching methods available for significant subjects, most teachers still prefer to use traditional methods for minor subjects such as Health education. Researchers can, therefore, diversify the use of Flipped Classroom in teaching health education, and such studies can be developed for all students used during the holidays when students and teachers can meet virtually. This is simply since the multimedia method is primarily flexible and permits students to learn any subject at any time.

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