

# The Effect of Educational Videos on Increasing Student Classroom Participation: Action Research

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## Abstract

This study assesses the effect of the use of educational videos on the participation of 24 students at the Applied Science University in Bahrain. The findings revealed that educational videos which were selected either by the researcher or by the students have a direct and positive effect on increasing the students' participation in the classroom. It was found that the educational videos that were selected by the students have a greater effect in this respect than these videos selected by the researcher.

**Keywords:** educational videos, classroom participation, action research

## 1. Introduction

The definitions of participation in the classroom have typically been found to be associated with specific behaviors such as answering or asking questions (Mustapha, Rahman, & Yunus, 2010). Students' classroom participation is considered an essential concept in developing an understanding of classroom learning and the improvement of critical thinking skills in the case of students in higher education (Loftin, Davis, & Hartin, 2010). According to Boylan (2010), the concept of participation is used to inquire into both the moment-to-moment involvement in social practice and the way these moments connect over time to both improve the learner's relationship and to develop their identity.

Generally, conventional instructional approaches have become inadequate when it comes to meeting rapidly-developing technology and environmental changes (Ayçiçek, 2018). To overcome such an issue, student engagement with content and classroom participation has been upgraded by several methods such as using digital devices in the classroom (Klette et al., 2018). Applied Science University (ASU) students are encouraged to participate in the classroom in order to enhance their understanding of the topics being delivered and to enrich the communication skills that are required in future life work. Last year, the participation marks of the Principles of Marketing course at ASU were set based on the individual student's attendance. This action has been taken because the students' apparent reluctance to participate, either by answering questions or by making comments. After considering the UK Professional Standards Framework (UK PSF), the researcher was stimulated to assess the extent of participation and to design an encouraging activity that could motivate the students to participate (A1). In addition, I intended to exploit these activities for appropriate teaching and learning in the Principles of Marketing course (K2). Ultimately, this proposed sequential activity is expected to utilize the second value (V2) of the PSF, whereby the participation of learners in the ASU will be encouraged.

This common problem has attracted scholars' attention leading to them recommending solutions and introducing several techniques and approaches. For instance, Jacobs (2012) showed that using videos could lead to classroom participation in a higher education context. Additionally, several scholars have revealed that using educational videos in the classroom as a key approach can enhance students' participation. Such an approach is recommended in all higher education disciplines (M. Sherin & Elizabeth, 2009; M. G. Sherin & Han, 2004; Zhang, Zhou, Briggs, & Nunamaker, 2006). Empirically, this linkage has been studied by several researchers who have directly indicated that educational videos improve classroom participation and can be demonstrated to be an effective method when it comes to accelerating educational progress (Baker, Lang, & O'Reilly, 2009).

Based on this, the researcher intends to exploit the use of educational videos to reduce students' reluctance to participate in the Principles of Marketing classes. Therefore, the objective of this action research is to examine the

effects of educational videos on the students' classroom participation. Additionally, this action research aims to highlight the reasons behind the students' reluctance to participate in the classroom.

## 2. Research Question

Based on that above discussion and the research objectives, this action research aims to answer the following question:

- To what extent is using educational videos effective with regard to increasing students' participation in the classroom?

From this main question, the following sub-questions were formulated:

- To what extent do students ask questions?
- To what extent do students proffer opinions and discuss the related topics in the lecture?
- To what extent do students take notes, sit quietly, and pay attention to the lecturer?

## 3. Method of Research

The current study has utilized an action research design. According to, action research is an attractive option for instructors delivering education programs as a means of studying, understanding, and improving the quality of the educative process. In addition, action research plays a key role in the professional development of instructors (Hine, 2013)). Therefore, this action research approach comes as an important activity that aligns the topic under consideration with the UK PSF's fifth core knowledge. The current study focused on the effects of the use of educational videos on the students' participation in the classroom. The initial variable (the use of educational videos) was considered as the independent variable, and the other variable (student participation in the classroom) was considered as a dependent variable.

### 3.1 Research Population and Sample

The target population for the study was the students of the Principles of Marketing course in the ASU. One class of this course has been chosen randomly. The class consisted of 26 students who were considered as the sample for the study. Two students were excluded from the study due to their irregular attendance and their presentation of uncompleted answers. Therefore, the return rate was 92.31%. Male students made up 54.2% of the total, while females students made up the remaining 45.8%. According to the findings, 4.2% of the respondents were less than 18 years old, 54.2% were between 18 and 22 years old, 20.8% were between 23 and 25 years old, and 20.8% were more than 25 years old. Regarding the educational level of the students, the results showed that 4.2% were in the first year, 20.8% were in the second year, 37.5% were in the third year, while 37.5% were fourth-year students.

### 3.2 Data Collection

Creswell (2012) stated that data collection involves selecting people and getting their permission to include them in the research. The required data is collected by asking the people questions or by observing their behaviors. There are many methods of data collection such as by observation, questionnaires, interviews, and testing (Gray, 2013; Sekaran, 2003). The method of data collection is an important part of the research design. In this action research, data was collected using both qualitative and quantitative methods. In this mixed-method approach, the researcher used observation, questionnaires, interviews, and testing.

#### 3.2.1 Observation

The observation technique was used by the researcher in the current study to assess the students' participation. An observation form was adapted from Abdullah, Bakar, and Mahbob (2012). This form consists of two types of participation. The first type is active participation which comprises three items: asking questions, giving opinions, and discussing the related topic. The second type is passive participation that includes three items: writing notes, sitting quietly, and listening to the lecturer. To assess these six items, a 5-point Likert scale was used for observation purposes in which 1 = Very Poor, 2 = Poor, 3 = Acceptable, 4 = Good, and 5 = Very Good.

#### 3.2.2 Questionnaire

The questionnaire was divided into three parts. The first section was a message addressed to the respondents to give them a clear idea about the questionnaire and its goals. The second part focused on the students' demographic profile. The students were asked to identify their gender, age, and educational level. The third section measured the students' participation. The third section had two parts. In part A, the students were requested to rank their participation in the classroom from 1 to 5, where 1 is Never, 2 is Rarely, 3 is Sometimes, 4 is Very Often, and 5 is Always. Part B

consists of 7 items that were adapted from Wright (2014) to evaluate the degree of participation in the classroom. The 5-point Likert scale was used in part B because it is an easy scale to formulate and is reliable (Kothari, 2004). The students were requested to evaluate each statement on the 5-point Likert scale, with 1 = Strongly Disagree, 2 = Disagree, 3= Neither Agree or Disagree, 4= Agree, and 5= Strongly Agree.

### 3.2.3 Interview

To ensure the correctness of the interviews with students, two forms were developed, the content validity of which was confirmed by academic staff in ASU. The first form was designed to focus on the students' perspective toward the use of educational videos and the factors that affect students' participation in classroom discussion. The second form was designed to determine the students' perspective with regard to the extent to which the uses of educational videos supported their participation in the classroom. In addition, this form was employed to determine the extent to which the students' participation helped them to learn the material covered in the videos that they or the researcher had selected.

### 3.2.4 Test (Quiz)

To assess the results of the use of educational videos on student understanding and the outcomes, the researcher designed two tests. The first test was conducted to assess students' understanding of the topics covered by the educational videos that were selected by the researcher. The second test was conducted to assess the understanding of the topics displayed in the educational videos selected by the students. The two tests were marked out of 5.

## 3.3 Research Procedures

The study was carried out in three stages. The first stage is called the Pre-Cycle stage, the second stage is called the Cycle One stage, and the final stage is called the Cycle Two-stage.

### 3.3.1 Pre-Cycle Stage

Before implementing cycle one, the researcher assessed the current students' participation in the classroom within a two week period which ended on 10<sup>th</sup> February 2019. During this stage, the researcher used the observation process in order to assess the two types of participation. Likewise, he made use of the questionnaire to allow the students to rank and evaluate their current level of participation in the classroom. Additionally, he used the interview method to identify students' perspectives with regard to the use of educational videos in the future as an approach to improving their participation. Simultaneously, the reasons for reluctance to participate were highlighted by the interview process before implementing cycle one

### 3.3.2 Cycle One

In the first cycle, the researcher showed his selected educational videos over nine working days from 10<sup>th</sup> February to 20<sup>th</sup> February 2019. During this cycle, he assessed the students' participation in the class. The assessment has been assessed by the use of observation, testing, and interviews. The 6 items of the observation form were assessed by the researcher in 4 sessions during cycle one. In addition, he interviewed six students in the last two days of this cycle using the second interview form.

### 3.3.3 Cycle Two

Cycle two was carried out over nine working days, from 17<sup>th</sup> February to 27<sup>th</sup> February 2019. The students were encouraged to choose their own educational videos. The researcher assessed the 6 items of the observation schedule in 4 sessions within the cycle's duration. Additionally, he interviewed six students in the last two days of this cycle by using the second interview form. To assess the students' understanding of the topics that were dealt with during this cycle, the researcher conducted a short test lasting 20 minutes.

## 4. Results and Discussion

After the completion of the survey and a review of the returned questionnaires, the collected data were analyzed using SPSS. The level of participation was indicated using means. A low level was indicated when the mean ranged from 1 to 2.33, a medium level when it ranged from 2.331 to 3.66, and a high level when it ranged from 3.661 to 5.

### 4.1 Validity and Reliability

The content validity of the questionnaire was determined when it was reviewed by one academic working at ASU. For the purpose of reliability, the internal consistency of the questionnaire was measured using Cronbach's Alpha and should range between 0 and 1. The higher the result, the higher the level of reliability. Values below 0.7 indicate a lack of internal consistency in terms of reliability (Clark & Watson, 1995; Panayides, 2013). The results showed that the Cronbach's Alpha was 0.865 in the pre-cycle stage.

4.2 Data Analysis

Before implementing cycle one and cycle two, the participation of the students was observed and assessed. The findings with regard to the data that was collected by the questionnaire indicated that students ranked their participation at a medium level, with a mean of 2.666 and a standard deviation of 0.76. Similarly, the students' evaluation of their participation was at the medium level with a mean of 2.869, and a standard deviation of 0.71. Figure 1 shows the percentage in terms of the students' ranking and evaluation in this cycle.

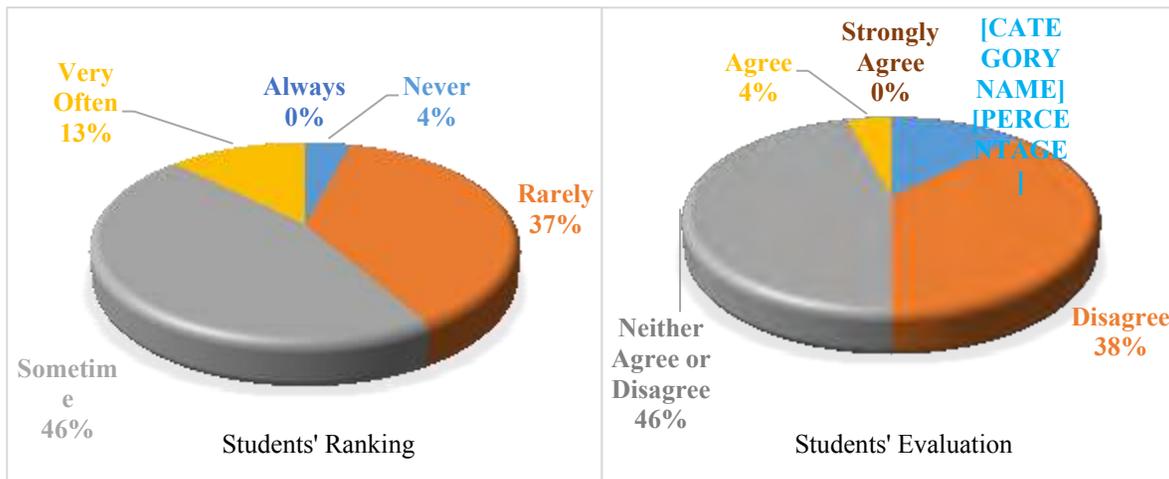


Figure 1. Percentage of Students' Ranking and Evaluation in Pre-Cycle

Furthermore, Table 1 shows that the means of the students' evaluation for all items during the pre-cycle ranged between 2.25 and 3.666.

Table 1. Means and Standard Deviations of Students' Participation in Pre-Cycle

Items	Mean	Std. Deviation
My modes of participation in the classroom are appropriate	2.8750	.67967
My participation is relevant	3.0000	.83406
My participation is constructive	2.7083	.75060
I contribute to the class in terms of participation by offering ideas and asking questions	2.5417	.97709
I participate positively in the classroom	3.0417	.95458
I build off the ideas of others in the classroom	2.2500	1.03209
I listen when others talk in the classroom.	3.6667	1.30773

To confirm the above results, the observation took place during the pre-cycle on 4 occasions over 4 sessions. The results show that the mean and the standard deviation were 2.2083 and 0.15957 respectively. This means indicated that the students' participation was at a low level. Table 2 shows the results in terms of the mean and standard deviation of each item of the observation schedule during pre-cycle.

Table 2. Means and Standard Deviations of Students' Participation in Pre-Cycle

Items	Mean	Std. Deviation
The students asking questions	2.7500	.50000
Students giving opinions	2.0000	.81650
Students discussing the topics of the lecture	2.2500	.50000
Students writing notes	2.0000	.81650
Students sitting quietly	2.5000	.57735
Students listening to the lecturer	1.7500	.50000

Figure 2 shows the mean and standard deviations of the students in terms of their evaluation and ranking and the observation during the pre-cycle.

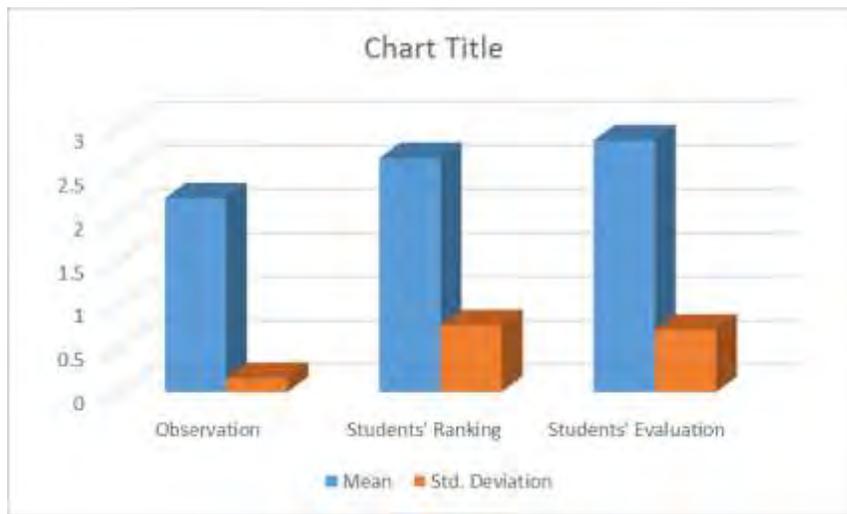


Figure 2. Means and Standard Deviations of the Student’s Evaluation, their Ranking, and the Observation during the Pre-Cycle

After the observation, the researcher conducted interviews with ten students individually. After asking the students: “Why do you appear reluctant to participate in classroom discussion?”. The students offered different answers. For example, one student indicated that he did not participate because he could not concentrate on the classroom. Another student stated “marketing subjects deal with boring topics, so I do not like to participate”. One student explained: “I do not like to participate. I have not done it since I was a student at school”. Some students stated that they do not like participate because they were afraid of making mistakes, because they felt shy, or because others would not understand them, or because they were scared of classmates’ criticism. Regarding the second and third questions of the interview form, all students answer “Yes”, indicating that they like the related educational videos, and they thought that this would encourage their participation. The students did not provide any justification.

With regard to cycle one, the analysis of the observation findings showed that the mean and standard deviations were 3.6667 and 0.59317 respectively. Such a mean indicates that the participation of the students was at a high level. Additionally, the means of cycle one ranged from 3.5 to 3.75. Furthermore, data analysis revealed that the students’ results in the first test ranged between 2 and 5. 8% of the students got a score of 2, 46% of the students got a score of 3, 33% of the students got a score of 4, and 13% of the students got a score of 5. The mean of the students’ marks was at the medium level (3.5) which agrees with the mean of the observation results. Figure 3 shows the percentage of the students’ test marks in cycle one.

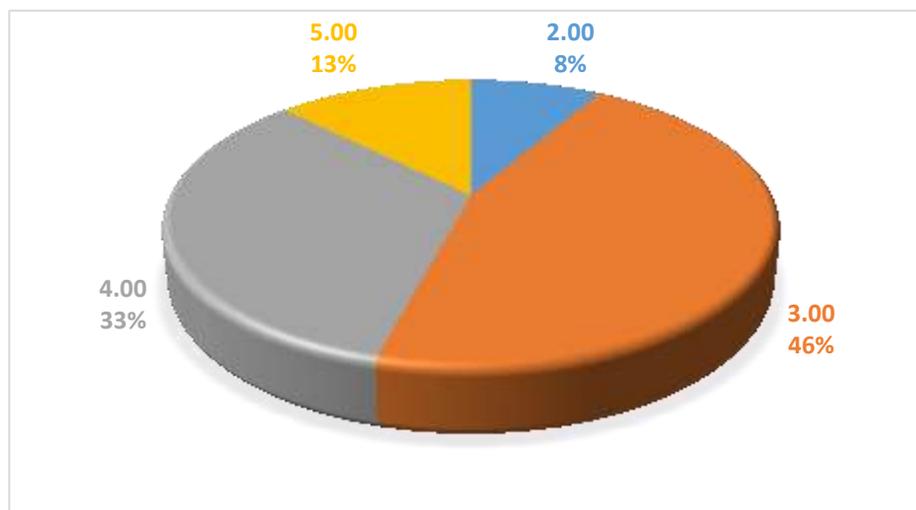


Figure 3. Test Results by Percentage in Cycle One

In this cycle, several interviews were conducted with the students. Regarding the question “Do you think that displaying the educational videos encouraged your participation in the classroom? Justify your answer please”. The researcher obtained several answers indicating different points of view. One student stated, “Yes, the videos that I have seen here attracted me and encouraged me to participate several times”. Another student pointed out that these educational videos improved his participation, encouraging him to give answers, make comments, and discuss the ideas with his colleagues in the classroom. Furthermore, the students were requested to explain in what way participating has helped them learn the material covered in the videos that the researcher had selected. The students stated that these videos gave them the opportunity to understand the topic. This then allowed them to participate. One student said “I could get ideas because of these videos. Thus I was able to participate”.

In terms of the first cycle, analysis of the observation data indicated that student participation had increased to a high level. The mean and the standard deviations were 4.291 and 0.90790 respectively. According to Appendix F1, analysis of the observation data illustrated that the means of all observation items were ranged between 3.5 and 4.5.

Regarding the test that was conducted in cycle two, analysis of the data revealed that the students’ results ranged between 2 and 5. 4% of the students got 2, 17% of the students got 3, 25% of the students got 4, and 45% of the students got 5. Figure 4 shows the percentages of the test results in cycle one. Regarding the observation process, the analysis of the observation data illustrated that the means of all observation items ranged between 4.25 and 4.5.

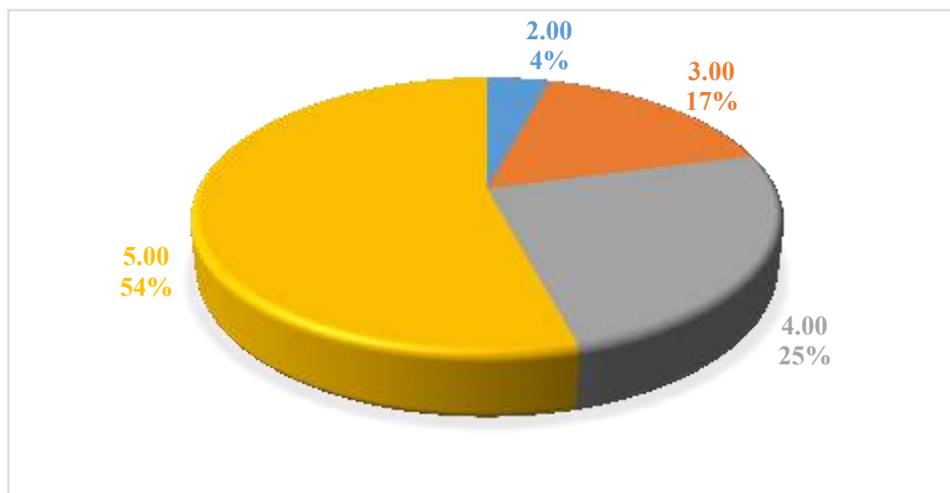


Figure 4. Percentage of Test Results in Cycle Two

In addition, interviews were conducted with some students in cycle two. All students agreed that displaying the educational videos supporting their participation in the classroom for several reasons, such as the students being able to understand the topics because the videos used were selected by themselves, because they were interesting and attractive, because others were so energized, and because these videos made for an exciting environment within the classroom. During the interview, the students explained that participating helped them learn the material covered in the videos that they had selected. The students showed that these videos supported their understanding of the topics because they read about the subjects before selecting the videos. One student explained “the videos that I have chosen encouraged me to define the idea and to answer my colleagues’ questions and comments”.

Figure 5 presents the means and standard deviations of the observations during the three stages. The results showed that the students’ participation increased during cycle two where the video was displayed. In addition, the results illustrated that participation improved more in cycle two than in cycle one.

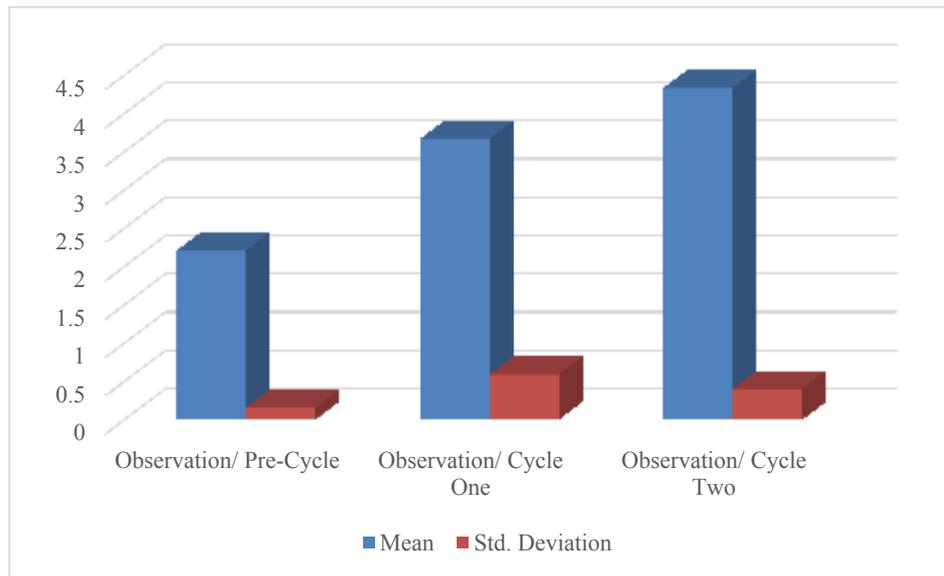


Figure 5. Mean and Standard Deviation of the Observation during the three Stages.

Simultaneously, Figure 6 compares the means and standard deviations of the test of cycle one and the test of cycle two. The results indicate that students’ understanding of the topics and areas of the educational videos in cycle one was higher than their understanding of the topics in cycle one.

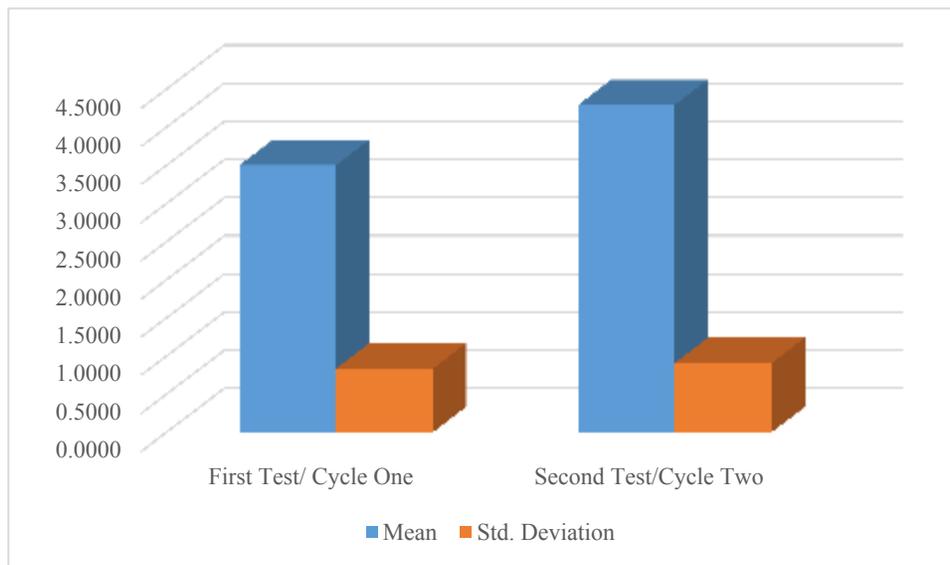


Figure 6. Mean and Standard Deviations of First and Second Tests

**5. Discussion**

The findings revealed that the use of educational videos has a direct and positive effect on student participation in the classroom. This effect is increased when the students are given an opportunity to select the videos for themselves (V2). It was shown clearly that the students were encouraged to participate actively by asking questions, giving opinions, and discussing the related topics in the lectures. In addition, the students were motivated by these videos to participate passively in the classroom by writing notes, sitting quietly, and listening to the lecturer.

Ultimately, the findings of this research suggest a valuable opportunity for professional development in that instructors in higher education can improve the learning activities they are responsible for (A5). The researcher is inspired to exploit the use of educational videos in all subjects over the whole academic year. In addition, these findings encourage the researcher to present significant recommendations to his colleagues with regard to the use of educational videos as an effective approach to enhancing student participation. This study was limited to the lack of

time due to student exams and public holidays. In addition, there was a limited range of educational videos that cover all topics in marketing.

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