Video Podcasts as a Micro Learning tool in a blended learning environment

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Introduction

Sometimes, it's really difficult for an instructor, to develop the detailed concept of topics, during lengthy lectures, and covering a huge amount of course contents, and this can result in compromised learning outcomes.

Generally, instructors have to repeat the concepts repeatedly, and the result is a course that steadily increases and sometimes go out of control, that in turn affects the process of concept building, and overall learning outcomes .

Introduction....continued

This research study has used the Video Podcasts as a Micro Learning tool for instruction, within a blended learning environment, and has evaluated the effects of video podcast on the process of instruction.
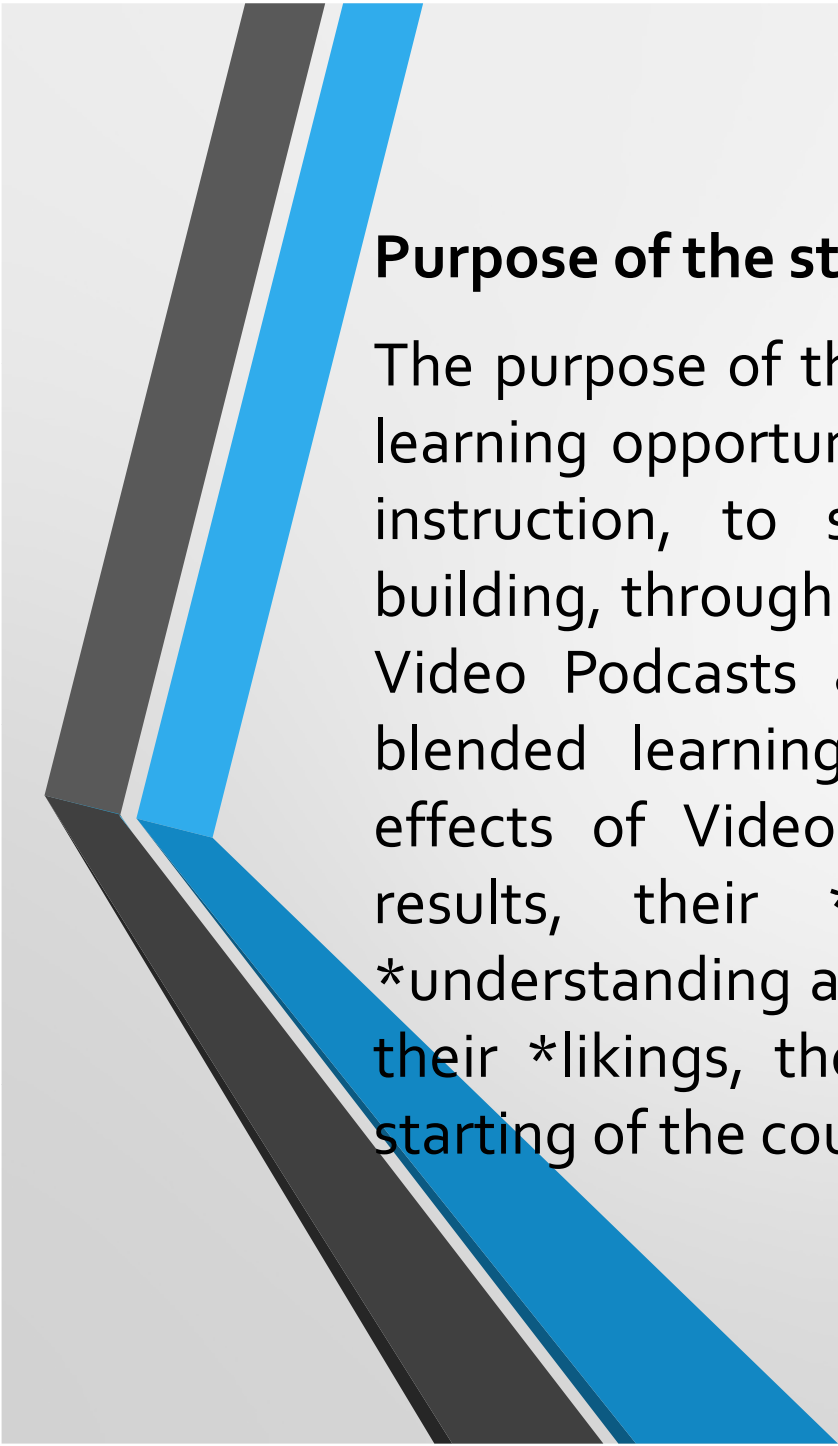
What is Micro Learning?

Micro learning is a method of learning through small units and short-term-focused activities (Hug, 2005). Micro Learning is a process of learning, in bite-sized small units those are easily digestible (Fernandez, 2014).

What is Video Podcast?

A video podcast is a recording of lectures for the learners, as a video footage or in the form of power-point slides supported with an audio explanation, and the learners' can review these video podcasts after the traditional face to face meeting (Heilesen, 2010).

Purpose of the study

The purpose of this research was to offer an additional learning opportunity to the learners, after face to face instruction, to support the process of knowledge building, through small pieces of information, using the Video Podcasts as a Micro Learning tool with in a blended learning environment, and to analyze the effects of Video Podcasts on the learners' * exam results, their *attitudes, support of e-tool in *understanding and *learning the course contents, and their *likings, those had a little IT knowledge at the starting of the course.

Methodology

Mode of Instruction was: Face to Face Instruction + Video Podcast listening as a blended learning mode (Video Podcasts as a supplementary provision after classroom lectures).

❑ Video Podcasts of less than four (4) minutes were recorded, and made available, along with some web obtained video podcasts/video tapes

❑ Moodle (A **Learning Management System**) was used to develop the course webpage, and the Video Podcasts were uploaded to this webpage.

❑ Total number of students was 50, divided in groups were:
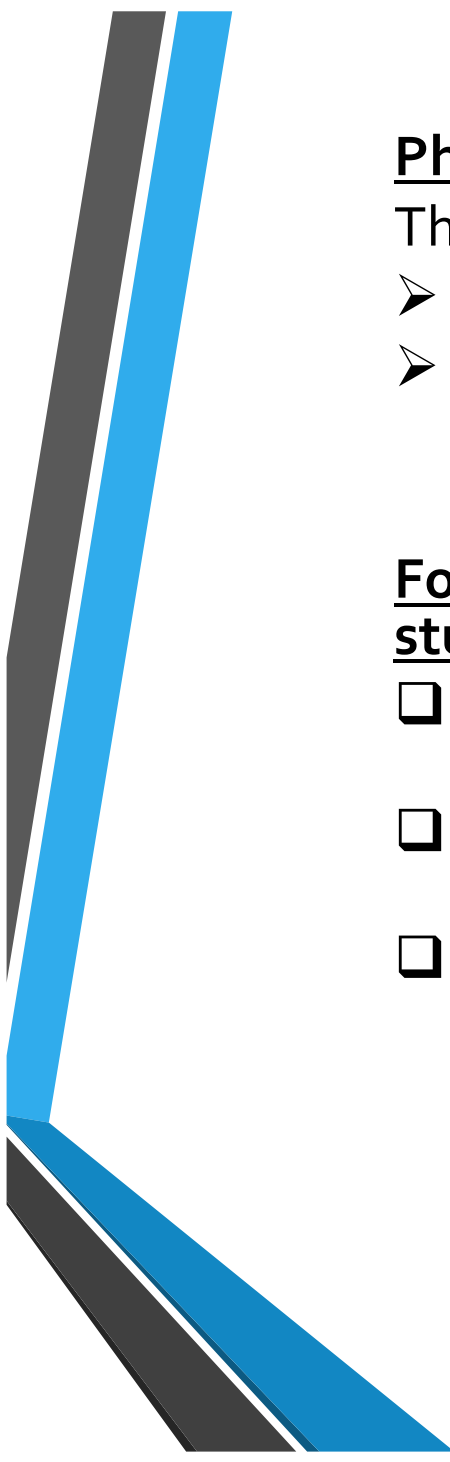
Group 'A' – 25 Participants

Group 'B' – 25 Participants

❑ Students of Group 'A' were asked to download and use the Video Podcasts for watching and listening the course contents, and they were specially told to watch these Video Podcasts, within different interval of times, whereas, students of Group 'B' went under traditional face to face instruction.

All the students had no, or very little IT background, in the beginning.

Students responses from Group 'A' were collected through a Questionnaire, based on 5-point Likert Scale, before and after using the Video Podcasts.
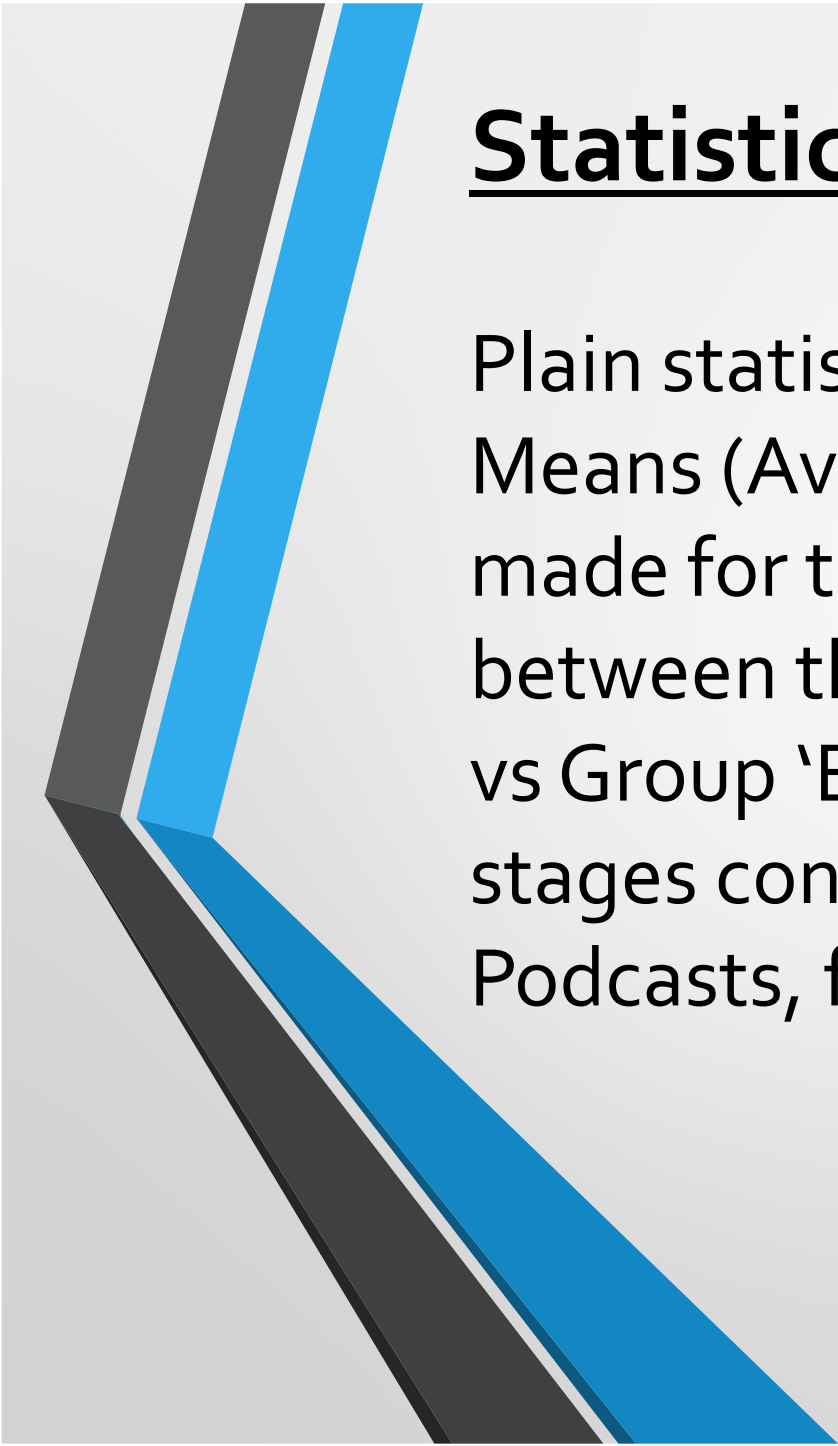
Phases

There were two phases for the data collection (for group 'A'):

➢ Before and

➢ After

Following were the major key areas, used for the research study:

❑ Attitude toward Micro Learning (Friendly, Comfortable, Essential) using Video Podcast

❑ Understanding, & Learning, toward Micro Learning using Video Podcasts, & its Help in Exam perpetration

❑ **Liking of students (Mode of Instruction)**

Statistical Analysis

Plain statistical analysis using groups Means (Average) for key areas were made for the purpose of comparison between the exam results of Group 'A' vs Group 'B', and for 'Before' and 'After' stages concerning the use of Video Podcasts, for group 'A' only.

Results

ASSESSMENT OF EXAM RESULTS
(Group 'A' vs Group 'B')

Table 1: Comparison of Exam Results – Group Means (Group 'A' Vs Group 'B')	
Exam Results (Total Marks of the Exam Module: 15)	
Group A: Supported with Video Podcast as a Micro Learning tool	**Group B:** Traditional face to face instruction without using Video Podcast as a Micro Learning tool
Group Mean – Group 'A'	Group Mean - (Group 'B')
9.87	**8.75**
Mean difference = results of Group 'A' – results of Group 'B'	
= 9.87 - 8.75 = 1.12	
Conversion of Mean difference in Percentage=> 1.12 (out of 15) = 7.46%	

(Group Means of Exam Results)
Group 'A' vs Group 'B'
**Use of Video Podcast as a Micro Learning tool**
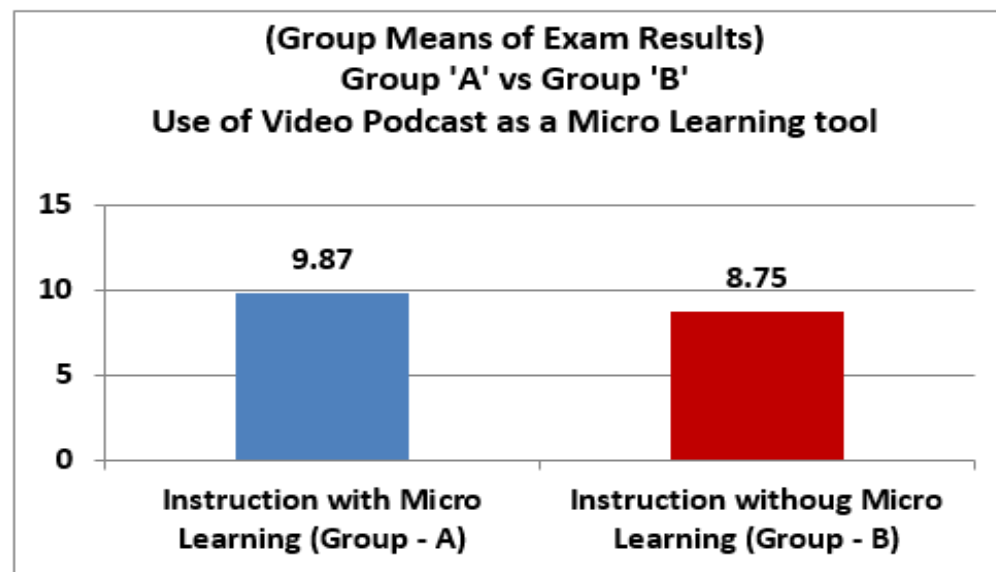
Fig. 1. Group Means of Exam Results – Group 'A' Vs Group 'B'

ATTITUDES TOWARDS MICRO LEARNING USING VIDEO PODCASTS (GROUP 'A')

Table 2: Attitude toward the use of Video Podcasts as a Micro Learning tool

|	Mean		Size of Change
Dependent Variables	Before	After	After-Before
Friendly	2.24	4.28	2.04
Comfortable	2.12	4.08	1.96
Essential	1.96	4.20	2.24
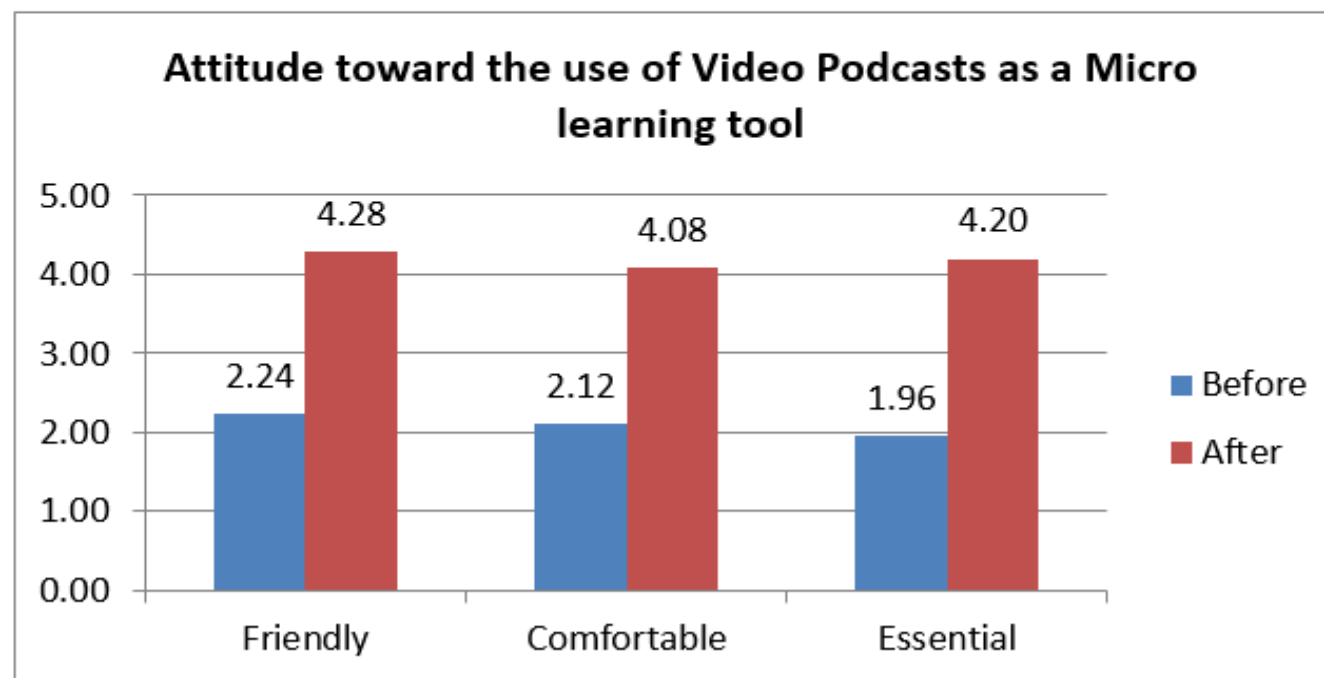
Fig. 2. Attitudes toward the use of Video Podcasts as a Micro Learning tool

HELP OF VIDEO PODCAST IN UNDERSTANDING AND LEARNING THE COURSE MATERIAL (GROUP 'A')

Table 3: Understanding and Learning toward the use of Video Podcasts as a Micro Learning tool

|	Mean		Size of Change
Dependent Variables	Before	After	After-Before
Understanding course material	2.24	4.48	2.24
Learning course material	2.16	4.20	2.04
Help in Exams Preparation	2.08	4.16	2.08
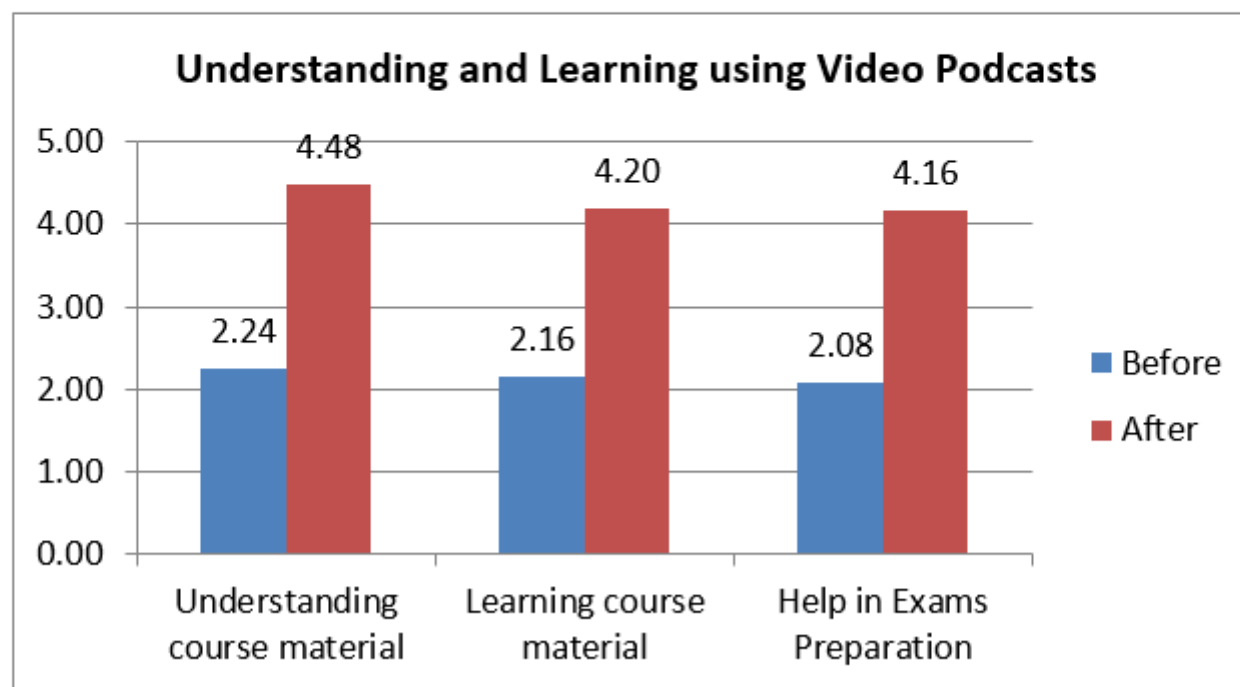
Fig. 3. Understanding and Learning using Video Podcasts as a Micro Learning tool

LIKINGS OF STUDENTS (METHOD OF INSTRUCTION) – GROUP 'A'

Table 4: Students Likings (Method of Instruction)

| Dependent Variable	Mean		Size of Change
	Before	After	After - Before
Instruction through Instructor & supported with Video Podcast	2.04	4.24	2.20
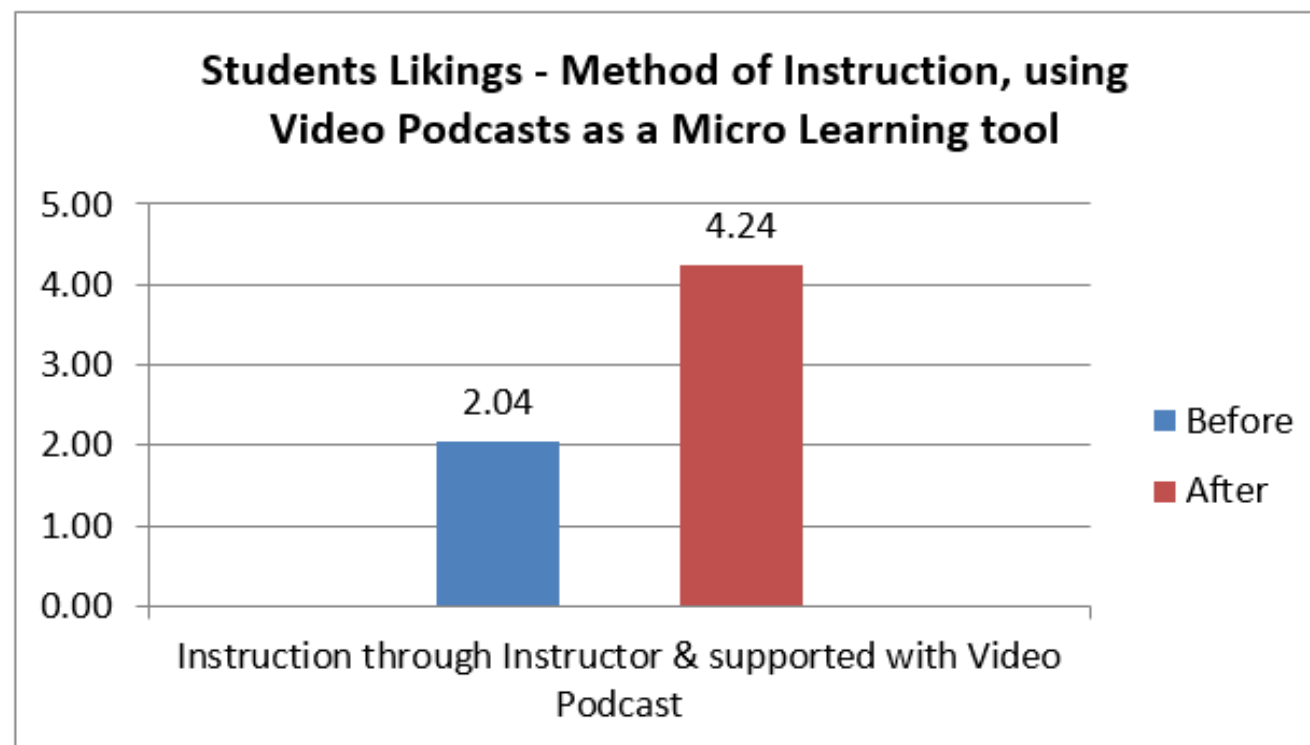
Fig. 4. Students Likings – Method of Instruction using Video Podcasts as a Micro Learning tool

Conclusion:

Results have showed that Video Podcasts as a Micro Learning tool in a blended learning environment has produced positive results, and the group of students those had used the Video Podcasts had performed better than the group, studied through traditional face to face, only.

Student of group 'A', after using the Video Podcasts had valued the tool as:

- ❑ User **Friendly**
- ❑ **Comfortable**

Confirmed as an important part of the course for

- ❑ **Understanding** and
- ❑ **Learning** the course contents,
- ❑ Helpful for the **exam preparation**
- ❑ **And the Micro Learning (Blended Learning Mode)** as most favorite mode of instruction. *And*

The Video Podcast as a Micro Learning Tool had helped in increasing the students' exam results of Group 'A' to 7.46%.

Dear instructors, don't delay any more, and start using the Video Podcasts as a Micro Learning tool, to teach your courses, as an improved solution to overcome the issues related with in-depth concepts development to the learners, and enhance the percentage of learners' understanding, for better results and improved learning outcomes.

THANK YOU