

Effects of Audio Podcasts as a Micro Learning Tool on Instruction

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Introduction

Being as an educator, if it comes to our knowledge, that before starting a course, there is a new/updated technology in the market and new contents need to be added to the course, or due to some emergency holidays/ or situations, the time of the course has been reduced, what will be our response?

Introduction.....continued

The reply from majority of professional educators could be:

They will try to cover all the information that they believe is essential.

And then the outcome is a course that gradually expands, and become out of control that finally overburdens the learner and affects their performance in terms of concept building and exam results.

Introduction...continued

(Noor, 2014) stated that traditional teaching methods within the educational institutes are still in place, including

- **teacher-centric classrooms**
- **chalk and talk methods**
- **and regimented classrooms,**

where most of the importance is just on producing the exams and results instead of understanding the concepts.

In this situation if the new content is added to the course, or the problem of the shortage of time arises, it really affects the performance of the learner.

(Noor, 2014) had also emphasized that the modern methods in use are technology-driven classrooms, that emphasis on understanding the concepts and many more.

(Hug, 2005) stated that for a better learning the option of micro aspects (Micro Learning) can be considered (Hug, 2005).

What is Micro Learning?

“Micro Learning- defined as learning in short, digestible, bite-sized units” (Fernandez, 2014).

Micro learning comes from interaction with micro content (Mosel 2005).

Micro learning is a process of learning through micro content and this is a new technology that is highly beneficial, could be used for the growth of knowledge and skill (Minimol, & Habil, 2012).

What is Audio Podcast?

Audio Podcast is the recorded information that can be listen through a portable player at any suitable place and time (Lee, McLoughlin, & Chan 2008). and Audio Podcast is a wonderful electronic communication tool for the distribution of information (Rech, 2007).

Purpose of the study

The purpose of this research study was to use the Audio Podcasts as a Micro Learning tool on instruction with in the blended learning environment, to provide an opportunity to the learners for their learning through small pieces of information.

And to discover the effects of Audio Podcasts:

- ❑ on the students' *exam results*
- ❑ Students *attitudes* toward e-tool (Friendly, Comfortable, Essential)
- ❑ help of tool in *understanding and learning* the course material
- ❑ Students' *likings toward the mode of instruction*

Methodology

The mode was: Face to Face Instruction + Audio Podcast listening as blended learning.

- Audio Podcasts of less than four (4) minutes each were recorded as Micro Learning tool, using the **Audacity** (a free and open source computer software application for digital audio recording).
- A course webpage in Moodle was created and these podcasts were uploaded to the webpage.
- Students of group 'B' had used their portable devices, smart phones, computers and laptops for listening, and they were specially told to listen these Audio Podcasts separately, during different interval of timings.
- whereas the students of group 'A' went under traditional face to face instruction.

Study was conducted on the students having similar educational background and a very little or without basic IT Skills.

A questionnaire was designed to collect the student responses.

Phases

There were two phases for the data collection :

- Before and
- After

There were two groups of the students

Group A: 52 Participants

Group B: 52 Participants

There were three major domains:

- Attitude toward Micro Learning using Audio Podcast
- Understanding and Learning toward Micro Learning using Audio Podcasts
- Liking of students (Mode of Instruction)**

Statistical Analysis

Plain statistical analysis were used by comparing the means of exam results for group B (those used Audio Podcast) and group A (without Audio Podcast),

And the group B was used for comparing the group means to review the size of change from Before to After phase.

Likert scale was used ranging from 1 to 5.

Results

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

<i>Table 1: Comparison of Exam Results – Group Mean (Group 'A' Vs Group 'B')</i>	
<i>Exam Results (Total Marks of the Module: 15)</i>	
Without using Micro Learning tool Group Mean – for Group 'A'	Supported with Micro Learning tool Group Mean - (Group 'B')
8.30	9.91
Mean difference = results of Group 'B' – results of Group 'A' = 9.91 - 8.30 = 1.61 Conversion of Mean difference in Percentage=> 1.16 = 10.7%	

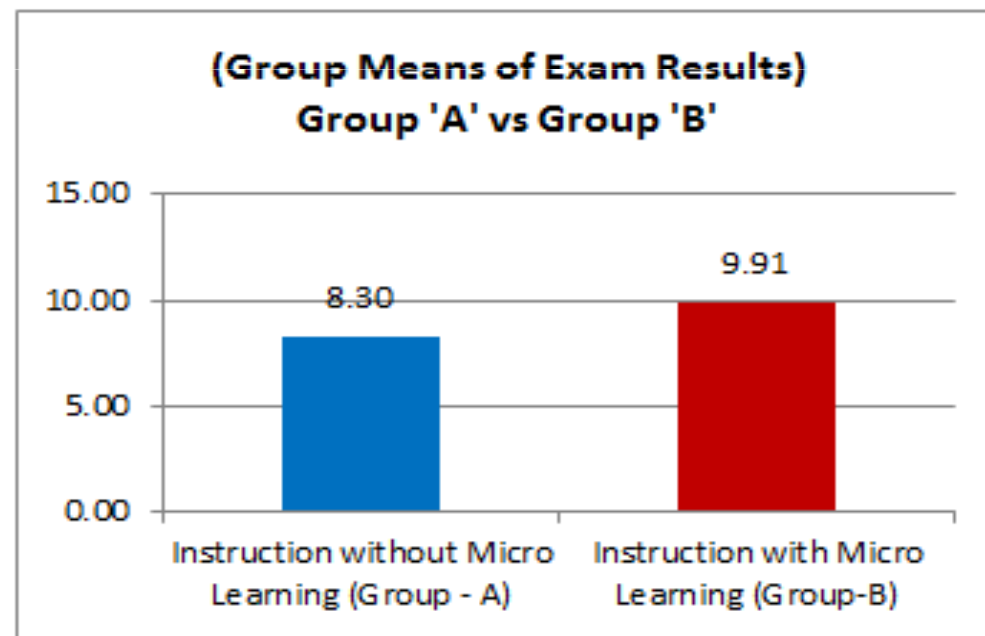


Fig. 1. Group Means of Exam Results – Group 'A' Vs Group 'B'

ATTITUDES TOWARDS MICRO LEARNING USING AUDIO PODCASTS (Group 'B')

<i>Table 2: Attitudes toward Micro Learning using Audio Podcasts</i>			
Dependent Variables	Mean		Size of Change
	Before	After	After-Before
Friendly	2.71	4.12	1.40
Comfortable	2.60	4.08	1.48
Essential	1.94	4.17	2.23

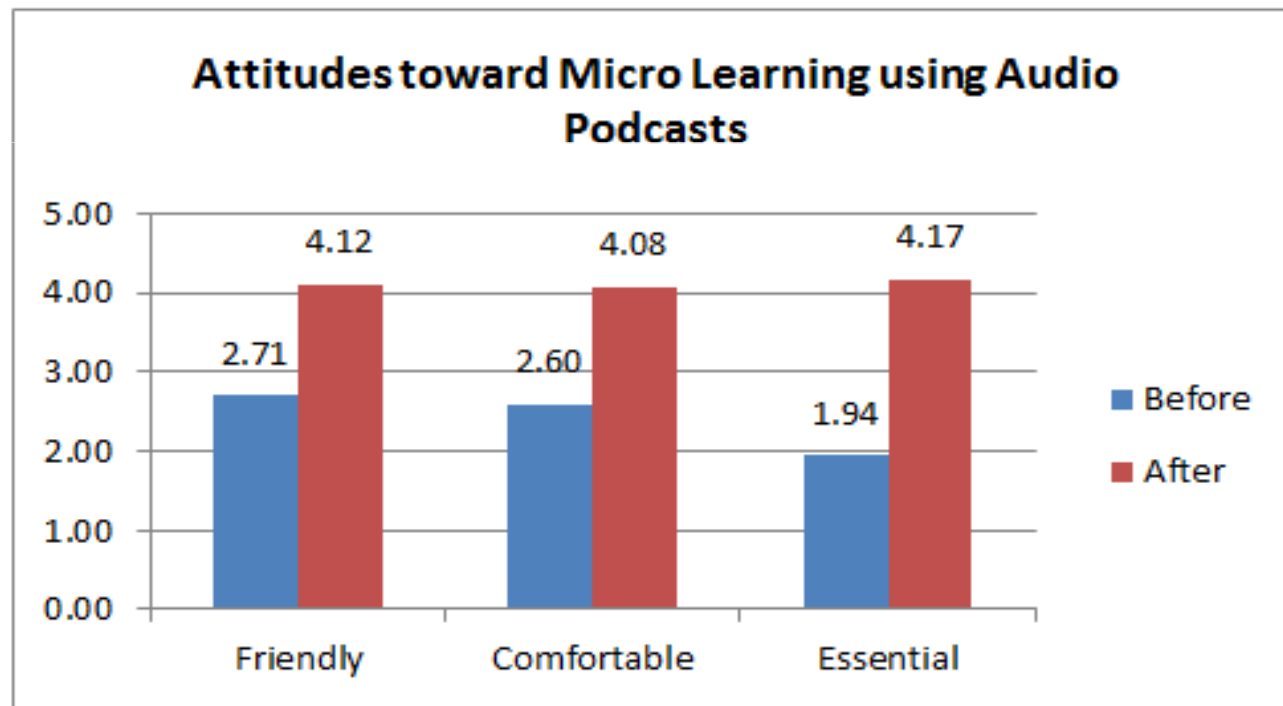


Fig. 2. Attitudes toward Micro Learning using Audio Podcasts

HELP OF AUDIO PODCAST IN UNDERSTANDING AND LEARNING THE COURSE MATERIAL (Group 'B')

<i>Table 3: Understanding and Learning toward Micro Learning using Audio Podcasts</i>			
Dependent Variables	Mean		Size of Change
	Before	After	After-Before
Understanding course material	2.12	4.06	1.94
Learning course material	2.21	3.94	1.73
Help in Exams Preparation	2.27	3.83	1.56

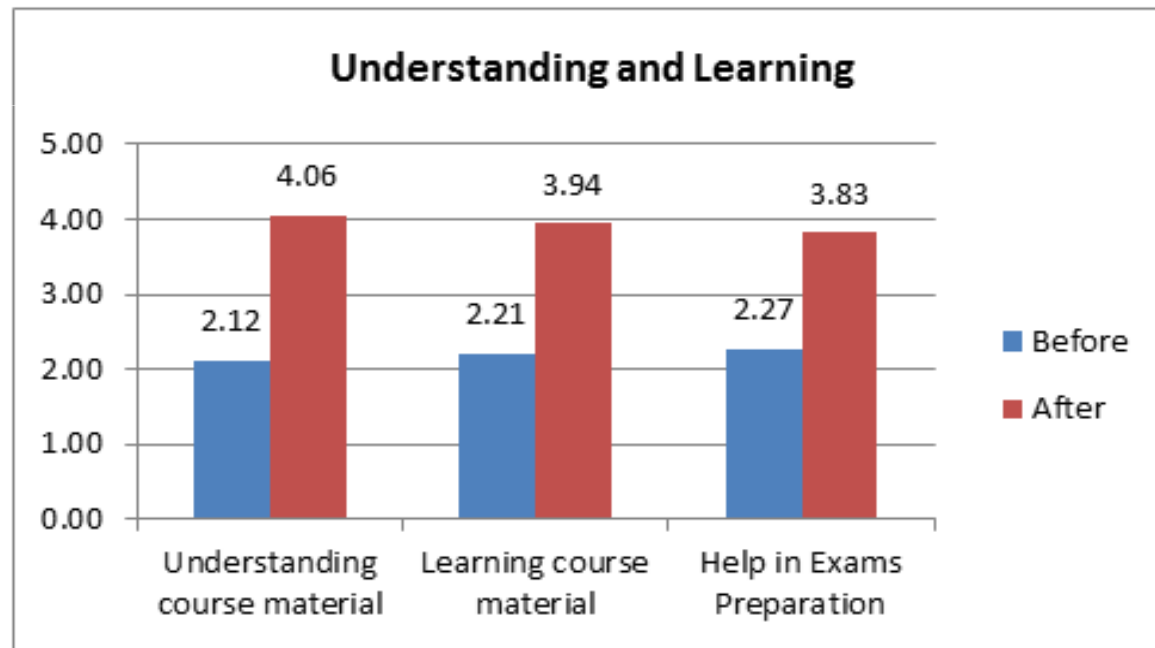


Fig. 3. Understanding and Learning toward Micro Learning using Audio Podcasts

LIKINGS OF STUDENTS (METHOD OF INSTRUCTION) - Group 'B'

<i>Table 4: Students Likings (Method of Instruction)</i>			
Dependent Variable	Mean		Size of Change
	Before	After	After - Before
Instruction through Instructor & supported with Audio Podcast	1.77	4.42	2.65

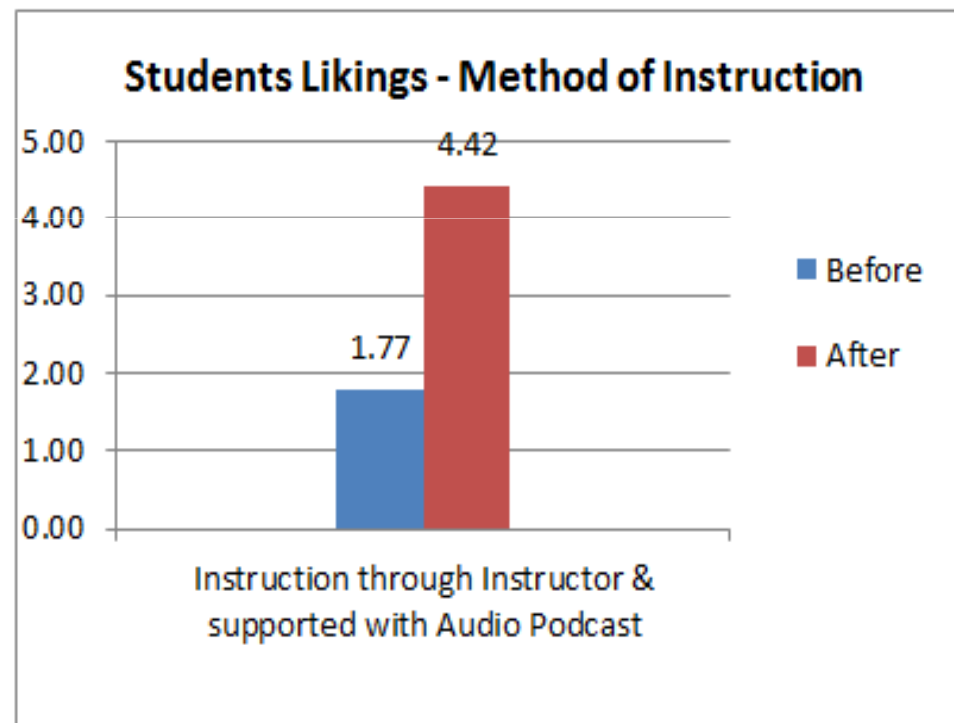


Fig. 4. Students Likings – Method of Instruction

Conclusion:

The use of Audio Podcast as a Micro Learning tool leaves positive effects on the learning outcomes and results as this tool is:

User **Friendly**

Comfortable

Valued as an essential part of the course for

Understanding and

Learning the course contents,

Greatly helpful for the **exam preparation**

Micro Learning (Blended Mode) as most preferred mode

And

The Audio Podcast as a Micro Learning Tool had helped in raising the students' exam results to 10.7%.

Dear educators, what are you waiting for? Start using the Audio Podcasts as a Micro Learning tool, to deliver your course contents as a better solution to solve the problems related with course contents, and increase the percentage of learners understanding, concepts building, improved results and overall, better learning outcomes.

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APPENDIX 1: QUESTIONNAIRE FORM

Effects of Audio Podcasts as a Micro Learning Tool on Instruction

Please Tick

- Male
- Female

Dear student:

This questionnaire is to get your feedback about the effects of Audio Podcasts as a Micro Learning Tool on Instruction. Your opinion will help us in understanding the effects of Audio Podcast, and will not at all affect the evaluation and assessment process of your course. Please, assess the following statements by keeping in view:

1 - Strongly Disagree

2 - Disagree

3 - Uncertain

4 – Agree

5 – Strongly Agree

		Before / After				
1	I think Audio Podcast is friendly.	1	2	3	4	5
2	I think Audio Podcast is comfortable, while using.	1	2	3	4	5
3	I feel easy working with computers.	1	2	3	4	5
4	I feel that Audio Podcast is an essential part of this course.	1	2	3	4	5
5	I wish this course be taught by the instructor only.	1	2	3	4	5
6	I wish this course be taught through Audio Podcast only.	1	2	3	4	5
7	I wish this course be taught by Instructor and supported through Audio Podcast.	1	2	3	4	5
8	On the whole, Audio Podcast helped me in understanding the course material.	1	2	3	4	5
9	On the whole, Audio Podcast helped me in learning more the course material.	1	2	3	4	5
10	On the whole, Audio Podcast helped me in gaining more score, in the course exams.	1	2	3	4	5

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