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Conference paper

THE IMPACT OF PPT PRESENTATIONS IN TEACHING AND LEARNING PROCESS, CASE STUDY: UNIVERSITY OF TETOVA

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Abstract

Conventional teaching was more focused on the content, and courses taught were based on textbooks. Contemporary settings regarding the curricula aim at promoting competency and performance and are concerned more with how the information will be used rather than what information is used. The purpose of this empirical study was to investigate the students' perceptions of use and success with PowerPoint presentation software. The reason behind it is that nowadays the so-called Net Generation are students grown up with the internet, finding it difficult to stay "awake", since they are busy doing other tasks on iPhones, laptops, or notepads. This research addresses several issues, from the students' viewpoint, such as 1) PowerPoint enhances learning by providing better understanding, 2) offers more dynamics in the classrooms, and/or 3) contributes to improving the efficiency of learning. Students, participants of this study have received lectures in PowerPoint, in different study programs and courses.

Keywords*: curricula, teaching, empirical analysis, PowerPoint, efficiency of learning.*

1. Introduction

The creative use of information and communication technology (ICT), especially presentation software such as PowerPoint, can bring renewed energy and changed direction to the lecture format [1]. PowerPoint (© Microsoft) is a widely used presentation tool that originated in the world of business but has now become commonplace in the world of educational technology [2].

This paper examines some of the key issues that must be considered at the university level, it provides an overview of both the benefits and the problems associated with its use and suggests some key pedagogical decisions that should be considered when adopting its use.

There are different advantages by effectively using them; starting with different learning styles, increasing visual impact, improving student focus, analyzing the synthesizing and highlights, increasing spontaneity and interactivity, etc. However, issues such as challenges and benefits will be handled throughout this paper. We will focus on the impacts on using it as a tool into the teaching and learning process, such as: interactivity, feedback and reductive.

In general, the paper is organized as follows. The first section presents the literature review, and then describes the hypotheses, followed by the research method; at least results are presented along with the study's conclusions and limitations.

2. Literature Review

The key element in the use of PowerPoint as a presentation tool is its potential to increase and maintain student interest and attention when combined with active teaching and student involvement [1].

PowerPoint presentations incorporate graphics, animation, and color (imagery). Human information processing theories focus on how the human memory system gathers, transforms, compacts, elaborates, encodes, retrieves, and uses information [3]. According [4] the results reported in scholarly journal articles indicate that students like to be taught using PowerPoint (perhaps because of its novelty and the availability of printed handouts of PowerPoint slides) and think that PowerPoint presentations are entertaining, enhance clarity and aid recall of subject matter. There is little consistent evidence, however, to show that teaching with PowerPoint leads to significantly better learning and significantly better grades than teaching by more conventional methods.

According [2], authors mentioned that benefits of applying PPT presentations in teaching and learning are as follows: appropriate use of PowerPoint can enhance the teaching and learning experience for both staff and students; provides encouragement and support to staff by facilitating the structuring of a presentation in a professional manner; can appeal to a number of different learning styles and be made more stimulating; the electronic file format allows distribution and modification for/by students unable to be present or who have impaired visual or auditory difficulties; Extra information can be 'hidden' within files for answering predicted questions or for providing feedback to students using the file in a distance learning context.

In addition, based on the author's paper [5] benefits reflected using this teaching method starts with producing better visual effects and deeper impression; speeding up the information transfer and more precise and more systematic.

Abuses and disadvantages are also reported. Regarding [2] such: refusal of any component of the system to work as expected, file corruption caused by magnetic or physical damage so that the presentation will not run, incompatible media and lack of appropriate training in both the program and the technology.

A paper-based survey was delivered to on-campus students in the different study programs at the University of Tetova. Data were collected from 275 students (both males and females). Student responses to a PowerPoint Preferences Survey were obtained. This was a 10-item 5-point Like scale survey (with 1 being Disagree and 5 being Strongly Agreed) consisting of questions regarding the benefits of PowerPoint presentations and students' preferences for aspects of those presentations. Students completed the surveys during the fall 2016 semester. PowerPoint was currently being used in classes at all faculties, and students were familiar with its use. Results, means and standard deviations were calculated for each question on the survey.

Below are presented the hypothesis of our survey:

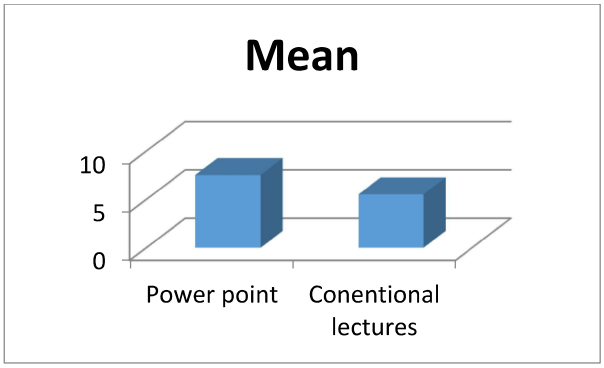
- H1. Students prefer PowerPoint lectures in contrast to conventional lectures!?
- H2. Power-point presentations are easier to follow and understand, offer more dynamics in the classroom!
- H3. Students' experience, gender or study programs have an impact on toward the preferences of PowerPoint.

3. Empirical Analysis & Results

Different reports show that millennial students in classes with traditional stand-and-deliver lectures are more likely to fail than students in classes that use more stimulating, so-called active learning methods. Today teachers are fortunate to be lecturing at a time when there are so many technological resources available, which can be used to improve and enhance the learning experience for the students. However, what is important is to choose the resource that best fits to different lectures. Our focus to see the impact that PowerPoint presentations have in order to make the lecture more interactive and promote student retention and learning of the content presented during the lecture.

We believe, from our experience as lecturers, that a well-done PowerPoint presentation has the power to reveal the organization, emphasize main points, and enable to capture and hold students' attention.

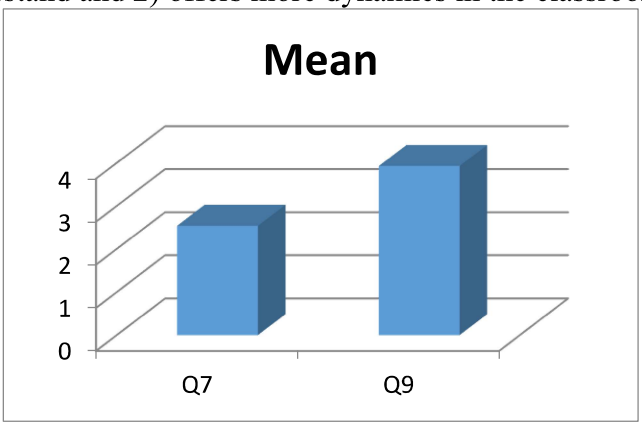
H1. Different surveys suggest that students prefer PowerPoint without always being able to justify their choice properly. One reason may be that PowerPoint is preferred because it was novel and millennial students are exposed to PowerPoint and computer-based learning more than traditional lectures. However, answers given by the students indicate most of the students clearly preferred and accepted the use of PPT presentations, as compared to conventional teaching for the delivery method. As shown in graph 1. The numbers represent the mean taken from two questions of the questionnaire.



Graph 1. H1 (Students prefer PowerPoint lectures in contrast to conventional lectures!?)

H2. Student-centered learning is about placing the student at the center of the teaching process, by making them active and responsible contributors to their own learning. While spending time planning the content of the lecture that should be part of the presentation, lectures have the opportunity to evaluate the information that needs to be included and the best method of delivering it to students. Preparing a lecture in advance allows lecturers to research valuable resources, such as educational videos, academic articles, etc. Questions can be used to stimulate interaction throughout the lecture

and can be used to revisit content at the end. Involving students through questioning helps to maintain their attention, which is vital when information is complex, and lectures are long. The answers to the questions of the questionnaire suggest that PowerPoint presentation offers more understanding to the main point, are easier to follow and offer more dynamics in the classroom, graph 2, which is also represented as mean, respectively questions 1) Power-point presentations are easier to follow and understand and 2) offers more dynamics in the classroom.



Graph 2. H2 (Power-point presentations are easier to follow and understand, offers more dynamics in the classroom)

H3. Hypothesis three investigates the potential impact that experience, gender or study programs contribute toward preferring PPT a better teaching method. Firstly, we suggested that more experienced students are, more in favor of PPT then new students, but the descriptive data shown in table 1. Indicates that second -year students prefer PowerPoint presentation more than forth year students. The mean for the answers obtained from the second-year students is 27.55, whereas for the fourth-year students is 23. The level of significance is relatively high, $p<0.01$ and t-test $t81= 3.357$, indicating that less experienced students are more in favor of PowerPoint presentations. As regarding the gender, the results, table 2, calculated for both groups, indicate that there is no statistically significant difference between male and female students regarding preferences toward Power Point presentations, with $p>0.05$ and t-test $t244=0.482$. Does the content learning have any impact preferring PPT regarding conventional learning? In order to reply to this question, we compared two study programs, business economy, and computer science. The results obtained in this case indicates that the level of significance in relatively high, $p<0.01$ ($t157= -3.494$), meaning that students of different study programs do not prefer PPT as the best method of teaching, table 3.

Table 1. The difference between second- and fourth-year students

Groups	N	M	SD	t	p	Significance level
Second year students	38	27.5526	4.24708	3.357	.000	p<0.01
Fourth year students	45	23.0000	7.38857			

Table 2. The difference between male and female students

Gender	N	M	SD	t	p	Significance level
Male	124	26.7419	5.37212	0.482	.874	p>0.05
Female	122	26.4098	5.42683			

Table 3. The difference between business economy and computer science students

Faculty	N	M	SD	t	p	Significance level
Computer Science	87	25.2184	5.96974	-3.494	.001	p<0.01
Business Economy	72	28.0139	3.55041			

4. Conclusion

The purpose of this study was to investigate whether the use of presentation graphics (PowerPoint) contributes to students' success when compared to a traditional lecture. PPT as a software tool helps to explain content more accurately, which is a very important aspect of teaching by including drawings /figures which are worth a thousand words. It also helps teachers to act as a facilitator of the lecture contents in contrast to dispensing lectures.

Also, a well prepared PPT lecture can be very impressive, by making the content easier to listen and follow for students thus the lecture can be followed in a systemic manner. But not each student and program uses the same learning style or technique. Liking or disliking a certain method of teaching is dependent upon whether it is fulfilling the students' requisite since the requirements are not only to understand the subject but also to reproduce it in the exams.

Most of the studies from the student point of view reflect that the majority of students prefer PowerPoint as the mode of lecture delivery over the traditional method, so as does the present study. Having this in the consideration we believe that lecture halls need to be upgraded to facilitate teachers to deliver lectures using PPT, but also teachers should be guided to design their presentations so that the lectures will become more effective.

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