THE EFFECTIVENESS OF PRESENTATIONS IN HIGHER EDUCATION: TEACHER AND STUDENT PERSPECTIVES

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Abstract:
The aim of this paper is to explore and analyze the opinions and attitudes of university students and professors regarding the use of presentations as the most prevailing teaching tool in modern hybrid education, across various teaching subjects. Having in mind numerous advantages and positive aspects of delivering content through PowerPoint presentations, this paper also aims to examine the shortcomings and limitations of using presentations in classes in a university environment. The research was conducted to consider the attitudes of students and teachers, to improve the use of presentations in classes and further enhance the quality of teaching. Based on the analysis of survey results with both teachers and students, it can be concluded that presentations may have an impact on the reduced interaction between students and teachers in class. They are not an essential tool without which the class itself would be less effective. Neither is the class monotonous due to the continuous use of presentations nor is students' attention weakened due to focusing on presentation content. The role of teaching competencies is crucial for maintaining interaction in class, selecting meaningful materials, and provide the dynamics of effective content presentation.

Keywords:
Presentation, Teaching, Students, Professors, Modern Technologies.

INTRODUCTION

During the last two decades, there have been significant changes in education, greatly influenced by the advancement of information technologies. The recent global COVID-19 pandemic has further propelled this transformation in education, necessitating the use of computer technology and the Internet at all educational levels and environments. Initially, the implementation of technology in teaching brought innovations to classrooms, which can positively impact student motivation and concentration. However, according to research on the attitudes of the student population and teaching staff, conducted before and after the COVID-19 sanitary crisis, it has been shown that the role of teachers with pedagogical and digital competencies is crucial in improving teaching and learning, regardless of the aids used in the modern era [1].

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In addition to numerous technological tools used in everyday teaching, it is undeniable that presentations, most often PowerPoint, are the most prevalent teaching tool. Presentations enable teachers and students to present instructional content more easily. In this sense, through a comprehensive analysis of the use of PowerPoint technology in higher education and its impact on teaching in higher education, its influence on learning efficiency, class dynamics, and the visual appeal of instructional material is confirmed, according to the research [2].

PowerPoint presentations have experienced significant expansion since their initial use in the business world in the 1980s. Globally, estimates from 2012 suggested that presentation software was installed on a billion computers [3]. New technologies are often integrated into classrooms, and the trend of using PowerPoint as an alternative to whiteboards and overhead transparencies has emerged. Like all teaching tools, PowerPoint presentations have a range of advantages and disadvantages, and interested educators can easily find a list of recommendations for and against the use of this teaching tool [4].

In psychology, it has long been shown that the depth of information processing during the learning and memory process influences the quality and durability of acquired material [5]. The skill of presenting material in different ways helps students with various learning styles access the material in a way that suits them. For example, presentations are often illustrative and include many images, graphs, or tables, which allows visual learners to understand and retain information more easily.

However, in this paper, we will not list the numerous advantages and opportunities that presentations offer in the teaching process; instead, we will discuss the disadvantages and limitations of these tools. In the same context, in our previous research, we examined and analyzed the attitudes of university students toward the limitations of hybrid teaching in general and the use of online tools in teaching. A significant number of students mentioned reduced concentration during learning and distractions during online classes as elements that interfere with the effective learning [6].

Therefore, in this paper, we aimed to examine the attitudes of university students and teachers regarding the effectiveness of presentations, as one of the most prevalent teaching tools in modern hybrid teaching, and to gain insight into the limitations of its use and work towards its purposeful application.

2. DISADVANTAGES OF USING POWERPOINT

Presentations are used in the majority of frontal teaching sessions, as indicated by recent research on the opinions of students at the University of Belgrade: The research findings show that teaching is still dominated by traditional approaches. The most commonly used methods are presentation (70.9%) and monologue method, academic lecture (63.8%), with a dominant frontal form of work. They are followed by dialog method, discussion (29.9%), and text method (18.1%), while the least used methods are the ones based on practical activities (14.7%) [7]. One of the main drawbacks of using presentations in class is the excess of irrelevant information and details in the presentation itself, causing students to become confused and easily lose concentration. The presenter strictly adheres to the order of slides, thereby preventing interaction and additional questioning by students. Technical issues such as power outages or Internet interruptions in the classroom should not be overlooked either. The key question is whether students are capable of simultaneously performing two processes during the teacher's lecture, both of which require a high level of concentration: interpreting slides and following the presenter's exposition. Interesting data were also obtained in a recent study confirming the value and significance of traditional teaching methods while leaving room for enrichment with numerous visual materials and PowerPoint presentations. With the motivation of teachers who want to improve the teaching process and engage the multiple senses of their students, this could increase the depth of information processing and thus the quality and durability of learning, not only in foreign language learning but also in other subjects and skills [8]. The use of presentations for didactic purposes can be problematic for three reasons: the speed at which the presenter projects slides, information overload per slide, and the risk of students becoming passive observers. If the material is extensive, the teacher will be forced to project slides more quickly, making it difficult for students to keep up with the lecture, while the teacher will be satisfied because they have covered the planned material and fulfilled the lesson plan for that class. However, the question remains as to how much students have understood and remembered from the material presented [9]. A frontal class held using PowerPoint often leads to the presenter being deprived of feedback from students. Even if the slides are projected slowly and contain a lot of information, there is a risk of overwhelming students,

leading to the loss of some information and poor concentration. If the presenter simultaneously projects slides containing the text that is not entirely consistent with the oral explanation, the so-called split-attention effect occurs, meaning that students try to concentrate on two different sources of information simultaneously, causing their attention to vary between the oral presentation by the lecturer and the content displayed on the slides [10]. This effect can be compared, for example, to simultaneously reading newspapers and listening to the news on the radio, which leads to attention shifting from one source to another, resulting in the loss of essential information. Alignment with the content of the slide is crucial during the lecturer's oral presentation. Another major drawback of using presentations in class is the reduced need for note-taking, especially if students are aware that the presentation will be available to them at any time.

3. THE METHODS AND AND RESULTS OF THE RESEARCH

The aim of our research was to examine the shortcomings of using presentations in teaching at various faculties and study programs of Singidunum University in Belgrade while comparing the attitudes of professors and students through two separate questionnaires with similar questions. The sample consisted of a total of 131 students, 110 female and 20 male, with one unspecified gender. The students were from undergraduate and master's studies. Students were from the following faculties and study programs: Business Economics - 45 students (34.4%), Faculty of Tourism and Hotel Management - 27 students (20.6%), Faculty of Informatics and Computing - 15 (11.5%), Faculty of Physical Education and Sports Management - 1 student (0.8%), English Language and Literature - 41 students (31.3%), Pharmacy - 2 students (1.5%)."

The examined teaching staff consists of 52 teachers, 36 female and 16 male. Teachers are from various scientific fields, namely: Natural Sciences - 7 teachers (13.5%), Technical Sciences - 6 teachers (11.5%), Social Sciences and Humanities - 38 teachers (73.1%), Medical Sciences - 1 teacher (1.9%). The examined teachers have different lengths of teaching experience.

The first hypothesis we consider in this paper is that presentations have absolute dominance in teaching because they are used in almost all classes in higher education institutions, and in our opinion, using one form of work and teaching aid can lead to lessons becoming monotonous for students. We have already mentioned at the beginning of this paper that presentations are the most prevalent in teaching at the University of Belgrade faculties, i.e., that demonstration through presentations and monologue method are present in 70.9% of teaching. We have conducted a research at Singidunum University, where we have obtained the following results:

75% of the teachers stated that the presentations are present in all the lectures, while 15.4% of them use them in most classes. Only 3.8 % of the surveyed teachers use presentations in some classes, and only 5.8 % of the teachers rarely use them.

33.6% of students stated that presentations are the main teaching tool in classes, while 66.4% said they are auxiliary and secondary tools, and no student said that presentations are not used. We can conclude that presentations are most prevalent in teaching at Singidunum University.

Table 1. Overview of respondents by faculties/study programs.

Faculty/Study Program	Percentage
Business Economics	34,4%
Faculty of Tourism and Hotel Management	20,6%
Faculty of Informatics and Computing	11,5%
Faculty of Physical Education and Sports Management	0,8%
English Language and Literature	31,3%
Pharmacy	1,5%

Table 2. Teacher's Teaching Experience.

Teaching Experience	Percentage
From 0 to 5 years	13,5%
From 5 to 10 years	15,4%
From 10 to 20 years	51,9%
Over 20 years	19,2%

We have conducted a survey to see whether using presentations in most classes can make them monotonous.

The claim for teachers was: I have the impression that students have become bored in class because presentations are used in most classes.

The claim for students was: I have the impression that classes have become more boring for me because presentations are used in most classes.

The second hypothesis we are considering, which is not often discussed, is that teachers can experience significant stress if there are technical issues and their preparation for the class includes the use of a presentation. We have examined how teachers feel in situations when there are technical problems.

The claim for teachers was: If there is a power outage or equipment failure, I feel very nervous and anxious in front of the students.

The claim for students was: If there is a power outage or equipment failure, our professors become very nervous and anxious in front of the students.

Comparing the results, we can conclude that the attitudes of professors and students align and that professors generally do not experience stress due to technical issues because they are likely to have alternative scenarios prepared in advance, and they are not upset, which is also indicated by the students' attitudes. This hypothesis of ours proved to be incorrect.

The third hypothesis we are considering is that the use of presentations affects the interaction between teachers and students, meaning that both teachers and students direct their attention to the educational content being presented.

The claim for both teachers and students was: The use of presentations by the professor disrupts his interaction with students.

Based on the data we have obtained in the survey, we can conclude that the vast majority of teachers and students disagree with the statement that presentations reduce interaction between students and teachers in class.

Table 3. The Impact of Frequent Use of Presentations on Monotonous Teaching.

Perspective	Students	Teachers
Strongly Disagree	34,4%	36,5%
Mostly Disagree	20,6%	26,9%
No Opinion/Neither Agree nor Disagree	11,5%	19,2%
Mostly Agree	0,8%	9,6%
Strongly Agree	31,3%	7,7%

Table 4. Tension and Stress Among Teachers Due to Technical Issues in Class.

Perspective	Students	Teachers
Strongly Disagree	75%	61,8%
Mostly Disagree	13,5%	21,4%
No Opinion/Neither Agree nor Disagree	7,7%	11,5%
Mostly Agree	1,9%	3,1%
Strongly Agree	1,9%	2,3%

Table 5. The Influence of Presentations on the Interaction Between Students and Professors.

Perspective	Students	Teachers
Strongly Disagree	64,9%	46,2%
Mostly Disagree	23,7%	32,7%
No Opinion/Neither Agree nor Disagree	8,4%	7,7%
Mostly Agree	2,3%	9,6%
Strongly Agree	0,8%	3,8%

The fourth hypothesis we are considering is that good presentations attract students' attention and then they are less focused on what the teacher is saying because at that time two processes are taking place simultaneously, both requiring a high level of concentration: interpreting slides and following the lecturer's presentation. To indirectly verify this, we have made the following statements.

The statement for teachers was: "I believe that during the class, students are more focused on the presentation than on what the professor is saying."

Based on the data provided in the tables above, we can conclude that almost half of the surveyed students and teachers have not expressed an opinion, which is probably because it is difficult to assess what their attention is primarily focused on.

It is also discussed in the literature we referred to, that the use of presentations has led to students being more passive in class, meaning that they have become observers who engage less deeply in the content, record key information from classes less frequently, etc. We have attempted to verify this assumption through a survey, as well as the statement that the use of presentations has led to students not taking notes in classes, and we have come to the following conclusions.

From the table provided, we can conclude that the use of presentations in teaching is only partially the reason why students take fewer notes. The opinions of students and teachers differ to a considerable extent here. That is, the majority of surveyed teachers believe that presentations lead to students taking fewer notes, while the number of students who agree with this statement is significantly smaller.

Additionally, the survey has shown that 13% of students use their notes to prepare for exams, while as many as 53.4% of students use presentations.

4. CONCLUSION

Presentations as a teaching tool enable both teachers and students to effectively convey instructional content. Through the analysis of the use of PowerPoint technology in higher education and its impact on teaching, the influence on learning efficiency, class dynamics, and content visibility has been confirmed.

Table 6. Teachers' Perspectives.

Perspective	Teachers
Strongly Disagree	3,8%
Mostly Disagree	26,9%
No Opinion/Neither Agree nor Disagree	44,2%
Mostly Agree	13,5%
Strongly Agree	11,5%

Table 7. Students' Perspectives.

Perspective	Teachers
Strongly Disagree	13,7%
Mostly Disagree	20,6%
No Opinion/Neither Agree nor Disagree	47,3%
Mostly Agree	13,7%
Strongly Agree	4,6%

Table 8. The Impact of Presentations on Classroom Engagement.

Perspective	Students	Teachers
Strongly Disagree	32,1%	3,8%
Mostly Disagree	19,8%	7,7%
No Opinion/Neither Agree nor Disagree	25,2%	23,1%
Mostly Agree	13,7%	28,8%
Strongly Agree	9,2%	36,5%

The aim of our work was to explore and analyze the attitudes of university students and professors regarding the use of presentations as the most prevalent teaching tool in contemporary hybrid education across various subjects. The focus was on examining the limitations and constraints of using presentations in teaching within a specific university environment. The research was conducted to consider the perspectives of students and teachers, aiming to enhance the more effective use use of presentations in classes and further improve teaching quality. Based on the results of conducted surveys, it can be concluded that presentations may lead to weaker interaction between students and teachers in class. It was also found that the flow of instruction would remain uninterrupted and equally effective even without the regular use of this tool. On the other hand, neither is the class considered monotonous due to the use of presentations alone nor is student attention weakened due to prolonged focus on the presentation. Finally, the most significant role in all subject classes is played by the teacher, who is capable of maintaining attention and fostering interaction in class by selecting interesting and relevant materials, utilizing dynamic activities, and presenting useful content.

5. REFERENCES

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