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Research Article

Use Of Powerpoint Presentation in Teaching and Learning Courses in Malaysia

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Abstract:

The great usage of multimedia technology in the classroom directly results in a paradigm change in the way people learn and teach it. There have been this shift in schools all across the globe. This paper aims to explore the several ways in which PowerPoint presentations are applied in the teaching and learning process within the framework of Malaysian higher education. Especially, focus on their different curricula. Visual aids like PowerPoint might help to assist the dissemination of structured knowledge, increased student involvement, and support of multimodal methods to teaching as well as other possible results. Among the several tools Microsoft provides is PowerPoint. The aim of this study is to derive conclusions on the ways in which the usage of this technology effects the capacity of students to retain knowledge, grasp complex concepts, and show active engagement in classroom discussions. It also looks at the opinions of teachers and students on the efficiency of the program as well as the restrictions it imposes on its users as a further topic of interest. Conversely, current research shows that, if used excessively or incorrectly, PowerPoint presentations might potentially hinder active learning. This is true even if PowerPoint presentations help to organise courses and simplify understanding of images. Actually, this is true regardless of whether PowerPoint presentations improve the visual clarity or course structure. The results of this study underline the need of instructional design, interactive material, and the capacity of teachers in order to maximise PowerPoint's possibilities. This study intends to clarify effective strategies that improve learner-centred education in the framework of Malaysian educational surroundings. This study has as its main aim to reach this point.

1. Introduction

Thanks to technology developments, the conventional classroom has changed greatly. These discoveries have fundamentally changed our approaches to teaching in ways that were inconceivable a few years ago. PowerPoint presentations have been the preferred method for course content transmission fast embraced by educational institutions like colleges and universities. One of the easily accessible technology tools is PowerPoint. PowerPoint is increasingly employed in Malaysian classrooms—especially in environments where students require visual assistance to grasp the material. This becomes even more crucial when pupils find visual assistance incomprehensible. An effective tool with application in many spheres of academia and business is PowerPoint. Every academic field might benefit from PowerPoint in some way. With the aid of this multifarious tool, one may rapidly and simply establish a dynamic and interesting learning

environment. Its construction allows one to blend text, graphics, music, and video, so it is a quite flexible instrument. PowerPoint might help to arrange the ideas and cover all the course material in an understandable presentation. Many teaching strategies, including group projects, controversial debates, and classroom lectures, may be supported using the flexible Power point tool. More research points to it perhaps being utilised in a variety of instructional settings. Those who mostly rely on visual or aural information acquisition find great value in this. Furthermore, this condition offers a great chance for individuals who may acquire knowledge more effectively by applying this approach[10]. Though PowerPoint offers numerous benefits, depending too much on it might backfire. Poor PowerPoint management can deter students from actively participating in class, cause more passive learning, and lower their capacity for critical thinking. As the government of Malaysia supports the incorporation of digital technology into schools, knowing how to maximise PowerPoint to support active learning becomes ever more crucial. PowerPoint lets students build and present their own presentations at their convenience, therefore granting them independence. Analysing the advantages and drawbacks of this instrument is absolutely essential for businesses and educational institutions to improve the quality of their goods and students' learning environments. With particular focus on student opinions of the technology, instructors' views of its usefulness, and possible future pedagogical initiatives, this study intends to look at the use of PowerPoint presentations in Malaysian classrooms[9].

2. Background of the Study

Like many other nations across the world, Malaysia has only lately started to realise how important technology is in the classroom as a necessary component of the teaching and learning process. Some technologies, like PowerPoint, a visual tool for presenting educational content, have become very common. PowerPoint is something Microsoft developed. Throughout Malaysia's several educational levels, power point presentations are utilised somewhat often and widely. These activities are meant to promote visual learning, help with lecture preparation, and raise student involvement. Digital technologies like PowerPoint have been used by Malaysian schools and universities more and more to change their curricula and raise general student performance[11]. This is directly the outcome of the country's relentless quest of an information-based economy. Though Power Point is used extensively in the realm of education, there is ongoing discussion on whether it supports efficient learning. Teachers vary on the topic. While some say utilising slides improves knowledge, memory, and attention, others warn students can become passive learners or miss out on interaction chances if they depend too much on them. Furthermore influencing PowerPoint's general efficiency in the learning process are other elements. These cover the presenter's manner, the content's organisation, and the slide quality itself. Moreover, several elements affect the degree of PowerPoint application in Malaysian schools. These elements comprise the varying technical infrastructure of the nation, instructors' degree of digital proficiency, and the assistance given by various universities. In an effort to better students' educational experiences, the Malaysian Ministry of Education and other Malaysian academic institutions have underlined the need of creating successful teaching strategies including digital resources. Given the government's emphasis on 21st-century skills and the growing availability of digital infrastructure, it is crucial to look at how PowerPoint presentations affect teaching effectiveness and student involvement in Malaysian educational institutions, both favourably and negatively. This study aims to find if Power Point presentations either enhance or deteriorate some regions. This study thus intends to look at the function of PowerPoint presentations in Malaysian educational courses as well as their advantages and drawbacks. This study aims to evaluate the actual usage of technology and its effect on learning Courses from a practical standpoint; this assist to guide best practices in technology-enhanced education and improve pedagogy.

3. Purpose of the Research

This article aims to find, within the context of Malaysian higher education institutions, how PowerPoint presentations influence the results of teaching and student learning. More especially, this study seeks if students' cognitive engagement, understanding, and academic performance vary depending on the degree of design quality of these presentations. While knowing how digital technologies are utilised is becoming more and more crucial, assessing how effectively these instruments create significant learning opportunities becomes even more vital. This trend is largely caused by the quick integration of digital technologies into instructional approaches. This paper attempts to highlight the often overlooked component of presentation design thereby enriching the growing corpus of knowledge on instructional technology. Aiming for this call for particular attention to the variations in display architecture. Although

PowerPoint is used extensively in Malaysian classrooms, the quality of the given and ordered content still influences the extent of technological influence on learning results. This holds true regardless of regular PowerPoint use. This study aims to give insightful analysis competent to direct professional teacher training, curricular development, and instructional strategies. Examining the relationship between good design and high student learning can help us to reveal these ideas. Furthermore, the study seeks to clarify the more general pedagogical consequences connected to multimedia use in many learning environments. Every student group should have curricula that make sense considering the wide range of intellectual, cultural, and language backgrounds seen among students of Malaysian institutions. Moreover, the research supports the national goal of raising the calibre of higher education by means of technologies-enhanced learning approaches. This study's primary objective is to give teachers evidence-based advice for choosing how to apply digital presentation technologies. The ultimate objectives of this movement, which seeks to support a more learner-centred, outcome-oriented approach to education, are better educational practices and higher academic results. It shall underline the need of excellent design in order to reach this target.

4. Literature Review

The application of digital technology into educational initiatives has resulted in a worldwide teaching and learning scene completely different. From an academic standpoint, instructors' usage of Microsoft PowerPoint is more crucial than any other tool discussed in this paper for improving the information flow to their students. Starting from elementary school and working all the way through university, Yunus et al., find that PowerPoint is used extensively in classrooms throughout levels of education in Malaysia. Included in this category is the primary school classroom using PowerPoint. One of the main reasons the program is so widely used is the capacity of the software to artistically arrange difficult content and allow multimodal learning utilising text, images, music, and animation. Another benefit of the software is its pictorial arrangement of complicated data. PowerPoint is a desirable item as it may improve pupils' memorising and attention span. According to Harun & Salam, PowerPoint, when utilised correctly, may assist pupil’s better grasp difficult concepts and help to clarify ideas. Because they enable students to better grasp the current topic in the classroom, the visual aids it provides also support students with a variety of learning styles. Claim that among the several purposes PowerPoint serves in Malaysian classrooms are building online and hybrid learning environments, improving classroom education, and so advancing student-centered learning. One further issue is the fact that PowerPoint is a tool often utilised in virtual courses. The results of the investigation suggest, nonetheless, some quite significant restrictions. According to Rahman & Wahab, poor attention and engagement follow from a highly dull or overly wordy presentation, too much reliance on slides, and too thick language use. All of these attributes have come highly advised. Although multiple studies indicate that PowerPoint performs best in an instructional environment, this is not enough evidence to ensure its efficacy. Furthermore, the educational value of these technologies may be reduced if the institutions that apply them fail to offer the necessary training or support. Any thought given this problem. The use of ICT resources in classrooms is under great emphasis as a way of supporting creative teaching approaches in the Malaysian Education Blueprint for the years 2013–2025. These techniques should be simpler to apply. Indicates that if PowerPoint presentations apply active learning strategies, students could be more involved and happy with their learning experience and maybe see marks improve. It also emphasises the need of a comprehensive approach combining conventional teaching methods with technology tools to meet different learning requirements. This is so because different pupils have different educational needs. Indeed, PowerPoint is still helpful for Malaysian instructors; yet, the degree of impact it makes rely on the teacher's degree of competency, application usage, and the above listed traits. Comprehensive study is necessary to ascertain the optimal strategies for applying it in many kinds of classrooms. This is crucial if one is to fully utilise its teaching power.

5. Research Questions

What is the influence of design quality on learning courses?

6. Research Methodology

6.1 Research Design

The quantitative data analysis was conducted using SPSS version 25. The odds ratio and 95% confidence interval were used to ascertain the strength and direction of the statistical link. The researchers developed a statistically significant criterion at $p < 0.05$. A descriptive analysis was performed to determine the key characteristics of the data.

Quantitative approaches are often used to evaluate data obtained from surveys, polls, and questionnaires, as well as data modified by computational tools for statistical analysis.

6.2Sampling

Research participants filled out questionnaires to provide information for the research. Using the Rao-soft programme, researchers determined that there were 473 people in the research population, so researchers sent out 550 questionnaires. The researchers got 537 back, and they excluded 37 due to incompleteness, so researchers ended up with a sample size of 500.

6.3Data and Measurement

A questionnaire survey served as the principal tool for data gathering in the study. The survey had two sections: (A) General demographic information and (B) Responses on online and offline channel variables assessed using a 5-point Likert scale. Secondary data was obtained from many sources, mostly on internet databases.

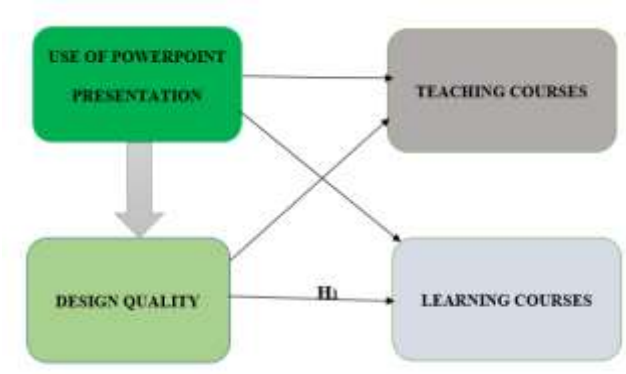
6.4Statistical Software

The statistical analysis was conducted using SPSS 25 and MS-Excel.

6.5Statistical Tools

To grasp the fundamental character of the data, descriptive analysis was used. The researcher is required to analyse the data using ANOVA.

7. Conceptual Framework



8. Result

Factor Analysis

One typical use of Factor Analysis (FA) is to verify the existence of latent components in observable data. When there are not easily observable visual or diagnostic markers, it is common practice to utilise regression coefficients to produce ratings. In FA, models are essential for success. Finding mistakes, intrusions, and obvious connections are the aims of modelling. One way to assess datasets produced by multiple regression studies is with the use of the Kaiser-Meyer-Olkin (KMO) Test. They verify that the model and sample variables are representative. According to the numbers, there is data duplication. When the proportions are less, the data is easier to understand. For KMO, the output is a number between zero and one. If the KMO value is between 0.8 and 1, then the sample size should be enough. These are the permissible boundaries, according to Kaiser: The following are the acceptance criteria set by Kaiser:
A pitiful 0.050 to 0.059, below average 0.60 to 0.69
Middle grades often fall within the range of 0.70-0.79.
With a quality point score ranging from 0.80 to 0.89.
They marvel at the range of 0.90 to 1.00.
Table1: KMO and Bartlett's Test
Testing for KMO and Bartlett's
Sampling Adequacy Measured by Kaiser-Meyer-Olkin .770
The results of Bartlett's test of sphericity are as follows: approx. chi-square
df=167
sig. =.000

Table: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.770
Bartlett's Test of Sphericity	Approx. Chi-Square	3252.968
	df	190
	Sig.	.000

The overall significance of the correlation matrices was further confirmed by using Bartlett's Test of Sphericity. A value of 0.770 se to 0, it means that the partial correlations are large compared to the overall correlations. Component analysis is severely hindered by large correlations, to restate.

Independent Variable

Use of Powerpoints Presentation

The independent variable under investigation on the effect of PowerPoint presentations on teaching and learning Courses is PowerPoint presentations itself.

Since PowerPoint lets users show their content in an aesthetically pleasing and interesting manner, it has subsequently become a common tool for teachers. Mayer says it can help knowledge organisation, boost student involvement. These possible advantages become accessible with proper construction. PowerPoint presentations provide the incorporation of multimedia components such photographs, videos, charts, and animations, thus supporting multimodal training and allowing different learning styles. PowerPoint presentations can also have multimedia components included. Furthermore, structured slide layouts allow courses to be presented faster and with greater clarity, therefore enhancing students' understanding and streamlining cognitive. Nevertheless, the effectiveness of the application as a teaching tool depends much on the instructional design of PowerPoint. Presentations that are excessively busy, presentations with a lot of information, and slides with poor graphic choices might be negative for learning and reduce attention spans. Therefore, two extremely important determinants of the impact of PowerPoint presentations on the results of teaching and learning are the degree of the content design and the presentation delivery processing[3].

Factors

Design Quality

If educational environments and tools are effective, consistent, and pedagogically sound, then they are said to be well-designed. Well-designed educational presentations—including PowerPoint—have visual organisation, consistent formatting, clarity of content, utilisation of multimedia components, and linkage to learning objectives[4]. Well-designed classroom enhances cognitive ability of the pupils. A more effective information layout may assist to reach this goal by focussing on the most important information and away from pointless elements. A well-executed designs include a balanced slide layout, appropriate font and size choices, creative colour use, reasonable material sequencing, and reasonable photo exploitation. Claim that this ability improves students' understanding and involvement in class. Disorientation, distraction, or inattention brought on by badly arranged objects can all impede learning. The quality of the design is a significant factor affecting accessibility. This guarantees that many children can make use of the resources and that those who do have some benefit from the activities[2].

Analysing the quality of the design can help one to grasp the effectiveness of instructional presentations and their consequences on teaching results and student learning.

Dependent Variable

Learning Courses

Learning produce the traits that students acquire—knowledge, skills, attitudes, and values—that define them along their educational path. One may measure these results. The effectiveness of Malaysia's higher education institutions depends increasingly on the way technology is included into instructional strategies. PowerPoint presentations have become regular in many classrooms as they enhance the delivery of content, keep students involved, and provide for visual learning. These protests represent only a tiny example of the several technical instruments that are becoming accepted in contemporary life. Including visual and textual clues into PowerPoint presentations has helped Malaysian teachers find that their students recall difficult content better. Using PowerPoint also helps to simplify the course of planned lessons. Studies have demonstrated that visual aids—such presentations include pertinent images, bullet points, and key phrases—help the brain understand material more efficiently. In the academic environment, where difficult concepts and theoretical material may call for numerous levels of comprehension, this is a vital factor. PowerPoint's adaptability let teachers design courses covering a broad spectrum of learning goals. This fits numerous approaches of instructional design, including Bloom's taxonomy. One tool teachers could use is PowerPoint. If done right, it might increase the formative and summative assessment results, therefore suggesting a development in the knowledge and performance of the pupils. Alternatively, the effectiveness of PowerPoint presentations in reaching intended learning objectives is not always great. Claim that differences might result from many other causes[5]. These factors together cover the lecturer's delivery style, student involvement level, and quality of the PowerPoint presentations. Because of the huge range of student cohorts in terms of linguistic origins and learning styles, the effect of PowerPoint may vary significantly between areas and demographic profiles in Malaysian schools. This is so because various students make varying use of PowerPoint. Moreover, passive learning might happen sometimes when slide-based instruction is overused. This argument is significantly more obvious when students only take notes rather than actively contribute in acquiring their own knowledge. Thus, in this context, academic scores are not the only accurate indication of success; additional suitable

indicators include student involvement, improvement in critical thinking abilities, and information convey ability. This is so because success cannot be measured only by grades. Basically, this study aims to investigate, using teaching and learning Courses, the influence of PowerPoint presentations in Malaysian classrooms. The study conducted in Malaysia. Beyond these findings, there are other considerations to consider, among which the degree of PowerPoint usage in the classroom is among the most crucial. Since the link between instructional technology and student performance is always changing, more empirical study in culturally and institutionally relevant environments is desperately needed[1].

The relationship between Design Quality and Learning Courses:

The quality of the design quality and learning Courses—especially PowerPoint presentations—defines a great part of the Courses of instruction. The growing integration of digital resources into classroom instruction defines the Malaysian educational system; one of the most significant elements impacting student involvement, knowledge, and retention is the visual and structural design of presentations. Among the several standards applied to evaluate a design's quality are its appearance, clarity of understanding, multimedia usage, and relevance to the learning objectives. Carefully designed PowerPoint presentations are aesthetically pleasing and also strategically arranged to improve cognitive processing as the presentation advances. Cognitive Theory of Multimedia Learning holds that a good design helps to organise knowledge, lowers unnecessary cognitive burden, and makes it easier to process information in both channels simultaneously. Therefore, the main determinant of PowerPoint's instructional effect is the degree of attention paid to the presentation design. Higher education instructors in Malaysia who use excellent design elements such little text, relevant pictures, meaningful animations, and consistent formatting often create more interesting and effective learning surroundings[8]. Long term, the presentations should enable students to concentrate more, take better notes, and recall more of what they learn—all of which be beneficial for the success of educational initiatives. On the other hand, bad design—defined by disorganised presentations with too much information, abrupt transitions, or no visual coherence—may overwhelm pupils and conceal important facts, therefore impeding learning. Should PowerPoint's design not align with the pedagogical goals of educational institutions, it may become more of a barrier than a tool for knowledge acquisition. Students' learning preferences and cognitive capabilities provide further mediators in the link between design quality and learning results. Especially in multicultural or multilingual environments like Malaysia, a high-quality design that can unite everyone is crucial in classrooms with a great variety of student backgrounds and skills. This helps to ensure that everyone may access and use the knowledge. Studies have shown that when courses are relevant and targeted on students as people, students are more involved, driven, and effective in the classroom. This helps one to rub salt in the wound. This link gives the concept that excellent design is not only a surface-level issue but also a fundamental factor determining the degree of success of a training program. At last, the efficacy of the instructional process and the quality of the design show a clear strong quantitative association. When utilised correctly, PowerPoint presentations created with pedagogical and cognitive ideas in mind may be quite effective tools to raise academic achievement. Digital tools are being used in the classroom by Malaysian teachers more and more. Students could learn more effectively if they give their presentations more design thought[7].

On the basis of the above discussion, the researcher formulated the following hypothesis, which was analyse the relationship between Design Quality and Learning Courses.

"H_{01}: There is no significant relationship between Design Quality and Learning Courses."

"H_1: There is a significant relationship between Design Quality and Learning Courses."

Table 2: H_1 ANOVA Test

ANOVA					
Sum					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	39588.620	167	5652.517	1055.954	.000
Within Groups	492.770	332	5.353		
Total	40081.390	499			

In this study, the result is significant. The value of F is 1055.954, which reaches significance with a p-value of .000 (which is less than the .05 alpha level). This means the "H_1: There is a significant relationship between Design Quality and Learning Courses." is accepted and the null hypothesis is rejected.

9. Discussion

With an eye on the part presentation quality in this respect played, this study sought to investigate how PowerPoint presentations affected the results of

teaching and student performance in Malaysian higher education. According to the results of this study, PowerPoint's strong connection with successful teaching strategies surpasses its only digital ease for educators. Well-made PowerPoint presentations can help children be generally successful academically, recall material, and be more intellectually active. These days, one of the most important considerations is how much better design influences outstanding learning results. Presentations using sound design concepts like the utilisation of pertinent images, minimum word limitations, and logical sequencing clearly increased the learning of the students. These elements support more thorough learning by reducing the cognitive load students experience and by simplifying their attention on important knowledge. The design quality considering language, context, and learning style differences greatly affects fair comprehension in Malaysian educational environments—which are considered as distinctive. This is what results from Malaysia's great variety of civilisations. Moreover, the results amply underlined the requirement of using visual learning technology to provide learner-centred teaching. Students who watched well-designed PowerPoint presentations reported improved understanding of the content, more drive to study, and simplicity of following the course of the lecture. Gained from prior studies. Well-made slides proved to improve memorisation as well as involvement with the given material. On the other hand, studies reveal that overused or poorly crafted PowerPoint presentations impede learning. This is much more evident when the conversations are set for regular occurrence. Should the slides include too much text, too much animation, or improper organisation, students may get bored and the delivery of the material might be jeopardised. These numbers make PowerPoint look to be a quite handy tool. Still, the effectiveness of this technology in the classroom rely on the pedagogical ability of the instructor and program design. Among the most important elements of the research are consequences for educational institutions and teachers depending on their pragmatic implementations. Should future professional development projects concentrate on digital literacy and instructional design, teachers might be able to enhance their talents producing and distributing successful visual resources. This could produce something passable. If Malaysian higher education institutions can create a culture of deliberate and precise presentation design, they assist their students thrive intellectually in far more ways. This conversation also emphasises the importance of applying more all-encompassing assessment strategies that go beyond just evaluation of learning Courses relying on student grades. Capturing the whole spectrum of educational effects that digital technologies like PowerPoint may give calls for careful consideration to major elements like student engagement, conceptual understanding, and critical thinking. Finally, studies show a notable and favourable correlation between the quality of the design and the Courses of instruction and student learning when PowerPoint is used deliberately in the surroundings of the classroom. This is true when one looks at the numbers. While technology cannot provide good instruction on its own, it might be purposefully combined with approved pedagogical approaches to greatly improve learning in Malaysian classrooms.

10. Conclusion

In Malaysian institutions, using PowerPoint presentations in the classroom has become very important. This is so because PowerPoint presentations might significantly affect the Courses of instructional initiatives. In the framework of this study, the researcher discovered that PowerPoint paired with an intelligent and pedagogically matched design may enhance the teaching-learning process by making material more easily available, ordered, and visually appealing. This is the scenario since PowerPoint is rather excellent in data presentation and organisation. Students benefit from the easy access to digital materials as well as from their efficient usage to improve their knowledge and comprehension. This is so because digital technologies are used to simplify learning process. Students' degrees of involvement, absorption, and retention with course material clearly connect with the quality of presentation design. Not only are visual attractiveness, coherence, simplicity, and relevance pleasant-to-have; they are also very vital for effective learning and have to be appreciated as such. These elements help students pay attention, effectively absorb the content, and perform better on formative and summative tests. On the other hand, the Courses caution against blindly using PowerPoint in cases when design concepts are overlooked. This is truer still when the Courses are negative. Conversely, presentations that are too complicated, unduly wordy, or both might actually impede rather than assist in student understanding. Teachers should thus participate in careful and introspective design procedures that consider this possible. PowerPoint is the ideal medium for inclusive training because of its adaptability and flexibility; it also performs exceptionally well in Malaysia, where the variety of student populations and educational institutions generates its own set of pedagogical problems. Alternatively, the success of the program mostly rely on the degree of experience

and creativity of the instructor. This emphasises the great importance of extensively funding instructional design and digital literacy professional development to ensure that instructional resources are completely exploited. The results of this investigation support the theory that technical instruments such as PowerPoint cannot transform everything they come across. The actual influence of these technologies is found in their design and use to satisfy student demands. All things considered, the findings of this investigation confirm some of the internal assertions. By emphasising design quality and pedagogical alignment, teachers may raise the educational value of digital presentations and provide more relevant teaching and learning results. This is justified by the possibility of more significant learning value in the Courses of digital presentations.

Author Statements:

- **Ethical approval:** The conducted research is not related to either human or animal use.
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