Teachers' and Students' Attitudes toward Using Interactive Powerpoint in Teaching-Learning Processes

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Abstract: This study was attempted to investigate teachers' and students' attitudes towards using interactive PowerPoint in teaching-learning processes in College of Education and Behavioural Sciences. Descriptive survey research design was employed in carrying out this study. Primary data were collected through questionnaire and observation checklists. The Stratified random sampling technique was employed to select 207 undergraduate students from 581 population and 42 teachers who were sampled through availability sampling. One interesting finding was that there was statistically a significant mean difference among teachers who have (i) Maters of Arts (MA) degree in any field of education; (ii) Maters of education (Med); and (iii) Doctorate of Philosophy (PhD) in the attitude of using interactive PowerPoint. The second interesting finding was that there was statistically a significant mean difference between the teachers' and students' attitude towards using interactive PowerPoint. Another important finding was that there was statistically significant positive relationship between students' Cumulative Grade Point Average and the frequency of using interactive PowerPoint. Finally, there was statistically significant positive relationship between teachers' attitude towards using interactive PowerPoint and the frequency of using it**.** From the stepwise multiple regression coefficients (R = 0.87), it was found that using interactive PowerPoint were contributed 76% (R^2 *100) to students' learning whereas the rest 24% $(1-R^2)$*100**)** were unpredicted variables that were contributed to students' learning. In general, it can be conclude that the use of interactive PowerPoint has considerable potential for encouraging more teachers and learners for further interacting in the course of teaching-learning processes.
Keywords: Attitudes, Department of Psychology, Haramaya University, Interactive PowerPoint.

INTRODUCTION

Since PowerPoint was developed thirty-three years ago, the Microsoft slide presentation program has become ubiquitous in meetings and college lectures. PowerPoint has fans and detractors. A well-done PowerPoint presentation or lecture has the power to reveal a talk's organization, to illuminate a speaker's points, to illustrate patterns and numbers, and to capture and hold an audience's attention. However, many presentations do not use PowerPoint's potential. A columnist in Forbes describes death by PowerPoint as being so common in corporate meetings that the person who can present engagingly has a fantastic career advantage [1]. Students prefer PowerPoint lectures. They rated lectures with PowerPoint slides more highly than those without slides [2], also giving higher ratings to their course and self-efficacy [3] and to their instructor [4] when their lectures used PowerPoint. The instructor rating bonus was about 6 percent in a study of courses across several disciplines [5]. To anyone who has endured a boring, dense slide presentation, a PowerPoint lecture's main weakness might be its

potential for monotony. Of course, traditional lecture can be boring, and either style of lecture can be interesting. Elkhoury and Mattar [6] found no statistically significant mean differences in students' rating of either format as entertaining or boring.

One of the main features of PowerPoint is that it provides structure to a presentation. This aids in the order and pacing of the lecture [7] and makes it easier for lecturers to present clear summaries [8]. This may affect how much students learn from the lectures as the organizational structure of instructional material is related to students' understanding [9] and their retention of the material [10]. In addition, accompanying lectures with PowerPoint is a more efficient time management strategy than writing on a blackboard, whiteboard, or using transparencies [11,12]. As less class time is spent writing or changing transparencies, each lecture may flow better. The research regarding the impact of lecturing with PowerPoint on academic performance has been mixed as some researchers have found that it

enhances students' academic performance particularly in modular approach.

While the use of PowerPoint in the classroom has significantly increased globally in recent years [13, 14], few studies have systematically investigated its impact on student learning and attitudes of both teachers and students here in the study area too. Rebele, Apostolou, Buckless, Hassell, Paquette and Stout [15] noted that little research exists regarding integration of technology in the educational curriculum, and suggested that educational and psychological researchers should examine whether technology improves learning or not. The differing patterns of findings may be due to the methodologies employed in teaching-learning processes rather than showing the impact of interactive PowerPoint on both teachers and students in using it. Three of the studies that found positive effects for PowerPoint confounded lecture format and order of presentation [16, 8, 12]. One study that has examined the relationship between PowerPoint and student learning and attitudes was conducted by Butler and Mautz [17]. In a laboratory experiment conducted during a 30-minute time period, they found that PowerPoint did not affect student recall in all situations. They found an interaction between the effects of the PowerPoint presentation and the student's preferred class representation style that is whether the student was considered a verbal or imaginable learner. However, this study is generally different from the above mentioned findings in that it mainly focusing on the attitudes of both teachers' and students' towards using interact PowerPoint in teaching-learning processes. Hence, the researcher aimed to investigate the teachers' and students' attitudes towards using interactive PowerPoint in teaching–learning processes in College of Education and Behavioural Sciences of the Haramaya University.

Research Aim
The main purpose of this study was to investigate teachers 'and students' attitudes towards using interactive PowerPoint in teaching-learning processes. Specifically, the study was intended to:

- Assess the teachers' and students' attitudes toward using the Interactive PowerPoint in teaching-learning processes in College of Education and Behavioural Sciences, Haramaya University, Ethiopia.
- Identify the extent to which lecturing students with using the interactive PowerPoint in College of Education and Behavioural Sciences, Haramaya University is encouraging or discouraging students' learning.
- Pinpoint message transmitted when teachers accompany lectures with using PowerPoint presentations in teaching- learning processes in

College of Education and Behavioural Sciences, Haramaya University, Ethiopia.
- Find out other alternative media to be used to alleviate the problems of using interactive PowerPoint in College of Education and Behavioural Sciences, Haramaya University, Ethiopia.

REVIEW OF RELATED LITERATURE
In this section, the researcher wanted to review arguments and findings from both theoretical literature and previous empirical studies in different countries. The purpose of this review is to put this study into its wider context.

Theoretical Background: Cognition and Psychology
Ideally, lecturers should employ the most effective means to convey their message to students. But research into the effects and effectiveness of PowerPoint technology is rather poor. It was hampered, for example, by an underdeveloped understanding of the level of persuasiveness and psychological impact of PowerPoint as a new visual technology. A lecture, like a court trial ought to be regarded as a search for truth and as a rhetorical contest [18]. Consequently, there is a strong need for empirical research to address how various PowerPoint presentations have facilitative or prejudicial effects on audiences and how those audiences explain the perceptual, cognitive and emotional reasons for such effects.

Currently, PowerPoint presenters have only a rudimentary appreciation of the conditions under which the visual technology they are using helps them achieve their rhetorical aims particularly in Ethiopian context. It is needed to understand also that the audience's perceptual, cognitive, and emotional capabilities, expectations, and habits and to explore the relationships between audience and visual technology and manipulations of that technology is in a better fashion [18]. In this vein a visual social semiotics approach, involving a study of signs, would help us understand how text and images work together to make meaning together for readers and to better understand the rhetorical, meaning-making potential of PowerPoint presentations and imagery and make them more effective [19]. All this underscores the potential cognitive risks for both PowerPoint presenters and PowerPoint presentees. The cognitive world of both educators and students changes, perhaps radically, when PowerPoint becomes the default mode of discourse.

The Potential and Risks of PowerPoint
What is the power of PowerPoint? This is an important question. The extent to which a PowerPoint presenter is in a position of power is often underestimated. Rose [20] outlined five reasons why in displaying slides, an academic has the potential to be a powerful producer of knowledge. First, classes are

given in spaces, such as lecture halls, that encourage the practice of attention and in which attention is demanded [20]. The researcher sees this in the strong social convention governing audiences at PowerPoint presentations-to focus attention forward at the video screen and be quiet. Second, the display of slides is a powerful activity. Slides are often shown embedded in a luminescent square of light, surrounded by darkness. This seems to disallow any discussion of their truth status and it privileges them by imposing a well demarcated frame. Third, there is also a redirecting of the traditional flow of discourse in the lecture: the speaker often seems compelled to turn towards the screen and to talk to the projection rather than to the audience [20].

Fourth, slides usually work to bestow authority on their expositor who mediates between the audience and the image by explaining it to them, and the apparent truth of the slide produces a truth-effect in the expositor's words as well [20]. Fifth, PowerPoint presentations are not shown or seen the same way regardless of where they are screened; the way the presenter presents and their audience views images differently depend on the location of their display and the speech and gestures of the presenter [20]. An important aspect is the visual uniformity of PowerPoint. This may have ideological associations with the culture of its corporate creator, Microsoft for example, in the subtle cognitive impacts of the aesthetic layout judgments made in default settings [21].

Production Influences of PowerPoint

PowerPoint can be very subverting. Lecturers seem to spend disproportionate amounts of time mesmerized in tinkering with how to present their lecture-agonizing over the choice of design template, colour scheme, page layout, and mode of slide transition. That is, they become engrossed in performing the production activities associated with the Microsoft PowerPoint software application rather than concentrate on how they will participate in uniting the young and the old in the imaginative consideration of learning [16]. We need to be alert to the possibility that this production labour effort will interplay with the increasingly hyperactive and mediated demands on university faculty time via email and the internet to preclude any semblance of a reflective academic life.

Effect of PowerPoint Presentations on Student Learning

The evidence that PowerPoint presentations influence learning is largely anecdotal. Bryant and Hunton [22] stated that the degree of improved learning is a function of a complex set of interaction among learner and medium attributes. Mason and Hlynka [7] also stated that PowerPoint helps structure the content and processing of a lesson or lecture. Aiding note-taking (and thus facilitating study) is another purported

advantage of using PowerPoint [23]. Parks [24] reported that students liked the lecture outline and graphs on the screen, and that the PowerPoint presentation had a positive influence on students. Harrison [19] argues that PowerPoint enhances instruction and motivates students to learn. If this is true, the bigger question is, does PowerPoint help students learn? 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. Sensory registers, short-term memory, and long-term memory are the three major storage structures of the human brain. The sensory system registers stimuli and holds them for a brief period until they are recognized or lost. Short-term memory, with its limited capacity, receives information from sensory registers. It holds information longer than the sensory registers through a rehearsal process, recycling the information again and again. Long-term memory is a permanent store of human knowledge, and receives information from both sensory registers and the short-term memory system [25].

Research has shown that attention plays an important role in determining when and how information is further processed from sensory registers to short and long-term memory. If information is not attended to, it is quickly lost in the sensory stimulus stage of processing. Reynolds and Baker [26] find that presenting materials on a computer increased attention and learning, and learning increased as attention increased. Human information processing theories can shed light on how PowerPoint features (graphics, animations, etc.) may influence learning. One of the theories is Paivio's dual coding theory of memory and cognition [27]. This theory suggests that imagery and verbal systems are two subsystems of information processing. According to dual coding theory, the imagery system processes information about nonverbal objects, including images for shapes, pictures, models, animation, colour, and sound.

While dual coding theory has implications for both short- and long-term memory encoding, according to Paivio [28], "…the structural representations of dual coding theory relate to relatively table long-term memory information corresponding to perceptually identifiable objects and activities, both verbal and nonverbal" (p. 54). The general model of information processing assumes that encoding results in a memory trace, and that information can be encoded at a representational, referential, or associative level [28]. Information encoded at a representational level generates a short term memory trace, while information encoded at the referential level elicits both referentially-related verbal and nonverbal memory traces of a longer term nature. Associatively encoded information results in memory traces that include

information about multiple verbal or nonverbal items [28].

It is referential encoding that is most relevant for this study. The graphical nature of the PowerPoint presentation arouses students' imagery systems, which become more activated when information (e.g., instructional materials) is presented in non-verbal forms. PowerPoint presentations should arouse the imagery system and could contribute to comprehension, and improve short and long-term memory. Since, in a PowerPoint presentation, topics are presented in a hierarchical fashion with graphics, color, and animation, students could "use a mental image of that outline to study, to retrieve the information on a test, to organize their answer for an essay question, and to perform other educational tasks [28]. Rose [29] also notes that presentation of learning materials in graphical form is beneficial for students.

To summarize what has been said so far, all users of PowerPoint should respond to Postman's [30] calls and pauses to reflect about any new technology, such as PowerPoint, and how it affects, however imperceptibly, their engagement with what and how they teach. They should engage in conversations and critique of new technologies, rather than to accept them blithely and unquestioningly. As a community of educational practices, we should be mindful that PowerPoint, in concert with allied computer and internet-based technology, is having a profound effect on higher education. PowerPoint is not merely a benign means of facilitating what educators have always done. Rather, it is changing much (perhaps most) of how we engage with our students and the disciplines which we profess. We should be curious as to why this is so. Teachers should be eager to understand the assumptions and metaphors that subtly infuse PowerPoint. They should also be more aware of the culture, customs, and behaviour that are dragged along with PowerPoint and how they affect the way they think about our students, our audiences, us, and our disciplines.

METHOD
Descriptive survey research design was employed in carrying out this study because with its many applications, survey research is a popular design in educational institutions. It is procedures in quantitative research in which investigators administer a survey to a sample or to the entire population of people to describe the attitudes, opinions, behaviours, or characteristics of the population. In this procedure, survey researchers collect quantitative, numbered data using questionnaires or interviews and statistically analyze the data to describe trends about responses to questions and to test research questions [31]. They also interpret the meaning of the data by relating results of the statistical test back to past research studies.

Study Samples
The samples used for this study consisted of 207 undergraduate students from 581population who have been attending their education in the four departments (Adult Education and Community Development, Educational Planning and Management, Psychology and Special Needs & Inclusive Education) in College of Education and Behavioural Sciences (CEBS), Haramaya University, Ethiopia. Stratified random sampling technique was employed to collect pertinent information from students.

This is because firstly, there were different subdivisions in the targeted population which are important to be considered; secondly, there were also variations in population sizes of different strata in this case (sex, ages, and departments) of the populations. Availability sampling technique was also employed to collect pertinent information from the 42 teachers who have been regularly teaching different courses (Statistical Methods in Education, Measurement and Evaluation of Learning, Community Psychology, Adult Education and Lifelong Learning, Introduction to Special Needs and Inclusive Education, Cognitive Psychology, Multicultural Education, School and Community and Cognitive psychology- that have been taught in lecture bases) in these departments.

Questionnaire
Two important aspects of questionnaire design were the structure of the questions and the decisions on the types of response formats for each question. Broadly speaking, survey questions can be classified into three structures: closed, open-ended, and contingency questions but in this specific study only close ended questions were employed. The researcher used questionnaire which contained two set of questions for each instrument. The first set of questionnaire was consisted of questions on demographic information of both teachers and students whereas the second set of questions was consisted of 20 different items which was measured in likert scale format were used. To check its reliability test, a pilot study was conducted on fifteen teachers and 24 students who represented the population character but not the sample by using Cronkback Alpha which was found to be 0.85. Accordingly, the researcher was able to decide the characteristics of the questionnaire that need to be adjusted or remained or changed some technical words or phrases that seem to be technical for these respondents. A teachers' and students' attitude towards using the interactive PowerPoint was, therefore, surveyed and the data collected from the respondents through questionnaire and observation checklists was subjected to both quantitative and qualitative analysis respectively.

RESULTS AND DISCUSSIONS
The data obtained from respondents through close ended questionnaire were analyzed using the Statistical Package for the Social Sciences (SPSS

version-16). The mean score (M) was used to see the level of agreement of respondents on Teachers' and Students' Attitudes toward Using Interactive PowerPoint in Teaching-Learning processes in College of Education and Behavioural Sciences, Haramaya University, Ethiopia. Accordingly, If the computed mean score (M) = 1.00-1.50, it is strongly Disagree; if M = 1.50-2.50 it is Disagree; if M = 2.50-3.50, it is Undecided, if M= 3.50-4.50, it is Agree, and if M = 4.50-5.00, it is Strongly Agree. On the other hand, the standard deviations of the score are used to measure how the respondents' response deviated from the mean score. One way ANOVA was used to see the mean differences among the groups; linear correlation was used to see the strength and the type relationship between variables and stepwise regression analysis was used to measure the average relationship between two or more variables in terms of the original units of data of the respondents. Moreover, the data collected from respondents through open ended questionnaire and observational checklists were subjected to thematic qualitative analysis. This result is significant at $\alpha = 0.05$ level.

Table-1: Sex * Age Cross-tabulation ($n_i = 249$)

No	Sex	Age						Total	
		below 25 yrs	25-30 yrs	30-35yrs	35-40yrs	40-45 yrs	> 45 yrs		(%)age
1	Male	63	50	14	10	6	4	147	59.04
2	Female	54	48	0	0	0	0	102	40.96
Total		117	98	14	10	6	4	249	100
(%)age		46.98	39.36	5.62	4.02	2.41	1.61	1000	

As the table1 shows, the majorities (147, 59.04%) of the total respondents were male whereas the rest (102, 40.96%) of them were female. From these data one can easily understand that there were gaps between male and female respondents that need be filled to keep equality and equity existing in the teaching-learning processes in Ethiopian higher institutions. Moreover, from the same table one can understand that the majorities (117, 46.98%) of the respondents were below 25 years old followed by (98, 39.36%) of them were between 25 to 30 years old. These indicate that most of them were very young adult so that this also provides opportunities for further professional development. However, it was sound sample that could be representing the population to make conclusions to the subject under the study.

Table-2: Teachers' Qualification * Teachers' Academic Rank cross-tabulation ($n_i = 42$)

No		Academic Rank				
		Lecturers	Assistant Professors	Associate Professors	Total	(%)
1	MA	28	6	0	34	80.95
2	MEd	2	0	0	2	4.76
3	PhD	0	5	1	6	14.29
Total		30	11	1	42	100
(%)		71.43	26.19	2.38	100	

As it has been observed from table 2, the majorities (34, 80.95%) of the total teachers' populations were Master of Arts Degree (MA) holders; (6, 14.29) and (2, 4.76%) of them were PhD and Med holders respectively. Besides, from the same table one can identify that the majorities (30, 71.43%) of the respondents were lecturers; (11, 26.19% of them were assistant professors whereas only (1, 2.38%) was associate professor. Moreover, it can be understood that (12, 28.57%) of the respondents were assistant professors and associate professor, which accounted approximately 71 : 29- Masters holders to PhD holders ratio. This indicates that the ratio were against the legstilation of the higher institution proclamation which was stated that 60: 40 MA to PhD ratio at the end of 2019. Therefore, it was found that staff developments have to be critically made to meet the second Growth and Transformation Plan (GTP II) as per plan of the country. However, it was sound sample that could be representing the population under the study so as to make valid conclusions and recommendations to the target population under the study.

Table-3: The frequency of Using PowerPoint by Level of Qualifications (n_i = 42, p < 0.05)

Descriptive Analysis			Inferential Analysis						
Qualifications	n_i	Mean	SD	SV	SS	df	MS	F	Sig.
MA	34	2.82	0.87	Between Groups	15.6	2	7.83	3.82	0.04
MEd	2	4.00	0.00	Within Groups	78.2	39	2.05		
PhD	6	2.67	0.52	Total	93.8	41			

As it can be seen from the table3, the computed mean scores of the three qualifications MA, Med and PhD respectively were 2.82, 4.00 and 2.67. From this computation, it was indicated that almost all teachers who hold MA and PhD degree were occasionally used the interactive PowerPoint in teaching-learning processes; however, those teachers who hold MEd were regularly used interactive PowerPoint in teaching-learning processes. On the other hand, the computed standard deviations of the three qualifications (0.87, 0.00 and 0.52) respectively indicated that there was little variability among those teachers who have an MA degrees, and there were no variability between those teachers who have an MEd degree whereas there were a little variability among those teachers who have a PhD in using interactive PowerPoint.

Furthermore, the computed F ratio at α = 0.05, F (2, 41) = 3.82 which was greater than the critical region at α = 0.05, F (2, 39) = 3.23. Hence, it was concluded that there was statistically a significant mean difference among these teachers in using interactive PowerPoint, F (2, 39) = 3.82, p < 0.05, one tailed. Additionally, the open ended questionnaire and the observational checklist were evidenced that most of these respondents under the study were not regularly using interactive PowerPoint in teaching-learning processes. However, other research finding indicated that there were no statistically significant mean differences among qualifications of teachers in using any instructional media in teaching-learning processes in higher learning institutions in general and Interactive PowePoint in particular [28]. However, states that the extent to which a PowerPoint presenter is in a position of power is often underestimated rather than the qualifications of the instructors. In support of this finding, Rose [20]; and Rose [29] state that an important aspect of PowerPoint is its visual uniformity. This may have ideological associations with the culture of its corporate creator, Microsoft for example, in the subtle cognitive impacts of the aesthetic layout judgments made in default settings.

Table-4: Frequency of Using PowerPoint by Teachers and Students (n_i = 249, p < 0.05)

Descriptive Analysis			Inferential Analysis					
Respondents	n	Mean	SD	SV	SS	df	MS	F	Sig.
Teachers	42	2.88	0.83	Between Groups	2.82	1	2.82	4.19	0.04
Students	20	3.15	0.82	Within Groups	166.06	247	0.672		
Total	24	3.09	0.83	Total	168.88		248		

As it can be revealed in the table 5, the computed mean scores of the two groups (teachers and students) were respectively 2.88 and 3.15. From this computation, it was indicated that almost all teachers and students were occasionally used the interactive PowerPoint in teaching-learning processes. On the other hand, the computed standard deviations of the two groups respectively were 0.83 and 0.82). This was also indicated that there were little variability among the teachers and students respectively. However, the computed F ratio at α = 0.05, F (1, 247) = 4.19 which was greater than the critical region at α = 0.05, F (2, 39) = 3.09. Hence, it was concluded that there was statistically a significant mean difference between the teachers and students in using interactive PowerPoint, F (1, 247) = 4.19, p < 0.05, one tailed. Additionally, the data collected from the respondents through open ended questionnaire and observational checklist were evidenced that most of these respondents under the study were not regularly using interactive PowerPoint in teaching- learning process.

In support of the current finding, earlier research evidenced that when someone taught without PowerPoint or led a case discussion without PowerPoint or acted Socratic-like without PowerPoint, her /his relationship with students was unmediated and more human, more direct, less pre-meditated and less structured. The pedagogy involved depending on the particular situation, the process of interchange, the verbal and nonverbal communication, the repartee, the facial expressions, and the multitude of things that unfold during unmediated human relationships and dialogue. These are all immediacy behaviours which include such non-verbal actions as eye contact, smiling, movement, adopting relaxed body positions, vocal expressiveness and have been found to have a positive effect on student-learning [33].

Table-5: Descriptive and Correlational Matrices Analysis (n_i = 207, p < 0.05)

Descriptive Statistic Analysis				Inferential analysis		
N	Variables	Mean	SD	Karl Pearson's coefficients of Correlation	CGPA of students	Frequency of using PowerPoint
1	CGPA of students	2.93	1.13	Pearson Cor.	1	0.153*
				Sig. (2-tailed)		0.028
2	Frequency of using PowerPoint	3.09	0.83	Pearson Cor.	0.153*	1
				Sig. (2-tailed)	0.028	

As the table5 revealed, the computed mean score (3.09) clearly shown us that the respondents were occasionally used the interactive PowerPoint in teaching-learning processes. Moreover, the computed standard deviation was 0.83 which was indicated that there was no much variability among the students in using interactive PowerPoint even though their cumulative grade point average was different. Moreover, the computed CGPA of the students were 2.93, which was used to indicating that most students were in average positions, but the computed standard deviation indicated that there was variability among students on their CGPA. From the same table, one can understand that there was a very weak positive relationship between students' Cumulative Grade Point Average (CGPA) and the frequency of using interactive PowerPoint in teaching-learning processes, (r = + 0.153). Therefore, it can be concluded that there was statistically significant relationship between students' CGPA and the frequency of using interactive PowerPoint in teaching-learning, (r = 0.153, n= 207), p < 0.05, two tailed.

Furthermore, the data obtained from respondents through open ended questionnaire and the observational checklist were evidenced that most of these respondents under the study were positive attitudes towards using interactive PowerPoint in teaching-learning processes even if they failed to use it regularly. In support of this finding [25] submits that to understand the relationship between media and learning, one need to consider the interaction between the attributes of the medium and the cognitive processes of students. Furthermore, students prefer PowerPoint lectures.

They rated lectures with PowerPoint slides more highly than those without slides; they have been giving higher ratings to their course and self-efficacy; they give higher attention to their instructor when their lectures used PowerPoint. To anyone who has endured a boring, dense slide presentation, a PowerPoint lecture's main weakness might be its potential for monotony. Of course, traditional lecture can be boring, and either style of lecture can be interesting that was found to be not statistically significant mean differences in students' rating of either format as entertaining or boring [1- 5]. This is because cognitive theory suggests that learning is optimized when learners' preferred representation styles are congruent with the attributes of educational technology teachers in using interactive PowerPoint, F (2, 39) = 3.82, p < 0.05, one tailed.

Additionally, the open ended questionnaire and the observational checklist were evidenced that most of these respondents under the study were not regularly using interactive PowerPoint in teaching-learning processes. However, other research finding indicated that there were no statistically significant mean differences among qualifications of teachers in using any instructional media in teaching-learning processes in higher learning institutions in general and Interactive PowePoint in particular [28]. However, Rose [20] states that the extent to which a PowerPoint presenter is in a position of power is often underestimated rather than the qualifications of the instructors. In support of these findings, Rose [20]; and Rose [29] states that an important aspect of PowerPoint is its visual uniformity. This may have ideological associations with the culture of its corporate creator, Microsoft for example, in the subtle cognitive impacts of the aesthetic layout judgments made in default setting.

Table-6: Descriptive and Correlational Matrices Analysis (ni = 42, p < 0.05)

Descriptive Statistic Analysis				Inferential analysis		
	variables	Mean	SD	Karl Pearson's Correlation	Frequency of using PowerPoint	Teachers' attitude
	Frequency of using PowerPoint	3.09	0.83	Pearson Cor.	1	0.129*
				Sig. (2-tailed)		0.042
	Teachers attitude	1.80	0.40	Pearson Cor.	0.129*	1
				Sig. (2-tailed)	0.042	

As it can be understood from table6, the computed mean score (1.80) of teachers' attitude towards using interactive PowerPoint clearly shown us

that they were rarely using the interactive PowerPoint in their teaching-learning processes. Moreover, the computed standard deviation was 0.40 which used to

indicate that there was consistency among the teachers in using interactive PowerPoint in their teaching-learning processes even though their frequency of using interactive PowerPoint in teaching-learning processes were 3.09 which was shown occasionality. However, from the same table, one can understand that there was a very weak positive relationship between teachers' attitude towards using interactive PowerPoint in teaching-learning processes and the frequency of using interactive PowerPoint in the classrooms, (r = + 0.129). Therefore, it can be concluded that there was statistically a significant positive relationship between teachers' attitude towards using interactive PowerPoint in teaching-learning processes and the frequency of using interactive PowerPoint in teaching-learning processes, (r = + 0.129, n= 42), p < 0.05, two tailed.

In support of this finding, Clark [32] argues that teachers may have a positive attitude toward a medium because of novelty in the classroom. Moreover, in support of this idea, Feigenson & Dunn [18] stated that it is needed to understand the students' perceptual, cognitive, and emotional capabilities, expectations, and habits and to explore the relationships between them and visual technology and manipulations of that technology is in a better fashion. involving a study of signs, would help us understand how text and images work together to make meaning together for both students and subject teachers and to better understand the rhetorical, meaning-making potential of PowerPoint presentations and imagery and make them more effective [19]. All this underscores the potential cognitive risks for both PowerPoint presenters and PowerPoint presentees. The cognitive world of both educators and students changes, perhaps radically, when PowerPoint becomes the default mode of discourse.

Table-7: Type of preference of media in use * frequency of using PowerPoint cross-tabulation (n_i = 249)

No	Type of Preference of Media in Use	Frequency of using PowerPoint					
		Never	Rarely	Occasionally	Regularly	Total	Percentage
1	White board	0	6	10	8	24	9.64
2	Blackboard	6	13	37	17	73	29.32
3	PowerPoint	3	28	58	63	152	61.04
	Total	9	47	105	88	249	100
	Percentages (%)	3.62	18.88	42.17	35.34	100	

As it was understood from the table7, the majorities (152, 61.04%) of the respondents (teachers and students) were responded that they preferred to use interactive PowerPoint to blackboard and whiteboard in teaching-learning processes respectively. From the same table, it can be identified that the majorities (105, 42.17%) of the respondents were responded that they preferred using interactive PowerPoint occasionally to use regularly, rarely and never in teaching-learning processes respectively. In support of this finding, Daniels [11]; and Mantei [12] were accompanying lectures with PowerPoint is a more efficient time management strategy than writing on a blackboard, whiteboard, or using transparencies. In addition [30] noted that PowerPoint should be recognized as a new communication medium that is fundamentally changing the nature and dynamic of how someone teaches in schools. Since, in a PowerPoint presentation, topics are presented in a hierarchical fashion with graphics, colour, and animation so that students could use a mental image of that outline to study, to retrieve the information on a test, to organize their answer for an essay question, and to perform other educational tasks.

As it has been indicated in table 8, the computed mean scores (3.54, 3.59, 3.69, 3.72, 3.75, and 3.82) of all the seven statistically significant items were indicated that all the respondents were agreed on each item's issues. However, the computed standard deviations (1.07, 1.32, 1.13, 1.40, 1.14, 1.31, and 1.32) were shown us that there were inconsistencies on the level of agreement among the respondents on each item. From the stepwise multiple regression coefficient (R = 90) analysis, it was indicated that the seven items indicted in table10 were contributed 76% (R^2) to the teachers and students attitudes towards using interactive PowerPoint in teaching-learning processes whereas the rest 24% (1-R^2) were unpredicted variables that have been contributed to the teachers 'and students' attitudes towards using interactive PowerPoint in teaching-learning processes. The t-value is statistically significant for all the seven items indicated in the table 8.

Furthermore, different studies shown that one of the main features of Power Point are that it provides structure to a presentation. This aids in the order and pacing of the lecture Daniels [11] and makes it easier for lecturers to present clear summaries [12]. This may affect how much students learn from the lectures as the organizational structure of instructional material is related to students' understanding Miller & McCown [9] and their retention of the material [10]. In addition, accompanying lectures with PowerPoint is a more efficient time management strategy than writing on a blackboard, whiteboard, or using transparencies [11, 12]. As less class time is spent writing or changing transparencies, each lecture may flow better. To

substantiate what has been found so far, every day more than 30 million presentations are delivered with PowerPoint [19]. More than 33years have elapsed since PowerPoint first appeared, and since then its presence in classrooms has risen considerably.

Table-8: Teachers' and Students' Attitudes towards Using Interactive PowerPoint (n_i = 249, P < 0.05)

Items		Mean	SD	Model Summary		Coefficients			t	Sig.
				R	R^2	USC		SC		
						B	STE	Beta		
No (Constant)					1.32		0.11		2.53	0.000
1	Interactive power point restricts the movement of students in the classroom.	3.54	1.07			0.07	0.020	0.19	3.20	0.002
2	Interactive power point gives me more opportunities to teach my student new things.	3.54	1.32			0.11	0.02	0.35	4.78	0.000
3	Using the interactive power point does not make me nervous.	3.59	1.13			0.05	0.02	0.15	2.52	0.012
4	I believe that it is important for me to be able to use technologies such as the computer and the interactive power point.	3.69	1.40	0.87	0.76	-0.12	0.021	-0.40	-5.43	0.000
5	Using interactive power point allows me to share learning resources with other teachers.	3.72	1.14			-0.08	0.02	-0.23	-3.41	0.001
6	Using interactive power point software during the course is good.	3.75	1.31			-0.05	0.02	-0.18	-2.68	0.008
7	I am tired of technology use in the classroom.	3.82	1.32			0.15	0.02	0.51	8.73	0.000

CONCLUSIONS

In summary, the results suggest that educational technology such as an interactive PowerPoint improves students' attitudes toward the instructor and course presentation. In addition, the results suggest that Interactive PowerPoint presentations may improve students' learning depending on the topic under discussion. Additional research with a larger sample might provide more conclusive evidence of the use of PowerPoint in improving teaching-learning processes. These results are consistent with other studies that show media alone do not influence learning. There may be a shortage of the key technological elements required, namely computers, the PowerPoint programme and the delivery technology, particularly the computer projector system. This is a significant resource issue for teaching-learning processes.

Equipping lecture rooms with the technology is becoming increasingly common but it is still a problem for college under the study. However, even using PowerPoint to create transparencies is still an important advance on the common practice of using a word processor for this purpose and allows easy transference to electronic distribution and presentation methods when this becomes available within the university.

It should be stressed that only one way of using this technology has been considered: the kind in which the bulk of the class is supported by projections, making the teacher in a primary role in explaining facts, pictures and graphs briefly to students through interactive PowerPoint presentations. The results were very clear in terms of the positive effects of this way of teaching. However, given the explanatory centrality of

the displacement of the teaching action, in future research, it should also be explored the uses of PowerPoint as a complement (with either graphic materials or verbal information) to the instructional actions guided by the teacher. In other words, the results obtained do not shed light on the possible utility of this technological resource; they rather refer only to the negative effects of one way (although a fairly widespread way) of using it.

The researcher intention, hence, is in no way to condemn the use of technology in general and PowerPoint in particular even though any technology has its own advantage and disadvantage. The use of technology can have a very positive influence on teaching-learning processes, provided that its use fits the circumstances inherent in learning at any given time, and efficient, flexible resources, like the traditional chalkboard and especially the flexibility and efficiency of a good education professional, are not sacrificed up to blind trust in the technological resource. Finally, the researcher should stress on the connection between students' performance and their preference for the use of PowerPoint projections. The sensible use of educational technologies should find an effective balance between performance and preferences. Availability, familiarity or preference should dictate the use of these technologies. The course material (that is, the kind of information) and goals are what should determine the use of resources that foster a learning environment that makes better student performance possible. To achieve this, teachers must be aware of their advantages and disadvantages, and they should avoid falling into the misapprehension, as happens in so many other realms of life, that what is used the most is assumed to be good and effective.

Therefore, teachers should make themselves aware of the critical importance of using interactive PowerPoint in teaching-learning processes. PowerPoint is an excellent aid to presentations providing each presentation is considered first from a pedagogical viewpoint, bearing in mind the different ways in which students learn and largely trying to avoid the pitfalls of passive knowledge transmission. These problems, of course, are not specifically associated with PowerPoint use but it does have a tendency to make some practitioners feel that the improvements offered by PowerPoint are sufficient to make their presentations more effective.

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