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The Acceptance of Using Prezi in Preparing Presentation Slide towards Lecturers in Seberang Perai Polytechnic

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ABSTRACT

Prezi is an online software as teaching aid material which helps lecturer develop presentation slide that more interactive and attractive. A study were implemented to identify the acceptance and usage of Prezi in teaching and learning process among Seberang Perai Polytechnics (PSP) lecturers. A total of 43 lecturers from two departments had chosen as respondent in this study and this study used quantitative method. Instrument study contain two parts: demographic part and study question. Five construct involve in this study adapt from UTAUT model: 1) Performance Expectancy (PE), 2) Effort Expectancy (EE), 3) Social Influence (SI) 4) Facilitating Conditions (FC) and 5) Behavioural Intention to use the technology (BI). This study presented the findings of the level of readiness and consumerism in providing presentation slide using Prezi among lecturers besides identify the factors and problems lecturer faced in Prezi software usage when preparing presentation slide in teaching and learning. Data analysed by Statistical Package for Social Science (SPSS) software 17 Windows for stated in the form of frequency, percentage, and mean score. Overall, retrieval result research showed readiness and consumerism level of Prezi in providing presentation slide among lecturers are at moderate level. Attractive and easy to use is the factors that have been identified that can influence lecturer in using Prezi. As a suggestion, more courses will be conducted to improve their skills and knowledge.

Keyword: Seberang Perai Polytechnics (PSP), Unified Theory of Acceptance and Use of Technology Model (UTAUT)

Introduction

The use of information and communication technologies in Malaysia has long been introduced. The Department of Polytechnic (JPP) and institutions under its control are committed in strengthening teaching and learning process in accordance with the demands of transformation which requires a change that combines productivity, creativity and innovation in order to boost the polytechnic as the leading college for Vocational Education and Training (TVET) in the region.(JPP, 2012)

Attractive and interesting lessons will make students more motivated and stimulated in giving attention to the information presented so that the purpose of the information will be easier to help students understand the lesson (NorAzlan & Noraziah ,2013). To attract students during the teaching and learning, lecturers should always look for varieties of teaching techniques. Nowadays, Power Point will be the first choice of lecturers to facilitate the delivery of learning content. However, the use of static Power Point will make the lessons dull and increase the students' boredom. One type of media that can attract the interest of students is Prezi online.

Prezi has the appearance of a more varied themes compared to Power Point media. Just like Power Point but it has additional features that are more interesting. Using Prezi can help consumers in making digital presentations that are easier and exciting with many animations. Indirectly, using Prezi is a very attractive alternative for producing learning environment that is creative and innovative to generate a teaching and learning process which is productive and efficient (**Jeff Herb,2012**). Due to the many advantages that can be done by using Prezi software to provide a slide presentation, lecturers should be ready to learn and use Prezi software.

Problem Statement

The problem faced by the lectures is, it is difficult to get students' attention during teaching and learning process. To attract students' interest in learning, lecturers should always be prepared with a variety of approaches and methods that will be used during teaching and learning. Nowadays, many lecturers use power point presentation to enable them to explain to the students about the subject taught. Power point is very popular among the lecturers. However, power point is common to students and quite boring, especially when the lecturer is using long text without any image, animation, audio and video to attract the students. To focus a paragraph or an important symbol in a Power Point slide presentation, the lecturer will have to magnify, underline or colour the particular sentences or symbol. This is to distinguish the intended sentences or symbols from other sentences.

To that end, the lecturers should be ready for the transformation of the technology that is able to provide a more attractive slide presentations such as Prezi software. Prezi is among the new technology, lecturers should be ready to learn and use this software to help them produce a slide show that can attract students.

What is being an issue here is how deep is the level of knowledge and attitude of the lecturers on the latest software's like Prezi to help them implement the slide show in teaching and learning more effective? This case study will look into the state of readiness and the use of Prezi software among the lecturers at Seberang Perai Polytechnics (PSP). The study would also examine the factors that influence the lecturers as well as the needs of lecturers while using Prezi software. This application is chosen because it is free, readily available and used interactively and it is successful in capturing students' focus.

To get a more accurate survey results, this study uses the Unified Theory of Acceptance and Use of Technology (UTAUT) model to identify the level of readiness and acceptance of the lecturers in using Prezi software to do slide presentations.

Research Objectives

The objectives of this study are to:

1. Identify the level of readiness and the use of Prezi software to prepare slide presentations among lecturers
2. Identify the factors that influence the lecturers to use Prezi software.
3. To understand the needs of lecturers in using Prezi when preparing presentation slide.

Research Hypothesis

H1 : Performance Expectancy has significant effect of user intentions to use Prezi

H2 : Effort Expectancy has significant effect of user intentions to use Prezi

H3 : Social Influence has significant effect of user intention to use Prezi

H4 : Facilitating Conditions has significant effect on used behaviour of Prezi

H5 : Behavioural Intention has significant effect on used behaviour of Prezi

Research model

Unified Theory Of Acceptance And Use Of Technology (UTAUT) model formulated in identify the factor of user acceptance and motivation towards the technology which leads to the system success or failure. There are eight theories integrated in UTAUT are: the Theory of Reasoned Action (TRA), the Technology Acceptance Model (TAM), the Motivational Model (MM), the Theory of Planned Behaviour (TPB), a combined theory of Planned Behaviour/Technology Acceptance Model (C-TPB-TAM), the Model of PC Utilization (MPCU), Innovation Diffusion Theory (IDT), and Social Cognitive Theory (SCT) (Venkatesh, Morris, Davis, and Davis, 2003)

UTAUT model is a prominent technology acceptance and use model, as a theoretical basis to conduct empirical research testing the factors that influence lecturers’ acceptance and use of technology in their academic environment. This study used UTAUT Model to study the acceptance of polytechnic lecturers in using Prezi to develop their presentation slide.

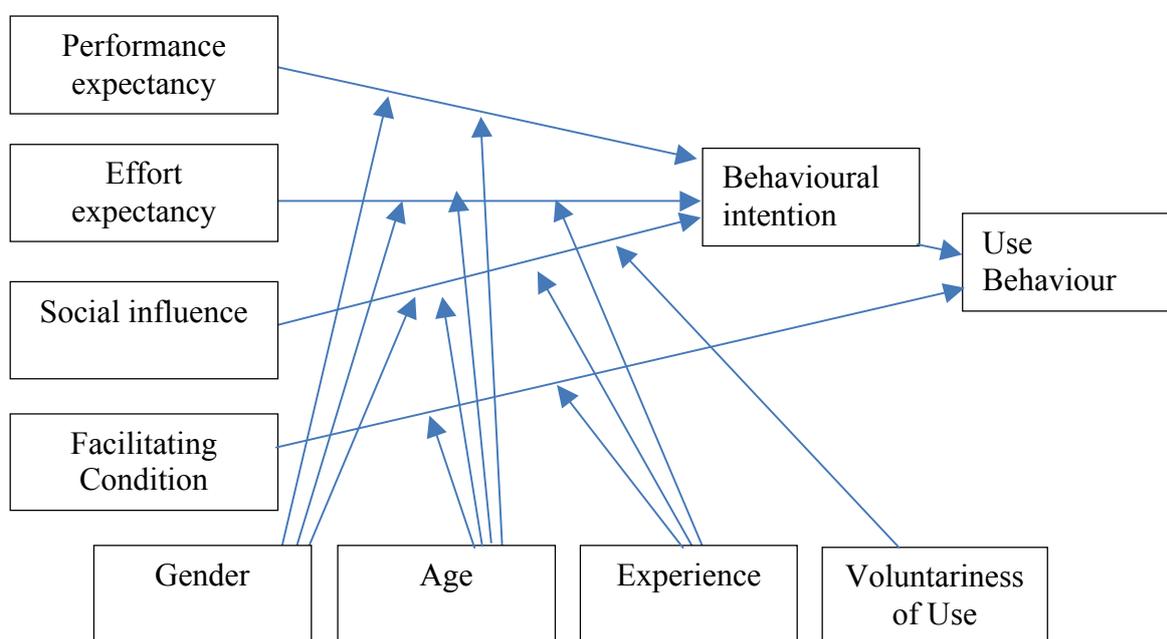


Figure 1: UTAUT Model

In their review of the eight prominent IT acceptance and motivation models, the authors of UTAUT found seven constructs to be significant direct determinants of acceptance and use of technology in one or more of the individual models. However, they found that three of these constructs (self-efficacy, anxiety, and attitude) do not have any direct effect on intention to use the technology, therefore, these constructs were dropped from UTAUT while the other four (performance expectancy, effort expectancy, social influence, and facilitating conditions) were kept. This study measures the four constructs to compare their influence on acceptance with the findings of UTAUT. Table 1 shows the definition of each of the aforementioned constructs as reported in the originating UTAUT study (Venkatesh et al., 2003).

Table 1:
List of Construct

Construct		Definition
Performance Expectancy	PE	The degree to which an individual believes that using the system will help him or her to attain gains in job performance.
Effort Expectancy	EE	The degree of ease associated with the use of the system.
Attitude towards using technology	AT	An individual's overall affective reaction to using a system
Social Influence	SI	The degree to which an individual perceives that important others believe he or she should use the new system.
Facilitating Conditions	FC	The degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system.
Computer self-efficacy	SE	Judgment of one's ability to use a technology to accomplish a particular job or task.
Computer anxiety	AX	Evoking anxious or emotional reactions when it comes to performing a behaviour

Literature Review

Extensive reading is needed to meet the requirements of the study to be conducted. The focus of the literature research on the theory and practical is conferred on secondary sources ranging from written materials such as paper work, academic studies, reports on seminars and presentations, theses and related academic journals.

Prezi

On the educational scene, Paul Ralph (2015) Prezi is a great presentation tool for spicing up the mundane PowerPoint that users have been using for the past 10 years. It allows for new kinds of visualizations and opportunities to link imagery to motion, which in turn creates a deeper understanding and retention duration. Prezi is a web-based presentation and storytelling tool for presenting ideas on a virtual canvas instead of traditional slides. Text, images, videos and other presentation objects are placed on the infinite canvas and grouped together in frames. The canvas allows to create non-linear presentation. Prezi employs a zooming user interface (ZUI), which allows users to zoom in and out of their presentation media, and allows users to display and navigate through information within a 2.5D or parallax 3D space on the Z-axis. User can create and present ideas on a large canvas like a whiteboard. It is an interesting alternative to the traditional power point presentation.

Prezi provides access from any web-enabled computer. Lectures and students can easily create free accounts on Prezi using their Facebook accounts as well. Prezi certainly makes that easier with their simple design interface. Since the presentations are stored online, the author of a presentation can give access to others not only to view the presentation, but to edit it as well. Students can work collaboratively without being in the same room or even online at the same time. Any changes made will be instantly available for all to view.

Studies on Educators as the previous users of Computer and Prezi Software

In conducting the study, researchers have made some literature studies to get related information. Based on previous studies conducted by Giesert and Futrell (1990), they stressed that an educator who uses computers in teaching and learning can be categorized as having additional talents and abilities. The lessons which are included with the latest learning aids will increase students' interest in learning the subject.

According to Rosadi Andrian (2012) "Prezi is a software for making online slide presentation. Unlike Power Point, Prezi gives users more free space to perform the slide show creatively. One of the benefits of Prezi is it has zoomable canvas which is very dynamic and of wide varieties. This will greatly simplify the audience to understand the information that is delivered. It is also easy for the users to insert images, photos or videos into the slide and it is also convenient to the users to organise the slides for presentation.

According to Bent Meier Sørensen (2015) Using power point presentation, encourage instructors to present complex topics using bullet points, slogans, abstract figures and oversimplified tables with minimal evidence. They discourage deep analysis of complex, ambiguous situations because it is nearly impossible to present a complex, ambiguous situation on a slide. This gives students the illusion of clarity and understanding.

Nora Strasser (2014), clarifies that Prezi can be used to create complicated lecture support that easily shows the connections between topics. Instead of using discreet slides that break a topic up into disjointed parts, Prezi allows you to create a whole topic while being able to zoom in on specific parts. Topics are more fluid and dynamic as well as better represented by the structure. Prezi excels at demonstrating connections between topics. While Prezi is a great tool to use during lectures, its most significant impact can be felt through its other uses.

Using Prezi in the higher education classroom can be a benefit to the educational experience. [Robin Pierman](#) (2015) state that lectures facilitated by Prezi can keep students' interest high and facilitate an understanding of the interconnectedness of topics. Prezi is one of many tools that can be used to keep the classroom an exciting and interactive place.

From the studies above, it is concluded that the use of Prezi among educators or lecturers can assist in providing a slide presentation that can attract students during the process of learning in the classroom. To that end, the lecturers should be ready to learn or use Prezi when preparing a slide show either for special presentations or to carry out lessons in their respective classes.

Methodology

This study discussed the sample and method to be used in data collection, the research design, research sample, instrument, variables and pilot test. It applied an inquiry based quantitative research methodologies which identified problem based on testing a theory composed of variables, measured with numbers, and analysed using statistical techniques. The aims of quantitative research are to determine whether there is a relationship between the independent variables and the dependent variables in a study.

This study was a quantitative type research that applied survey method which included cross sectional and longitudinal studies by using questionnaires. The questionnaires data collection method was used in estimating the characteristics of the user interest in using Prezi.

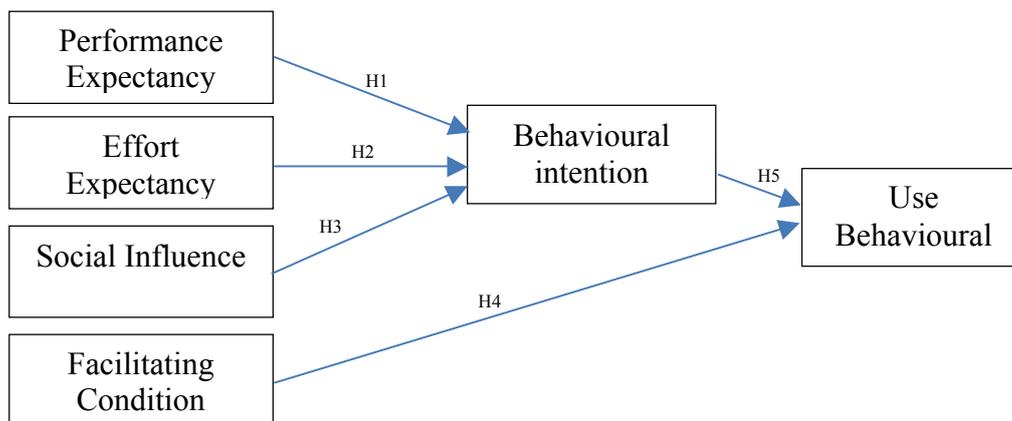


Figure 2: Research Model

Questionnaires Design

Questionnaires are a data collection mechanism to gather primary data. Design of questionnaires must be arranged well and clear besides the layout of questions and responses must be easily matched (Caswell, 1995). The questionnaires in this study utilize five-point Likert scales ranging such as 1 - Strongly agree, 2 - Agree, 3 - Average, 4 - Disagree and 5 - Strongly Disagree. The questionnaires were used to collect data from targeted respondents who had an experienced and knowledge in using Prezi.

The questionnaires developed is divided into two parts: the first part of the questionnaires contains demographic characteristics of students such as age, gender, department, year of computer experience and year of using Prezi experience and the second part of the questionnaires was divided into smaller items that represent the construct of the study. There are five constructs in this study: 1) performance expectancy, 2) Effort Expectancy, 3) Social Influence, 4) Facilitating Conditions and 5) Behavioural Intention. Total questions in the questionnaires are 21 questions and the question is representing the constructs in this study.

Research Sample

The 43 respondents are the lecturers who have attended courses using Prezi in PSP. Sample of study consisted of PSP lecturers from the Department of Information and Communication Technology (JTMK) and the Department of General Studies (JPA) in PSP.

Research Analysis

This study uses Statistical Package of Social Science (SPSS) system in analysing data applying reliability analysis, correlation analysis and regression analysis.

Reliability Analysis

Cronbach's Alpha is used in this study to test the reliability and normally ranges between 0 and 1. According to George and Mallery (2003), the reliability value for Cronbach's alpha in a reliability test is: more than .9 is excellent, more than .8 is good, more than .7 is acceptable, more than .6 is questionable, more than equal to .5 is poor and less than .5 is unacceptable. Reliability test runs on the five constructs: 1) performance expectancy, 2)

Effort Expectancy, 3) Social Influence, 4) Facilitating Conditions and 5) Behavioural Intention.

Table 2:
Cronbach’s Alpha on Reliability Test

Variables		Cronbach’s Alpha	N of Items
Performance Expectancy	PE	.942	4
Effort Expectancy	EE	.952	4
Social Influence	SI	.943	3
Facilitating Conditions	FC	.875	4
Behavioural Intention	BI	.902	3
Use behaviour	UB	.569	3

The result of reliability test in Table 2 indicates that 3 constructs get more than .9 value: Performance Expectancy, Effort Expectancy and Social Influence and the other three constructs get .8 for Facilitating Conditions, .7 for Behavioural Intentions and .5 for Use Behaviour.

Table 3:
Mean and Std Deviation

		Mean	Std. Deviation
Performance Expectancy	PE	4.1686	.74945
Effort Expectancy	EE	3.8023	.79910
Social Influence	SI	3.5872	.92563
Facilitating Conditions	FC	3.6822	.79998
Behavioural Intention	BI	4.0233	.83062
Use behaviour	UB	3.6589	.77830

Table 3 indicates the means and standard deviation for each of the variables to be used in this analysis. Mean for the constructs in this study is in between 3 to 4.

Correlation Analysis

Correlation analysis is to measure the degree to which a change in the independent variable will result in a change in the dependent variable. According to Caswell (1995), the correlation coefficient figures must always be in between -1 and +1 respectively. And if the result indicates more than -1 or +1, there must be mistakes in the arithmetic’s.

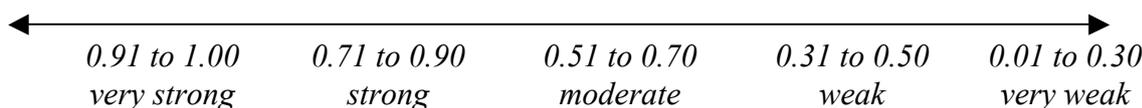


Figure 3: Correlation Measurement

The strength of correlation coefficient measured by the size (r) which was 0.91 to 1.00 (or -0.91 to -1.00) means very strong, 0.71 to 0.90 (or -0.71 to -0.90) means strong, 0.51 to 0.70 (or -0.51 to -0.70) means moderate, 0.31 to 0.50 (or -0.31 to -0.50) means weak, 0.01 to 0.30 (or -0.01 to -0.30) means very weak while 0.00 means there is no correlation between the variables (Chua, 2006).

Table 4:
Correlation matrix

	PE	EE	SI	FC	BI	UB
PE	1	.738**	.681**	.682**	.810**	.727**
EE	.738**	1	.952**	.927**	.973**	.974**
SI	.681**	.952**	1	.947**	.915**	.969**
FC	.682**	.927**	.947**	1	.939**	.946**
BI	.810**	.973**	.915**	.939**	1	.937**
UB	.727**	.974**	.969**	.946**	.937**	1

Note : PE = Performance Expectancy, EE = Effort Expectancy, SI = Social Influence, FC = Facilitating Conditions, BI = Behavioural Intention and UB = Use Behaviour
**. Correlation is significant at the 0.01 level (2-tailed).

Table 4 indicates the summary of correlation matrix of six construct: Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Behavioural Intention and Use Behaviour. Construct EE and UB indicate strong correlation, SI and FC indicate moderate correlation and BI indicate very weak correlation.

Regression Analysis

Regression analysis includes any techniques for modelling and analysing several variables with a focus on the relationship between a dependent variables and one or more independent variables. Separated regression analysis was conducted due to the research requirement and research hypothesis in this study.

Table 5:
Regression result for H1, H2 and H3

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.982 ^a	.965	.962	.16142

- Predictors: (Constant), SI, PE, EE
- Dependent Variable : BI

Table 5 indicates the degree of distinction of independent variables towards dependent variables. The R² value was .965 and the adjusted R² was .962. This present those 16% change on behavioural intention due to changes on performance expectancy, effort expectancy and social influence.

Table 6:
ANOVA^b result for H1, H2 and H3

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.961	3	9.320	357.678	.000 ^a
	Residual	1.016	39	.026		
	Total	28.977	42			

a. Predictors: (Constant), SI, PE, EE

b. Dependent Variable: BI

ANOVA results tested in Table 6 indicates that the construct was statistically significantly at $f = 357.6$ (sig .000). Therefore the item were significant (Sig = .000 where $p < .005$).

Table 7:
Coefficients^a result for H1, H2 and H3

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.155	.143		-1.083	.286
	PE	.220	.050	.199	4.448	.000
	EE	.922	.111	.887	8.337	.000
	SI	-.067	.102	-.064	-.657	.515

a. Dependent Variable: BI

The factor will identified as significant if BETA value is high and P value is low ($P < .005$) and it is not significant if BETA value is low and P value is high ($P > .005$). Table 6 indicated that the result is significant for PE and EE due to the result ($\beta = .199$ and $P < .005$) and ($\beta = .887$ and $P < .005$). For SI indicate that the result has no significant due to the result ($\beta = -.064$ and $P > .005$)

Table 8:
Regression result for H4 and H5

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.956 ^a	.915	.911	.23283

a. Predictors: (Constant), BI, FC

b. Dependent Variable : UB

Table 8 indicates the degree of distinction of independent variables towards dependent variables. The R^2 value was .915 and the adjusted R^2 was .911. This present 23% changes on use behaviour due to changes on facilitating condition and behavioural intention.

Table 9:
ANOVA^b result for H4 and H5

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.274	2	11.637	214.666	.000 ^a
	Residual	2.168	40	.054		
	Total	25.442	42			

a. Predictors: (Constant), BI, FC

b. Dependent Variable: UB

ANOVA results tested in Table 9 indicates that the construct was statistically significantly at $f = 214.66$ (sig .000). Therefore the item were significant (Sig = .000 where $p < .005$).

Table 10:
Coefficients^a result for H4 and H5

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.415	.191		2.173	.036
	FC	.465	.113	.553	4.113	.000
	BI	.392	.126	.418	3.108	.003

a. Dependent Variable: UB

Table 10 indicated that the result is significant for FC and BI due to the result ($\beta = .553$ and $P < .005$) and ($\beta = .418$ and $P < .005$)

Discussion and Suggestion

Effect on behavioural intention, correlation analysis result for H1 and H2 indicate that there was a significant correlation between the hypothesis and behavioural intention but H3 indicate that there was no correlation significant with behavioural intention. For the second part of the analysis, effect on use behaviour indicate the result has the significant correlation for H4 and H5.

Table 11:
Hypothesis result

	Hypothesis	Result
H1	Performance Expectancy has significant effect of user intentions to use Prezi	P<.005
H2	Effort Expectancy has significant effect of user intentions to use Prezi	P<.005
H3	Social Influence has significant effect of user intention to use Prezi	P>.005
H4	Facilitating Conditions has significant effect on used behaviour of Prezi	P<.005
H5	Behavioural Intention has significant effect on used behaviour of Prezi	P<.005

Throughout the study, basically resulted that the lecturers are about ready to use Prezi in developing presentation slide. But still need extra courses in improving the skills and knowledge to prepare appealing presentation slides. The study will hopefully bring awareness to the lecturers about their interests to equip themselves with the knowledge of using Prezi software to prepare slide presentations for teaching and learning (P & P).

The study is also expected to be the leading approach for other researchers to conduct further and better research about using Prezi software and its use in education in line with the Policy and principle of Polytechnic e-Learning to develop e-learning environment that is creative and innovative to generate a productive and efficient teaching and learning system (P & P). By this system, the vision of polytechnic to become a world-class education institution will be achieved.

Conclusion

This study will hopefully bring awareness to the lecturers about their interests to equip themselves with the knowledge of using Prezi software to prepare slide presentations for teaching and learning .The results showed that the readiness and acceptance of lecturers in using Prezi is moderate.

If using Prezi software can be optimized to all lecturers at technical colleges and lecturers are good at organising teaching contents appropriately, definitely the impact of using Prezi is able to achieve an impressive level of cognitive development of students. This is in line with the demands of the transformation of polytechnics in strengthening the teaching and learning, which requires a change that combines productivity, creativity and innovation in order to boost the polytechnic as a leader in Vocational Education and Training (TVET) in the region. In addition, to ensure that government policies that give priority to the use of ICT to achieve the goal, all parties, especially the Ministry of Higher Education (KPTM) should ensure the availability of a perfect and complete physical infrastructure while the lecturers enhanced their skills through training and exposure to the use of the latest software .

With the great challenges of globalization in this borderless world, all parties need to work together to accomplish the aims of MOE. Investment worth millions of ringgit will be fully utilized and provide greater returns in the future development of the country if all the parties have the determination and commitment to achieve success. The relationship between work and behaviour in the process of teaching and learning should be significant and influencing each other. The results can be used as reference in the study of the effectiveness

of using Prezi software to prepare slide presentations that can increase understanding and attentiveness of students.

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