

NON-LINEAR PRESENTATION ON STUDENT PERFORMANCE: APPLYING PREZI ON ENGINEERING EDUCATION

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ABSTRACT

Today there are so many methods of doing presentations. Some of them using digital media as framework. As we know there are too many tools we can used in digital form. One of them is PowerPoint developed by Microsoft. But PowerPoint is a sequencing (Linear) Media. In this paper we tried to explore Non-Linear Media like prezi. Prezi is one of Non-Linear tools to create a presentation based on Cloud Computing. Engineering Education has similarity with other field. Differences between engineering subject with other is structured Course Material. So, we tried to gather some information whether prezi could do the same performance on Engineering Field. Our paper show that there no significant difference between Linear and Non-LinearMedia according to prevoius research. So we can say that we can use prezi as media in Engineering Education.

Key word: Non-Linear Presentation, Student Performance, Prezi on Engineering Education

I. INTRODUCTION

Some people said that engineering field has difficulty in transferring the knowledge. Other said that engineering is more hard than other field. People in engineering world such as Computer Engineering, Information Engineering, Electrical Engineering and other engineering else always has a different way to transferring the knowledge from someone to other people. One reason because we have structured course in engineering world. In other word, we learn engineering on a linear method. On this present day, multimedia is favourable method to teach in classroom. We all know about powerpoint developed by Microsoft that most of lecture

or teacher always doing their presentation with this tool. In 2013 Lin said there are so many advantage if we using powerpoint as a media to teaching in classroom (Lin et al, 2013). In 2009, prezi was launched on cloud computing platform. To create some presentation, we must connect to internet (Chou et al, 2015). Prezi is non-linear platform that is different from powerpoint which linear platform. In this paper we explore and explain whether Prezi can give an advantage in engineering education.

In this modern age, engineering world provide great impact for human development. Engineering fields has entered another area such as : biomedical engineering, transportation, human social interact, and education (Alsayyari et al,

2016). There are so many students who choose to study engineering area, especially in Indonesia. The responsibility of a teacher is to find the best way to transfer their knowledge to their students. It aims to improve the knowledge and skills of each student. The major difference between Linear and Non-Linear presentation shown on figure 1 (Chou et al, 2015). On this paper we describe Linear Presentation from powerpoint and Non-Linear from Prezi itself. As we see on figure 1, Linear presentation sorting all slide on one direction mode. Although Non-Linear is not sort as one direction, but it can be multidirectional (From Slide 1 you can jump on Slide 3, or from Slide 5 you can go back to slide 2) or we can call it a free-flowing presentation (Spernjak A, 2014). Although powerpoint can offer slide presentation in Non-Linear, but it still remain linear (Chou et al, 2015). And vice versa, prezi can also be linear presentation. Another difference between Linear and Non-Linear shown on Figure 2. On 2014, Spenrjak said that most student not familiar with prezi if they are ask to make a presentation. This because prezi is newest than powepoint.

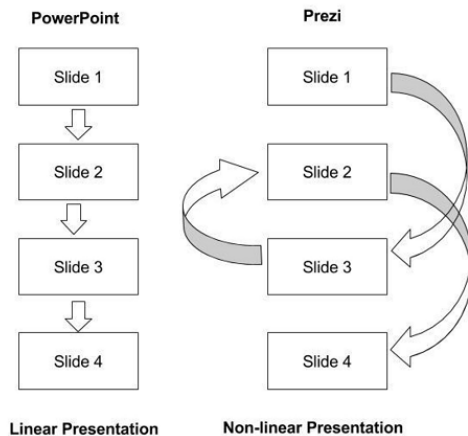


Fig. 1.

Linear and Non-Linear Presentation Difference

Many years, we have done presentation using a traditional way. Today there are several tools to upgrading our presentation technique. In a classroom for a teacher, they will need something new method to transferring knowledge to students. Prezi is something new for presentation, especially in Engineering field. Prezi was developed in 2009 and its a freeware tools (Chou et al, 2015). Different from powerpoint, prezi use non-linear style in presentation. We have a big screen (canvas) to make our presen-

tation. A Novel features of prezi is relation of every slide in one presentation file. Prezi using zoom in zoom out and also camera panning as a slide transition animation (Bean, 2012). We need an internet connection to build our own prezi presentation because prezi is developed under cloud computing. Lin said on his paper, great advantage from powerpoint were stimulate positive emotion and can advancing student motivation (Lin, 2013). We believe that prezi also has same advantage of powerpoint. In 1984 Novak and his colleagues said about concept maps. If wee from the relationship between slides or slides transition, then we can conclude Prezi is using the instructional theories that similiar to concept maps (Novak et al, 1984).



Fig. 2.

Difference between PowerPoint and Prezi

Some researcher on their published paper said that Prezi has an effect on student performance. Briand D. Ballentine in 2012 said prezi has a benefit in a planning a game task (Ballentine, 2012). Others said student is more confortable with presentation using prezi (Conboy et al, 2012). Characteristic of Prezi is shown on Table 1. We can see benefits of prezi such as : its a freeware, we can share or allowing another person to collaborate in one project of prezi, prezi is support to another plugins (math, physics, etc).

We all know the fact about prezi in one of the Cloud-Based presentation tools. Prezi Use a virtual digital canvas to presenting all about idea. Now we are going described how prezi

Table 1.
 Characteristic of Prezy compare to PowerPoint (Spernjak, 2014).

General Option of	Power Point	Prezi
Linear Sequence	Yes	Yes
Free Flowing Presentation	No	Yes
Animation between slide	Yes	Yes
Capability of integrating Multimedia	Yes	Yes
Freeware	No	Yes
Shared File	No	Yes
Plugins	No	Yes

can influence student performace at engineering field. First we go back to the main idea that every course in engineering is linear. And now the problem is can we apply prezi on linear way? According to Chou in his research, even though prezi is non-linear slide presentation, it could be sett as linear presentation according to your own scenario in a classroom(Chou et al., 2015).According to Mayer in 2005 student can acquire an efficient manner if they learn using multimedia where text and picture are combined (Mayer., 2005). Wong Sen Yue on 2015 said prezi can increase fun and inspiring student to locate their motivation in learning (Yue, 2015). Gaming design is one of engineering filed. Brian Ballentine said prezi can motivate student use their own imagination concept. Because prezi is emerging tools in presentation, so there are not many research about this. But in our next research we will try to find wjether prezi has a significant effect on engineering course especially for programming topic.

We all know the fact about prezi in one of the Cloud-Based presentation tools. Prezi Use a vitual digital canvas to presenting all about idea. Now we are going described how prezi can influence student performace at engineering field. First we go back to the main idea that every course in engineering is linear. And now the problem is can we apply prezi on linear way? According to Chou in his research, even though prezi is non-linear slide presentation, it could be sett as linear presentation according to your own scenario in a classroom(Chou et al., 2015).According to Mayer in 2005 student can acquire an efficient manner if they learn using multimedia where text and picture are combined (Mayer., 2005). Wong Sen Yue on 2015 said prezi can increase fun and inspiring student to

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II. METHOD

The research method used in this research namely quantitative experimental method where the writer would find out whether or not prezi could do the same performance on Engineering Field.

III. RESULTS AND DISCUSSION

Our preliminary result of this topic is many paper said that Prezi have an impact on student learning is classroom. However we have to try to measure how prezi can effect student in engineering field performance. Some researcher has been studying this on gamification field, and the result is prezi has an impact on their performance. Especially student more fun if we using prezi. And also prezi can give more motivation to all student. Our next research will be how effective this prezi if we aply it on Programming Class in Informatics Engineering Student of UKI Toraja. We hope we will get good result on student performance. One thing we must remember, prezi can increase student motivation in learning. So we will try it on another engineering course likes mechanical engineering

IV. CONCLUSION

We think prezi still developing. So, another features maybe will complete all prezi to fulfill it objective as a multimedia learning. We can conclude that prezi can increase student preformance at engineering field. Even though all paper that we use as preference using gamification course, but we believe that prezi can also increase another course in engineering field. We will continue our research to find how effective prezi can improve student learning in engineering field of study of course in qualitative method.

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