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Creativity in Development of Multimedia Presentation

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***Abstract*—**Creativity is marked by the ability or power, to produce through imaginative skill and create something anew. The University is one of the great places to improve the talent in imaginative skill. The purpose of this study was to identify a creativity of the student in presentation product development. Two hundred seventeen Technical and Vocational Education (TVE) students in Universiti Tun Hussein Onn had chosen as a respondent. This study is to survey the level of creativity which is focused on knowledge, skills, presentation style, and character of creative personnel. The level of creativity was measured based on the scale at low, medium and high followed by mean score level. The data collected by questionnaire, then analyzed using SPSS version 20.0.The result of the study indicated that the students showed a higher of creativity (mean score in Knowledge = 4.12 and Skills= 4.02). In conjunction with the findings, implications and recommendations were suggested forward like to ensconce the research and improve with a more creativity concept in presentation product of development for learning and teaching process.

***Keywords*—**Creativity, technical, vocational education, presentation products and development for learning and teaching process.

I. Introduction

CREATIVITY is the production of a new product that has never been created or designed by anyone before. Creativity is God's awards to people who are capable of designing and creating a new product. Someone who can see the world in a new way, finding hidden patterns, makes a connection the connection between seemingly unrelated phenomena and produces a solution [3]. It is a phenomenon where something new created that has some sort of subjective value, change the new ideas and imagination into reality. It is also a tendency to generate or recognize ideas, alternatives or possibilities can be useful, the ability to transcend traditional ideas, rules, patterns, relationships, or the like, to bring new products.

Individual, who has creativity, was capable of generating a new idea by thinking outside the box. Thinking outside the box is one of the characteristics that should be owned by the teachers of technical and vocational education in their teaching practices in laboratories and classrooms. Teachers must be through appropriate training sessions according to the level of competency provided by an educational institution training skill or University. Workability skills can be taught and trained through proper teaching and learning [2].

The process of teaching and learning is now increasingly challenge by the changes of the world globalization that emphasizes creativity. Psychology and sociology also recognize the role and importance of creativity in the development of individuals in line with vision 2020. This role is important in shaping scientific and progressive individuals and produce citizens who are creative and competitive [10].

In this modern era, teaching and learning processes need good quality, varied delivery, and acceptance through several techniques such as teaching and learning aid virtual learning environment (VLE), through a network system, software, and database information or through the internet. Teaching techniques now commonly known as the use of a virtual learning environment are said to increase interest and excite students to be more creative in the process of teaching and learning [4].

In the process of learning, creativity can be seen through presentations produced. The development of a presentation with the use of a virtual learning environment is important to make the supply of information communicated more effectively. The use of a virtual learning environment is the best alternative because it touches the entire media such as text, graphics, audio, video, and animation in the form of effective delivery, [8]. With a combination of knowledge, skills and style of presentation and more concern in developing effective presentation materials. Students have positive perceptions of learning methods and web-based virtual learning environment has been able to increase their understanding of the subject of the learned [10].

Prospective students' teachers which involved with the FTVE program probably are aware and has been exposed to a wide range of educational courses, vocational and university compulsory courses such as pedagogy, psychology, sociology, philosophy, technology, education, mathematics, engineering, information technology, and multimedia applications and so on in their studies. These courses will help those prospective student teachers make effective presentation session. Composed with the ability of the prospective student teachers makes use of multimedia. It introduced examples of instructional media used in delivering information more effectively such as producing attractive presentation materials for every subject that will arouse the student ability in applying what they have experienced in other subject presentation sessions [7].

From the background statement-based problem, researchers have shared some findings [5], which indicated the level of

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creativity of students Bachelor of TVE for skills development of multimedia presentation materials technology is still at a low level. Low levels of factor student Bachelor of technical and vocational education refuses to practice all the skills development of educational technology in developing the presentation materials have the characteristics of quality and presentation materials more effectively [6]. Under graduate students prefer to use presentation slides as a still-applied multimedia elements accordingly. Therefore, development of multimedia-based presentations more interesting is needed in the process of teaching and learning in order to establish more effective learning sessions.

II. Literature Review

Creativity is one of the aspects of human capital skills important. However, past research shows that the majority of teachers in Malaysia do not strive to nurture the creativity of students in the classroom**.** On the other hand, past research shows that there are actions and behavior of the teacher in the classroom that crippled creativity. This article tries to explain some of the obstacles faced by teachers in their efforts to foster the creativity of students in the classroom. Among the obstacles discussed were obstacles in terms of the system of education, teachers' teaching behavior in the classroom and peers [10].

The development of virtual learning environment requires systematic planning so that applications are produced of high quality and they can help the process of learning effectively. Model of instructional design and development of creativity by [3] can be used as a guide for the development of teaching materials (including virtual learning environment) which more systematic and quality.

Instructional Design Model is used as a guide in developing virtual learning environment applications. Instructional Design Model is a guide for the development of teaching materials (including multimedia presentation) with systematic and quality. There are three models of instructional design/structure design (ID) that can be used as a guide. Among them are ADDIE Model, ASSURE Model and Dick & Carrey Model [1]. The Analysis Design, Develop, Implement, and Evaluate (ADDIE) process is used to introduce an approach to instructional design that has a proven record of success.

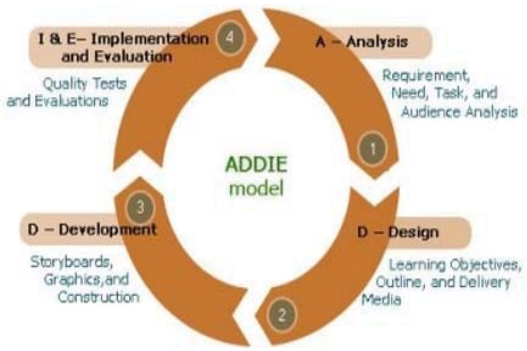

Fig. 1 The ADDIE Model

Creative educators not just educate and provide a creative atmosphere to students, but also they must have the character and ability of creation [8], which reflects a creative an educator;

> "*...Has committed and competency in generating creative abilities within themselves. Such commitments will also enable them to focus on the entire energy to their work. Competency is the mastery of the knowledge, skill and style high performance will generate creativity. The satisfaction of helping their students pushing and guiding creative teachers to find interesting ways to guide students. Thus, they are always looking for ways to deliver better education so that their teaching more meaningful*"

The teacher is an important element in education. Quality teaching is the result of those who have the knowledge and skills in a required discipline. This statement is also supported by [9], the effective teacher is the teacher-the teacher has the nature – nature has in-depth knowledge in the subject walks, have high imagination to enable make it a variety of examples that could help students understand a concept easily, and be able to use tools and teaching materials well in classes. This statement, Ryan clearly suggests that a form of specialized training is a necessity to provide creative and effective teachers.

Creativity is to disclose something that does not exist in the form of previously good products, processes, or thinking. According to Munir Said Omar, the main coordinator of Techniques Course of Thinking from Universiti Sains Malaysia, thinking skills are one of the activities to control, dominate, and adapt to a difficult environment.

According to [7], the features of personal creative were to 1) Create or invent something that never existed before. 2) Create or invent something that already exists elsewhere before, but you yourself do not know. 3) Create a new process to do such things. 4) Breathe new life to the process or method available to new markets. 6) See a thing from a different perspective from the mainstream and 7) Change other people's impression to some complicated matters.

Studies have been conducted by [10] in order to see the existing issues in the Polytechnic in respect of the use of the website as a teaching medium. Among the issues is a web-based teaching used in helping students' understanding and perceptions of students on the use of the website as teaching media. Respondents involved in this study consisted of the students' final year electrical diploma courses in Politeknik Tuanku Sultanah Bahiyah Kulim Kedah.

The outcome of the studies show that students [2] have positive perceptions towards web-based learning and web-based learning has been able to increase their understanding on the subjects learned. The study findings also showed that the existing constraints in the process of web-based teaching including skill level educators, student computer literacy levels, incomplete infrastructure, the time and location of the polytechnics. Proposals submitted to assist the effort the success of the teaching methods and web-based learning at the polytechnics is to improve computer literacy lectures,

increasing the level of computer literacy among students and improve computer infrastructure polytechnics.

III. The Objectives of the Study

The objective of this study is to identify:

a) Student and teacher knowledge in the development of instructional materials.
b) Student and teacher skills in applying the elements of virtual learning Environment during the development of the material presentation.

IV. Methodology

The quantitative study was carried out by the review, also called as descriptive study. The quantitative study of information or data that is quantitative. Quantitative data can be measured, through a process such as questionnaires. Quantitative study of sample size is larger than the event to be distinguished with qualitative research.

Populations and samples involved in this study consist of prospective student teachers in the Bachelor of Technical and Vocational Education under the organized by the Ministry of Education for only in the final year. The rationale for the selection of prospective student teachers Bachelor of TVE is because they are potential Polytechnic lecturers, schools, and community colleges that will act as a creative educator. A creative educators not just educate and provide creative atmosphere to students, but also it must have the character and ability of creativity in developing teaching materials. Therefore, the sample selected is to review the level of creativity of Student Teachers Bachelor of TVE in the development of a virtual learning environment based on their perception only. Based on information obtained from the Faculty of Technical and Vocational Education, a sample of 151 people poised to student teachers.

The review instrument is a tool used for measuring and acquiring data. This instrument determines the type of data and this will affect the type of analysis of a researcher. Researchers can use the instruments that already built by other people or they can build their own instruments. An instrument usually is a questionnaire designed for feedback and to gather information [8].In this study, the instruments used are questionnaire. Set of the questionnaire used to obtain information from respondents.

Items of questionnaires are developed by the researcher. These questionnaires divided into two sections, namely:

a) Demographic details prospective respondents of student teacher Bachelor of TVE.
b) Knowledge, skills, style of presentation and creative personality characteristics of students in applying the elements of the current development of learning environment virtual presentation of materials for the teaching and learning process.

V. Analysis of Findings

The student teachers for technical and vocational education programs have a high level of knowledge in the application of the elements of virtual learning environment while developing instruction material.

For the item Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9 and Q10 each record levels high score. It shows the student teachers for technical and vocational education programs have a high level of knowledge in the application of the elements of virtual learning environment while developing instruction material. The standard deviation of the entire items is in the range of 0:58 to 0.84, which does not exceed 1.0. This means that the distribution is on high level.

TABLE I
Student Teachers' Knowledge in the Development of Instructional Materials

No	Item	Mean	SD	Level
1	Topics and content lessons clear and easy to understand	4.05	0.686	High
2	Rich text display modes and attractive	4.28	0.577	High
3	Presentation graphics related to the topic of the lesson	4.23	0.633	High
4	Presentation related graphics easy to understand	4.20	0.642	High
5	Audio used in accordance with the topic of the lesson	3.95	0.706	High
6	Audio as explained the content of the lesson	3.92	0.843	High
7	The video gives an Understanding of the content of the lesson clearly	4.31	0.676	High
8	Video be related to Instructional materials	4.28	0.645	High
9	Animation gives an understanding of instructional materials	4.05	0.826	High
10	The use of easy-to-read text template slides	3.92	0.772	High
	The total of mean value in respect of student teachers' knowledge	**4.12**		**High**

The table above shows how the items of the video gives an understanding of the content of education and clearly have the highest value of mean. The highest mean of value in the item shows the rich text display modes which is attractive and the videos should be related to structural materials. For the second highest in mean values are items in the use of audio explained the content of the lesson. In addition, the items use of easy-to-read text template slides at high levels. The results of this analysis showed the level of knowledge of the student teacher technical and vocational education in the development of instructional materials is at the highest level.

For items S12, S13, S14, S15, S17, S19, S20, S21, S22 respectively recorded level mean score is also high. This indicates student teachers of technical and vocational education has a high skill level of the application element in developing a virtual learning environment presentation slides. The standard deviation of the entire items is in the range of 0:58 to 0.82, which does not exceed 1.0. This means that the distribution is in the medium and high levels. This analysis shows data for the items of this question is geared towards mean values. By referring to Table II, high dispersion of the distribution of the items showed low differences among respondents.

VI. Conclusion

The findings of this study stated that the student teachers of Technical and Vocational Education has a high level of

instruction to develop presentation materials. This is due to the effectiveness of the disclosure of the subject of Educational Technology and Information Technology and applications, virtual learning environment to learn in their studies. Both of these subjects introduce examples of teaching media used to convey information or a message more effectively. The objective of this subject is to enable students to understand the real concept in designing and teaching aids to rebuild more. In addition, the results obtained by the student learning can be practiced well in providing an attractive presentation of media development and creativity. Therefore, the problem of no knowledge in generating media-based teaching and learning, virtual learning environment will not arise if the student applies the learning subjects in the development of presentation materials.

TABLEII
STUDENT TEACHERS' SKILLS IN THE DEVELOPMENT OF INSTRUCTIONAL MATERIALS

No	Item	Mean	SD	Level
11	The use of features such as bold text, underline, italic and color	4.37	0.579	High
12	Use numbers, symbols, bullet to emphasize something important content	4.17	0.618	High
13	Hypertext is used as a mode of interaction in the slide presentation	4.13	0.696	High
14	Display graphics (including photographs, drawings, cartoons, charts and graphs) are clearly seen	4.16	0.721	High
15	The graphics are used consistently in size	3.91	0.759	High
16	Using audio formats (mp3) to avoid problems for use on different computers	3.73	0.743	High
17	Audio used to control the height of the audio and Stop.	3.91	0.743	High
18	Using video format (avi) to avoid problems for use on different computers	3.73	0.819	High
19	Video used to control the movement speed, slow or stop the video	3.88	0.760	High
20	Custom animation used in the slide presentation	3.92	0.765	High
21	Use it as a springboard for the hyperlink connects a content / topic related	4.19	0.636	High
22	Use buttons or direction to create interactive presentation slides	4.19	0.636	High
	The total of mean value in respect of student teachers' knowledge	**4.02**		High

Skill is the most important indicator in the development of the Virtual Learning Environment presentation materials. Without a basic knowledge of the concept of a Virtual Learning Environment is, of course skill in applying these elements cannot be put into practice with actual. Education prepares students to serve the community who are knowledgeable and skilled. Current rapid challenges in teaching will require educators to have different knowledge and skills. One area of emphasis is the computer skills in teaching and learning process [4].

The findings showed that the level of student skills teacher at a high level in applying the elements of a virtual learning environment during the development of presentation materials. It can support the statement of the rapid development of today's educational shows a change of focus from teaching to learning using a virtual learning environment technology, [6]. Next, it aims to prepare students not only master the concepts or knowledge communicated, but also has the skills to a higher level in these areas. Many researchers have contributed their ideas and strategies to foster a learning process to ensure that students could meet the needs of the professional world in the future.

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