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Validating A Conceptual Model of Affective Mediation Digital Training for Training of Trainers (TOT) in Education Through Expert Reviews

Siti Nurhazzalilla Omar, Sobihatun Nur Abdul Salam and Fauziah Abdul Rahim

Abstract -Training on affective mediation to TOT using digital tool is needed to motivate trainers to learn. However, to develop a digital training tool that will meet the training's objectives has require a model to be based on. Thus, this paper describes the validating procedures on a conceptual model of affective mediation digital training for TOT in education through expert review. This study has contributed to the body of knowledge in term of education setting, technology development and practical use of the digital training for TOT in education in Malaysia. Moreover, this study has also contributed to the affective mediation development of working tool of digital training for TOT in education.

Keywords: - digital training, training of trainers, affective mediation in digital training

1 Introduction

This paper looks at validating a conceptual model of Affective Mediation Digital Training (AMDT) for Training of Trainers (TOT) in education through expert reviews. The conceptual model is aimed to be used as a guideline to develop a digital training that promotes affective mediation to TOT. Affective mediation contains elements that able to help the TOT in Malaysia education to become engage with learners during teaching and learning sessions. Engaging learners especially the less able ones with their mediator have shown qualitative change in their interest to learn in schools [1] [2]. Thus, the effort to sustain this change should be expanded so that a larger community of engaged learners with their mediator is formed.

Since Malaysia is working to become a developed nation, it requires certain need that people are equipped with the basic literacy skills, thus lifelong learning can be achieved in order for the individuals to expand their capacity to learn [1]. A lifelong learning on the other hand can be achieved through training which aimed to improve knowledge, skills, and competences within a personal, civic, social, and/or employment related perspective [3]. Besides that, the existence of TOT has also beneficial in providing ongoing support to trainees [12], so that the lifelong learning can be attained.

Meanwhile technology is being developed impressively, many studies on digital training, also known as e-training or online training have been successfully conducted. The digital training had contributed in human performances in ICT, students' understanding through blended learning in traditional classroom, visually impaired students to improve their knowledge and IT skills, and helped teacher training agencies in China to increase their ability in implementing e-training during teaching [9][10][7]. Although there was a large number of digital training used to enhance the understanding of training content among trainees, but only a few were discussed on the effectiveness and development of digital training model [5][11][4] that guided in developing the digital training tool. Besides that, studies on the affective involvement of trainers when intending to enhance the motivation of learners on digital training model for TOT are still lacking. It was found that the affective mediation elements are crucial in order for learners to enhance their motivation to learn, thus will encourage the learners to enjoy learning in classroom [6][1]. Therefore, a conceptual model of digital training that implemented the elements of affective mediation is developed and proposed to be validated through expert reviews. This study discusses the process of validating the conceptual model through expert reviews.

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2 EXPERT REVIEW

One of the processes to validate or evaluate a new model is through an expert review. The process is a starting point to get useful feedbacks from the expertise in the studied area. An expert review is a formal process with test subject, and the feedbacks are proven more effective [13]. The feedbacks can be any good or bad comments, and also amendments for an improvement. There are variety of expert review methods available such as Heuristic evaluation, Guidelines review, Consistency inspection, Cognitive walkthrough, and Formal usability inspection.

Figure 1 below illustrated the conceptual model version 1 before it being reviewed by the experts. There are five components; digital training components, teaching style, cognitive theory of multimedia learning, multimedia design principle, and affective mediation guidelines, which is every component contains its own elements. This model was developed through a systematic literature review (SLR), where digital training components of previous studies were extensively reviewed.

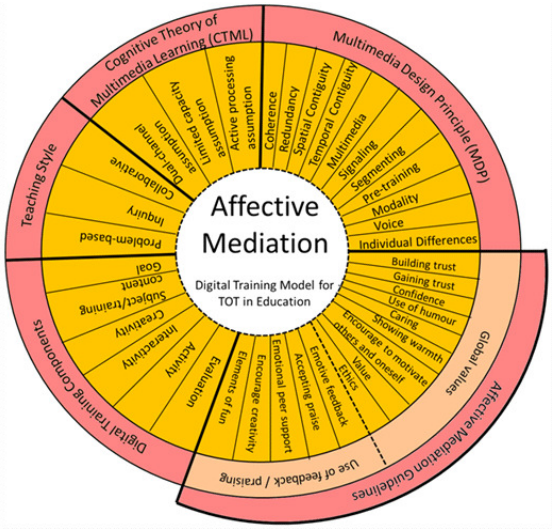

Fig. 1. Conceptual Model of AMDT for TOT in Education (Version 1)

2.1 Expert Review Method and Procedures

Expert consultation session is made to ensure that all components implemented in the conceptual model can represent the effectiveness of the model [14] namely AMDT for TOT in education. The objective of this procedure is to verify the components of the conceptual model that leading to a development of digital training for TOT in education.

2.2 Selection of Experts

Expertise for the consultation session were selected among lecturers in School of Multimedia Technology and Communication. They were five experts from different area of studies; multimedia and multimedia learning, design science and advertising, educational multimedia, interaction design, and information technology, whom have experience more than five years in training/digital training.

2.3 Method

An alternative approach to Heuristic Evaluation for predicting users' problem without doing user testing [8] is used, namely Cognitive Walkthrough. This method is used during the expert consultation session. Questionnaire were distributed to the experts for them to walk through the conceptual model and noting the problematic components in the model. Besides, through this method, the experts also review the components and predicts possible problems that might occur to users when interacting with the components.

2.4 Instrument

Likert Scale questionnaire with five levels of responding; Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree is used as instrument in this study. The instrument contains description and justification of each component and the experts were advised to indicate the extent to which they agree with the justification of each component in the conceptual model. A blank space is provided in the questionnaire for the experts to leave any comments related to the conceptual model.

2.5 Procedure

The selected experts were provided with an invitation letter to review the components of the conceptual model. The letter was attached with a questionnaire and completed with the objectives of the study. A clear instruction was given in the questionnaire and the experts were given three weeks to complete the questionnaire. The questionnaire were collected from the experts after three weeks time. The mean of the result was analyzed using SPSS Statistics 21 while the comments were noted for the model's improvement purpose.

3 FINDINGS

Results from the questionnaires claimed the mean value of 4 where the experts were mostly agreed with the components and elements in the model. However, some amendments were encouraged to be made in order to simplify the model since there were too much elements compressed in the model. The amendments are as listed in Table 1 below.

As has been encouraged by the expert 3, the elements were divided into mandatory (M) and optional (O), so the main elements are highlighted. Since there are three elements disagreed by expert 2, two of them (redundancy and modality) were classified into optional, while coherence remained as mandatory. On the other hand, the CTML component is removed as MDP is already signifies CTML.

Table 1. The Amendments from the Experts.

Questions	Experts				
	1	2	3	4	5
Area of expertise	Information Technology	Interaction Design	Multimedia Learning	Design Science, Advertising	Educational Multimedia
Experience in training/ digital training	≥ 5 years	≥ 5 years	≥ 5 years	≥ 5 years	≥ 5 years
Comments/ improvement/ suggestion to AMDT model (written)	-	Disagree with three elements in MDP; coherence, redundancy and modality.	Suggestion to classify the elements into mandatory and optional, or may be based on application.	-	• Only use MDP as it already signifies CTML. • Only use the main components of the model

4 CONCLUSION

The reviewed version of AMDT model has fulfilled the objective of this study; to validate the components and elements of AMDT model through expert reviews. The selected components and elements in the model are going to assist in developing AMDT tool for TOT in education that will help TOT to improve their teaching skills, promote fun while learning, as well as promote lifelong learning. This study has eventually helps towards sustainable development of the society by enhancing learners' motivation to learn through affective involvement of the trainers in education. It could be a driving factor to improve human psychological in handling emotions or feelings aspects and behaviors problem among the learners. Thus, in future research, this model is aimed to be used as a guideline to develop the digital training for TOT in education. The reviewed model is made as illustrated in Figure 2 below.

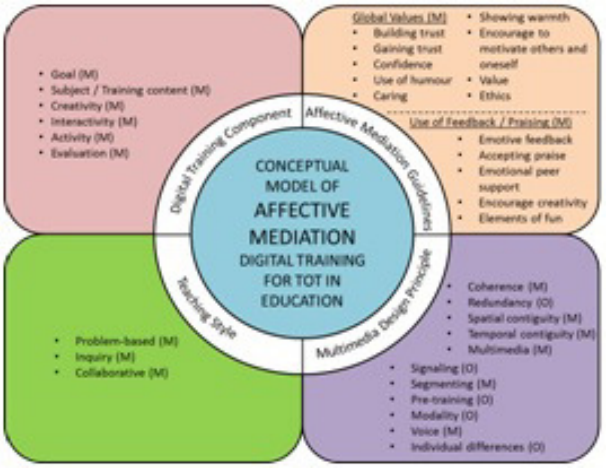

Fig. 2. Conceptual Model of AMDT for TOT in Education (Reviewed Model)

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