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A CONCEPTUAL FRAMEWORK FOR VOCATIONAL TEACHING METHOD

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Abstract: Current technological changes in the industry result in a demand for human capital with a high level of employability skills. The country needs to have highly skilled workers to suit the current working environment. The mastery of industry-based skills can produce skilled workers in line with the needs of the country. Therefore, teaching and learning in a practical environment should provide students with the knowledge and experiences that cater to the demand of the industry. The concept of teaching is an action that can be described as giving instructions or sharing one's knowledge with others. Teacher skills competencies should be in line with technological changes and industry requirements. Competent and quality teachers can produce a skilled workforce by using an efficient delivery skills process. With regards to this matter, a conceptual framework for practical teaching in vocational colleges is proposed by adaptation of Danielson's Effective Teaching Framework Model, Needham's Five-Phase Practical Teaching Framework, Iceberg Competency and the Glaser Model. A practical teaching framework is a general guide that can assist teachers in planning the practical teaching and learning process in the classroom.

Keywords: Practical Teaching, Lecturer Competence, Knowledge, Skills, Attitudes

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INTRODUCTION

Teaching is educational knowledge that includes teaching methods and teaching processes. While practical teaching is a combination of the teacher teaching skills and technical skills. Practical teaching is an important element in the provision of skilled human capital for the needs of the industry. In education at Vocational Colleges in Malaysia, students need to master certain skills in practical learning. Finding from Lee and Johnston (2013) show that practical learning is difficult to master by students except for those who have basic skills from past experiences. This situation causes students to be less self-motivated to be excellent (Sudiata & Tabanan, 2012). According to Iberahim (2014), the failure of students to master the skills taught is mainly caused by the teaching

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techniques. Thus, the teaching techniques for practical purposes must be different from the teaching subject matter.

Knowledge, skills, and competencies are the catalysts for generating human skills based on technical and engineering education (Mohammed Sani et al., 2015). Practical learning is a skill that will be used in the real world of work. It could help students to master the skills applied. Effective education can produce skilled students and indirectly this can produce skilled human capital to meet the needs of the industry (Minghat & Yasin, 2010).

THE IMPORTANCE OF PRACTICAL TEACHING

The education system nowadays is aligned based on the course of the technical and vocational education system to produce students that are skilled for the work environment (Baharom & Iliyas, 2010). Student achievement depends on the role of the teacher in content knowledge to meet the requirements of the teaching objectives (Kalaiselvi et al., 2015). A structured teaching procedure assures the effectiveness of a teacher's teaching (Kemp & Hall, 2002). Highly-skilled, knowledgeable, and innovative human capital must be produced with the current needs in Technical and Vocational Education (TVET). TVET is a platform where students are trained based on the specific expertise of employment (Malaysian Education Ministry, 2014). Further, appropriate teaching methods allows students to understand the lesson taughteasily (Kourakos et al., 2017), and the learning process will take place more effectively (Baharom & Iliyas, 2010). According to Lucas et al. (2012), students' level of skill competency is demonstrated when they are ready to use the knowledge and skills in real situations.

CHALLENGES IN CONDUCTING PRACTICAL TEACHING

Teaching and learning objectives are difficult to be achieved if teaching is conducted based on the convention method (Zamri, 2012). Academic achievement of the students will be disrupted if the teaching methods do not match with current technology (Tee et al., 2012) because a teacher needs to improve the teaching methods better and effectively (Asnul et al., 2013). Most teachers have trouble determining the methods, strategies, and implementation of lesson (Abdul & Nor 2010). If a teacher fails to master the content of the lesson, the teaching process is failed to be conducted effectively (Siraj, 2012). This is supported by the findings of Hazlin (2016), and Rusk and Cooke (2009) whereby teachers often deliver information based on the required syllabus only. This causes the learning process to only take place on a policy basis without considering the level of understanding of the student or even stimulate the thinking of the students (Saemah & Zamri, 2016).

Practical education requires maximum teacher skills to carry out hands-on teaching for students to master relevant skills (Yahya & Muhammad, 2011). Teachers who are not competent in delivering the teaching content will face problems in the delivery of the lesson and implementation of practical work (Norani & Saifulazri, 2010). A teaching process that is focused on theoretical teaching rather than practical teaching leads to undeveloped knowledge attained by

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students (Kamalularifin, 2013), and results in students relying more on teachers the completion of the syllabus is delayed (Nor Aishah & Yap, 2012).

Teachers' skills and competencies should be parallel with technological changes and industry requirements. This is supported by Tan (2016), who indicated that there are constraints in providing teachers in the technical field based on the requirements. Workplace situation-based teaching is a significant teaching method in practical teaching (Boyatzis, 1982). Teachers must be able to diversify teaching methods based on the content of the lesson to be taught. In other words, effective teaching is the teacher's ability to unleash excellence within the students. Teachers who fail to diversify teaching strategies find it difficult to evaluate the contents of the subject. Indirectly, teachers are not creative in delivering the content of the syllabus.

A CONCEPTUAL FRAMEWORK FOR VOCATIONAL TEACHING METHOD

A teacher needs to be competent, especially in line with the development of today's technology. The effectiveness of the teaching process depends on the preparation of the teacher and the quality of the teaching. The teacher plays the role of an educator. Teachers should strive in developing students' cognitive, affective and psychomotor mastery (Bloom, Krathwohl, & Masia, 1964). Teachers need to be creative in determining teaching methods that not only focus on lesson planning but are also more creative during the teaching process (Mohamad & Mohamad, 2010). According Boyatzis (1982), the competency of the teacher is not only based on the level of education of the teacher, but also involves the knowledge, skills, and values/attitude of the teacher delivering the content. This is supported by the findings of Zawawi (2011) where the level of teacher education affects the knowledge, skills, and experience of teachers in practical teaching. The Malaysian Teacher Standards include three professional standards, namely professional attitude, professional knowledge, and professionalism (Siraj, 2012). These three standards are closely related in the field of work of the teacher but are inversely proportional to the length of service for a teacher. This is in line with the requirements of the National Education Philosophy which aims to produce a balanced human being in all aspects (Choong, 2008). Effective teaching and learning derive from competent teachers. This is supported by Kleickmann et al. (2012) where a competent teacher acts as a driving force in the teaching and learning process.

Based on prior research (Glaser, 1962; Needham, 1987; Danielson, 2007; Spencer & Spencer, 1993), the practical teaching framework (Figure 1) is a general guide that can assist teachers in planning practical teaching and learning process in the classroom. The framework proposed in this study is developed based on the application of Danielson's effective teaching framework model (Danielson, 2007). The framework comprises of two main components, which are knowledge and teaching strategy. This study focuses on the implementation of teacher teaching in practical teaching which is divided into five main phases, which are the idea generation phase, the idea strengthening phase, the application phase of ideas, and finally the reflection phase (Needham, 1987). Each level of the sequence has a goal to be achieved to facilitate the lecturer to ensure that the content of the lesson is understood by students (Adnan, 2012). For the teaching

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component, the Iceberg Competency Model (Spencer & Spencer, 1993) is used where the teacher's mastery should be maximized in mastering the knowledge and skills of a practical learning. The teaching strategy component is a factor that influences the practical teaching process. This component is guided by the Glaser Model (Glaser, 1962) which is considered a basic model that can describe the teaching process carried out. The Glaser Model is divided into four parts namely teaching objectives, existing knowledge, teaching methods, and assessment of achievement.

The present study suggests the conceptual framework for practical teaching as a general guide that can assist teachers in planning the practical teaching and learning process in the classroom, as shown in Figure 1

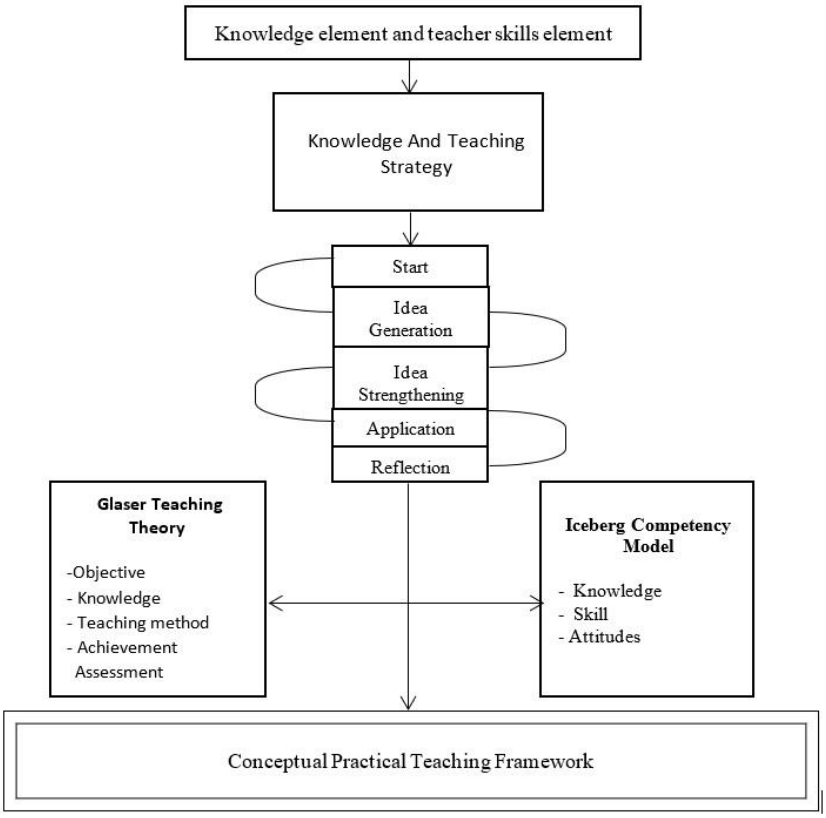

Figure 1: Conceptual framework for practical teaching

CONCLUSION

This study aimed to explain the issues and factors that lead to the proposed Conceptual Framework of Teacher Practical Teaching as a general guide to assist teachers in planning the process of practical teaching and learning. This conceptual framework of practical teaching is an adaptation of Danielson's Effective Teaching Framework Model (Danielson, 2007), Needham's Five-Phase Practical Teaching Framework (Needham. 1987), Iceberg Competency Model (Spencer & Spencer, 1993), and the Glaser Model (Glaser, 1962). However, future studies will be conducted to implement and investigate the proposed conceptual framework.

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