TECHNICAL TEACHING COMPETENCY OF THE ELECTRONIC TEACHERS IN VOCATIONAL COLLEGE, MALAYSIA

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ABSTRACT
Standard Curriculum for Vocational College (KSKV) that used in Vocational College in Malaysia is a curriculum that focuses on practical applications in line with industry requirements. Teaching the practical subjects requires teachers to competent the practical teaching methods strategy to make sure the delivery of the knowledge is smooth and success. The need for every teacher to be competent in the field of teaching is very important to ensure that every student can understand the content well. The objective of this study is to know the level of teachers’ competency in electronic technical subject. Quantitative studies were employed using questionnaires. The respondents were 135 electronic teachers. Quantitative data analysis utilized descriptive analysis. The results showed that the Electronics teachers generally have high competence in teaching technical knowledge. Based on this study, the competence of teachers in the technical knowledge of electronic subjects is very important to ensure that teaching and learning sessions can be implemented more effectively.

Keywords: Technical Teaching Competency, Vocational College, Electronics

INTRODUCTION
The impact of global technology nowadays has led to a significant impact to the education field of the nation. As a developed country, Malaysia needs to be on the right track to ensure that any changes that take place have a positive impact on the education and future generations in the country. The dramatic increment and concentration of the country's education sector in the field of Technical and Vocational Education and Training (TVET) is an excellent effort to ensure Malaysia is able to successfully develop the technology field. Therefore, the Vocational College is founded to address the challenges of the global through the provision of students with skills that are in line with the needs of the current industry (Bahagian Pendidikan Teknikal dan Vokasional, 2011). The built-in syllabus is aimed towards the industry's needs by covering up to 80% of practical that can give the students more space and opportunity to study and enhance the skills in Vocational College. To make sure that the students being skilled, we should require the highly competent teachers not only in the teaching aspect but also in technical aspects (Ahmad et al., 2018). Highly competent teachers can help students understand and acquire more focused and better knowledge with their ability to teach in various teaching method regarding to technical knowledge. Technical knowledge is about know-how, focusing to know the theory and know to handle it in hand. The lecturers with good competency in technical knowledge should be considered as first priority because they have the ability and skills to make sure the technical knowledge is transferred smoothly in their teaching (Haizum & Lai, 2011).

LITERATURE REVIEW
Teaching Competency
Competency is defined as the purpose of combining and compatibility of various aspects such as knowledge, skills as well as personal characteristics played by a person on a task being entrusted (Voorhees, 2001; Kamaruzzaman et al., 2010; Zaiha, 2014; Roslan, 2014). It is dynamic with a specific implementation, covering the competence and capability shown in completing a task (Lubis, 2008). Competency is seen as an important asset to the assessment of an ability to do the work (Sampson dan Fytros, 2008) and the characteristics of workers who are able to contribute to improved work
performance (Sinnott, Madison dan Pataki, 2002). Competency is also defined as an indicator of the ability of an individual after undergoing learning and is a quality standard that reflects the ability of a person's skills (Streble, 1997; Mahazani, 2012) which includes an individual's competencies and abilities that can be learned, observed, measured, tested by experts, transferred and taught (Kaslow et al., 2004; Lubis, 2008; Siraj, 2012). Competency in teaching is very important to ensure that every aspect of teaching can be done properly by the teacher. Competent teachers are able to apply a good way of teaching and to ensure that students understand the content they deliver.

METHODOLOGY
The researcher used descriptive research by using questionnaire as an instrument of this study. The questionnaire used was to obtain the competency level of technical teaching of electronic teachers for Vocational College in Malaysia. The teaching method for technical knowledge had used details from Needham Constructivism Five Phase Model which has five phases of teaching namely the beginning, idea generation, strengthening of ideas, ideas application and reflection. Total of 135 electronic teachers at Vocational College were used as respondents from 58 Vocational Colleges throughout Malaysia. The researchers use descriptive analysis such as mean and ranking to show the result.

RESULTS AND DISCUSSION
Based on the findings, the mean of technical teaching competency of the electronic teachers at the Vocational College is at competent level. Table 1 shows the result for Technical Teaching Competency by teaching phase. The mean for Technical Teaching Competency as a whole is shows in Table 2.

<table>
<thead>
<tr>
<th>No.</th>
<th>Teaching Phase</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Competency Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Beginning</td>
<td>4.85</td>
<td>0.50</td>
<td>Competent</td>
</tr>
<tr>
<td>2</td>
<td>Idea Generation</td>
<td>4.82</td>
<td>0.50</td>
<td>Competent</td>
</tr>
<tr>
<td>3</td>
<td>Strengthening of Ideas</td>
<td>5.00</td>
<td>0.53</td>
<td>Competent</td>
</tr>
<tr>
<td>4</td>
<td>Ideas Application</td>
<td>4.81</td>
<td>0.65</td>
<td>Competent</td>
</tr>
<tr>
<td>5</td>
<td>Reflection</td>
<td>5.03</td>
<td>0.60</td>
<td>Competent</td>
</tr>
</tbody>
</table>

Based on the findings, the researcher found that the practical teaching methodology practiced by the lecturers is focusing on teaching approaches that are in line with the industry's current needs. Overall, electronic lecturers at Vocational College are well mastered and are at an advanced level for technical knowledge competence. It is seen in parallel with the Iceberg Competency Model (Spencer & Spencer, 2008), which explains that competence in the form of knowledge and individual skills can be measured and evaluated in detail.

For a lecturer, the mastery of technical knowledge is an asset which is important as a core of knowledge to teach especially in practical teaching (Campbell et al., 2003; Mahazani et al., 2010; Kulshrestha & Pandey, 2013). Good proficiency in the competence of technical knowledge can make the lecturer proficient in understanding and being able to translate it when doing special work as in the practical teaching session in the classroom (Sampson & Fytros, 2008). This is because highly skilled, knowledgeable lecturers will use the technical expertise available to perform tasks and activities involving the methods, processes and procedures formally or otherwise better and clearly (Schermernhorn, 2005; Roslan, 2014).

Lecturer's approach with high competence in a particular field of technicality is seen more creative in
trying various styles and methods as to communicate better on the practical knowledge to the students (Adnan, 2012). They are able to carry out teaching and learning sessions in the classroom well enough and able to give an impact as they have a good knowledge base on a field of knowledge (Arsaythamby & Mary, 2013; Roslan, 2014). This is important because lecturers need to know and understand and interpret the philosophy, goals and objectives of teaching and learning. What is more, lecturers also need to know and be proficient in the use of learning outcomes and strategies in teaching and learning planning in the classroom (Bahagian Pendidikan Guru, 2009).

The beginnings of teaching are an important phase to attract students for first time in each teaching session. During the beginning session, the teaching method used should be comprehensive by giving the initial picture of a topic that will be implemented in the classroom. The process of generating ideas is a process that encourages lecturers and students to make ideas and views. Moreover, the idea is to be compiled and streamlined using concept maps so that it is easier to understand and be refer back again.

For the strengthening phase of the idea, it is a process of students exploring and researching all aspects of new knowledge received. The lecturer should act as a supervisor when the student undertakes this reinforcement process by compiling the knowledge gained in groups. Strengthening ideas is often done by lecturers through discussions within the groups. It is done as a method of knowing the ideas that have been developed can be strengthened and well organized. Knowledge of teaching can be reinforced by an idea which has been reached deeply by an agreement through discussions among students in the group.

For the application phase of the idea, its involve a student process of applying ideas that have been obtained through an approach that is in line with the needs of practical teaching reality (Yahya & Amirudin, 2011). The process explains on how to apply the ideas learned in groups or openly by linking the practical lessons learned with the knowledge and needs of the industry (Adnan, 2012; Mohamad & Kasbolah, 2012; Zurainu & Shaari, 2012).

Reflection at the end of teaching is a method used by lecturers to summarize the contents of the whole lesson by ensuring that the contents of the knowledge taught in the class can be clearly understood by the students. It will also be able to reflect whether the lecturer is academically and technically competent to a specific task (Lubis, 2008; Roslan, 2014).

CONCLUSION

Based on the findings, it is clear that electronic teachers at Vocational College have a high level of competency towards the teaching of electronic subjects. The needs to mastering the practical lessons in electronic subjects by teachers are a basic that helps students to understand subjects taught better. The essence of the Vocational College syllabus is that the majority of the technical aspects make it necessary to be taught by teachers who are not only proficient in theoretical technical knowledge, but also how to communicate to the students more effectively. Hence, with high level of competency in technical teaching it can help teachers to conduct the better teaching and learning sessions in technical subjects.

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