Abstract

This study investigates how competency-based education and competency-based assessment prepare vocational education students towards becoming competent individuals upon entering the workplace. For this purpose, a case study was conducted in Akademi Binaan Malaysia (ABM), which provides training and courses for development and upgrading of skills among construction personnel. Data which were collected through interviews with academic staff and related documents, were analysed qualitatively and via document analysis, respectively. The results show that ABM has been applying a structure comprising stages of competency assessment in evaluating their students’ competency.

Keywords: Competency-based education, competency-based assessment, Akademi Binaan Malaysia (ABM);

1. Introduction

As a curriculum is being developed, the vocational educator is obligated to deal with building quality into the ‘finished product’ or the graduate. Does the ‘finished product’ perform and are they competent when they enter the working world? The keyword for the ‘finished product’ of technical and vocational education and training (TVET) is employment for learners where it leads learners to the theoretical knowledge, practical skills to be acquired, and attitude towards work. Unlike other academic curricula, the technical and vocational curriculum is based on occupational competencies needed in the employment world where the curriculum should clearly apply to situations where the learners may become self-employed or will work for someone else. In addition, the challenge of this competency-based learning is to determine which competencies may be packaged together in order to provide the optimal combination of skills and knowledge needed to perform specific tasks. However, the ability required to effectively coordinate the roles, timing, and contribution of co-workers is critical. This is the reason why competency-based approaches have become more crucial in many organizations, especially in succession planning and performance appraisal.

When defining the students’ learning outcomes, there are many terms that are used to describe ‘competency’; sometimes it goes by the term objectives, skills, traits, characteristics, or domains. A clear definition of competency
is required to guide implementers of competency-based initiatives. As defined by U.S Department of Education (2001), competency is a combination of skills, abilities and knowledge that is needed to perform a specific task. The following figure depicts this definition and indicates the demarcation among terms to assist others to visually differentiate the levels of hierarchy.


In demonstrating the competency-based learning, it has been seen to have the potential to influence the ways in which employment-related skills are assessed and recognized. Although there have always been different means of introducing competency-based education in different countries at different times, the basic principles and intentions of competency-based education have remained almost unchanged since the 1960s whereby the following elements have always been observed:

- Greater workplace relevance
- Outcomes as observable competencies
- Assessments as judgments of competence
- Improved skills recognition
- Improved articulation and credit transfer

The above principles clearly show the relation between the world of learning and the world of work and the mechanisms by which one’s experience prepares oneself for participation in the workplace.

2. Overview of Competency Evaluation Model in Education

The current approach to competence-based education is partly a consequence of the processes in ensuring what can or should be achieved in ensuring national standardized practices and procedures. It is also in part a consequence of central control over content and standards to abide by, so institutions follow similar practices. Therefore, it is important to realize that competence-based education is one of the implications that resulted from the processes of assessing competence.

The model of evaluation used in educational institutions is one of the most important aspects that needs to be considered when assessing and measuring the success of curriculum as well as level of competency. Rothwell (2002) classifies the core skills into two categories which are:

- Foundational competencies: include reading, writing, computing, listening, questioning, speaking, cognitive skills, individual responsibility and self-esteem, resources (time, money, people, and information), interpersonal, and information and technological
- Higher level competencies: include thinking system, personal mastery or willingness to learn, mental modeling, shared visioning, team learning, self-knowledge, short and long-term memory, subject matter knowledge, enjoyment of learning and work, flexibility, persistence and confidence, sense of urgency, honesty, giving respect to others, and initiative

From the categories above, it shows that the evaluation in education gives direction and impetus to educational efforts. The foundational competencies are required at the school stage where the basic knowledge, ability, and
attitude are delivered in order to ensure the learners gain some basic skills to be applied in their daily life while the higher level competencies are required at the higher level and training institute stage. At this stage, the evaluation is more detailed and the curriculum is more advanced. It is more about specific knowledge, skills, ability and definitely require some interpersonal skills and attitude as a controller to the ethics of competencies.

3. Methodology

This research adopts a qualitative approach in eliciting data on the educator’s role in professional teacher development. The data is gained from interviews and document analysis protocols. Interviews are semi-structured in nature with open-ended questions, and were administered to obtain participants’ views of their role. The interview was used in this qualitative study as they permit the participants to describe detailed information on the questions asked. The researchers also had a better control over the types of information received as they could ask specific questions to elicit the information (Creswell, 2008). The questions on the one-page-educator-interview schedules mainly focus on the competence assessment applied in Akademi Binaan Malaysia (ABM). Confidentiality was assured to the participants when the interview was conducted. Then, data collected were transcribed verbatim and classified into themes and categories based on qualitative approaches.

4. Development in Akademi Binaan Malaysia (ABM)

4.1. Background

Akademi Binaan Malaysia (ABM) is the training arm of Construction Industrial Development Board (CIDB) Malaysia, which caters to the development and upgrading of skills amongst construction personnel. A key focus of the ABM involves equipping construction personnel with the right skills, standards, competencies, quality and productivity. The ABM has outlined seven objectives to fulfill its role:

- To produce more locally skilled and semi-skilled construction personnel, hence reducing the country’s dependency on foreign workers
- To undertake structured and widely recognized construction skills development courses, which are conducted by well-trained and professional trainers
- To produce productive, safety-conscious, quality-oriented and competent construction personnel to meet the ever-changing needs of the construction industry
- To provide opportunities for construction personnel to upgrade their skills from time to time
- To support the industry in pursuit of competitive advantage by providing them with the right construction manpower capable of handling the increasingly advanced construction technology
- To develop and pave the way for the present and future export of locally groomed skilled manpower
- To carry out skills accreditation programs

4.2. Competence Assessment

The role of the new assessment in education is vital. Assessing people using their knowledge and skills on the actual job is the key to competency assessment. Every job requires a specific set of knowledge and skills. These vary depending on the type and complexity of the job. Competency assessment is all about providing a way of building the skills and knowledge that people require in performing their job. It is also the key element to success in the planning process because it provides a way of developing people for their future roles. In Akademi Binaan Malaysia (ABM), seven stages of competence assessment are applied and they are as follows:
i. Structuring the Performance Criteria

Competence means skills or abilities that enable a person to solve a problem, and these cannot be observed directly. However, performance is a behavior that is observable. In competence assessment firstly, the criteria of performance will be defined. A competent candidate or student should be able to display good performance. Moreover, to be accredited with competence, a candidate must demonstrate successfully that he or she has learned and met all of these criteria. This is because competence-based assessment requires one-to-one correspondence with outcome-based standards.

ii. Collecting evidence of outcomes of performance

The second stage includes the evidence of performance of a candidate. Evidence must be collected to reflect that the candidate has attained every single performance criterion.

iii. Matching evidence to specific outcome performance

The next stage is specific evidence of outcome performance. There are general theoretical reasons why attempts to specify outcomes clearly so that anyone can assess the outcomes reliably are doomed to fail. Suppose, for example, that one was interested in something highly specific and abstract, far less context-dependent than the average workplace competency, it would be more difficult to define the criterion of performance.

iv. Evaluating based on the outcomes performance

The next stage is making judgments regarding the achievement of all required performance outcomes. The competence-based assessment starts from an assumption that there are "standards of competence" for an industry or role and that these standards can be articulated through written documents. The documents do not create the standards: they articulate and clarify them for professionals.

v. Rating candidate as ‘Competent’ or ‘not yet competent’

In this stage, allocating or rating the student or candidate as being ‘competent’ or ‘not yet competent’ is done. Being competent means that the students or candidates have acquired the skill and knowledge to correctly carry out a task, a skill or a function to the required standard. This includes the ability to apply the required skills, knowledge and attributes in a workplace context (known as employability skills). However, ‘not yet competent’ indicates that some aspects of the competency standard have not been demonstrated at that point in time. ‘Not competent’ is nonetheless, not considered a failure.

vi. Certification of competency

This stage is about validation. Validation means confirming that something is fit for a purpose. In this context, validating its assessment strategies can be done by documenting any action taken to improve the quality and consistency of competence assessment of candidates. Usually, the certificate documents the criterion of competence that the candidate has achieved as validation of his achievement of the particular competence.

vii. Development Plan for those not achieving competence

The last stage is structuring the development plan for those who have not attained competence or those who failed in achieving competence.

5. Conclusion

Evaluation is needed in determining and measuring the competency of the learner. With certain exceptions to be considered, competency models are a viable tool that can be utilized to prepare the current and future workforce and
retain skilled incumbent learners to meet the job requirements and other needs of employers. In addition, the competency-based assessment system has been introduced as a means of promoting pathways to recognition for individuals and to assure quality outcomes in the workplace. It is a system that supports the involvement of industry in determining its own benchmarks for performance.

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