

Promoting Integrated Authentic Learning: An Anticipation of ASEAN Mutual Recognition Agreement on Vocational-Education Graduates' Skills

Isnandar¹⁾

*Civil Engineering Department
Universitas Negeri Malang*

Didik Nurhadi²⁾

*Mechanical Engineering Department
Universitas Negeri Malang*

Abstract— The purpose of vocational education is to provide for human resources with competencies trade organizations and industry need in their struggle to compete and work productively and professionally. To make their graduates qualified and competitive at ASEAN level, not only must vocational education improve their base, but they must also facilitate authentic learning in integrated way, for it is important to anticipate mutual recognition of skills of vocational-education graduates in Indonesia. Based on a literature review method, this paper aims to give some insight as to how to promote integrated, authentic learning by exploring its definition, elements, examples, effectiveness and standards as well as mutual recognition of skill. Hopefully, this learning is expected to lead to productivity increase of labor market outcomes of vocational-education graduates in regional, national, and even international labor market.

Keywords: *Authentic learning, vocational education, graduates' skills, mutual recognition of skills*

I. INTRODUCTION

The government has revitalized vocational education for more qualified graduates, which in turns will positively affect their labor market outcome in trading world or industry [1-2]. To serve this purpose, there are three steps to take: providing good access to quality education, stimulating educational innovation and accelerating organizational innovation [3-4].

It is equally important that such revitalization be based on the universally-accepted basis for vocational education, including philosophy, economics, sociology, and psychology [5]. Moreover, instruction and learning must be facilitated in well-established practices such as the authentic learning [6]. It is the universally-accepted basis in combination with well-established practices which provides graduates with great competencies the labor market needs [7].

Besides, given the establishment of the free-market system potentially encouraging global competition, there must be a formal, conventional definition of vocational-education graduates' competency accepted by all countries. This is aimed at preventing fierce competition from overseas labors, especially those from ASEAN countries, the neighboring countries of Indonesia [8].

Under the terms of the free-market system, employees tend to migrate to countries like Indonesia potentially giving them jobs. Therefore, Indonesia government should achieve official recognition from fellow ASEAN countries for Indonesian graduates' competencies.

Based on what was mentioned above, this paper tries to offer insights about how to promote authentic learning in anticipation of mutual recognition among ASEAN countries for skills and competencies of Indonesian vocational-education graduates. It will continue by an exploration of the definition of authentic learning, its elements, examples, effectiveness and standards as well as an exploration of mutual recognition of skill in order to shape comprehensive understanding of how to integrate authentic learning into instruction and learning practices in Indonesia.

II. METHODS

The method of this study used a literature review. This study used 20 international journals and books related to the promoting authentic learning in anticipation of mutual recognition of skills and competencies in the world to improve the quality of Indonesian vocational-education graduates. Furthermore, the authors conducted verification and analyzed it to get results on how to give the understanding about integrated authentic learning on instruction and learning practices in Indonesia.

III. DISCUSSION

To promote integrated authentic learning, this part is conducted by steps including the definition and elements of authentic learning, examples of authentic learning program, effectiveness of authentic learning, authentic learning standards, and mutual recognition agreement on skills. Then, its explanations are as follows.

A. The definition and elements of authentic learning

Authentic learning is to learn the real life [9]. According to Nicaise, Gibney, and Crane [10], authentic learning is participatory and focuses on problems in the real world. The purpose is to connect what students learn at classes with practical problems and real-world applications outside the classes. Simpson [11] also

mentioned that authentic learning focuses on the real world, complex problems and solutions to them, problems-based practices, and case studies. Therefore, authentic learning may be defined as a learning focusing on real problems, meta-cognitive skills, active learning, and task assignments.

This learning will also lead students to be more adaptable to any change and development of science and technology. The quality of adaptability includes ability to make decision and differentiation, patience to accept arguments, synthetic skills, and flexibility.

Subsequently, there are ten principal elements of promoting authentic learning [12], including:

- Relevance to the real world, which means that learning process carried out is in accordance with professional practices in the industrial world. Skills taught at education must be based on industrial needs.
- Multi-disciplinary-problem basis. This is instrumental in making graduates ready to face unprecedented challenges while working for their career. It is expected that they can make correct self-identification of their main tasks in their workplaces.
- Sustainable investigation. Authentic learning needs to be facilitated to teach students to solve complex, recurring problems.
- The adoption of various resources and perspectives. This allows students to do their jobs based on their theoretical understanding and practical experiences. This is aimed at showing them how to sort out problems arising in workplaces.
- Collaboration among team members. This will show and ensure them that teamwork either at education or in workplaces will help them achieve success.
- Reflection. It is necessary for students either as an individual or as a team to encourage a reflection about their learning process.
- An interdisciplinary perspective, which means that students undergo such a complex, comprehensive learning process that they can adopt roles in various ways and think in interdisciplinary approaches.
- Accurate, broad assessment. The assessment is conducted systematically and evaluated as it is in workplaces.
- Product repair. The repair is required to yield favorable results from students' learning activities. It can be carried out by making evaluation, so that their learning becomes more meaningful and produces long-term results.
- A consideration of some interpretation and results. Multiple interpretations should be put on learning processes to come up with perfect solutions to potential problems in the learning.

In summary, authentic learning is the student-oriented learning whose objective is to motivate students to survive any challenges in the industrial world, thereby making significant contributions to the national economic growth.

B. Examples of authentic learning program

Collaboration Model is required to promote authentic learning to provide human resources, namely, vocational-

education graduates with productivity and professionalism, making them competitive and relevant to the labor market [13], especially in ASEAN countries. This model can be classified according to the duration of its application into three groups: the short term, the medium term, and the long term.

Mentioned as follows are examples of authentic-learning model based on collaboration with the industrial world [14-15].

- Industrial Visit. It is usually a short-term program which focuses on introducing working environment to students.
- Industrial Internship. It takes less than six months. This model is directed towards internship teachers or students in industry.
- Expertise Certification. This is a long-term model whose purpose is to continuously guarantee that students have competencies industry needs.
- Apprenticeship program. This program which usually takes more than six months has proved to make a significant contribution to economic growth in developed countries.
- Incubators. Incubators form the center for all activities designed for improving quality of products and increase professional competence. They serve as the center for the development of innovative products, business expansion, and training centers.
- Education-based industry. This means that education encourage their students to manufacture products based on industry standard, by which their products can be put on the market.
- Teaching Factory. It is a program of a education having a working partnership with industries to facilitate a learning process simulating working conditions in industry.
- Dual Training System, a model of training developed by a education in collaboration with industry. In this model of training, which originated in Germany, 40% of learning processes take place at the education, while 60% of practical are held at the factory.

Such collaborative programs between education and industry will present concrete, practical examples to students. Hopefully, through undertaking these programs, students boost their productivity and have innovative ideas so as to be ready to work for the strong economic growth of their country.

C. Effectiveness of authentic learning

Promoting authentic learning well, vocational education will have graduates prepared to satisfy industrial demands for labors [16]. Some research suggests that authentic learning give them theoretical understanding in line with standard, working practices in workplaces [12]. In addition to the relevance of students' scientific knowledge to practical skills required in the workplace, conceptual links between knowledge taught at education and new ideas arising in workplaces and the exploration of those new ideas in their learning sessions form the three indicators of how effective the application of the learning [17].

D. Authentic learning standards

The success of the authentic-learning application in affecting a national economic growth is up to these five standards: higher-order thinking, depth of knowledge, connectedness to the job market, substantive conversation, and social support for student achievement [18-19]. Here is the further explanation of each.

- Higher-Order Thinking is students' ability to synthesize, generalize, explain, hypothesize, and draw conclusions. It allows them to solve any problem and even deepen their degree of understanding by settling difficult issues. Furthermore, it will also help predict potentially arising problems.
- Depth of Knowledge is related to students' ability to comprehend a problem with which to suggest ideas to overcome it. Possessing this in-depth knowledge, they can thoughtfully provide for a careful consideration based on a theoretical and practical study.
- Connectedness to the World indicates that knowledge students got at education is relevant to knowledge present in the labor market. Their knowledge can help them solve problems they have in the workplace and those in their future job and career.
- Substantive Conversation deals with students' strong classroom interaction. Students' substantive conversation can be measured by their active involvement in class discussion as to particular topics, their ability to ask relevant questions and reactions clearly and completely, and their ability to encourage a healthy and constructive dialogue.

Social Support for Student Achievement is teachers' great support to motivate their students to improve their academic achievement. Mutual respect and reverence between teachers and their students play a major part in building an ideal educational environment for shaping students' positive attitude and creative, innovative thinking. In addition, they will help create students' sense of responsibility for learning processes they undergo.

E. Mutual recognition agreement on skills

The Indonesian government needs to negotiate ASEAN mutual recognition agreement on skills to go into global competition [20]. This will give labors qualification and mobility to take a part in national or international competition [21]. Under the terms of the agreement, Indonesian vocational-education graduates' skills and competencies will be recognized so that they can be prepared to compete for getting jobs in domestic or global industry. Obviously, this requires adequate preparation and support, namely, the national educational system integrated with educational policies of the Indonesian government.

IV. CONCLUSION

Currently, vocational education in Indonesia have to apply authentic learning program in appropriate, effective ways by focusing more on students. This is necessary for them to motivate their students to ready themselves to

face challenges in the industrial world and to make positive contributions to the economic growth of their nation. Some authentic-learning programs to promote in collaboration with industry include industrial visit, industrial internship, expertise certification, apprenticeship program, incubators, education-based industry, teaching factory, and dual training system. Those programs must be carried out in effective standardized way for qualified graduates prepared to compete in the labor market. Subsequently, to have those graduates take a part in global competition, the Indonesian government should reach ASEAN mutual recognition agreement on skills. Finally, the promotion of the integrated authentic-learning system is essentially instrumental in anticipating ASEAN mutual recognition agreement under which vocational-education graduates will be easier to carve out their promising future career.

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