WORK BASED LEARNING MODEL IN AN EFFORT TO IMPROVE THE COMPETENCE OF VOCATIONAL STUDENT GRADUATES IN SYSTEMATIC LITERATURE REVIEWS

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Abstract

The aim of this literature study is to answer the question, "Is the work-based learning model effective in preparing the workforce?" regarding the use of work-based learning models in vocational education. The method used is Systematic literature review. Sources for the literature review come from a number of databases. Databases for journals, including GARUDA, Scopus, ProQuest, World of Science, and Open Access Journal Directory. The results show that the "WBL" model increases students' readiness to face the world of work and has a positive impact on students' motivation and achievement. To help students accept and understand what they are learning, it also gives them the opportunity to investigate job possibilities in the surrounding environment and familiarize themselves with work habits, dress codes, and other professional customs.

Keyword: Work Based Learning, Vocational, Competence.

INTRODUCTION

Currently, Indonesia is transitioning towards a knowledge-based economy. 21st century competencies and skills are needed in this knowledge-based economy (Gailing & Moss, 2016). Professional, management, operational, behavioral, personal and functional skills are some of the abilities and skills needed in Era 4.0 (Maulidah, 2019). The ability of the Indonesian workforce to generate, exchange and better apply 21st century knowledge and skills will determine the country's competitiveness. Indonesia must create a more analytical, flexible, adaptive and multi-skilled workforce during this transition period. The goal of 21st century vocational education is to equip students with job skills, technical employability, and business vision to meet the demands of an ever-changing labor market (Mardhiyah et al., 2021). In other words, the need for vocational education requires students to have the skills necessary to be ready to face the world of work. Therefore, Indonesia must produce a workforce that has 21st century competencies. Thus, there is a requirement for a versatile education and training system capable of delivering the essential competencies required by society to attain this objective.

Global plans, visions, program developments, and world conferences with UNESCO and the World Labor Organization are part of the growing field of vocational education. In addition to educating students for specific careers, vocational education should be promoted for its ability to increase general knowledge and abilities that serve as a foundation for adapting to the various opportunities that exist in society (King, 2009). Reducing expenditure may indirectly benefit education and training (Gasskov, 2000).

According to Munadi (2008), Vocational education plays an important role in realizing the National Education System which aims to produce competitive and intelligent Indonesian people. Vocational education plays an important role in training workers

who have the necessary knowledge, skills and personality (Hanafi, 2012). This is necessary to ensure workers are able to meet increasing market demand (Wibowo, 2016). Theoretically, core concepts and universal ideologies guide vocational education. Apart from that, the global era requires human resources who are skilled, competitive, anticipatory, adaptive, and able to learn. This also requires competency-based learning because the workforce profile required by the market is strong in hard skills and soft skills (Widarto & Widodo, 2012).

In enhancing the quality of education within the professional sphere, there is a need for a transition in curriculum design from the conventional model, which includes subject descriptions, to a novel curriculum design encompassing explicit statements outlining a range of competencies. This shift is imperative for competency-based learning (Ratnata, 2012; Nurtanto & Sofyan, 2015). Therefore, although vocational education curricula must simultaneously prepare students to be productive, they also focus on processes and outcomes that are closely related to the advancement of knowledge in certain subjects (Wardina et al., 2019). The vocational education curriculum is closely related to supporting the development of students in various knowledge, abilities, attitudes and values. Ultimately, each of these factors increases graduates' employability (Triyono, 2017). Practically, education answers the problem of change with the aim of achieving learning that makes society more relevant and productive in the economic and technological fields (Slamet, 2011).

Practical learning is the main focus of how learning is carried out in vocational education. Because vocational education is closely related to the world of work or industry, graduates must be prepared to face work through direct learning and training (Winangun & Mesin, 2017). According to Jang et al. (2020), acquiring practical skills and the knowledge and behavior that go along with them is the most important aspect of professional learning. Meanwhile, according to Rahdiyanta et al. (2016), when work skills are taught directly with real equipment, only then can these work skills be taught effectively. Therefore, only through direct learning activities can students acquire the competencies they need to master, especially in the professional field.

Metso & Kianto, (2014) stated that vocational education does not only focus on increasing students' abilities and employment potential. However, vocational education also has other goals, such as

1) helping people interact with the world of work efficiently;

2) Guaranteeing emancipatory transformation at a personal or social level;

3) Increasing the continuity of several businesses; and

4) encouraging national economic performance.

Therefore, vocational education has a good role in developing human resources, the health of the national economy, and business sustainability.

Vocational education aims to provide students with relevant experience and training in skills needed in the workplace. As a result, the vocational education learning model is different from the general education model. Therefore, the models that can be applied in the implementation of vocational education are as follows:

1) The employment education model which is often called the "company model" is implemented entirely within the organization or through what is usually called vocational training;

2) The school education model is vocational education completed at school. All implementation infrastructure, financial planning, and management systems are under the authority of schools, especially the government. Industry is only seen as a model in this model;

3) Education in a dual system or cooperative model (PSG). Workplaces and educational institutions collaborate to implement this type of teaching. This model, which combines company and school-based approaches, is said to be able to overcome the shortcomings of each model;

4) The production unit business model is rooted in schools. The main goal of this concept is to bring the world of business into the classroom to increase school income and provide real business experience to students (Sudira, 2015).

From the discussion above, it is clear that there are several ways to implement vocational education. The final result is determined by the choice of model. Therefore, the vocational education management model must be chosen taking into account the needs, nature, and direction of vocational education management.

METHODS

The method used is a systematic literature review (SLR) which is a research assistance method that provides policymakers and practitioners with a robust synthesis of results (Petticrew and Roberts, 2006; Siswanto, 2010) and the latest evidence in a particular scientific subject (Munn et al., 2014). Sources for the literature review come from several databases. Databases for journals include GARUDA, Scopus, ProQuest, World of Science, and Open Access Journal Directory. By synthesizing several scientific works obtained from the database, SLR can answer research questions by summarizing hundreds or even thousands of articles using scientific methodology. The steps applied in a literature review include

a) Defining research questions by developing targeted research questions,

b) Determining search parameters by formulating standards for selecting related literature,

c) Searching literature through databases and other literature sources thoroughly,

d) Selecting literature on predetermined standards,

e) Assessing the methodological quality and significance of each article or literature source selected to determine the quality of the literature as a whole,

f) Analyzing and synthesizing by summarizing and finding important trends or conclusions in the selected current literature

g) Write reports to record findings in an organized manner.

By following these steps, a systematic review of existing literature will be carried out to gain broader knowledge about the work-based learning model and its impact on increasing the competency of vocational education students.

RESULTS AND DISCUSSION

**Literature Review**

Arizona WBL Model

This model highlights the relationship between industry and educational institutions. To provide resources and activities, both parties must work together. As a result, this model combines academic knowledge gained in academic institutions with practical knowledge gained in industry. According to Cunningham & Dawes (2016), the emphasis is on developing teamwork, talent transfer, ethos, work ethic, and the capacity to identify commercial prospects. Therefore, to connect institutional and industrial activities, resources and support networks are needed so that this can be achieved through mutually agreed protocols. Figure 1 below provides a brief overview of the model.
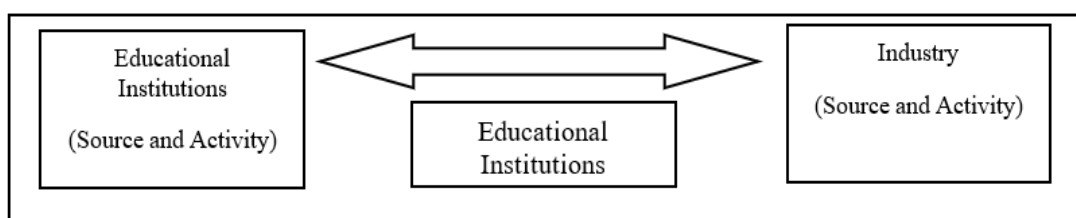
Figure 1: Arizona WBL Model (Zhao et al., 2007)

Edmund WBL Model

This model involves 3 (three) steps, namely industry, educational institutions, and learners. Edmund's model connects learners and educational institutions through education, learners, and industry through training, industry, and educational institutions through codification of knowledge (Rowley, 2003). Edmund defines the WBL model as a process of building knowledge and skills through the active involvement of learners, industry, and educational institutions based on a jointly formulated curriculum. The model can be briefly seen in Figure 2 below:
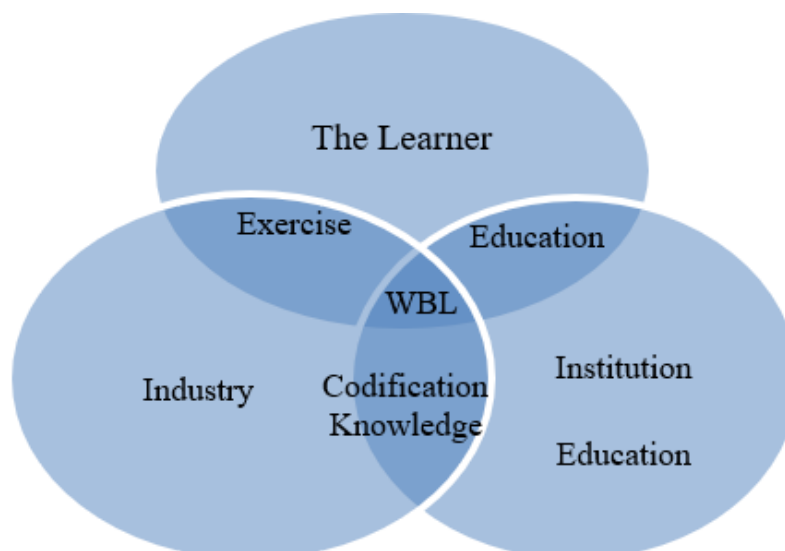

Figure 2: Edmun WBL Model (Rowley, 2003)

There are several principles in implementing the Edmun model, namely:

1) Fostering good relations between industry, educational institutions, learners and professional organizations;

2) Assess the extent to which learning can be integrated into work by involving all interested parties;

3) Making industry a place for learners to gain knowledge and skills; and

4) WBL is carried out based on the mutual interests and benefits of all parties involved.

Affirmative WBL Model

This model is to prepare the trained workforce needed by the industrial world (Raelin, 2008). The foundation of this learning is the transfer of knowledge and skills to students through supervision and work training from knowledgeable practitioners. The curriculum implemented is in line with the preferences of the industrial world.

Its implementation requires attention to four main areas: curriculum development, student evaluation, learning, and desired learning outcomes. Students are evaluated based on their ability to connect theory and practice in the workplace. Therefore, the process and results must be the basis for assessment. Figure 3 below provides a brief overview of the model.
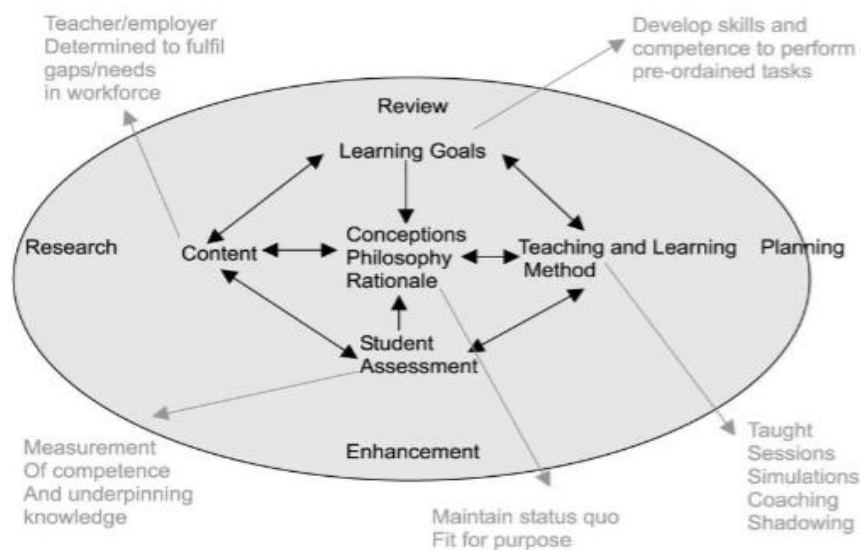

Figure 3: Affirmative WBL Model (Raelin, 2008)

Transformative WBL Model

This model prepares human resources who can become agents of change, leaders, and analytical thinkers (Morris, 2018). This model directly involves students in designing learning objectives.

The design of learning techniques aims to equip students with greater creativity and innovation. Figure 4 below provides a brief overview of the model.
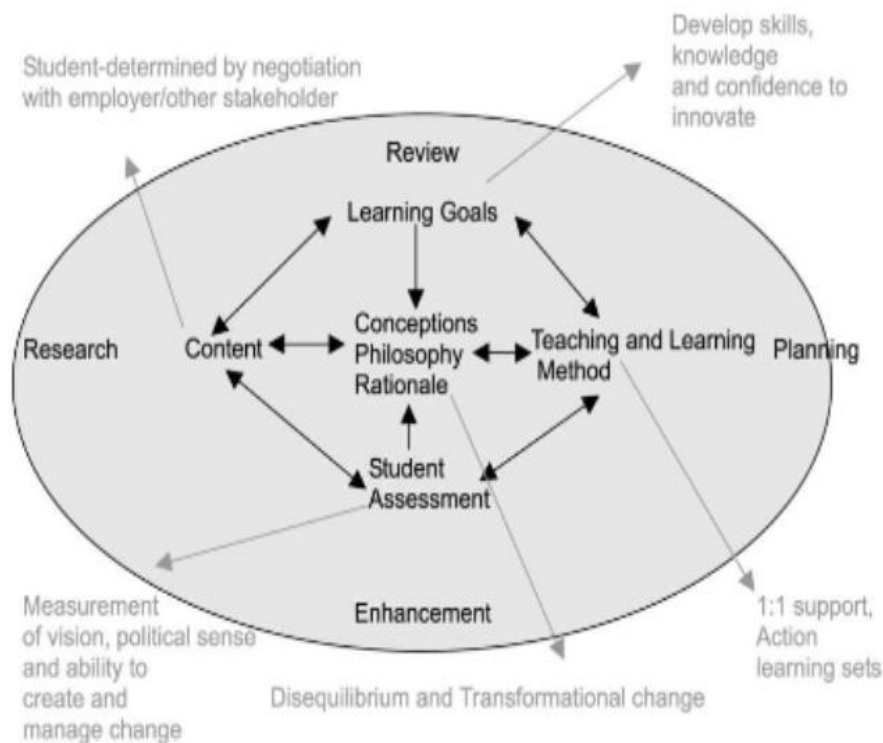
Figure 4: Transformative WBL Model (Morris, 2018)

SkiVes WBL Model

The SkiVes model was developed by Ridhuan which is based on the SIM (Sequential Iterative Model) training model and the Taba curriculum model (Helyer, 2015). The combination of the two models produces the main components, namely objectives, materials, facilities, learning strategies, and assessment of training results. This model focuses on the training process and application of basic/general skills. Figure 5 below provides a brief overview of the model.
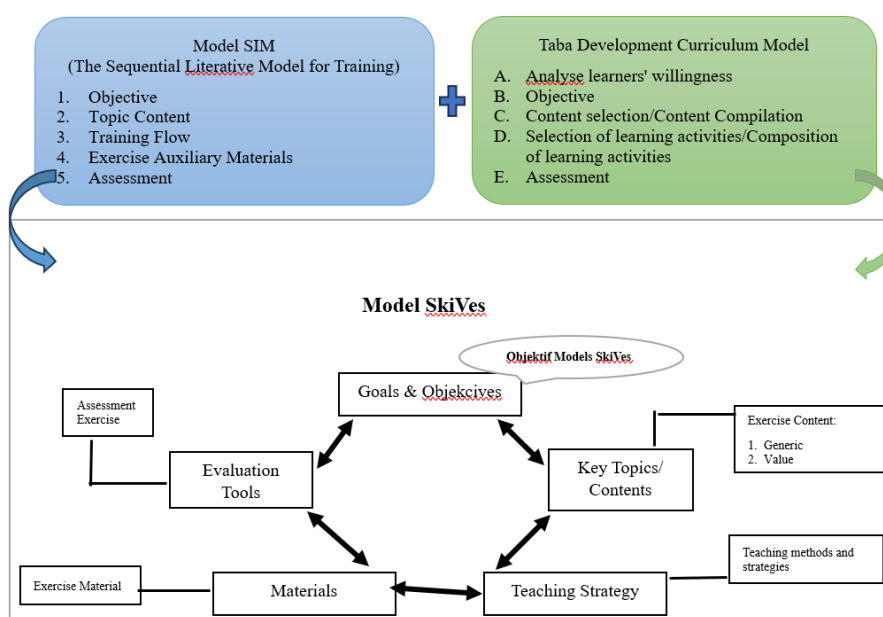
Figure 5: SkiVes WBL Model (Helyer, 2015)

Raelin WBL Model

According to Raelin, the learning model applied at the individual level is adapted from Kolb's learning style (Fuller & Unwin, 2011). Kolb's learning styles were developed as a way to understand a person's learning style and interests. Raelin's learning model aims to develop understanding and critical attitudes in the workplace. It is not enough to learn only through theory without involving students in real experiences with the aim of students understanding more quickly and reflecting continuously. Figure 6 below provides a brief overview of the model.
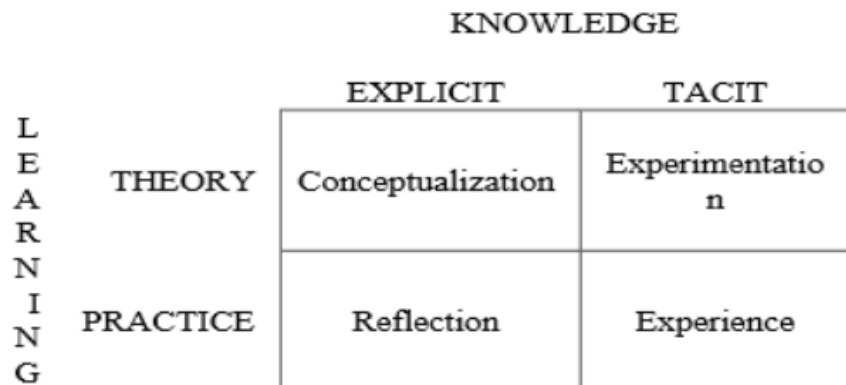

Figure 6: Raelin WBL (Fuller & Unwin, 2011)

RoTer WBL Model

This model was designed by the process industry at D3 Automotive Students which was developed by Berkelombok (Siswanto, 2012). This model was developed to improve aspects of thinking, intelligence, and mentality as well as giving aesthetic character to the car. Figure 7 below provides a brief overview of the model.
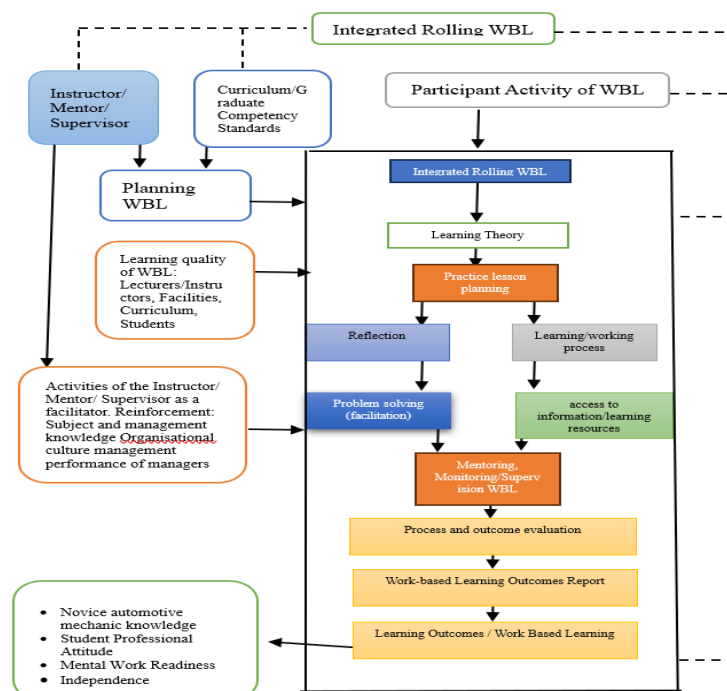

Figure 7: RoTer WBL Model (Siswanto, 2012)

INAA WBL Model

This model was developed based on the RoTer model for learning Midwifery Care courses carried out in groups in the laboratory (Marlina et al., 2019). The aim of the development is to develop students' work skills in the field studied through job shading, namely observing practitioners/supervisors doing work, then trying it, and making a report. Figure 8 below provides a brief overview of the model.
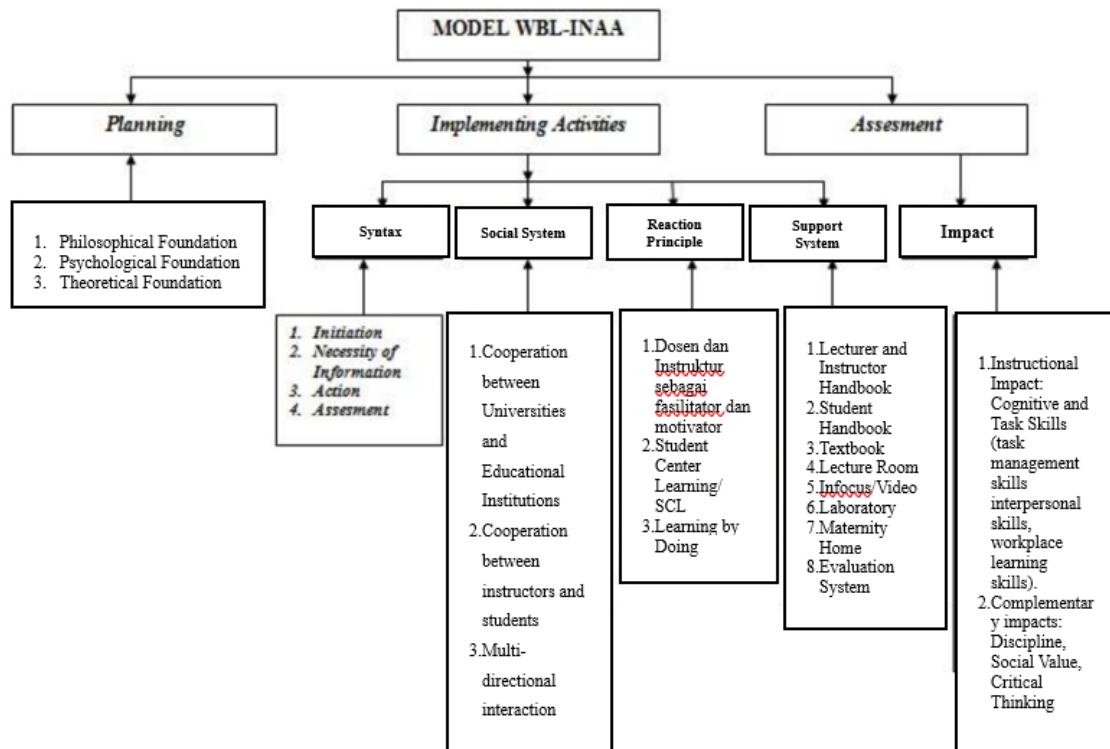

Figure 8: INAA WBL Model (Marlina et al., 2019)

DISCUSSION

The WBL model is gaining traction in the education sector because it increases the importance of tutors in the learning process and influences the success of students (Morris, 2018) who have a direct understanding of the world of work and the skills required (Cunningham & Dawes, 2016). This learning method, which examines how school-based learning resources are applied in the workplace, can be combined with other learning resources to help students in various ways (Boud & Solomon, 2001). WBL essentially relies on engagement in the programs, organizations, and individuals involved. This paradigm is usually created in vocational schools or institutions that focus on preparing specialist candidates for the world of work (Morris, 2018). Starting from market needs, planning, preparation, delivery, and assessment (Siebert et al., 2009).

WBL aims to help students become more professional in the workplace, provide them the chance to concentrate on their personal growth and help them take the next step toward a promising career (Perrin et al., 2020). Opportunities for job exploration offer a more concentrated learning environment where students actively choose and pursue careers that align with their long-term objectives (Little & Colleagues, 2006). Students can choose their path to prepare for their desired career once they have a stronger

understanding of the working world. Career Preparation and Training Experiences: These are opportunities for students to learn in the workplace that are directly tied to a specific job or business, allowing them to demonstrate progress toward academic and career/technical abilities (Costley, 2007).

There are various definitions for the WBL paradigm, which is sometimes confused with work-related learning (DeFillippi, 2001). According to some definitions, WBL includes all types of on-the-job learning, including work experience and work under supervision. According to different definitions, WBL includes any learning that occurs as a result of work-related activities (De Graaf & Kolmos, 2003). WBL is a term used in many countries to describe programs at universities or schools to gain experience in the workplace (Savery, 2015); it is also used to prepare teenagers for the transition from school to the world of work by teaching them about the realities of the workplace and equipping them with the knowledge they need to make wise decisions there (Evensen et al., 2000). WBL refers to training that has a direct connection to the tasks the company is asked to complete. More precisely, the process of recognizing, creating, and utilizing knowledge for preparation in the workplace (Hazenfratz et al., 2017). This can be applied to fulfill all or part of the credits required for higher education. It is also impossible to isolate the WBL model of action learning from the context of organizational learning (Lester & Costley, 2010).

Although there are some differences, as explained in the definition above, the WBL model is essentially a workplace learning paradigm. In order to prepare students to face the real world of work, this program aims to provide them with the opportunity to apply the knowledge and skills they have learned during college to the world of work and gain various learning experiences in the world of work. This WBL model can take the form of training, guidance work, internships/cooperatives, education and apprenticeships. The results obtained concluded that WBL has a positive influence on learning achievement and motivation and increases students' work readiness (Bailey et al., 2003). In addition, it also allows students to explore potential careers in the environment, as well as become familiar with workplace protocols, dress standards, and other professional behavior, developing the ability to accept and understand what is learned. The ability to apply knowledge and skills because everything learned becomes more meaningful; the ability to work together, and think critically and creatively which ultimately means being able to achieve high learning standards (Murray, 2008).

CONCLUSION

Based on research findings, it can be said that the WBL model is theoretically a workplace learning model that seeks to provide opportunities for students to apply the various knowledge and skills they have learned on campus to the world of work and obtain various benefits. On-the-job learning experiences to help them prepare for the real world of work. The WBL model has a positive influence on learner achievement and motivation and increases learner work readiness. Additionally, it allows students to investigate possible career paths in the environment and familiarize themselves with workplace norms, dress codes, and other professional behaviors, which helps them accept and understand the lessons they learn. As a result, they can apply what they have learned in a more meaningful way and develop collaborative, critical and creative thinking skills, all of which contribute to their capacity to meet high learning requirements.

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