



## Critical review on factors that influence work readiness of vocational high school students

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### Abstract

The aim of vocational secondary education is not yet fully achieved. Evidence shows that the absorption rate of vocational high school (VHS) graduates in the work environment is still low. The August 2016 to August 2017 data shows that there are 7.4 million unemployment rates, due to the difference between the quality of labor needed by industry and the ability of applicants in general. The ability of applicants, especially the level of work readiness of VHS graduates, turns out that the average is still low due to many factors that influence it. In connection with that, several questions can be asked as follows: (1) what is meant by work readiness ?; (2) what factors influence the level of work readiness ?; (3) does academic ability influence work readiness ?; (4) whether the industry work experience influences work readiness ?; and (5) do career expectations affect work readiness? To answer a number of these questions, especially question number (2), the research is conducted with the literature review method on a number of related references, and relevant research results. The study concluded that the factors that influence the work readiness of vocational students include: (1) academic achievement; (2) productive training eye competency; (3) industry practice /on the job training (OJT); (4) productive subject skills; (5) work motivation; (6) experience about the world of work; (7) self-efficacy; (8) achievement motivation; (9) career / vocational guidance; (10) student independence; (11) student confidence; (12) work environment; (13) the quality of apprenticeship implementation; (14) systems and procedures for implementing apprenticeship; (15) knowledge of the world of work; (16) behavioral factors; (17) innate factors; (18) factors of ideals; (19) locus of control; (20) entrepreneurial attitude; and (21) family support.

**Keywords:** unemployment, work readiness, factors that influence work readiness, and vocational school

### Introduction

Vocational education is secondary education which prepares students to work in certain fields (Law No. 20/2003 on the National Education System). According to the 2013 curriculum, education aims to prepare Indonesian people to have the ability to live as individuals and citizens who are faithful, productive, creative, innovative, and affective and able to contribute to the life of the world, nation, state and world civilization. But it seems that the goal of education, especially vocational secondary education, has not yet been fully achieved. The fact shows that the absorption rate of vocational high school (VHS) graduates in the work environment is still low.

The statement above is supported by data from August 2016 to August 2017, which recorded an unemployment rate of 7.4 million people, due to the difference between the qualities of labor needed by industry and the ability of applicants in general (Munandar, 2018) <sup>[19]</sup>. The ability of applicants, especially the level of work readiness of VHS graduates, is still low on average due to many factors that influence it. In connection with that, several questions can be asked as follows: (1) what is meant by work readiness ?; (2) what factors influence work readiness ?; (3) does academic ability influence work readiness ?; (4) whether the industry work experience influences work readiness ?; and (5) do career expectations affect work readiness? If studied further, it seems that there are still many factors that influence work readiness, and this is what will be written in

an article entitled "Critical review on the factors that influence the work readiness of vocational students".

### Review of Literature

As explained in the introduction, there are several questions as follows: (1) what is meant by work readiness?; (2) what factors influence the level of work readiness?; (3) does academic ability influence work readiness?; (4) whether the industry work experience influences work readiness?; and (5) do career expectations affect work readiness? From a number of these questions, which will be answered through this research is question number 2, namely the factors that influence work readiness. According to Gulo (1984), readiness is a point of maturity for someone to accept and practice certain behaviors. While Chaplin (2006, p. 4) views readiness as the level of development of a person's maturity to implement or do something. Therefore according to Robbins (Utami & Hudaniah, 2013) <sup>[37]</sup>, work readiness is referring to conditions, the extent to which a person has the ability and willingness to complete tasks / work in a particular field. It can be concluded, that readiness is a psychological condition of a person to react as a result of action. Thus, work readiness can be seen to what extent the psychological condition of a person to be able to carry out certain activities or work, both physically and mentally in accordance with their potential. Work readiness is an ability possessed by students to be able to work in a particular field, which includes physical maturity, mental maturity,

and experience factors obtained. The readiness of students to enter the workforce is influenced by internal and external factors. Internal factors include knowledge, skills and mental readiness possessed by students in accordance with their respective competency skills. While external factors outside the students, including the condition of school facilities and infrastructure, information on the world of work, career guidance, work experience obtained by students, the school environment, society, and family.

So work readiness is a condition that shows "whether someone is ready to use his ability to carry out a task / work in a particular field", and it turns out that work readiness is influenced by many factors. According to Ketut (factors, 2013), work readiness is influenced by three main factors namely physiological factors, psychological factors and experience factors. While Dirwanto (2008)<sup>[7]</sup> views there are seven factors that influence work readiness, namely: (1) ability factor; (2) self-image factor; (3) supporting factors; (4) academic factors; (5) innate factors; (6) behavioral factors; and (7) ideals. There are still many other factors that influence work readiness. From a number of factors that will be reported in this study, it seems that the Industrial work practices (IWP) factor is a very influential factor in work readiness.

Industrial work practices (IWP) are mandatory travel programs (Directorate of Vocational Secondary Education, 2013, p. 10) that must be held by schools, especially vocational secondary schools (VHS) which must be followed by students. Organizing Industrial work practices (IWP) will help students to strengthen the learning outcomes obtained at school and equip students with real experience in accordance with the chosen study program. Industrial work practices (IWP) are a form of dual system education through collaboration between schools and the business world. Prakerin as a form of work-based learning is learning in the workplace in order to gain work experience (work experience) and work in guidance (work shadowing) in a certain time. The forms of work-based learning include: (1) internship; (2) apprenticeship; (3) shadowing jobs; (4) school based enterprises; (5) cooperative; (6) education placement; (7) service learning; and (8) simulated work experience. In order to create vocational graduates who are ready for work, the work-based learning (WBL) approach is an important learning approach for the development of competency-based Vocational Schools. This is in line with Government Regulation No.41 of 2015 concerning the development of industrial human resources with the following programs: (1) development of industrial vocational education; (2) industrial apprenticeship; (3) competency-based industry training; and (4) competency certification.

Furthermore, in accordance with Presidential Instruction No.9 / 2016 concerning revitalization of vocational education, that the development of vocational education includes: (1) preparation of industrial development distribution / projection maps; (2) preparation of the distribution map of vocational/vocational education units; (3) preparation of maps of the needs of prospective industrial workers; (4) preparation of industries and vocational education units; (5) preparation of supporting infrastructure for the competence of teaching staff and certification of prospective industrial workers; (6) preparation of industrial apprenticeships; (7) providing instructors from industry; and (8) improvement of facilities

and infrastructure for vocational /vocational education units. In 2019, the industrial vocational education program will involve 1.775 VHSs and 355 companies with an estimated number of certified graduates of 845.000 (Widiartanto, 2018)<sup>[38]</sup>. In line with this policy, according to Minister of Manpower Dhakiri (Widiartanto, 2018)<sup>[38]</sup> that: (1) vocational education will focus on 6 industrial sectors, namely manufacturing, agribusiness, tourism, health, migrant workers and the digital economy; (2) there must be a balance between "supply" and "demand" of labor; and (3) investment through vocational education must be in accordance with market needs. This policy is supported by Sudira (2018, p. 52)<sup>[33]</sup> that vocational learning without clarity on the orientation of "demand driven for future" will be in vain (as a program of useless waste). Therefore according to Mujiono (2018), vocational education must go through three stages, namely: (1) conventional schools that have not been oriented to market needs; (2) schools that have implemented "link and match" with the industry; and (3) schools that implement "dual systems", with school learning activities and industry practices in harmony.

### Research of Methods

This research was conducted through the study of literature as an activity of gathering information that is relevant to the topic or problem that is being used as the object of research (Notar & Cole, 2010)<sup>[23]</sup>. Data collection techniques are carried out by conducting a study of a number of reference books and relevant research results. Data analysis techniques are done through descriptive-qualitative techniques with sentences that are easily understood as an effort to get answers to the problems under study (Sugiyono, 2006) so that an overview of several factors that influence the readiness of vocational high school students is obtained.

### Results of Research

There are a number of studies that want to reveal about work readiness, and the variables that influence it. Damasanti (2014)<sup>[5]</sup> through research entitled "Work readiness in terms of work motivation, entrepreneurial attitudes, and competency in fashion skills in vocational students" found that: (1) work motivation, entrepreneurial attitudes, and fashion skills competencies related to work readiness; (2) there is a significant relationship between the independent variable and the dependent variable; and (3) the highest partial correlation coefficient is in the relationship between work motivation and work readiness, then between the competency of fashion skills with work readiness, and between entrepreneurial attitudes and work readiness of vocational students. This means, to improve vocational students' work readiness, it can be done through increasing work motivation variables, fashion skills competencies, and entrepreneurial attitudes. The higher the work motivation, the competency of fashion skills, and the entrepreneurial attitude, the higher the level of work readiness. A similar study was carried out by Utami, & Hudaniah (2013)<sup>[37]</sup> with the title "Efforts to improve work readiness of students graduating from vocational high schools in Karanganyar Regency (case study at SMK Negeri 1 Karanganyar)", which found that: (1) several attempts were made in order to print prospective workers who are ready to work, both physically, mentally and competently; (2) these three factors can be fulfilled through on the job training (OJT) learning activities, picket activities in schools, industry visits, giving

motivation and career guidance; and (3) some of these activities can improve the competitiveness of graduates of SMK Negeri 1 Karanganyar in the labor market. In line with that, Sirsa, Dantes & Sunu (2014) <sup>[30]</sup> through a journal entitled "Career expectation contribution, work motivation, and industry work experience on the work readiness of students of class XII of Seririt State Vocational High School 2", concluded that there were significant positive contributions: (1) between career expectations for work readiness; (2) between work motivation and work readiness; (3) between industrial work experience on work readiness; and (4) between career expectations, work motivation, and experience of Industrial work practices (IWP) simultaneously towards work readiness. This finding suggests that an increase in vocational students' work readiness can be done through increased career expectations, work motivation, and industrial work experience. The higher career expectations, work motivation, and industry work experience, the higher the level of work readiness of vocational students.

### Discussion

Several other studies found that learning outcomes had a significant positive effect on vocational students' work readiness (Mipalas & Taman, 2012) <sup>[17]</sup>. The results of this study support the findings of Dirwanto (2008) <sup>[7]</sup>, who concluded that knowledge, skills and experience in industrial practice (OJT) are factors that shape students' work readiness. Therefore according to Sutopo (2012) <sup>[35]</sup>, the role of the production unit as a learning media and the utilization of production units can increase the knowledge and skills of vocational students. On the other hand, it turns out that the implementation of factory teaching can improve discipline, knowledge, personality, student experience about the work environment, and professional attitudes in work (zainudin, 2012) <sup>[40]</sup>. The utilization of production units as teaching factory learning models is a form of work-based learning (WBL) or the implementation of learning in the workplace in order to gain work experience in a particular field (Siswanto, 2011) <sup>[31]</sup>.

As explained above, that IWP learning is a mandatory travel program for vocational students as a practice of productive expertise carried out in industry or in companies, in the form of learning about production and or service work (The Ministry of National Education, 1997). There are at least six skills obtained by students through IWP (Hadi, Hasan, Razzaq, & Mustafa, 2015) <sup>[12]</sup>, namely: (1) caring to observe; (2) respond; (3) ask; (4) imagine; (5) remembering; and (6) evaluate. The results of this study provide clues that the ability to remember, observe, respond, ask, imagine, and the ability to provide evaluations for vocational students, can be trained through apprenticeship. The better the implementation of internship, the better the six abilities. This guideline is in line with the conclusions of the study stating that there is an increase in student work readiness by 10% after students do an internship (Rizqi, Kusumah, Sulaeman, 2016) <sup>[28]</sup>. Through apprenticeship activities, students get the technical skills needed as a means of entering the workforce (Oktaviastuti, Dardiri & Nindyawati (2016) <sup>[25]</sup>. Some of the research results are in line with the findings of Pratama, Daryati, & Arthur (2018) <sup>[27]</sup> through a study entitled "Relationship of Industrial work practices with the work readiness of students in SMK Negeri 1 Cibinong class XII building drawing technical expertise

competence, which concluded that there was a significant positive relationship ( $r = 0.41$ ) between Industrial work practices with work readiness of students in Cibinong 1 State Vocational Competency Skills Building Drawing Techniques Very naturally, in order to improve the various abilities of vocational students, a program that combines school learning with the world of work, is very reasonable (Johnson, 2014, p.122) <sup>[14]</sup>. Logic is very easy to understand, because when students can relate the content of academic subjects such as mathematics, and natural sciences, with a keen their own page, they find meaning, and that meaning gives them a reason to study hard.

There are still a number of studies that prove that industrial work practices (IWP) and other factors contribute to work readiness. The findings obtained by Muktiani (2014) <sup>[18]</sup> show that: (1) there is an influence of IWP and the academic achievement of accounting training courses on simultaneous work readiness of 30.01%; and (2) partially the effect of IWP on work readiness of 3.76% and the effect of academic achievement on accounting productive training on work readiness is 4.12%. This finding is in line with the conclusions of the study from Anggraeni, Handayani, Sugiarti (2016) <sup>[1]</sup>, that: (1) the implementation of IWP has a positive influence on the work readiness of class XI students in agricultural processing technology at SMK Negeri 4 Garut at 0.538; and (2) the results of the study show that the better the implementation of industrial work practices, the higher the level of student work readiness. In line with the conclusion from Firdaus (2012) <sup>[11]</sup> that production units and IWP proved to have a positive influence on student work readiness. This conclusion is supported by the findings of Muyasaroh (2013) <sup>[22]</sup> that IWP and locus of control have a positive contribution to student work readiness. Other evidence shows that knowledge of the world of work and career guidance also has a positive effect on work readiness for vocational students (Arwana, 2012; and Nurhaniah, 2013) <sup>[2, 24]</sup>. Some of these findings provide clues, that when doing industrial work practices, students see meaning in their work. Furthermore, when they are invited to apply new lessons to the situation along with their lives, they will try until they succeed (Johnson, 2018, p. 263) <sup>[14]</sup>.

Furthermore, through industrial work practices, students know the benefits of competencies, both competencies involving thinking skills and work process skills. Through IWP as a tangible manifestation of work-based learning (WBL), students can develop attitudes, knowledge, skills, enlightenment, behaviors, habits, and relationships from these experiences, enabling learning through real work activities (Fallow & Weller, 2000) <sup>[10]</sup> Finding and combining information from classrooms, workplaces, and communities, and using it for certain reasons, will store that information in memory, where learning that emphasizes action, is an opportunity for the brain to feel the outside world, in countless ways (Johnson, 2014, p.154-155) <sup>[14]</sup>. This opinion supports the findings of Rojuli, Rahayu and Disman (2017) <sup>[29]</sup> that observational learning in internship has a significant positive influence on work readiness, where indicators of attention processes, retention processes, and motor behavior processes contribute positively to observational learning variables. In order to contribute to all aspects of students' abilities, observational learning like that is important, because according to Sudira (2018, p.200) <sup>[33]</sup>, workers of the XXI century are not only productive enough, but they must be able to build services that are fast, careful,

smart and satisfying customers.

Other conclusions about work readiness were obtained by Yustina & Sukardi (2014)<sup>[39]</sup> through a study entitled "The effect of vocational guidance, achievement motivation, and student independence on work readiness of class XII TKJ students" who found that: (1) vocational guidance had a positive and significant effect on readiness student work; (2) achievement motivation has a positive and significant effect on student work readiness; (3) students' independence in choosing a career has a positive and significant effect on student work readiness; and (4) vocational guidance, achievement motivation, and independence of students in choosing careers together have a positive and significant effect on student work readiness. In connection with that, Eliyani, Yanto, and Sunarto (2016)<sup>[8]</sup> suggested that it should: (1) "students increase self-confidence; (2) students improve their experience in internship; and (3) the business world provides students the opportunity to internship as a real and comfortable learning place".

Other findings through the same research by Eliyani, Yanto, and Sunarto (2016)<sup>[8]</sup> with the title "Determination of work readiness of students of class XII Vocational accounting expertise in the city of Semarang", found that: (1) student competence does not directly affect work readiness; (2) student competence indirectly influences work readiness through self-efficacy; (3) knowledge of productive training eyes does not directly affect work readiness; (4) knowledge of productive training eyes has an indirect positive effect on work readiness through self-efficacy; (4) family support does not directly affect work readiness; (5) family support indirectly influences work readiness through self-efficacy; (6) family support indirectly influences work readiness through internship experience; (7) internship experience has a direct effect on work readiness, (8) internship experience has an indirect positive effect on work readiness through self-efficacy; and (9) self-efficacy has a direct positive effect on work readiness. The results of this study provide clues, that there are a number of certain factors that have a direct effect on work readiness, while a number of other factors have an influence on work readiness even though not directly.

Furthermore, does the learning model, learning media or e-learning have no effect on the vocational readiness of students? Muslim, Gitama, Suprianto, Rahmadyanti, Kusumwati (2018) report the results of research through a journal entitled "Influence of learning based on adobe flash professional media to psychomotor outcomes on PLC learning domains courses viewed from the level of creative thinking student" concluded that adobe-based media flash has a significant effect on psychomotor domain learning outcomes. Isn't psychomotor learning outcomes or skills in the field of study influencing work readiness? While related to e-learning, Suparno & Muslim (2018)<sup>[20]</sup> conducted a study entitled "Effectiveness of e-Learning for vocational high school building engineering program students", found that the advantages of e-learning are: (1) a learning media that can be utilized where and at any time; (2) materials and tasks are easily accessible; and (3) smooth communication. The advantages of e-learning will facilitate vocational students in learning, which in turn will improve the learning outcomes of the cognitive, affective and psychomotor domains of the students. Learning outcomes in the form of these competencies will affect students' work readiness.

## Conclusion

Based on the results of the research and discussion as described above, it can be concluded as follows:

1. Work readiness can be interpreted how far a psychological condition of a person is ready to carry out activities or tasks in a particular field of work, both physically and mentally according to their potential.
2. Work readiness is influenced by three main factors namely physiological factors, psychological factors and experience factors. More complete than that, there are seven factors that influence work readiness, namely: (1) ability factor; (2) self image factor; (3) supporting factors; (4) academic factors; (5) innate factors; (6) behavioral factors; and (7) ideals.
3. The results of the study conclude that the factors that influence the work readiness of vocational students include: (1) academic achievement; (2) productive training eye competency; (3) industry practice / on the job training (OJT); (4) productive subject skills; (5) work motivation; (6) experience about the world of work; (7) self efficacy; (8) achievement motivation; (9) career / vocational guidance; (10) student independence; (11) student confidence; (12) work environment; (13) the quality of apprenticeship implementation; (14) systems and procedures for implementing apprenticeship; (15) knowledge of the world of work; (16) behavioral factors; (17) innate factors; (18) factors of ideals; (19) locus of control; (20) entrepreneurial attitude; and (21) family support.
4. Each of these factors in point 3 has different contributions, both directly and indirectly to the work readiness of vocational students.
5. Some things that need to be considered related to increasing work readiness of vocational students include: (1) students increase self-confidence; (2) students improve industrial work experience; (3) students practice character building and career guidance through industrial work practices; and (4) the business world provides opportunities for students to carry out industrial work practices, as a comfortable learning place.

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