

Vocational High School Students' Competency Needs to the World of Work

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ABSTRAK

Tingginya angka pengangguran tentunya tidak sejalan dengan tujuan SMK yang seharusnya menjadi tenaga kerja yang siap kerja. Hal ini dipengaruhi oleh minimnya lapangan pekerjaan dan lemahnya kompetensi lulusan dalam bidang keahlian. Selain itu diperlukan pendidik yang berkualitas sehingga dapat meningkatkan kompetensi dan keahlian siswa. Tujuan penelitian ini yaitu menganalisis kebutuhan kompetensi siswa SMK terhadap dunia kerja. Alternatif ini terlihat dari kurikulum yang digunakan SMK dan kompetensi yang dihasilkan terhadap kebutuhan dunia kerja yang berorientasi pada standar Kerangka Kualifikasi Nasional Indonesia. Jenis penelitian ini yaitu kualitatif. Metode yang digunakan dalam penelitian ini adalah metode Mixed Methode, dengan menggabungkan penelitian kuantitatif dan penelitian kualitatif. Instrument yang digunakan dalam mengumpulkan data yaitu angket. Teknik analisis data dilakukan dengan menggunakan respondent achievement level (TPR) dengan medel Milles dan Huberman. Hasil penelitian ini menunjukkan adanya kelemahan kompetensi lulusan SMK terhadap kebutuhan kompetensi dunia kerja dengan prosentase perolehan sebesar 45,61%. Kelemahan tersebut muncul pada keterampilan yang dimiliki mahasiswa terhadap kebutuhan dunia kerja. Artinya perlu adanya analisis perbaikan untuk berada pada kategori baik dan sangat baik kedepannya. Disimpulkan kompetensi lulusan SMK dapat mengacu pada kebutuhan kompetensi yang ada di dunia kerja dan mengurangi pengangguran tingkat SMK.

ABSTRACT

The high unemployment rate is certainly different from the goal of SMK, which should be a ready-to-work workforce. It is influenced by the lack of employment opportunities and the weak competence of graduates in the field of expertise. In addition, qualified educators are needed so that they can improve students' competencies and skills. This study aims to analyze the competency needs of vocational students for the world of work. This alternative can be seen from the curriculum used by Vocational High Schools and the competencies produced by the needs of the world of work oriented to the standards of the Indonesian National Qualifications Framework. This type of research is qualitative. The method used in this research is the Mixed Method, by combining quantitative research and qualitative research. The instrument used in collecting data is a questionnaire. The data analysis technique used the respondent achievement level (TPR) with the Milles and Huberman model. The results of this study indicate a weakness in the competence of SMK graduates to the competence needs of the world of work, with a percentage gain of 45.61%. These weaknesses appear in the skills possessed by students to the needs of the world of work. It means that there is a need for improved analysis to be in the good and excellent categories in the future. The competence of SMK graduates can refer to the competency needs that exist in the world of work and reduce unemployment at the SMK level.

1. INTRODUCTION

Vocational secondary education is education at the secondary education level that prioritizes the development of a student's abilities in carrying out certain types of work. Vocational secondary education

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prioritizes preparing students to enter the workforce and developing professional attitudes (Achdiani & Rusliyani, 2017; Susanto, 2012; Utami, 2017). By its form, vocational high schools organize educational programs adapted to the types of employment. Vocational High School (SMK) is a formal education unit that organizes vocational education at the secondary education level as a continuation of SMP, MTs, or other equivalent forms (Anggraini et al., 2018; Hartanti & Yuniarsih, 2018). SMK has many expertise programs. The skills program implemented at Vocational Schools adapts to the needs of the existing world of work (Bustanil S et al., 2019; Maharani et al., 2018). The expertise program at the SMK level also adjusts to societal and market demands. The specific objective of vocational secondary education is to prepare students to become productive human beings, able to work independently, to fill existing job vacancies as middle-level workers by the competencies in the expertise program they choose (Putriatama et al., 2016; Sari et al., 2017).

The high number of non-employment is certainly not in line with the purpose of Vocational High School which should be a workforce that is ready to work, this is influenced by the lack of existing jobs and the weak competence of graduates in the field of expertise owned. The weak quality of vocational high school graduates is not only caused by individual students themselves, but there is a role in the quality of teacher competence that affects the competence of graduates (Kholis et al., 2019; Palerangi et al., 2016). Producing quality learning for students can only be produced by qualified teachers (Hidayat & Muladi, 2016; Pratiwi et al., 2022; Purnamasari, 2018). In achieving the objectives of the vocational education program, every quality program must be prepared. Preparation starts from the career development of students in choosing a vocational education career to competency development provided by educational institutions that refers to the needs of the world of work (Disas, 2018; Pratiwi et al., 2022). In addition, it prepares individuals to work by having a good set of essential competencies and skills to make an excellent economic contribution to themselves, themselves and society (Arif & Samidjo, 2018; Oksa & Soenarto, 2020).

The preparation of Human Data Resources is pursued through current education. The educational aspect of improving the quality of human resources focuses on increasing the number of skilled and certified workers to meet the needs of the work era 4.0, which refers to the Indonesian National. In this case, the main thing is that schools have a significant role, periodically with companies and other institutions, in compiling a training curriculum to meet the workforce's needs (Haryoko & Jaya, 2017; Sudjimat & Luchyto, 2019). The quality of education can be improved by improving human resources, which focuses on increasing the number of skilled and certified workers to meet the needs of the Industrial Revolution 4.0 era. In this case, the main thing is that schools have a significant role in compiling a training curriculum that suits the workforce's needs (Fitriana & Aziez, 2021; Juliantri et al., 2017). Preparing for all that requires commitment in every element of vocational education. The competency qualifications needed by the business world and the world of work are higher than what SMK can provide. It is due to changes and industrial developments that are much faster and more developed, while the educational orientation following the implemented curriculum is indeed not easy to adjust again in a short time (Hidayat & Muladi, 2016; Pratiwi et al., 2022; Purnamasari, 2018).

The above description appears that vocational education has a main mission in forming a strong foundation for students in the learning process to master academic and non-academic abilities, master the ability in certain areas of expertise and have the ability to be able to work and open jobs (Achdiani & Rusliyani, 2017; Susanto, 2012; Utami, 2017). But at this time vocational education still faced the obstacles of agreement between the curriculum that was triggered as a reference document for the implementation of learning with the needs of the world of work. Due to the rapid and rapid development of technology and industry, there is often a gap in competence in vocational school graduates with competencies needed by the World of Work (Anggraini et al., 2018; Hartanti & Yuniarsih, 2018). On the other hand, the problem of vocational education is an imbalance between existing employment and the number of vocational education graduates looking for work, so vocational high schools will take part in increasing the unemployment rate in Indonesia, if this is not prepared carefully through educational institutions and education policy makers. This preparation is supported by the application of a curriculum that is in accordance with the development and needs of the times.

The sentence of competence after vocational students in question is competence, defined as knowledge, skills, and attitudes mastered by someone who has become part of him. It allows students to perform cognitive, affective, and psychomotor behaviours with the best competencies for themselves. (Bustanil S et al., 2019; Putriatama et al., 2016). Improving the quality of vocational graduates needs a alignment program between SMK and the world of work. In the alignment program in question is the alignment of the supply side and demand side (Bui & Do Van Dung, 2019; Tentama & Arridha, 2020). Alignment of the supply side is an effort to adjust graduates produced by the world of education with the needs of the world of work that is represented through the level of employment while the alignment of the

demand side is represented through the level of fulfillment of the demand of the world of work. To encourage the creation of a skilled Indonesian workforce according to the needs of the business world through vocational education and training. The era of the industrial revolution 4.0 opens the opportunity for human resources (HR) to have expertise in accordance with the latest technological developments. For this reason, the implementation of skills improvement programs (up-skilling) or reskilling of human resources based on the needs of the industrial world today, one of the competencies needed is human resources that have talent Indonesia National Working Kulification Framework (KKNI) (Yulastri et al., 2018; Zurqoni et al., 2018).

The Indonesian National Work Qualification (KKNI) describes the achievement of competence or complete learning, which can be produced through vocational education pathways as well as career development training pathways or work experience (Direja, 2017; Nurjannah, 2017). Therefore, KKNI is used as a basis for measuring the competence of a skilled prospective workforce through the Competency Certification Institution. KKNI is also an embodiment of the quality and identity of the Indonesian nation related to the national education system, national job training system, and learning outcomes assessment system (Nurtanto et al., 2021; Retnawati et al., 2016). The level of KKNI level used at the vocational level is at level II, which is the ability to perform tasks regularly and more broadly, able to determine work criteria in a structured manner and find solutions to problems that arise from the work. This study aims to analyze the competency needs of vocational students in the world of work.

2. METHODS

This research is descriptive research using Mixed Methods (combination) research methods where the study combines Quantitative research with Qualitative research. The strategy used in this research is quantitative and qualitative data collection is done simultaneously and integrated. The subjects in this study are the competence of students and the needs of the world of work. The instruments in this study used questionnaires and interviews, where the number of respondents was 16 people. With the result of the validity of the instrument as follows: obtained the r_{table} value for $N = 10$ ($df = n-2$) at a significant level of 0.05 amounting to 0.632. To determine a valid item i.e. if the large correlation value of the r_{table} (Corrected Item-Total Correlation > r_{table}) the results of the analysis obtained a large r value from the r_{table} then all items are declared valid, the number of valid items as many as 65 items. Validity is done by a construct validity test and a content validity test. The high validity of the instrument indicates the extent to which the data collected does not deviate from the picture of the variable in question. The above SPSS is known valid data as much as 65, and Cronbach's Alpha value of 0.992 greater than 0.6 it can be concluded that the Questionnaire is reliable to measure. The proposed questionnaire uses the likert scale, where the variable to be measured is spelled into a variable indicator, using a five-choice likert scale gradation. The answer to each instrument has both positive and negative gradations. The data analysis used is the Level of Achievement of Respondents conducted by quantitative and qualitative methods. Data analysis is also done using qualitative research methods, namely in the following sequence of work: data collection, data reduction, data presentation and data verification.

3. RESULT AND DISCUSSION

Result

The results of this study were obtained from the spread of questionnaires with 4 (four) indicators distributed to 16 (sixteen) respondents who had been determined and obtained results. Respondent's Level of Achievement Competency Indicators of Vocational Education showed in Table 1. Skills and attitudes of learners in Vocational High Schools. Judging from the results of the research that competence of learners who have the competence of, knowledge, skills and attitudes in the field of expertise as needed by the world of work refers to the Indonesian National Work Qualification, as well as learners who have a good work attitude that can show exemplary work in the world of work in suitable categories. Other weaknesses of graduate competence appear in the standard content used by teachers, including Teaching materials, syllabuses, Learning Implementation Plan, learning burdens and content on the curriculum structure used by schools in equipping the competence of learners, including teachers have not entirely been able to adjust learning according to the needs and developments in the world of work, teachers have not been fully able to choose the suitable learning media by the teaching materials that will be it is taught to students. The teacher is not yet entirely still at a weak level; among them, learners have not been fully able to comply with the Operational Standards of Procedure set by the world of work in carrying out work, learners have not fully able to carry out work independently or in groups or

teams, learners have not been fully able to adjust their abilities to act in changing conditions and situations, Students do not yet fully have competence.

Table 1. Respondent's Level of Achievement Competency Indicators of Vocational Education

No	Sub Indicators	Total Item	TPR (%) Sub Indicator
1	Graduate Competency Standards (Knowledge, skills, attitudes)	4	46.50
2	Content standards (Teaching materials, syllabus, RPP, learning load, Curriculum Structure)	5	43.00
3	Skills/skills needed by the World of Work	7	44.29
4	Ability to analyze/solve problems	2	48.63
Total		20	45.61

The spirit of entrepreneurship or the spirit of entrepreneurship in carrying out work, learners do not yet fully have the ability of competence based on technological development (Intert of Think) in helping to carry out the work. Learners still do not fully have a certificate of competence from the Professional Certification agency issued by the National Agency for Certification of Indonesia. The weakness of competence of vocational high school graduates is also seen in the ability to analyze and solve problems. Students have not been fully able to independently or group damage to power tools in the world of work. Learners have not fully Able to provide advice and input related to the problems faced in the world of work. Learners have not fully dared to express their opinions, while in the world of work, learners have not been able to express opinions or arguments logically the world of work. Based on the description of the results above, researchers can conclude that for the level of achievement of respondents (TPR), the indicator of competence of vocational graduates in the category is enough, with a percentage of 45.61% and needs improvement to be able to be in the category of good and very good in the future. So that the competence of vocational graduates can refer to the needs for competencies that exist in the world of work.

This research makes it clear that there are weaknesses in Vocational High Schools in preparing graduate competencies that refer to the needs of the world of work that refer to KKNI. It appears that the competencies prepared by the school are not yet at a good level in the sub-indicator of graduate competency standards that refer to knowledge, skills and attitudes that have not been balanced with each other. Respondents in the world of work and school recognized that the competence of knowledge of vocational graduates is very weak compared to their skills. To produce good job competency, the main thing that must be considered is a good work attitude accompanied by balanced knowledge and skills. The competence in question further inactive a person into what ability is possessed as a requirement to carry out tasks in a particular field of work (Arfandi, 2013). The achievement of competence for someone is measured through the Competency Test (UKK), which is part of government intervention in ensuring the quality of education in vocational education units, where the implementation of UKK is Implemented in the form of an evaluation of knowledge, skills and attitudes that will be the basis for competency determination for learners.

Discussion

Sub-indicators Standard content (Materials/teaching materials, syllabus, RPP, learning load, Curriculum Structure needs to be improved on the following components. Teachers must be able to adjust learning based on technological developments and the needs of the world of work. The suitability of learning activities will make students feel comfortable in learning (Bui & Do Van Dung, 2019; Tentama & Arridha, 2020). Teachers must be able to choose the right media in delivering teaching materials that are easily understood by students who provide learning independence. The use of media is very important to facilitate students in learning (Bui & Do Van Dung, 2019; Bustanil S et al., 2019). Teachers must be able (plan, carry out the learning process and evaluate learning) using instruments or standards that have been set. Achieving this standard needs careful planning done by teachers in learning (Hoerunnisa et al., 2019; Wibawa et al., 2018). This will be supported if teacher competence is also the main subject that must be considered by the school, by providing increased competence to teachers both through training, training, upskilling / reskilling and apprenticeship of teachers in the world of work will be the solution of increasing teacher competence in vocational high schools.

Sub indicators of skills needed by the world of work also greatly affect the availability of graduates in the world of work. Based on research conducted, the world of work looks at the competence

possessed by someone through the certificate of competence (Calero López & Rodríguez-López, 2020; Yulastri et al., 2018; Zurqoni et al., 2018). It is recommended that every vocational high school graduate has a certificate of competence issued by a professional certification body as a benchmark for the world of work in considering someone competent. His work, becomes very urgent vocational high schools must consider that to prepare graduates with a certificate of competence of expertise in the field of competence (Nurtanto et al., 2021; Retnawati et al., 2016).

The world of work requires competence from two aspects, namely technical aspects related to scientific background or skills learned and skills needed in the world of work, including aspects of technical skills or hard skills (Baiti & Munadi, 2014; Sudana et al., 2019). Indicators of the ability to analyze problems or solve problems are also significant in the world of work. In this competence, a person is required how to find solutions to the work problems he faces, express opinions on a job, and provide advice and related input from the problems faced in the work Habituation of work culture on the competence to analyze problems or solve problems can be applied through learning that accustoms learners to think about finding the cause of what happened, observe directly and find a solution to the problem (Basito et al., 2018; Supriyadi et al., 2020). Implementation of problem-based learning and speech delivery can also improve learners' critical thinking ability supported by good argumentation skills.

Increasing the competence of teachers as implementers of education needs to be done so that the learning process can be carried out correctly by the progress and development of the times. The improvement of teacher competence as education personnel can be made through training, upskilling and reskilling. In addition, other petting things that must be done in improving graduate compatibility require the completeness of learning facilities, such as valuable equipment that refers to the development of the world of work, the availability of adequate practice rooms, completeness of learning materials, the use of appropriate learning media, extensive learning resources, and fun learning to students must be applied, learning-oriented to the development of learners, learning that is oriented towards Pancasila students.

4. CONCLUSION

The competence of graduates in Vocational High Schools is still in the category quite in referring to the needs of the world of work today with research results of 45.61% in calculation. This means that the competence of vocational graduates needs improvement to achieve the category of Good and Very Good. So that the availability of vocational graduates in the world of work can increase better. Improvements to the education system, improvements to the content of vocational high school education curriculum need to be oriented to the needs of the world of work, preparing a curriculum with the world of work is needed so that the competence produced by vocational education with the needs of the world of work can intersect equally.

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The competence of graduates of the Vocational Education School needs to be of special and primary concern because vocational education will produce candidates for a workforce that is ready to work. In addition, vocational school graduates must also be able to be independent and have an entrepreneurial attitude. So to prepare all that requires an in-depth analysis of vocational education needs, there is a need for relevance between the vocational high school curriculum and the needs of the world of work oriented to the needs of work or national work qualifications of Indonesia. Thus vocational school graduates will have competent competence and independent personal. In the future, the challenges of vocational education are getting tougher with the development of industrial technology or revolution 4.0. A person's competence will be measured by what abilities he has evidenced by the qualifications he has in the field of expertise.

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