Influence of Emotional Intelligence, Digital Literacy, and Student Self-Efficacy on Job Readiness of the Mechanical Engineering Skills Program at Vocational Schools in Yogyakarta City

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ABSTRACT: This study aims to analyze (1) the relationship of emotional factors to student work readiness in the Mechanical Engineering Expertise program at the Yogyakarta City Vocational High School, (2) digital skills on the student's work readiness in the Machining Engineering Expertise program at the Yogyakarta City Vocational School (3) self-efficacy towards student work readiness in the Mechanical Engineering Expertise program at the Yogyakarta City Vocational School (4) the effect of self-efficacy on student work readiness in the Mechanical Engineering Expertise program at the Yogyakarta City Vocational School. The method used was quantitative research. This research was conducted in five vocational high schools (VHS) of the Mechanical Engineering program in Yogyakarta. The subjects in this study were students in class XI. The population in this study amounted to 296 respondents. Sampling was determined using the purposive sampling technique with a total sample size of 184 respondents. The data collection technique uses a questionnaire on a Likert scale with four answer choices. Data analysis techniques using descriptive statistical analysis and multiple linear regression analysis showed that (1) emotional intelligence has an average value of 31.9 in the good category and affects work readiness by 10.11% with t count > t table (4,500 > 1.653). (2) Digital literacy has an average value of 31.15 in the good category, and digital literacy affects work readiness by 2.99% with t count > t table (2.355 > 1.653). (3) Self-efficacy has an average value of 38.51 in the good category and affects work readiness by 30.25% with t count > t table (8.843 > 1.653). (4) Emotional intelligence, digital literacy, and self-efficacy simultaneously contribute 61.6% with F count > F table (98.798 > 2.65). Based on the study's results, emotional intelligence, digital literacy, and self-efficacy positively and significantly influence job readiness.

KEYWORDS: emotional intelligence, digital literacy, self-efficacy, work readiness

I. INTRODUCTION

The strategic effort that must be carried out to maximize the management of educational institutions is good human resources. (Hidayat & Syam, 2019). Education should be able to produce superior, competent, creative, and responsible human resources accompanied by personality and noble character. It is in line with the vision of national education, namely the realization of an education system as a solid and authoritative social institution to empower all Indonesian citizens to develop into quality human beings so that they are capable and proactive in responding to the challenges of ever-changing times (Undang-Undang Dasar, 2003). The importance of good-quality education is not only based in developed countries but also in developing countries, including Indonesia.

Indonesia continues to strive to improve the quality of education. Education in Indonesia still needs to be higher compared to other countries. Based on data from the World Population Review in 2022 (World Population Review, 2022), Indonesian education is ranked 54th out of 78 countries. Based on the World Economic Forum, published in 2017 (WEF, 2017), According to data from the Global Human Capital Report, Indonesia was very concerned because Indonesia's position at that time was ranked 65th out of 130 countries in the field of education. The low level of education in Indonesia reflects the low quality of human resources. According to data from the World Bank for 2020, Indonesia's human capital index is still in 96th place out of 174 countries (The World Bank, 2020).

Changes in the world of work are both a challenge and an opportunity for Vocational High School graduates. The Director General of Middle and Secondary Education, Ministry of Education and Culture, M. Bakrun, revealed that vocational students must have competence according to the needs of the job market to meet regional, national, and international needs because industries that employ graduates not only require academic competency but also on-site skills (Russell, 2018). Many fields of work filled with human labor have disappeared, replaced by technology, machines, robots, or artificial intelligence. As a result, many VHS graduates
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should immediately be able to work because they risk becoming unemployed (Evani, 2019). The high unemployment rate and unfilled job vacancies are due to the non-fulfillment of the qualification demands required by the world of work. It shows the low quality of the available workforce, which makes them less ready to enter the world of work. There is a discrepancy between the expected quality of VHS graduates and the quality of graduates produced by VHS. Readiness to work is one crucial aspect that becomes the basis for applying for a job (Kumari, 2020). Job readiness is also related to the graduates' ability to apply the practical skills acquired during their education. (Iransyah et al., 2023). The extent to which individuals have the knowledge, attitudes, and characteristics for future job success (Gunawan et al., 2022). Graduates of Vocational High Schools (VHS) are expected to have work readiness, which helps realize the goals of VHS, namely to prepare to participate in the world of work and the business world (Jannah & Tahir Lopa, 2020).

According to Rosa (2018), two factors influence work readiness: internal factors and external factors. The internal factors are intelligence ability, talent, interest, motivation, attitude, personality, values, hobbies, achievements, skills, use of free time, aspirations, school knowledge, knowledge about the world of work, work experience, abilities, physical limitations, and outward appearance; personal problems and limitations. While external factors that affect work readiness include guidance from parents, peer conditions, the condition of the surrounding community, and others, Looking at the factors that affect work readiness shows that not only a physical condition, ability, and good mental condition must be owned by individuals who are ready to work, but also the emotional condition of the individual himself.

Besides emotional intelligence, many skills are much needed in today's world of work, for example, literacy skills. (UNESCO, 2015). One type of literacy is digital literacy. Digital literacy is a fundamental skill that students of all disciplines and ages need to improve (Park et al., 2021). Digital literacy is a form of high adaptability that can enable someone to use technical skills and navigate through various information available on the Internet (Uswatun & Setiaji, 2019). Students with good digital literacy have a higher level of readiness than students without good digital literacy and are more likely to adapt to different work environments (Becker et al., 2017; Gusfa & Lukito, 2022; Lestari & Santoso, 2019; Putri & Supriansyah, 2021). Therefore, every student must realize the importance of digital literacy to adapt to today's developments (Catur Agustin & Krismayani, 2019).

Another problem is the low level of self-confidence. Students who succeed in knowing their abilities will feel confident that they can complete the task or work (Jamali et al., 2017). If the individual wants the results to be achieved, then the individual must be able to assess himself in strength or self-confidence (Firmanu, 2020). The more capable a person is of giving a positive impression of his abilities, the greater the chance of completing a task/job. Self-efficacy can improve students' ability to work and adapt to the work environment more easily (Defilia et al., 2018). Self-efficacy positively and significantly affects work readiness (Kusumo et al., 2022; Syofyan, 2022; Tentama et al., 2019).

This research aims to (1) Assessing the relationship of emotional factors to student work readiness in the machining engineering skills program at the Vocational High School in the city of Yogyakarta; (2) Identifying the effect of digital skills on student work readiness in the mechanical engineering expertise program at Vocational Schools in the city of Yogyakarta; (3) Analyzing the effect of self-efficacy on student work readiness in the machining engineering skills program at VHS Yogyakarta; and (4) Examines the relationship between emotional intelligence, digital abilities, and self-efficacy on student work readiness in the machining engineering skills program at vocational schools in the city of Yogyakarta.

II. METHOD

This study uses quantitative research by examining what factors influence job readiness in VHS students. Population: This research was conducted on machining engineering expertise vocational students in the 2022/2023 academic year in the city of Yogyakarta, namely: SMKN 2 Yogyakarta, SMKN 3 Yogyakarta, SMK Muhammadiyah 3 Yogyakarta, SMK Piri 1, and SMK Islam Yogyakarta. The number of students who became the population of the study was 296 students.

Sampling Technique: The sampling technique used in this study was purposive sampling. The purposive sampling technique is used because not all samples have criteria that match the phenomenon being studied. The sample using the purposive sampling technique is divided into three categories: after graduation, they will work, continue their studies, or become entrepreneurs.

The data analysis technique used is descriptive analysis for each variable and a requirements analysis test for further hypothesis testing using multiple linear regression analysis. The analysis requirements tests performed were the normality, linearity, multicollinearity, and heteroscedasticity tests. Hypothesis testing using multiple linear regression analysis was carried out to determine whether the independent variables influence the dependent variable either partially or simultaneously, as well as to determine the linear regression equation. Analysis of needs testing, hypothesis testing, and multiple linear regression analysis equations using the help of IBM SPSS Statistics version 25 software.
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III. RESULT AND DISCUSSION

A. RESULT

1. Partial test (t-test)

The basis for decision-making in this partial test is that if the significance value \( t \) is 0.05, \( H_a \) is accepted, whereas if the significance value \( t \) is > 0.05, \( H_a \) is rejected. Partial test results (t-tests) are presented in the following table:

<table>
<thead>
<tr>
<th>Model</th>
<th>Partial Test Results (t-test)</th>
<th>Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Coefficients</td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>1.464</td>
<td>2.164</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Emotional Intelligence</td>
<td>350</td>
<td>0.078</td>
<td>293</td>
</tr>
<tr>
<td></td>
<td>Digital Literacy</td>
<td>174</td>
<td>0.074</td>
<td>151</td>
</tr>
<tr>
<td></td>
<td>Self-Efficacy</td>
<td>533</td>
<td>0.060</td>
<td>485</td>
</tr>
</tbody>
</table>

The emotional intelligence variable (X1) obtained a positive \( t \)-count of 4.500 with a sig. of 0.000 < 0.05. So, the emotional intelligence variable positively and significantly affects the job readiness variable. It shows that Hypothesis 1, which reads, "Emotional intelligence has a positive and significant effect on work readiness in students of the Mechanical Engineering Expertise Program at VHS Yogyakarta," is accepted.

The digital literacy variable (X2) obtained a positive \( t \)-count of 2.355 with a sig. of 0.020 <0.05. So, the digital literacy variable is positive and significantly affects work readiness. It shows that Hypothesis 2, which reads, "Digital literacy has a positive and significant effect on work readiness in students of the Mechanical Engineering Expertise Program at Yogyakarta Vocational High School," is accepted.

The self-efficacy variable (X3) obtained a positive \( t \)-count of 8.843 with a sig. of 0.000 < 0.05. So, the self-efficacy variable positively and significantly affects the work readiness variable. It shows that Hypothesis 3, which reads, "Self-efficacy has a positive and significant effect on work readiness in students of the Mechanical Engineering Expertise Program at Yogyakarta Vocational High School," is accepted.

2. Simultaneous Test (Test F)

Table 2. Simultaneous Test Results (Test F)

<table>
<thead>
<tr>
<th>ANOVAa</th>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>Regression</td>
<td>3</td>
<td>875.588</td>
<td>98.798</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Residual</td>
<td>180</td>
<td>8.862</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>183</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the table above, it is known that the calculated F value is 98.798. While the F table value is obtained by looking at the F table distribution with \( N = 326 \), a significant 0.05, and the number of independent variables being 3, the F table value is 2.650. Based on the calculation above, where the calculated F value is 98.798 > the F table of 2.650, and a significance value of 0.000 is less than 0.05, it can be concluded that emotional intelligence, digital literacy, and self-efficacy significantly affect work readiness. It shows that Hypothesis 4, "Emotional intelligence, digital literacy, and self-efficacy have a positive and significant effect on work readiness in students of the Mechanical Engineering Expertise Program at Yogyakarta Vocational High School," is accepted.

The partial determination coefficient \( (r^2) \) is used to partially determine the contribution made by each independent variable to the dependent variable. The value is squared and converted into a percentage to find out the magnitude of the partial correlation coefficient \( (r^2) \), which can be seen from the coefficient table in the partial correlation column.

3. Partial Coefficient of Determination \( (r^2) \)

The magnitude of the partial coefficient of determination \( (r^2) \) can be seen from the coefficient table in the partial correlation column. Then, the value is squared and converted into a percentage. The following are the results of the partial determination test:
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Coefficients
Table 3. Partial Determination Coefficient Test Results ($r^2$)

<table>
<thead>
<tr>
<th>Model</th>
<th>Instandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>1.464</td>
<td>2.164</td>
</tr>
<tr>
<td></td>
<td>Emotional Intelligence</td>
<td>.350</td>
<td>.078</td>
</tr>
<tr>
<td></td>
<td>Digital Literacy</td>
<td>.174</td>
<td>.074</td>
</tr>
<tr>
<td></td>
<td>Self-Efficacy</td>
<td>.533</td>
<td>.060</td>
</tr>
</tbody>
</table>

a) Emotional intelligence variable

The magnitude of the influence of the emotional intelligence variable on work readiness can be seen in the value of $r^2$. The value of $r^2$ on the emotional intelligence variable is $(0.318)^2 \times 100% = 10.11\%$. It shows that the emotional intelligence variable partially affects the job readiness variable by 10.11\%, assuming that the digital literacy and self-efficacy variables are constant.

b) Digital Literacy Variable

The magnitude of the influence of the digital literacy variable on work readiness can be seen in the value of $(r^2)$. The value of $(r^2)$ in the digital literacy variable is $(0.173)^2 \times 100% = 2.99\%$. It shows that the digital literacy variable partially affects the job readiness variable by 2.99\%, assuming that the emotional intelligence and self-efficacy variables are constant.

c) Self-Efficacy Variable

The magnitude of the influence of self-efficacy variables on work readiness can be seen in the value of $(r^2)$. The value of $(r^2)$ in the self-efficacy variable is $(0.550)^2 \times 100% = 30.25\%$. It shows that the self-efficacy variable partially affects the job readiness variable by 30.25\%, assuming that the emotional intelligence and digital literacy variables are constant.

4. Simultaneous Determination Coefficient ($R^2$)

Model Summary
Table 4. Simultaneous Determination Coefficient ($R^2$)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.789*</td>
<td>.622</td>
<td>.616</td>
<td>2.977</td>
</tr>
</tbody>
</table>

Based on the table above, it can be seen that the Adjusted R Square value is 0.616. So, the contribution of the influence of the independent variables emotional intelligence, digital literacy, and self-efficacy on the work readiness variable in this study is 61.6\%. The remaining 38.4\% is influenced by other factors not examined in this study.

B. DISCUSSION

1. The Influence of Emotional Intelligence on Student Work Readiness in the Machining Engineering Skills Program at Vocational Schools in the City of Yogyakarta

Emotions are the urge to act, encouraging individuals to respond or behave toward existing stimuli. The ability to recognize one's emotions is emotional intelligence's basis. The next stage of recognizing one's own emotions is being able to manage them. A person can control his feelings so that they affect his behavior naturally. Students who can recognize and manage their emotions mean that they have logical considerations and can consider the good and bad behavior that will be done.

Students who succeed in increasing emotional intelligence will facilitate their careers in the world of work. Amanda (2019) says that in the world of work, people who have emotional intelligence will work wholeheartedly and happily, have achievements at work as individuals and teams, be able to manage conflict, deal with and implement change, have empathy for superiors, subordinates, and co-workers, can read and recognize the emotions of themselves and others and take appropriate action in dealing with them. Emotional intelligence is needed to deal with challenges, uncertainties, and conflicts in the world of work. Thus, it can be understood that students with good emotional intelligence will also have reasonable job readiness.

The research results align with previous research conducted by Jihan Sabila (2021), showing that emotional intelligence has a positive and significant effect on work readiness. Research conducted by Debita Ade (2019) shows that emotional intelligence affects work readiness.

2. The Influence of Digital Literacy on Student Work Readiness in the Machining Engineering Skills Program at Vocational Schools in the City of Yogyakarta

Digital literacy skills are essential skills needed by the current generation. With the increase in digital literacy skills, students...
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who will soon enter the world of work are also well served. Digital literacy is directly related to each individual's workability, manifested as a combination of factors and processes that allow a person to get a job and settle down to continue working or also have to move from that job (Vrana, 2016).

The research results align with previous research conducted by Melia Yulianti (2021), showing that digital literacy has a positive and significant effect on work readiness.

The results and previous research conclude that digital literacy positively and significantly affects work readiness. It means that the higher the student's digital literacy, the higher the student's work readiness. It can be said that digital literacy can encourage students to be ready to enter the world of work.

3. The Influence of Self-Efficacy on Student Work Readiness in the Machining Engineering Skills Program at Vocational Schools in the City of Yogyakarta

Saputro and Suseno (2010) explained that self-efficacy or belief in the abilities possessed by these students has a role in helping to improve readiness and competitive attitude to win the competition in the world of work. Bandura said that individuals with high self-efficacy tend to put in maximum effort to overcome all obstacles to achieve a goal; therefore, students with high self-efficacy will be better prepared to determine their career or be ready to work for a great future. Self-efficacy refers to an individual's evaluation of his ability to achieve specific goals and overcome obstacles. (Ghfron & Risnawati, 2017). When barriers to entering the world of work can be minimized, student job readiness will increase.

The results of the research are in line with previous research conducted by Aslamiah Lubis (2021), showing that there is a positive and significant relationship between self-efficacy and work readiness. Furthermore, Rita Syofyan (2022) research shows that the self-efficacy variable has a positive and significant effect on work readiness. The research results, theory, and previous research concluded that self-efficacy positively and significantly affects work readiness. It means that the higher the student's self-efficacy, the higher the student's work readiness.

4. The Influence of Emotional Intelligence, Digital Literacy, and Self-Efficacy on Student Work Readiness in the Mechanical Engineering Skills Program at Vocational Schools in the City of Yogyakarta

The contribution of the coefficient of determination simultaneously influences emotional intelligence, digital literacy, and self-efficacy by 61.6%. The dependent variable of work readiness can be explained by the independent variables of emotional intelligence, digital literacy, and self-efficacy at 61.6%. In comparison, the remaining 38.4% is explained by other variables not examined in this study. The results of the coefficient of determination partially for emotional intelligence are 10.11%, for digital literacy variables are 2.99%, and for self-efficacy variables are 30.25%.

The results of this analysis show that there is a tendency that the better the emotional intelligence, digital literacy, and self-efficacy received by students, the better their work readiness; conversely, the lower the emotional intelligence, digital literacy, and self-efficacy received by students, the lower their work readiness.

IV. CONCLUSION

Based on the results of research on the influence of emotional intelligence, digital literacy, and student self-efficacy on work readiness in the Mechanical Engineering Expertise Program at Vocational Schools in the city of Yogyakarta, the following conclusions are drawn:

1. Emotional intelligence has a positive and significant effect on the job readiness of the machining engineering skills program at VHS Yogyakarta City, partially by 10.11%.
2. Digital literacy has a positive and significant effect on the job readiness of the machining engineering expertise program at Yogyakarta City Vocational Schools, partially by 2.99%.
3. Self-efficacy has a positive and significant effect on the job readiness of the machining engineering skills program at VHS Yogyakarta City, partially by 30.25%.
4. Emotional intelligence, digital literacy, and self-efficacy positively and significantly affect the job readiness of the machining engineering skills program at Yogyakarta City Vocational Schools by 61.6%. The remaining 38.4% is influenced by other factors not examined in this study.

REFERENCES

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