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Investigating the correlation between self discipline, fieldwork, and work readiness: A study on vocational high schools

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Abstract: The high unemployment rate among graduates of vocational high schools reflects a gap between educational outcomes and the demands of the industry. This study aims to examine the relationship between self-discipline and fieldwork practices on students' readiness to enter the workforce. The research was conducted with 51 twelfth-grade students from the Mechanical Engineering program at Vocational High School "Sore" Tulungagung. The instruments used included a self-discipline scale, a student readiness scale, and fieldwork practice scores. Data were analysed using Pearson product-moment correlation. The findings revealed that self-discipline is positively and significantly correlated with students' readiness to enter the workforce ($r = 0.338$; $p < 0.05$), while fieldwork practices also showed a significant positive correlation with student readiness ($r = 0.415$; $p < 0.01$). Simultaneously, both variables were significantly associated with students' readiness ($r = 0.471$; $p < 0.01$). These results emphasise the importance of strengthening student discipline and providing relevant fieldwork experience in preparing vocational school graduates to be more competitive and adaptive in the evolving labour market. This study also offers practical implications for schools and industries in designing learning programs that are better aligned with workforce requirements.

Keywords: Students' readiness, workforce, self-discipline, fieldwork practices

Abstrak: Tingginya angka pengangguran di kalangan lulusan Sekolah Menengah Kejuruan (SMK) menunjukkan adanya kesenjangan antara hasil pendidikan dengan kebutuhan industri. Penelitian ini bertujuan untuk mengetahui hubungan antara kedisiplinan diri dan praktik kerja lapangan terhadap kesiapan siswa memasuki dunia kerja. Penelitian dilakukan pada 51 siswa kelas 12 program keahlian Teknik Pemesinan di SMK Sore Tulungagung. Instrumen yang digunakan meliputi skala kedisiplinan diri, skala kesiapan kerja siswa, serta data nilai praktik kerja lapangan. Data dianalisis menggunakan teknik korelasi Pearson product-moment. Hasil penelitian menunjukkan bahwa kedisiplinan diri berhubungan positif secara signifikan dengan kesiapan siswa memasuki dunia kerja ($r = 0{,}338$; $p < 0{,}05$). Praktik kerja lapangan juga berkorelasi dengan kesiapan siswa ($r = 0{,}415$; $p < 0{,}01$). Secara simultan, kedua variabel tersebut juga memiliki hubungan yang signifikan terhadap kesiapan siswa ($r = 0{,}471$; $p < 0{,}01$). Temuan ini menunjukkan bahwa peningkatan disiplin siswa dan pengalaman praktik kerja yang relevan merupakan dua hal penting dalam mempersiapkan lulusan sekolah menengah kejuruan agar lebih siap bersaing dan beradaptasi di dunia kerja yang terus berkembang. Penelitian ini juga memberikan implikasi praktis bagi sekolah dan dunia industri dalam merancang program pembelajaran yang lebih terintegrasi dengan kebutuhan kerja.

Kata kunci: Kesiapan siswa; dunia kerja, kedisiplinan diri, pratik kerja lapangan

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INTRODUCTION

Vocational education has a strategic role in preparing skilled workers who can meet the needs of the industrial world (Andrianus, 2020; Dahalan et al., 2024; Indrawati & Kuncoro, 2021; Li, 2022; Lund & Karlsen, 2020; Spöttl & Windelband, 2021). One form of implementation of vocational education in Indonesia is the existence of Vocational High Schools, which aim to produce graduates who are ready to work (Prianto et al., 2020;

Suharno et al., 2020). However, the current phenomenon shows an imbalance between vocational education objectives and field conditions. Data from the Central Statistics Agency (2023) shows that of the 7.99 million unemployed in Indonesia as of February 2023, 9.6% were vocational high school graduates. This percentage is the highest compared to other levels of education. This condition is quite concerning, considering that vocational high schools are designed to be a solution in producing skilled workers who can be directly absorbed by the business world and industry (Cahuc & Hervelin, 2024; Suharno et al., 2020). Unemployment among vocational school graduates indicates obstacles in absorbing workers, one of which is caused by the mismatch between graduate competencies and industry needs (Dayaratna-Banda & Dharmadasa, 2022). Based on data from the Tracer Study of Vocational High Schools "Sore" Tulungagung shows that even though these vocational school graduates get jobs, many of them work in positions that do not match the skills they learned at school. This problem shows a gap between the education received and what is expected by the world of work. This gap underscores the urgency of preparing students more effectively to face the demands of the workforce. Therefore, it becomes crucial to investigate the antecedents of students' readiness to enter the world of work.

There are several elements that have a significant impact on vocational school graduates' work preparation. These factors can be classified as internal or external (Adlya et al., 2020; Kirani & Chusairi, 2022). Internal factors include aspects that come from within the individual, which can affect their future (Yildiz et al., 2020). These factors include the academic intelligence they possess, the skills and abilities they have learned, their inherent talents and interests, strong motivation to learn, the personality that shapes their character, and their deep ideals and desires regarding the work they want to pursue in the future. (Sulastiana & Sulistiobudi, 2017). On the other hand, external factors also have a significant role in influencing students' work readiness (Moore & Morton, 2017) . These factors include elements from outside the individual, such as family support and conditions, the environment in which they live, and the work environment they will enter. These external factors can be a source of challenges that can cause fear or uncertainty regarding their readiness to go into the workforce (Eliyani et al., 2016).

One of the most significant factors influencing students' readiness for the world of work is their ability to meet the criteria set by the industry, with self-discipline being among the most crucial. Self-discipline enables students to regulate and control their behavior, allowing them to function effectively in demanding work environments. In Vocational High Schools, this trait is nurtured through consistent routines and adherence to rules and regulations. Such practices foster positive habits that are essential in professional settings. Students with strong self-discipline are not only better equipped to enhance their knowledge and skills but are also more prepared to handle various challenges. Ultimately, self-discipline promotes constructive thinking and behavior, benefiting both the individual and their environment (Budyani, 2011; Zuković & Stojadinović, 2021).

In addition to self-discipline, fieldwork practices play a crucial role in preparing students for the workforce. Attitude is one of the key aspects that can influence individuals and others. To bridge the gap between theoretical knowledge, attitude development, character improvement, and industry exposure, students are encouraged to participate in fieldwork practice programs (Zhao & Kuo, 2015). The goal of this program is to bridge the education received at school with the experiences gained in the industrial world (Fataron &

Sianggaran, 2019; Prasetyo et al., 2018; Surachim, 2016). Through this program, schools and teachers can provide guidance that supports students in applying their learning in real-world contexts. Fieldwork practices introduce students to the workplace, enhance their skills and knowledge, and help them develop good character, all of which are essential for readiness to enter the workforce (Kuswandi et al., 2020; Mashudi & Widjaja, 2016; Nugraha & Widarto, 2017; Wibowo & Purnama, 2013).

Based on the explanations provided, this study aims to identify and analyze the factors associated with students' readiness to enter the workforce, particularly those related to self-discipline and experience in fieldwork practices. The findings of this research are expected to provide deeper insights into ways to improve vocational education quality, as well as to suggest strategic measures for designing more effective programs. Consequently, this study is expected to contribute significantly to reducing the unemployment rate among vocational school graduates and ensuring they are better prepared to face the evolving challenges of the labor market.

METHOD

This study uses a quantitative approach, because This study focuses on testing the relationship between self-discipline (X1) and fieldwork practice (X2) on students' preparation to enter the workforce (Y). The research design can be seen in Figure 1. This research was conducted at the Vocational High School “Sore” Tulungagung, involving a total of 51 participants. The sampling technique used in this study was proportional random sampling to ensure that each subgroup within the population was adequately represented. The participants were third-year students from the Mechanical Engineering expertise program at the Vocational High School “Sore” Tulungagung. These participants were selected based on the consideration that third-year vocational high school students have undergone the majority of their educational process, including fieldwork practices (internships), and are at the final stage of their vocational education before entering the professional world. Therefore, students are considered to have sufficient experience and insight to assess their readiness to enter the business and industrial sectors. The researcher distributed the questionnaire directly to students at Vocational High School "Sore" Tulungagung. After being distributed, the researcher gave instructions for filling them out the questionnaire. If the students had understood the instructions, the researcher would have invited them to fill out the questionnaire.

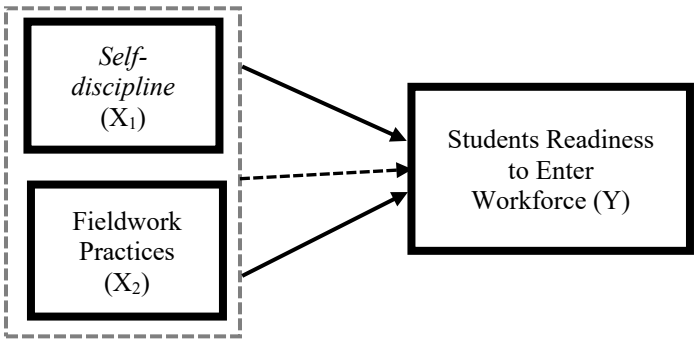

Figure 1. Research Design

The data were collected over two days using a self-report method with research scales. Before responding to the scale items, participants were asked to complete demographic information. This study utilized two research scales: the self-discipline scale and the student readiness scale. First, the self-discipline scale was developed based on aspects of self-discipline from Tangney et al. (2004). The scale originally consisted of 22 items; however, after conducting a validity test, only 18 items were found to be valid. The validity test was conducted by comparing the calculated r (r count) and the critical r (r table). If the calculated r is greater than the critical r, the item is considered valid; otherwise, it is considered invalid. The reliability coefficient of this scale was 0.888, which falls into the "very high" category. The scale uses a 4-point Likert format with the following response options: Strongly Agree, Agree, Disagree, and Strongly Disagree. An example item from the self-discipline scale is: “I study out of my own initiative.”

The assessment of fieldwork practices was based on the average scores of third-year students from the Mechanical Engineering expertise program at Vocational High School “Sore” Tulungagung. These scores were then classified into specific categories to facilitate interpretation. The categories were developed by the researcher based on Azwar (2012), who divided them into five levels: Very Good, Good, Fairly Good, Less Good, and Not Good. The cut-off points for each category were determined using a statistical approach based on the mean and standard deviation. The formula used was mean *± (z ×* standard deviation), where *z* is a constant used to define the upper and lower boundaries of each category (i.e., 0.5 and 1.5). This approach allows for a more objective and systematic assessment, as it takes into account the quantitative distribution of the data. Through this system, students can be mapped into appropriate achievement levels based on their scores. The fieldwork practice assessment categories are presented in Table 1.

Table 1. Categories of fieldwork practice score

Calculation	Criteria	Description
X > 82,88 + (1,5) (3,54)	X > 88,19	Very good
82,88 + (1,5) (3,54) > X > 82,88 + (0,5) (3,54)	88,19 > X > 84,65	Good
82,88 + (0,5) (3,54) > X > 82,88 - (0,5) (3,54)	84,5 > X > 81,11	Fairly Good
82,88 - (0,5) (3,54) > X > 82,88 - (1,5) (3,54)	81,11 > X > 77,57	Less Good
82,88 - (1,5) (3,54) > X	77,57 > X	Not Good

Subsequently, the researcher employed a student readiness scale developed based on the conceptual framework of student readiness proposed by Amirullah and Supriatna (2019), which comprises three key aspects: cognitive, affective, and psychomotor domains. The scale initially consisted of 22 items; however, after conducting a validity test, only 21 items were valid. The validity test was carried out by comparing the calculated *r* value with the critical *r* value from the table. The reliability coefficient of the scale was found to be 0.907, which falls into the "very high" category. This scale used a 4-point Likert format with the following options: Strongly Agree, Agree, Disagree, and Strongly Disagree. An example of an item from the student readiness scale is: "I understand how to use machining equipment”.

The data analysis was carried out through several stages. First, the researcher conducted a normality test and a reliability test to ensure that the measurement scales were

appropriate for use. The normality test was used to determine whether the data distribution met the assumptions required for parametric analysis, while the reliability test assessed the internal consistency of the scales used in the study. Second, the researcher performed hypothesis testing using IBM SPSS Statistics version 28. The hypothesis testing included Pearson product-moment correlation analysis to examine the relationship between self-discipline, fieldwork practices, and students' readiness to enter the world of business and industry.

RESULTS AND DISCUSSION

The normality test was conducted to determine whether the data in this study followed a normal distribution. The test employed the Kolmogorov-Smirnov method using SPSS version 28. The results of the normality test indicated that the significance values (p-values) for each variable were greater than 0.05, suggesting that the data were normally distributed. Therefore, the data met the assumption of normality and were suitable for further analysis using parametric statistical techniques. The results of the normality test are in Table 2.

Table 2. Normality test results

	Variable	Significance Value	Significance Level	Description
1.	*Self-discipline*	0,285	0,05	Normal
2.	Fieldwork Practice	0,295	0,05	Normal
3.	Students' Readiness	0,565	0,05	Normal

Descriptive analysis was conducted on all research variables, namely *self-discipline*, fieldwork practice, and students' readiness to enter the workforce. The researcher calculated the category criteria for each variable, starting with the self-discipline variable. The results of the study indicate that the lowest possible score is 45 and the highest is 72. The mean score is 56.73, with a median of 57, a mode of 58, and a standard deviation of 7.14. Based on these values, the data is then grouped into categories of self-discipline tendency levels using a predetermined formula (Table 3). Based on the data results, the category of fairly good student self-discipline was 21 students (41%), less good criteria totaling 13 students (25%), and not good criteria totaling 4 students (8%).

Table 3. Self-discipline categories

Criteria	Category	Frequency	Percentage
X > 67,44	Very good	6	12%
67,44 > X > 60,3	Good	7	14%
60,3 > X > 53,16	Fairly Good	21	41%
53,16 > X > 46,02	Less Good	13	25%
46,02 > X	Not Good	4	8%

Second, fieldwork practices were analyzed. The results of the study reveal that the highest score is 91 and the lowest score is 75. The mean score is 82.88, the mode is 80, and the standard deviation is 3.54. As shown in Table 4, most students fall into the 'less good'

category, comprising 19 students (37%), and the 'fairly good' category, with 17 students (33%).

Table 4. Results of fieldwork practice categories

Criteria	Category	Frequency	Percentage
X > 88,19	Very good	4	8%
88,19 > X > 84,65	Good	10	20%
84,5 > X > 81,11	Fairly Good	17	33%
81,11 > X > 77,57	Less Good	19	37%
77,57 > X	Not Good	1	2%

The researcher also analyzed the categories of the students' readiness variable (Table 5). The study's findings suggest that the highest score is 84 and the lowest is 59. The mean score is 69.08, the median is 68, the mode is 62, and the standard deviation is 6.18. Based on the data obtained, it is known that the level of students' readiness to enter the workforce includes 16 students (31%) in the 'less good' category and 1 student (2%) in the 'not good' category.

Table 5. Results of students' readiness categories

Criteria	Category	Frequency	Percentage
X > 78,35	Very good	4	8%
78,35 > X > 72,17	Good	11	22%
72,17 > X > 65,99	Fairly Good	19	37%
65,99 > X > 59,81	Less Good	16	31%
59,81 > X	Not Good	1	2%

Data analysis was conducted using Pearson Product-Moment correlation to examine the relationship between self-discipline and fieldwork practice, both partially and simultaneously. The results indicated that self-discipline was significantly correlated with students' readiness to enter the workforce ($r = 0.338$, $p < 0.05$). Fieldwork practice also showed a significant correlation with students' readiness to enter the workforce ($r = 0.015$, $p < 0.01$). The partial correlation results are presented in Table 6.

Table 6. Partial correlation test results (dependent variable: student readiness)

	Self-discipline	Fieldwork Practice
Correlation Coefficient	0.338	0.415
Sig.	0.015	0.002
N	51	51

The researcher also examined the relationship simultaneously to determine whether there is a connection between self-discipline and fieldwork practice with students' readiness to enter the workforce. Based on the research findings (Table 7), self-discipline and fieldwork practice are found to be simultaneously correlated with students' readiness to enter the workforce ($r = 0.471$, $p < 0.01$). Therefore, it can be concluded that self-

discipline and fieldwork practice are correlated with students' readiness to enter the workforce, both partially and simultaneously.

Table 7. Results of the simultaneous correlation test

Self-discipline and Fieldwork Practice	
Correlation Coefficient	0.471
Sig.	0.002
N	51

Based on the results of the descriptive analysis, the level of self-discipline of third-year students from the Mechanical Engineering expertise program at the Vocational High School "Sore" Tulungagung is classified as good. Students who have high discipline can support the learning process, in terms of knowledge, skills, student readiness to face all kinds of problems, and can be useful for themselves and others (Budyani, 2011; Widodo, 2013).

By knowing that students have a level of discipline, schools or teachers can see from their behavior and how students control themselves in relation to the learning process, and as educators, they are obliged to provide guidance if they feel they are not doing something correctly (Adlya et al., 2020; Li et al., 2021). This is so that inappropriate actions can be a lesson to become a much better person. Self-discipline provides something positive for a student in overcoming fear, anger, envy that is constructive and respectful of others and can express their emotions appropriately (Rostam et al., 2015; Shi & Qu, 2022). With this, the student's image will be very good in carrying out activities at school and at home productively and can directly limit themselves in things that have been determined.

From the results of the descriptive analysis above, the data on the level of fieldwork practicess of third-year students from the Mechanical Engineering expertise program at the Vocational High School "Sore" Tulungagung is classified as good. It can be said that the majority of students have carried out fieldwork practices in accordance with the directions and procedures that have been set by the supervising teacher and supervisor in the industry. Students can also be said to be able to apply the knowledge and skills obtained at school which can be seen through the results of the fieldwork practices that has been carried out. Fieldwork practices can improve students ' knowledge, skills and character from the provisions obtained from school.

Teaching and learning is not enough if the activities only rely on one material, but require practice, which can improve students' skills (Hermanto, 2020; Iriani & Soeharto, 2015; Nasir et al., 2024; Syauqi et al., 2024). The industrial world has a very important role in supporting student learning through fieldwork practices. The important role given is as a place to get used to the conditions of the working world and also as a place to apply theory in school. In addition, fieldwork practices is an activity that can be a solution for schools to get competent graduates in their fields of study, becoming graduates who have optimal abilities and can adapt to all situations in the industry.

Based on the findings of descriptive data analysis, the degree of preparation of students to join the workplace in third-year students from the Mechanical Engineering expertise program at the Vocational High School "Sore" Tulungagung is classified as good. It

can be said that most students have shown interest and readiness to work in line with their physical and mental maturity and experience. That way most students already know and learn about the factors that influence work readiness. This is expected to provide motivation to students who are still not confident in their abilities in readiness to face work. Panggayuh (2015) explains that students' work readiness can be influenced by several aspects, namely physical condition, emotional state, knowledge possessed, skills, motivation, and goals.

Based on the results, it was found that there is a significant relationship between self-discipline and preparedness for the workforce among third-year students in the Mechanical Engineering program at SMK "Sore" Tulungagung. The analysis showed a significance value of 0.015, which is less than 0.05, indicating a statistically significant correlation. The findings suggest that employability among students at SMK "Sore" Tulungagung is influenced by students who are independent in their learning and disciplined in attending school regularly. These findings are supported by a study conducted by Tentama et al. (2019), which demonstrated a significant relationship between self-discipline and employability among vocational high school students. This indicates that self-discipline plays an important role in shaping employability traits such as responsibility, consistency, and time management. This competency is essential for preparing students to successfully transition into the workforce. Furthermore, similar research by Riyanto et al. (2020) and Prihatin et al. (2020) found that self-discipline is positively associated with work readiness. The studies highlight the relevance of discipline in shaping students' preparedness to enter the world of work.

Analysis of the connection between students' readiness and fieldwork practices in third-year students from the Mechanical Engineering expertise program at the Vocational High School "Sore" Tulungagung revealed a noteworthy value of 0.002 < 0.05. From the results of the analysis, a correlation coefficient value of 0.415 was obtained. This shows that the relationship between fieldwork practices and students' readiness to enter the workforce has a positive relationship. It can be interpreted that fieldwork practices carried out by students can provide simulations and experiences as students' readiness to enter the world of work. Fieldwork practices can improve work ethics and as a place to apply theories and skills that have been obtained in school. It can be seen directly that the abilities obtained from fieldwork practices will affect students' work readiness.

A significant link was found between self-discipline, fieldwork practices, and students' readiness to enter the workforce (p-value = 0.002 < 0.05). The analysis of the findings yielded a correlation coefficient value of 0.471. These findings suggest that the connection between self-discipline and fieldwork practices, simultaneously with the readiness of students to enter the workforce, has a positive relationship. This was found from the level of discipline in doing something at school or at home, one of which is in collecting assignments, coming to school, and waking up independently. The ability in fieldwork practices, data was found, namely the fieldwork practices process carried out in the world of work was given intensive training and implementation of theory. This is one of the aspects that affect students' preparation to join the world of employment. Student development can be caused by the level of maturity through attitudes or maturity that can influence students in practicing something (Gunawan, 2017). Work readiness can actually grow from oneself which can be called instinct, meaning that students are told to be ready if they are able to face something (Pramono et al., 2023).

CONCLUSION

Based on the research results that have been presented, it can be concluded that there is a significant relationship between self-discipline and students' readiness to enter the workforce in the engineering expertise competency at Vocational High School “Sore” Tulungagung. This shows the importance of improving student discipline because it supports learning, problem-solving, and overall readiness for the workforce. Fieldwork practices also make a meaningful contribution by shaping students' cognitive, emotional, and psychomotor readiness, helping them adapt to the real workplace environment. Schools are encouraged to innovate in learning programs that foster character development, self-confidence, and work attitudes, such as character education, work orientation, and production unit activities. Strengthened collaboration with industry is also important to familiarize students with workplace discipline.

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