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The Relationship between Industrial Practice Activities and Academic Values of Multimedia Department Students at SMKN 1 Depok with Work Readiness

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ABSTRACT

Work readiness is highly important for prospective job seekers to become professionals in the working world. Some of them attend vocational schools (SMK) as preparation for entering the workforce. SMK offers industrial practice activities to familiarize students with the working world. Additionally, academic achievements are the results of students attending SMK. This research aims to find the correlation between industrial practice activities (x1) and academic achievements (x2) with work readiness (y). This research uses a quantitative approach with a descriptive correlational model. The research sample is multimedia department students at SMKN 1 Depok who have already completed industrial practice activities. Hypothesis testing uses Spearman correlation and multiple correlation. The results indicate a significant correlation between x1 and y, no significant correlation between x2 and y, and a significant correlation between x1 and x2 simultaneously with y.

I. INTRODUCTION

Based on data from BPS, there are 17 formal job sectors which has triggered the need for more professional workers. On the other hand, unemployment is still a persistent issue in Indonesia, as shown by BPS data for August 2021 which indicates that the number of unemployed individuals has reached 9 million. According to Ishak [1], factors that contribute to unemployment include lack of skills among job seekers and inadequate training provided by the government for the workforce. The number of unemployed graduates from vocational high schools (SMK) is particularly concerning, as BPS data shows that SMK contributes the second highest number of unemployed individuals, reaching 2.1 million people. This is contradictory to the purpose of establishing SMK as stated in UU No. 20 of 2003, Chapter VI, Article 13, Paragraph 1, which aims to prepare skilled workers at the SMK level.

One effort to support readiness for work at the SMK level is through the Industrial Practice subject [2]. Industrial Practice is an educational, training, and learning activity for SMK students conducted in the business or industrial world that is relevant to the student's competency in their respective fields [3]. According to a study by Pratama et al [4] at SMKN 1 Cibinong, industrial work practice is related to work readiness with a moderate relationship category. Fajriah and Sudarna's [2] study shows that industrial practice activities at SMK Muhammadiyah Bobotsari affect work readiness by 13.46%. According to a study by Kurniati and Subowo [5], industrial practice activities at SMKN 1 Brebes have a positive effect on work readiness by 18.23%. And according to the study by Handayani and Setiyani [6], industrial practice activities at SMKN 1 Kebumen affect work readiness by 25.4%.

However, the COVID-19 pandemic has resulted in online learning, which has led to a lack of learning and practicum experience for students at SMKN 1 Depok and resulted in suboptimal academic performance. Although industrial practice activities have resumed normally in the 2021/2022 academic year, the lack of learning and practicum experience may result in ineffective implementation of industrial practice activities which is highly related to student work readiness [7].

Therefore, research is needed to determine the relationship between industrial practice activities and academic performance with work readiness. The subjects of this study are SMKN 1 Depok multimedia students who have participated in

industrial practice activities. The academic performance used includes student learning outcomes in subjects C2 (basic skills in the program) and C3 (competence skills), as well as assessments of K3 (knowledge) and K4 (skills).

Industrial Practice (Praktik Industri) is a teaching and learning activity for vocational high school students that takes place in the industrial world related to the skills they are pursuing [3]. This activity has many benefits for students, as described by Hamalik in [8], including instilling a professional attitude, enabling students to learn skills beyond what they learn in school, contributing to the company's work, motivating and improving students' work ethics and ethos, strengthening partnerships between schools and partner organizations, allowing industries to support schools by providing teaching staff or practical assistance, and many more. Graduates of vocational high schools can also benefit from higher promotion opportunities.

Academic value is a measure of each student's achievement in school, which is used as a reference for the student's learning outcomes [9]. Academic value is very beneficial for both students and teachers, some of the benefits of academic value are to determine a student's readiness for a certain level of study, to be used as an evaluation and guidance for the student, to compare students' achievements, as a reference for the student's readiness to continue their studies in higher education institutions [9]. In addition, academic value consists of report grades, GPA, graduation predicate, length of education, and graduation rates [10] with 3 aspects of assessment (cognitive, affective, and psychomotor).

Work readiness is the general state of an individual's physical maturity, experience, mental state, willingness, and ability to perform a job [11]. Work readiness is measured by many aspects, including the aspects of work readiness according to Agus Fitriyanto in Aini and Nikmah [12] such as the ability to work in teams, having a sense of responsibility to complete work quickly, accurately and without errors, proactively making decisions, having the ability to regulate emotions in facing risks, being highly committed, having a critical attitude, having good communication skills, being very confident to contribute to work, being able to adapt quickly to the environment, understanding the application process well, having the ambition to continue to develop and learn, not being easily satisfied with achievements. Every field of expertise requires mastery of the appropriate skills and competencies [13]. The competencies that must be possessed by the multimedia field are interactive media design, audio and video processing techniques, print graphic design, as well as 2D and 3D animation (Kurikulum 2013 Revisi 2018, 2018).

II. METHOD

This study uses an ex-post facto model with a descriptive correlational approach. In this study, the researcher did not provide special treatment to the research subjects. The data obtained will be searched for the significance of the relationship between independent and dependent variables. The variables in this study are: industrial practical activities (x1), academic achievement (x2), and work readiness (y). The types of data obtained are ordinal (variables x1 and y) and interval (variable x2).

The population of this study is: 1) students of SMKN 1 Depok majoring in multimedia, 2) who have completed industrial practice activities. The sampling technique used is saturated sampling which includes all students in the population as samples. There are 78 students who meet the criteria.

The data collection technique used in this study is documentation for the academic achievement variable (x2) and a questionnaire with 5-point Likert scale answers for the practical industrial activity (x1) and work readiness (y) variables. The indicators used in the practical industrial activity variable (x1) are: discipline, cooperation, honesty, responsibility, knowledge, and skills. The work readiness variable (y) consists of the following indicators: ability to work in a team, responsibility in work, emotional regulation skills, proactive decision-making, good communication skills, critical thinking, confidence to contribute, quick adaptation to the environment, understanding of the job application process, ambition to continue to develop, and not easily satisfied. The documentation for the academic achievement variable (x2) consists of the students' learning outcomes, including subjects C2 (basic program competency) and C3 (specialization competency), as well as assessment K3 (knowledge) and K4 (skills).

The data analysis technique used in this study includes descriptive analysis, prerequisite tests, and hypothesis testing. Descriptive analysis includes mean, standard deviation (SD), maximum value (max), minimum value (min), range, and total sum. Prerequisite tests include normality, homogeneity, linearity, multicollinearity, and heteroscedasticity. Hypothesis testing uses Spearman correlation and multiple correlation.

III. RESULT AND DISCUSSION

On the day of the research, only 63 students were present and filled out the questionnaire. The results of the descriptive analysis can be seen in Table 1, Table 2, Table 3, and Figure 1. The practical industry variable is described in Table 1. The results of the academic grade variable (x2) are explained in the Figure 1.

The Kolmogorov-Smirnov normality test results showed an Asymp. Sig. (2-tailed) value of 0.462 for the industrial practice variable, 0.594 for the academic achievement variable, and 0.776 for the work readiness variable. All three values were above 0.05, indicating that all three datasets were normally distributed.

TABLE I. GROUPING OF DATA FOR INDUSTRIAL PRACTICE VARIABLE (X1)

No.	Category	f	%
1	Low (10-23)	0	0%
2	Medium (24-36)	9	14,28%
3	High (37-50)	54	85,72%
	Total	63	100%

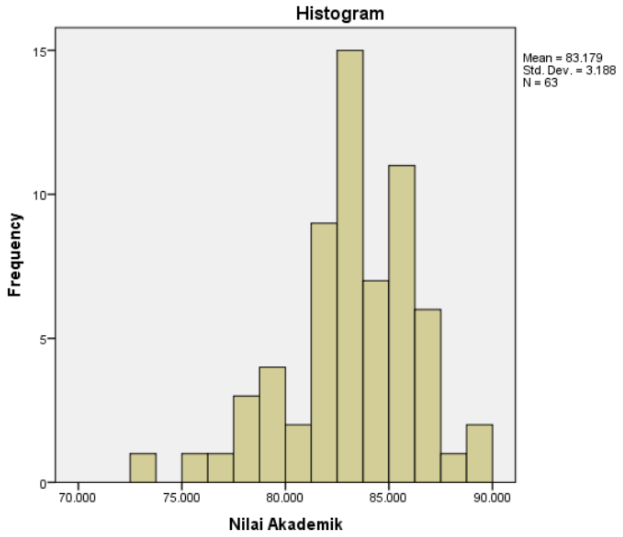

Figure 1

The results of the work readiness variable are described in the following table 2.

TABLE II. GROUPING OF DATA FOR WORK READINESS (Y)

No.	Category	f	%
1	Low (31-72)	0	0%
2	Medium (73-113)	12	19,05%
3	High (114-155)	51	80,95%
	Total	63	100%

The result of the Homogeneity test using Levene's test showed a significance value of 0.567 for the variable of industrial practice, 0.670 for the variable of job readiness, and 0.000 for the variable of academic achievement (x2). The data for the variable of academic achievement (x2) did not meet the homogeneity assumption and required further analysis using an independent sample t-test. The result of the independent sample t-test showed a t-value of -1.483 with $p < 0.05$, indicating a significant difference in academic achievement between the two classes. The difference in mean values was -1.142788, indicating that the MM 1 class had a lower mean score than the MM 2 class. The acceptable difference in mean values was -2.696319. Therefore, it can be concluded that the data for academic achievement is homogeneous.

The results of the linearity test showed an R^2 value of 0.553 for variable x1 with y, and an R^2 value of 0.0009494 for variable x2 with y. Thus, it can be concluded that there is a linear relationship between variable x1 and y, while there is no linear relationship between variable x2 and y.

The result of the multicollinearity test showed a tolerance value of 0.974 and VIF value of 1.027. Therefore, it can be concluded that the two variables do not exhibit multicollinearity symptoms.

The results of the heteroscedasticity test showed a significance value of 0.007 for the Glejser test on the variable of industrial practice activities (x1) and 0.177 on the variable of academic achievement (x2). Since the variable x1 is below 0.05, the WLS (weighted least square) method is needed to address the heteroscedasticity issue [14]. The results of the WLS method showed values of 0.628 for the variable x1 and 0.202 for the variable x2, indicating that there is no heteroscedasticity issue.

The correlation test results showed a correlation coefficient of 0.698** and a significance value of 0.000 (<0.01) for variable x1 with y. For variable x2 with y, the significance value was 0.646 (>0.05). In the correlation test for variables x1, x2, and y, the results showed a probability value (Sig. F Change) of 0.000 (<0.05), a correlation coefficient (R) of 0.767, and a R Square Change of 0.588.

On the industrial practice variable, the indicator with the highest value is honesty, while the indicator with the lowest value is discipline [15]. On the academic value variable, there are 32 students who have scores above the class average, while 31 students have scores below the class average. On the work readiness variable, the indicators with the highest values are being able to work in a team and being responsible in work, while the indicator with the lowest value is understanding the job application process.

IV. CONCLUSIONS

The results of this study indicate that: 1) there is a strong and positive significant relationship between industrial practice activities (x1) and work readiness (x2), 2) there is no significant relationship between academic achievement (x2) and work readiness (y), 3) there is a strong and positive simultaneous relationship between industrial practice activities (x1) and academic achievement (x2) towards work readiness (y). The results of the second study are in stark contrast to the normative condition where academic achievement is related to work readiness. However, considering the COVID-19 pandemic situation that severely hindered academic activities in schools, academic assessment has become a serious issue. Therefore, many schools only conduct assessments as a formality to ensure that students have a record of their grades.

REFERENCES

[1] K. Ishak, "Faktor-Faktor Yang Mempengaruhi Pengangguran Dan Inflikasi Terhadap Indeks Pembangunan Di Indonesia," *Iqtishaduna J. Ilm. Ekon. Kita*, vol. 7, no. 1, pp. 22–38, 2018.

[2] U. N. Fajriah and K. Sudarma, "Pengaruh praktik kerja industri, motivasi memasuki dunia kerja, dan bimbingan karir pada kesiapan kerja siswa," *Econ. Educ. Anal. J.*, vol. 6, no. 2, pp. 421–432, 2017.

[3] K. P. R. Indonesia., "Pentingnya Mengetahui Pengertian Prakerin SMK dan Manfaatnya," *SIVA Kemenperin*, 2021. https://siva.kemenperin.go.-id/front/news/pentingnya-mengetahui-pengertian-prakerin-smk-dan-manfaatnya/ (accessed Jun. 03, 2022).

[4] Y. Pratama, "Hubungan Praktik Kerja Industri dengan Kesiapan Kerja Siswa SMK Negeri 1 Cibinong Kelas XII Kompetensi Keahlian Teknik Gambar Bangunan." Universitas Negeri Jakarta, 2018.

[5] U. S. Kurniati, "Subowo.(2015). Pengaruh Praktik Kerja Industri, Prestasi Akademik, Dan Motivasi Kerja Terhadap Kesiapan Kerja Siswa Jurusan Akuntansi Kelas XII Smk Negeri 1 Brebes Tahun Ajaran 2013/2014," *Econ. Educ. Anal. J.*, vol. 4, no. 2, pp. 404–413.

[6] U. S. Handayani and R. Setiyani, "Pengaruh prestasi akademik mata diklat produktif akuntansi, praktik kerja industri, dan lingkungan keluarga terhadap kesiapan kerja siswa kelas XII SMK Negeri 1 Kebumen Program Keahlian Akuntansi Tahun Ajaran 2014/2015," *Econ. Educ. Anal. J.*, vol. 4, no. 3, 2015.

[7] A. F. Ramadhani and S. Suparji, "Hubungan Pengalaman Prakerin Dan Akademis Siswa Terhadap Kesiapan Kerja Siswa SMK Jurusan Teknik Gambar Bangunan: Studi Meta-Analisis," *J. Kaji. Pendidik. Tek. Bangunan*, vol. 7, no. 2, 2021.

[8] N. Susana, "Pengelolaan Praktik Kerja Industri," *Manajer Pendidik. J. Ilm. Manaj. Pendidik. Progr. Pascasarj.*, vol. 10, no. 6, 2016.

[9] S. E. W. Djiwandono, *Psikologi Pendidikan*. Jakarta: Grasindo, 2022.

[10] S. Azwar, *Sikap manusia: Teori dan pengukurannya*. Pustaka pelajar, 2007.

[11] M. Ihsan, "Analisis faktor-faktor yang mempengaruhi kesiapan kerja pada siswa SMK negeri 1 sinjai." Pascasarjana, 2017.

[12] D. Nur'Aini and C. Nikmah, "Pengaruh penguasaan teknologi informasi dan prestasi belajar terhadap kesiapan kerja siswa SMK," *J. Pendidik. Manaj. Perkantoran*, vol. 5, no. 2, pp. 250–266, 2020.

[13] H. Elmunsyah, H. Suswanto, M. A. Hakiki, W. N. Hidayat, and K. Asfani, "Development of Mobile Learning Applications with Augmented Reality to Build VHS Students' Critical Thinking," in *2022 Fifth International Conference on Vocational Education and Electrical Engineering (ICVEE)*, Sep. 2022, pp. 190–195. doi: 10.1109/ICVEE57061.2022.9930371.

[14] N. Hanifah, N. Herrhyanto, and F. Agustina, "Penerapan metode weigthed least square untuk mengatasi heteroskedastisitas pada analisis regresi linear," *J. EurekaMatika*, vol. 3, no. 1, pp. 105–114, 2015.

[15] W. N. Hidayat, A. T. Oktaviani, T. A. Sutikno, R. K. Sari, H. Elmunsyah, and T. A. Sandy, "Camlearn as Photography Mobile Learning Application and its Effects on Academic Achievement," in *2019 International Conference on Electrical, Electronics and Information Engineering (ICEEIE)*, Oct. 2019, pp. 168–171. doi: 10.1109/ICEEIE47180.2019.8981467.