

Independent Decision Making and Affective Ability of Productive Subjects Contributions to Psychological Well-Being in Work Readiness of Vocational Students in Malang

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Article Info

Article history:

Received: Jun 24, 2021

Revised: Jul 20, 2021

Accepted: Aug 03, 2021

Keyword:

Independent Decision Making

Student Affective Aspect

Working readiness

Vocational School

Student

ABSTRACT

This study aims to determine the level of decision-making independence, affective ability of productive subjects on psychological well-being in work readiness at SMK Malang City. This research uses correlational research with simple random sampling technique to determine the research sample. The samples in this study were Telkom Vocational High School, 4 Malang Vocational High School, and National Vocational School which consisted of 180 students. The results obtained from this study are: (1) the level of psychological well-being in work readiness, decision-making independence and affective ability in high category productive subjects; (2) between the variables of decision-making independence and affective ability of productive subjects have a positive relationship to psychological well-being in work readiness; and (3) the amount of effective contribution from independent decision-making and affective abilities in productive subjects gets a fairly large contribution.

I. INTRODUCTION

Human development must strive to achieve what it wants. However, to achieve the goal of life, a person must start from himself in order to prepare himself from having physical and physical health. Feelings of happiness and sadness in human life is a natural thing to happen, but if someone can feel happy or sad in a positive direction then someone must be able to think positively about all the problems he faces [1].

Humans grow and develop during the course of their lives, by going through various problems they face. Each stage of human development is usually accompanied by various psychological demands that must be met. Adolescent transition is a time of crisis to recognize one's own identity [2].

If the various psychological demands that arise at the adolescent stage are not successfully met, there will be an impact that can significantly hinder their psychological maturity, especially for students who are in high school or the equivalent. Vocational High School (SMK) is a period where the psychology of students is in a transitional period, where

students cannot really be said to be adults and can no longer be called children, causing a confusing situation for students.

This problem will be added to the behavior that must be taken for his career. Good decision making, then the psychology of the students will be able to run their lives well for future careers. Students have a life at school by having experiences that make them happy and also make them unhappy. All of this is called psychological well-being, students make an effort to realize their goals in order to develop themselves [3].

Vocational High School (SMK) is not only the psychology of the students being reviewed, but also the skills possessed by the students. Students can be supported so that they can develop according to their stage of development or have a mature mentality. Students are expected to have high psychological well-being or psychological well-being, so that they can have a positive personality towards themselves, care for others, have clear life goals, and are aware of their inner potential, so that they tend to be more optimistic in living life [4].

One of the factors that play a role in influencing psychological well-being is the relationship between classmates

or school environment [5]. When students have a good relationship with their friends, indirectly, when students make decisions, they tend to follow their friends. The decision-making process is often done by making choices from several alternative problem solving. Thus, decision making is an ability that must be possessed by students in dealing with every problem [6].

Students' ability to make decisions is also needed in the world of work. The ability of students to make decisions is related to students' skills in the world of work [7]. Students who are able to make the right decisions in the world of work are able to show the characteristics of professional workers. Decision making will be measured by levels, very low, namely the level of a person who cannot make his own decisions and tends to follow others, then there is a rather low level, namely the level of a person who is still hesitant to make decisions and tends to follow others, then there is quite high, namely the level of someone who can make decisions without imitating or following other people, and there is a high level of decisions on their own without motivation from themselves without following the choices of others.

The choice of student attitudes shown in learning varies depending on student responses [8]. The teacher conducts an assessment to see how the students' attitudes are in the learning process. Students' affective abilities are measured through an assessment that aims to determine the character of students during the learning process [9].

The affective ability of students at work reflects the readiness of students to enter the world of work. Thus, every worker is not only required to have knowledge and skills but also has to have a good attitude, and all of that we can get when we study at SMK. Education that can be useful for students' readiness in the world of work, one of which can come from Vocational High Schools (SMK). Many are factors to influence student work readiness. The Industrial Job Training Program (Prakerin) is one of the programs used to improve students' job readiness [10]–[12].

Knowledge and skills that have been mastered to follow work practices in the business world or the industrial world for a certain period of time for students. Students are said to be experienced if they already have a level of mastery of relevant and adequate knowledge and skills according to their field of expertise and also have good decision-making and work attitudes.

Previous research related to psychology and work readiness in Vocational High Schools (SMK) has been widely carried out by researchers using various variables. Character education can be useful for the nation in the future connecting the variables of implementing dual system education and receiving career guidance to its future readiness. Job readiness is influenced by industrial work practice programs (prakerin), career guidance and student achievement.

II. METHODS

The design of this research is survey research with correlational approach. Research with a correlational approach is carried out to determine the level of relationship between two

or more variables, without making changes, additions or manipulations to existing data [13]. This study aims to determine the relationship between independent decision-making (X1), and affective abilities in productive subjects (X2) with Psychological Well-Being in work readiness in Software Engineering students (Y). The variables in this study are grouped into two parts, the independent variables are decision-making independence and affective abilities of productive subjects. While the dependent variable is Psychological Well-Being in students' work readiness.

Population is a generalization area of a set of objects or subjects that have similar qualities and characteristics. If the population is too large, the researcher may not take the entire population, so the researcher takes research samples from that population.

The research sample is a group of research areas that have part of the research population. In this study, the sample used was Software Engineering students from each school who became the research population. The size of the sample in this study is based on manual calculations, it is known that the number of samples used in the study was 326 students.

The sampling technique used in this research is the Simple Random Sampling technique. Sampling by Simple Random Sampling because the population consists of several groups that have the appropriate number of students and the sampling is done randomly. Sampling in each group using manual calculations from the compilers.

Research instruments are tools used by researchers to collect data and facilitate data processing [13]. The research instrument is used to measure the value of the variable to be studied. The instruments used in this study were the independent decision-making instrument and the Psychological Well-Being instrument in Software Engineering (RPL) student work readiness, while the affective ability variable for productive subjects was taken from final grade data (DNA).

The variables of independence in making decisions and psychological well-being in work readiness using a closed questionnaire, in which the questionnaire has provided answers to each point which aims to make it easier for students to answer the questionnaire. As well as student final grade data that will be used to measure the level of student ability for the variable affective ability of productive subjects of vocational students in software engineering skills program. Questionnaire is a data collection technique which is done by giving a set of questions to respondents to be answered [14].

The variables of independence in making decisions and psychological well-being in work readiness use a Likert scale with four categories of answers. The Likert scale is a scale for measuring attitudes towards something that is expressed through a series of questions, the tendency of a thing, object, situation, and so on and asking respondents to provide answers. There are four categories of answers on the Likert scale, namely: (a) has a value of 4; (b) has a value of 3; (c) has a value of 2; and (d) has a value of 1.

Instruments that have been prepared previously must be tested to determine the feasibility of the instrument as a tool to

collect accurate and systematic data. A good instrument must be valid and reliable.

Data collection techniques in research are used to obtain the data that the researcher wants in accordance with the variables studied, to achieve the objectives of the study. Through several types of data collection techniques, it can be used based on considerations according to the problems and variables studied. In this study, the decision-making independence variable and psychological well-being in work readiness were taken by means of a questionnaire or questionnaire, while for the affective ability variable for productive subjects, it was taken through documentation of UAS scores for productive subjects, RPL expertise competencies. The questionnaire used is a closed questionnaire where respondents only need to choose the answers provided. The data obtained from the recording of the questionnaire and secondary scores were then obtained and processed to meet the research objectives. The stages of data analysis in this study were descriptive analysis, prerequisite analysis test, and hypothesis testing.

III. RESULT AND DISCUSSION

Description Data

Description of the research data Psychological Well-Being in Work Readiness (Y). In general, it is shown in Table 1.

TABLE I. DESCRIPTION OF PSYCHOLOGICAL WELL-BEING DATA IN WORK READINESS

	Interval	Category	Freq.	(%)
1	120,25 – 148	Very High	39	22
2	92,5 – 120,25	High	129	72
3	64,75 – 92,5	Low	12	6
4	37 – 64,75	Very Low	0	0

Table 1 shows that psychological well-being in the work readiness of RPL students in Malang City is in the High category with a total of 129 respondents or 72%. Meanwhile, in the very high category, there were 39 respondents or about 22%.

And in the low category there are 12 respondents, or about 6%. While in the very low category there are no respondents. So, from the mean value of 110.69, it shows that the mean value is in the interval 92.5 – 120.25 which means that Psychological Well-Being in the work readiness of RPL students in Malang City is generally in the high category. The description of the distribution of Psychological Well-Being data in the work readiness of RPL students in Malang is poured into a pie chart can be seen in Fig. 1.

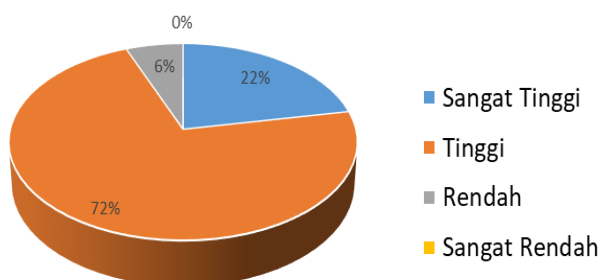


Fig. 1. Psychological Well-Being Data Distribution Diagram in Work Readiness

TABLE II. DESCRIPTION OF INDEPENDENT DECISION MAKING DATA

	Interval	Category	Freq.	(%)
1	113,75 - 140	Very High	38	21 %
2	87,5 – 113,75	High	123	68 %
3	61,25 – 87,5	Low	19	11 %
4	35 – 61,25	Very Low	0	0 %

Table 2 description of the data on independence in making decisions shows that the independence in making decisions owned by RPL skill competency students is in the High category with a total of 123 respondents or 68%. Meanwhile, in the very high category, there were 38 respondents or around 21%. And in the low category there are 19 respondents, or about 11%. While in the very low category there are no respondents. So, the mean value of 102.79 indicates that the mean value is in the interval 87.5 - 113.75 which can be interpreted that independence in making decisions is generally in the high category. An illustration of the distribution of decision-making independence data into a pie chart can be seen in Fig. 2.

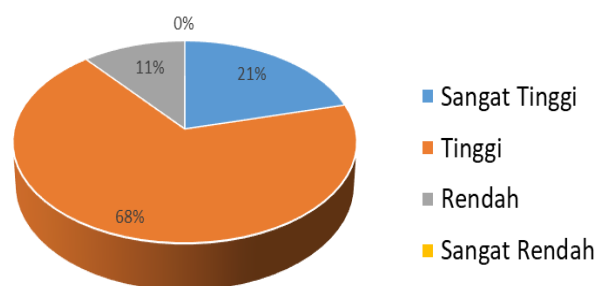


Fig. 2. Data distribution diagram of Independent Decision Making

Description of the results of the Affective Ability of Productive Subjects (X₂). In general, it is shown in Table 3.

TABLE III. CORRELATION COEFFICIENT INTERVAL VALUE AND RELATIONSHIP STRENGTH

	Interval	Category	Freq.	(%)
1	91,25 – 100	Very High	22	12 %
2	82,5 – 91,25	High	76	42 %
3	73,75 – 82,5	Low	67	38 %
4	65 – 73,75	Very Low	15	8 %

The data description of the affective ability of productive subjects shows that the affective ability of productive subjects is in the High category with a total of 76 respondents or 42%. While the very high category shows as many as 22 respondents or about 12%. And in the low category there are 67 respondents, or about 38%. While in the very low category there are 15 respondents, or about 8%. So, the mean value of 83.117

indicates that the mean value is in the interval 82.5 – 91.25 which means that the affective ability of productive subjects is generally in the high category. The description of the distribution of affective ability data on productive subjects is poured into a pie chart can be seen in Fig. 3.

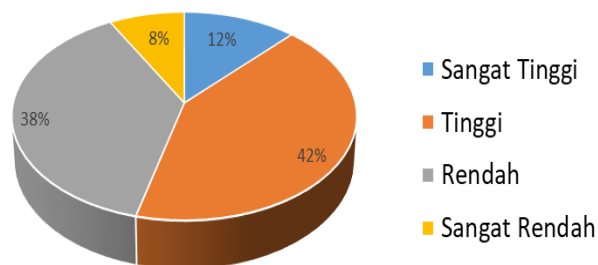


Fig. 3. Data distribution diagram of Productive Subject Affective Ability

Analysis Prerequisite Test

1. Normality test

The normality test used the Kolmogorov-Smirnov test with the condition that if the $P_{sig} \geq 0.05$ value then the data was normally distributed. Summary of normality test results can be seen in Table 4.

TABLE IV. DATA NORMALITY TEST RESULTS

	Variables	P_{sig}	$P_{standar}$	Result
1	Psychological well-being in job readiness (Y)	0,200	0,05	Normal
2	Independence in making decisions (X_1)	0,200	0,05	Normal
3	Affective abilities of productive subjects (X_2)	0,200	0,05	Normal

Table 4 shows that the psychological well-being variable in work readiness has a value of $P_{sig} = 0.200$, which means that the distribution of data on this variable is normal. The decision-making independence variable has a data value of $P_{sig} = 0.200$, which means that the distribution of data on the variable is normal. The affective ability variable for productive subjects has a value of $P_{sig} = 0.200$, which means that the distribution of the data on the variable is normal.

2. Linearity Test

Linearity test serves to determine whether there is a significant linear relationship or not on the research variables. This linearity test examines the psychological well-being variables in work readiness (Y), decision-making independence (X_1) and the affective ability of productive subjects (X_2). The linearity of the relationship is shown in the linearity column, if the linearity value < 0.05 then the two variables are linear. The results of the linearity test can be seen in Table 5.

TABLE V. DATA LINEARITY TEST RESULTS

	Regression	P_{sig}	$P_{standar}$	Result
1	$X_1 . Y$	0,000	0,05	Linear
2	$X_2 . Y$	0,000	0,05	Linear

Based on Table 5, the results of the linearity test show a linear relationship between X_1 and Y, with a sig value of 0.000. The linearity value of X_2 with Y shows a linear relationship indicated by the sig value of 0.000.

3. Multicollinearity Test

The multicollinearity test aims to determine whether there is a correlation between the independent variables. The results of the multicollinearity test of the relationship between the independent decision-making variable and the affective ability of productive subjects are shown in Table 6. If the tolerance number is ≥ 0.10 and $VIF \leq 10$ then the data is free from multicollinearity.

TABLE VI. DATA MULTICOLLINEARITY TEST RESULTS

	Variables	Tolerance Score	VIF Score
1	Independence in making decisions	0,956	1,046
2	Productive maple affective ability	0,956	1,046

Based on the results of the multicollinearity test in Table 6, it shows that the tolerance value of the independent decision-making variable (X_1) is 0.956, namely the value is ≥ 0.10 and the VIF value is 1.046, namely the value is ≤ 10 , meaning that the X_1 variable is free from multicollinearity. The results of the multicollinearity test for the X_2 variable have a value of 0.956, namely the value is ≥ 0.10 and the VIF value is 1.046, namely the value is ≤ 10 , meaning that the X_2 variable is free from multicollinearity.

4. Autocorrelation Test

The autocorrelation test aims to determine the data between the variables X_1 and X_2 with Y there is a relationship or not between the nuisance error in period t and the error in period t1 (previous) using the Durbin-Watson number table. The results of the autocorrelation test are presented in Table 7.

TABLE VII. AUTOCORRELATION TEST RESULTS WITH DURBIN WATSON

Variables	Score
D-W	1,912
dL	1,7337
dU	1,7786
4-dL	2,2663
d-dU	2,2214

Based on Table 7 with the number of samples (n) is 180 and the independent variable (k) = 2 with a significance level of 5%, it is obtained $dL = 1.7337$ and $dU = 1.7786$. The results of the analysis show that the DW value is 1.912, which means that the

value is greater than the upper Durbin value (dU). The results of the autocorrelation test are $1.7786 < 1.912 < 2.2214$, so it can be concluded that there is no autocorrelation.

5. Heteroscedasticity Test

Heteroscedasticity test serves to determine whether the research data have different variances. The decision-making criteria is if there is a certain pattern regularly, as well as the point of distribution of the data above and below zero on the Y axis, which means that there is no heteroscedasticity.

The results of the heteroscedasticity test in this study, the dots spread with an irregular pattern above and below the number 0 on the Y axis, it can be concluded that there is no heteroscedasticity problem. The results of the heteroscedasticity test can be seen in Fig. 4.

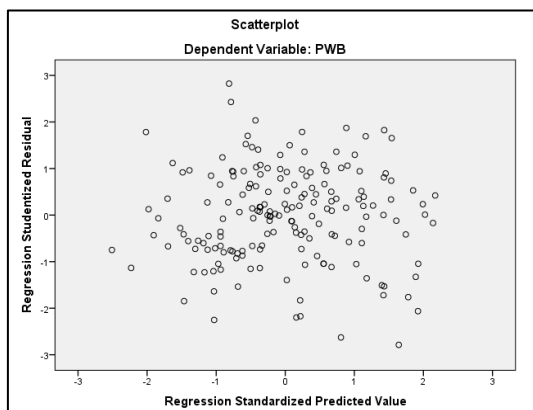


Fig. 4. Scatter Plot Diagram of Heteroscedasticity Test Results

Correlation Test Results Between Variables

1. Relationship between Independent Decision Making (X₁) and Psychological Well-Being in Work Readiness (Y)

The results of the analysis prerequisite test indicate that each variable in the study has met the requirements for further testing, namely hypothesis testing. Hypothesis testing used in the form of partial correlation analysis and multiple regression with the help of SPSS software. The results of the partial correlation analysis between decision-making independence and psychological well-being in work readiness can be seen in Table 8.

TABLE VIII. RESULTS OF PARTIAL CORRELATION ANALYSIS BETWEEN INDEPENDENT DECISION MAKING AND PSYCHOLOGICAL WELL-BEING IN WORK READINESS

Partial Relationship	Correlation coefficient	Probability		Result
		P _{hitung}	P _{standar}	
rly	0,261	0,000	0,05	(+) significant

The first hypothesis (H₀) in this study is that there is no positive and significant relationship between decision-making independence and psychological well-being in the work readiness of RPL students in Malang City. While the first alternative hypothesis (H_a) is that there is a positive and significant relationship between decision-making independence and psychological well-being in the work readiness of RPL students in Malang City.

Based on Table 8, a partial correlation value of 0.261 is obtained which indicates a strong level of relationship between decision-making independence and psychological well-being in work readiness. The significance obtained is 0.000, which means the value is < 0.05 , so H₀ is rejected, so there is a positive and significant relationship between decision-making independence and psychological well-being in the work readiness of RPL students in Malang City.

2. Relationship between Affective Ability in Productive Subjects (X₂) and Psychological Well-Being in Work Readiness (Y)

The results of the prerequisite test analysis of the second hypothesis with a partial correlation analysis between the affective abilities of productive subjects (X₂) and psychological well-being in work readiness (Y). The results of the analysis can be seen in Table 9.

TABLE IX. RESULTS OF PARTIAL CORRELATION ANALYSIS BETWEEN PRODUCTIVE SUBJECTS AFFECTIVE ABILITY AND PSYCHOLOGICAL WELL-BEING IN WORK READINESS

Partial Relationship	Correlation coefficient	Probability		Result
		P _{hitung}	P _{standar}	
r2y	0,470	0,000	0,05	(+) significant

The first hypothesis (H₀) in this study is that there is no positive and significant relationship between the affective abilities of productive subjects on psychological well-being in the work readiness of RPL students in Malang City. While the first alternative hypothesis (H_a) is that there is a positive and significant relationship between the affective abilities of productive subjects on psychological well-being in the work readiness of RPL students in Malang City.

Based on Table 9, a partial correlation value of 0.470 is obtained which shows the level of a strong relationship between the affective abilities of productive subjects and psychological well-being in work readiness. The significance obtained is 0.000, which means the value is < 0.05 , so H₀ is rejected, so there is a positive and significant relationship between the affective abilities of productive subjects on psychological well-being in the work readiness of RPL students in Malang City.

3. The Relationship between Independent Decision Making and Psychological Well-Being in Work Readiness

TABLE X. REGRESSION ANALYSIS RESULTS

Independent Variables	Regression Coefficient	Sig.t
Independence in making decisions	0,230	0,000
Productive subject affective abilities	0,942	0,000
Constant	8,743	
Mutiple R	0,551	
R ²	0,304	
F _{count}	38,615	
Sig.F	0,000	

The first hypothesis (H₀) in this study is that there is no positive and significant relationship between decision-making independence and affective ability in productive subjects simultaneously with psychological well-being in the work readiness of RPL students in Malang City. Meanwhile, the first alternative hypothesis (H_a) is that there is a positive and significant relationship between decision-making independence and affective abilities in productive subjects simultaneously with psychological well-being in the work readiness of RPL students in Malang City. Table 10 shows that the R value is 0.551 and the F_{count} is 38.615 with an F significance value of 0.000. The results of the significance value of 0.000 < 0.05 so H₀ is rejected, meaning that there is a positive and significant relationship between decision-making independence and affective ability of productive subjects simultaneously with psychological well-being in the work readiness of RPL students in Malang City.

Based on the results of the regression analysis in Table 4.13, the multiple linear regression equation obtained is $Y = 8.743 + 0.230 X_1 + 0.942 X_2$. This means that the ability of psychological well-being in work readiness is 8.743 if each independent variable is considered to be worth 0. The regression coefficient value for each independent variable is 0.230 for the X₁ variable, and 0.942 for the X₂ variable, which means if the regression coefficient value is the independent variable has increased by one unit, then the psychological well-being in work readiness will increase simultaneously. The coefficient value is positive so that the higher the independence of decision-making and the affective ability of students' productive subjects, the higher the psychological well-being ability of RPL students in Malang City.

Relative Contribution and Effective Contribution

The contribution of the predictor serves to find out how much the contribution of each independent variable to the dependent variable is. Predictor contributions are grouped into 2 types, namely effective contribution (EC) and relative contribution (RC). RC is used to measure the contribution of the independent variables to the dependent variable, which later

the sum of EC of all independent variables is the same as the sum of the values of R². RC is used to show the contribution of an independent variable to the number of squared regressions, the total RC of all independent variables is 100% or equal to 1. The results of SE and SR can be seen in Table 11.

TABLE XI. CALCULATION OF RELATIVE CONTRIBUTION AND EFFECTIVE CONTRIBUTION

Predictors	RC (%)	EC (%)
Independence in making decisions (X ₁)	40,76 %	12,40 %
Productive subject affective abilities (X ₂)	59,24 %	18,00 %

Based on the results in Table 11, the relative contribution of X₁ and Y is 40.76%, while the relative contribution of X₂ and Y is 59.24%. The value of the effective contribution of the X₁ variable is 12.40% while the value of the effective contribution of the X₂ variable is 30.40%.

IV. CONCLUSION

Based on the results of the research analysis in Result and Discussion Section, it is known that psychological well-being in work readiness possessed by RPL skill competency students in Malang City has a high category. The indicator that affects the high number of psychological well-being in work readiness is the psychological level of students who are owned to face the world of work.

Students' decision-making abilities that are carried out independently are included in the independence of adolescent behavior. In general, RPL students in the city of Malang are able to make decisions independently which is indicated by the ability of students to choose alternative solutions in their work readiness. The choice of alternative solutions is shown by students through the ability to make alternative choices and analyze the best alternatives. Analyzing alternatives is a way that students do, in order to determine decisions in accordance with the goals to be achieved. Alternatives are arranged based on the possibilities that are able to achieve the goal.

Assessment of the learning process is related to affective, cognitive, and psychomotor assessments. Affective assessment is done by observing students' attitudes in behaving during the learning process. Students' attitudes that are assessed in learning are related to students' attitudes towards subject matter, attitudes towards teachers, attitudes towards the learning process, attitudes related to subject matter norms, and other attitudes contained in educational goals. Attitudes in the learning process are related to interest in learning, learning motivation, independent attitudes, creative attitudes, and so on.

Based on the results of the research that has been described in chapter IV, it is known that there is a positive and significant relationship between independent decision-making and psychological well-being in work readiness for RPL students at SMK Malang City. The results obtained indicate that the significance value of the relationship has a value smaller than the standard significance, which means that the independent

decision-making variable has a positive and significant relationship to psychological well-being in work readiness.

The results of the study of the relationship between the affective abilities of productive subjects and psychological well-being in job readiness showed a positive and significant relationship. The ability of students to control feelings and respond to environmental conditions is one of the characteristics of psychological well-being in good work readiness. Attitudes formed from these abilities are: self-confidence, discipline, tolerance, honesty, and cooperation. These attitudes are also needed in competition in the world of work. Therefore, students must have a good attitude in an effort to form psychological well-being in work readiness.

Simultaneously, independent decision-making and affective abilities in productive subjects have a positive and significant relationship with psychological well-being in students' work readiness. Psychological well-being in work readiness is someone who does or prepares a job that is supported by mental readiness and belief to realize certain behaviors.

Based on the results of the contribution analysis, it is known that the independent decision-making variables and the affective ability of productive subjects contribute 30.40% to psychological well-being in work readiness, while 69.60% is influenced by other variables. The contribution figures of the two variables affect because psychological well-being in work readiness to grow is influenced by the ability to respond to the environment and behavior in responding. Work behavior requires a positive mental attitude, because mental attitude is a form of behavior that appears as a reaction to environmental situations that affect it. Therefore, the highest contribution from affective variables is 18% in preparing psychological well-being in work readiness. psychological well-being in work readiness shown by students including unyielding, honest, cooperative, and so on.

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