Work Willingness of VHS Students at Post-Industrial Placement

Oriza Candra ¹, Aprizon Putra ², Syaiful Islami ¹, Doni Tri Putra Yanto ¹, Refi Revina ³, Rafika Yolanda ¹

¹Department of Electrical Engineering, Universitas Negeri Padang, Indonesia ²Postgraduate School, Universitas Negeri Padang, Indonesia ³Bogor Agricultural University, Indonesia

Abstract – This research aims to determine work willingness after industrial placement of XII-grade students in the study program of electrical power installation engineering (TITL) at VHS 5 Padang. The method uses a quantitative descriptive approach using the similarity of the terms cognitive, affective, and psychomotor. The results of this research indicate the work will of 31 students is likely to be more interested in entering higher education or entrepreneurship. The Data shows that students' work willingness is in the excellent category with a percentage of 55%. It means that 45% of students graduating from 2021-2022 are not ready to work.

Keywords – Experience, work willingness, industrial placement, vocational high school.

1. Introduction

With the increasing quality of the competition in the current era of globalization, the work market has become very competitive, both in the fields of science and information technology and this is of course causing fierce competition.

DOI: 10.18421/TEM121-33

https://doi.org/10.18421/TEM121-33

Corresponding author: Oriza Candra,

Dept of Electrical Engineering, Universitas Negeri Padang,

Indonesia.

Email: orizacandra@ft.unp.ac.id

Received: 23 September 2022. Revised: 07 December 2022. Accepted: 15 December 2022. Published: 27 February 2023.

© 2023 Oriza Candra et al; published by UIKTEN. This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivs 4.0 License.

The article is published with Open Access at https://www.temjournal.com/

Competition in the world of work can be faced by improving the quality of Human Resources (HR) can be through the quality levels of education.

Education is the core of the birth of superior and qualified human resources in entering the world of work [1]. [2] added that through education, humans find new achievements to face existing challenges following the times. VHS is one of the educational institutions that seek to build quality human resources [3]. As explained by [4][5] in the Regulation of the Minister of National Education No. 22/2006 chapter II Part 3 concerning "Structure of the Vocational Education Curriculum", where vocational education has the aim of increasing the knowledge, intelligence, noble character, personality, and skills students to live independently and follow further education following vocational programs.

In the Vocational Education Curriculum, VHS students are required to master normative and adaptive general subjects. Students must also understand and master productive subjects, namely vocational subjects. The purpose of VHS, as clarified in the Regulation of the Service of Instruction and Culture (PERMENDIKNAS), is to make strides in intelligence, knowledge, identity, respectable character, and aptitudes to live autonomously and work-ready in their fields. It is aimed to support the formation of vocational competencies and develop the ability to adapt to the field of expertise taken at the vocational level of education for three years, namely X, XI, and XII-grades. Another objective is to ace the competencies of expertise and business programs the requests of the work market and to go to higher instruction taking after their professional [6].

The purpose of VHS above is that VHS prepares students to become independent workers who are competent in their fields. VHS equips its graduates according to the skills chosen in the work market, able globally. Realizing this goal, the school organizes various programs to support the learning process that directs students' interest in matters

related to the Industrial World (DU/DI) [7]. However, inconsistent with the current reality, the unemployment rate of VHS graduates in Indonesia is for the most part still high. Even even though the unemployment rate of VHS graduates in Indonesia is still generally tall. Concurring to [8] information from the Central Measurements Organization, in Admirable 2020, the number of specialists was 138.22 million, an increment of 2.36 million compared to Eminent 2019. The open unemployment rate in Eminent 2020 was 7.07%, at that point expanded by 1.84% focuses compared to Eminent 2019. [9] the Central Statistics Agency explained stated that VHS graduates dominated Indonesia's unemployment rate, reaching 6.88 million people in February 2020. VHS graduates contributed to the open unemployment rate, where for education, it reaches 8.49%. Therefore, one of the reasons for the high unemployment rate at the vocational level is that schools have not been able to create graduates ready to enter the world of work and industry.

One of the reasons for work status is a condition that demonstrates the agreement between physical development, mental development, and learning experience so that the individual can perform certain activities or behaviors concerning work [10]. One factor that affects students' work willingness is Industrial Placement (PRAKERIN) to improve their experience and work willingness [11].

Table 1. Page layout description

The implementation of vocational instruction and methodically training that combines synchronously with educational programs in schools and mastery programs for aptitudes obtained through working directly in the world of work is at accomplishing a certain level of skill polished skill [12]. Meanwhile, [13] explained that PRAKERIN is part of dual system education, a vocational education innovation where internal industry students are relevant to their fields within a certain period. The lack of student work willingness has an impact on the ability that students have at work. So this will result in a gap between students' abilities and the expected abilities in the industrial world.

Based on the comes about of perceptions made by the head of the study program of electrical power installation engineering at VHS 5 Padang, it is known that XII-grade students with TITL skills who have carried out internships experience difficulties in the industrial world with willing students in carrying out industrial placements that are on average (Table 1). Immature average students are more inclined to the field of psychomotor with different personality characteristics. However, in reality, students must also prepare knowledge (cognitive), attitude (affective) and skills (psychomotor). In this case, many students are still not ready to face the world of work.

Years	Graduates	Employed	Entrepreneur	Continuing	Not yet employed
2019-2020	60	26%	20%	39%	15%

Source: The results of observations in VHS 5 Padang 2021.

Viewing the tracking results of the student traces of the study program of electrical power installation engineering at VHS 5 Padang in the last 2019-2021, not even half of the graduates are working. The rest are entrepreneurs and continue their studies in college. Based on these data, there is a gap where students state that they are ready to work, but in reality, many graduates have not worked. Even in the last year, less than half are working. In contrast, VHS graduates aim to be ready to work. It can be due to the need for competence had by understudies with the needs of the world of work. So, it is essential to review the capacities had by understudies after PRAKERIN so that VHS graduates are expected to be able to work under their expertise competencies and reduce unemployment.

Student work preparation is influenced by several factors, including students' ability level [14]. Therefore, from the introduction of the above problems, the researcher to be able to find out how the willingness of students of VHS 5 Padang to enter the world of work within the field of mastery of

electrical power installation engineering after carrying out PRAKERIN by considering the willingness ability of knowledge, attitude, and skills.

2. Literature Reviews

A literature review is prepared to strengthen/enrich studies related to the lack of research related to the work will of students after industrial placement for the level of VHS. The literature used as a theoretical review in this research is related to industrial placement and work willingness.

2.1. Industrial Placement

Definitions related to industrial placement are divided into 1) Definition of industrial placements; 2) Objectives of industrial placements; 3) PRAKERIN benefits; and 4) PRAKERIN assessment. The subreviews of this theory aim to enrich the scientific knowledge of the research that we are doing. The descriptions are as follows.

Definition of Industrial Placements

To plan reliable and highly talented workforce competitors, schools try to work with work-based preparation programs in VHS, one of which is the use of the dual system education model, which is now better known as the PRAKERIN [15]. Duplicate training or dual system is a type of teaching and preparation of professional skills that intentionally and simultaneously combined with teaching projects in schools and programs of mastery of skills obtained through working straightforwardly in the world of work, aimed at achieving a certain level of expertise [16]. From this understanding, it can be seen that two parties are involved, especially educational institutions and the world of work, which are integrally involved in providing education and professional preparation, starting from the stages of preparation, implementation, and assessment program.

The usage of mechanical arrangements is part of a double framework learning which is a development in professional training where students undertake entry-level positions in companies related to their skills program for a certain period. The dual system education model is a very successful framework in teaching and setting a person to expand and dominate complex abilities that are unimaginable or never completed in school [17]. Implementing the apprenticeship program in VHS can now start at level XI grade with approximately three to six months of success in the world of work. Duplicate training in VHS is a preventive and significant step in understanding the significance of proficient schools to the world of work to produce qualified and workready graduates.

Using the dual system education model for modern practice situations like this is indistinguishable from work-based learning procedures, as revealed by [18] that work-based learning is a combination of hypothetical learning with training and learning information with experience. Students can develop their abilities and capacities through various exercises and learning meetings that do not require several credits like alumni from educational institutions. Students can advance directly from rewarding meetings organized by the skills program they are interested in. With this approach, it is natural that there is an option to change the world view of professional training, which was initially supplydriven, to a request-driven one with the association of the world of work in professional schools.

Objectives of Industrial Placements

The objectives of implementing modern works are as follows: 1) Produce a quality workforce, especially experts who have the level of information,

ability, and hard work attitude according to the demands of the labor market; 2) Gain connections and compatibility between VHS and the world of work; 3) working on the continuity and proficiency of the value education process and work preparation; 4) providing recognition and appreciation of work insights as a feature of the instructive cycle; and 5) adding knowledge to students' abilities [19].

The targets of dual education or internships item point are following the Modern Work Implementation Rules: 1) Produce workers who have qualified abilities; 2) Strengthen connections and compatibility between school and the world of work; 3) Work on school proficiency and prepare the process for qualified experts; and 4) Provide recognition and appreciation of work insight as a component of instructive interactions. Based on this assessment, it tends to be reasonable that modern work training means to increase the ability and availability of student work and produce graduates who have the information, abilities, and hard work attitudes according to the work rules [20]. So through the entry-level position program, students' insight and knowledge about the world of work will increase so that students' work preparation will be better.

PRAKERIN Benefits

The benefits of PRAKERIN are to produce HRD who have professional skills, with skills, knowledge, and work ethic that are by the demands of the times. Shaping the mindset of students so that they are constructive and provide experience in the world of the world of industry work Correspondingly, the program dual system education model and temporary positions will provide the following advantages 1) Provide advanced skills to enter the workforce and prepare for the natural turn of events; 2) A more limited period to achieve proficient abilities, considering that after completing a temporary position, there is a solid reason for the need to undergo additional preparation to reach ready-to-use abilities; and 3) The mastery gained from the temporary tenure program can raise their respect and trust, empowering them to overhaul their abilities to a more significant level [22]. PRAKERIN provides advantages for VHS students to practice their abilities in actual working conditions.

PRAKERIN Assessments

As shown by [21], it makes sense that evaluation is a work to describe the estimation results by comparing them and specifically agreed on benchmarks. The Education and Training Office states that the various types of evaluation of the implementation of PRAKERIN are as follows: 1) Evaluation learning outcomes, especially evaluations

carried out to determine the level of achievement of student learning outcomes dominance based on the program concerned, are carried out at the end of a particular time unit; and 2) Evaluation of mastery of skills, especially assessments conducted to determine a person's level of authority over the abilities that should be declared as a specialist and approved to complete particular works, considering the arrangements and guide materials in modern areas.

Having an explanation from the peak of the electrical power development design expertise program at VHS 5 Padang, an assessment of the consequences of the entry-level position or ability must include arrangements, cycles, and items. Evaluation should be possible during the cycle by testing students. One of the evaluation standards in skills-based education programs is using a reference model, which uses specific steps in deciding whether students are equipped. The achievement of student abilities is expressed by the most significant number of 100 (one hundred), the most extreme number of 100 being the best value.

The reason for evaluation is to achieve fulfillment in deciding whether students are capable or not. Regarding the implementation of temporary work carried out in class XI with a 2-year flight period, namely in the October-January period and the February-April period. Students who are sent are students who have passed several subject rules.

2.2. Work Willingness

Definitions related to work willingness are divided into 1) definition of work willingness; 2) work willingness characteristics; 3) factors affecting work willingness; and 4) aspects of work willingness. The sub-reviews of this theory aim to enrich the scientific knowledge of the research that we are doing.

Definition of Work Willingness

Work preparation may be a matter that appears the harmony between physical development, mental development, and learning involvement, having the capacity to perform certain exercises or behaviors in work [22]. A person's work willingness is not just what work he holds. However, a work or position that is genuinely appropriate and follows the potential of the person holding it, so everyone who holds the work he holds will feel happy to take the position. Then they will try their best to improve their performance and develop their potential, environment, and the facilities and infrastructure needed to support their work. In line with that, [23] adds work status could be an adequate capacity both

physically and rationally. Physical preparation is characterized as satisfactory vitality and well-being, whereas mental preparation has adequately intrigued and inspired to do a work or activity.

Based on the several definitions of work willingness above, it can be ascertained that work willingness is a condition in which a person is declared ready with one's abilities, as well as the willingness and ability of students to go directly into the business world/industrial world after PRAKERIN while at school. The work willingness research that will be studied is the work will of electrical power installation engineering skills competence students at VHS 5 Padang.

Work Willingness Characteristics

Characteristics of a person who already has a level of work willingness are influenced by three things [24], among others: 1) Level of development: The degree of development indicates the course of significant improvement or development because it is feasible to use; 2) Experience: Relevant knowledge is the experience gained in proportion to the climate, accessible open doors, and unforeseen external impacts; and 3) A friendly and deep mental state: A pleasant mental state close to home includes an actual state, consistent reflection, balance, maturity, ability to help others, admit, push forward, and develop one's abilities.

Correspondingly, the qualities that affect Work Preparation [25] are as follows: 1) There is a level of development: a) Actual development, combines muscle and nervous coordination; and b) Mental development, which includes standards of interest, behavior, obligations, and close health with the house; 2) Opportunity to develop: a) Information about professional schools/offices, work regulations, (open and business-related issues positions. prerequisites, hard work attitude, formative limits, financial/government managed pensions, and work objects); and b) Skills considering the ability to use instruments, maintain equipment and repair minor damage.

Based on the description above, it can be argued that students who move from VHS as a planned workforce will be said to have work preparation. With the assumption that these students have a level of physical and mental development, have the opportunity to develop, have rational and objective thinking, and have the capacity and willingness for work. Being equal with others, the primary character, fortitude to acknowledge individual obligations, ability to adapt to the climate, and desire to progress and strive to remain aware of improving abilities.

Factors Affecting Work Willingness

The factors influencing work willingness [26] namely 1) Internal: Variables that come from inside understudies incorporate mental and mental improvement, weight, creative ability, intrigued, insight, autonomy, authority, knowledge, and inspiration; and 2) External: Variables that come from outside students include work environment, family, office, and school, and data about the universe of endless work insights, meanwhile suggesting that modern work training affects student work preparation.

Modern practical training includes physical and mental training of students. Students intellectually participate in feeling "mentally connected" in the world of work, it is a crucial meeting for students [27]. The factors combining physical and mental development include pressure, creativity, interest, ability, insight, freedom, information dominance, values, individual attributes, and inspiration. While the external variables include regional work, family, school offices, and foundations, data about the universe of work insights are endless.

Aspects of Work Willingness

Work willingness consists of four (4) main aspects [28] as follows: 1) The skill perspective is the ability to carry out several businesses created from the results of exploration and experience. Ability is pragmatic ability, relational and intrapersonal ability, innovative and creative, firm reasoning and ready to solve problems, can work together, adapt and instill abilities; 2) Logical point of view is a perspective that makes training hypothetical so that it can turn into specialists according to their fields; and 3) Part of behavior, which encourages a person to release his actual capacities such as hard work attitudes, obligations, productive use of time, and so on.

Meanwhile, work preparation includes several perspectives [29] namely: 1) Capacity to peruse for data; 2) Practical science; 3) Developing business, search for data; 4) Cooperation; 5) State observable facts; and 6) Tune in and implement innovations.

Judging from the description above, the angles related to work availability consist of ability, information, and character. This perspective will uphold the formation of student work status.

3. Methods

This research used a quantitative descriptive technique. This research is directed at deciding the value of the autonomous factor without making a correlation or combining one variable with another variable [30]. The factual technique dissected the exploratory information obtained from the sample or research population [31]. This review is expected to obtain information on work status after modern work training for class XII TITL program students at VHS 5 Padang to enter the world of work.

The research is aimed at students at VHS 5 Padang, located at Street. Banyan 4, Lolong - Padang City, West Sumatra (in a class XII TITL program students). The implementation of this exam begins in February 2022. The subjects in this exploration are all class XII program students at VHS 5 Padang, totaling 31 students. The selected respondents are class XII TITL program students who have implemented the internship program and will enter the workforce after graduation.

The instruments used are questionnaires and questions, where the questionnaire was used to obtain information on the work preparation of class XII TITL program students. The research instrument used in collecting quantitative data is a questionnaire. The purpose of distributing the questionnaire is to obtain complete information from respondents about a problem [32]. The questionnaire used in this research is a work willingness questionnaire. The research subjects gave respondent questionnaires to class XII TITL program students. Testing the instrument's validity uses expert judgment before the device is used to collect data, and then conclusions are made [33].

The questionnaire assessment score used in this research used a Likert scale of 1 to 5 to measure a person's opinions, attitudes, and perceptions about a social event [34]. The score of the answer categories for this research on each statement item in the research questionnaire, namely 1) very ready (SS); 2) ready (S); 3) moderately ready (CS); 4) less ready (KS); and 5) very unprepared (STS), to know the attitudes, ideas, and sensitivity of human/communities to social phenomena that occur. An instrument is valid if it can calculate what it wants and get results according to the criteria. An instrument can be categorized as having high validity if the instrument has precise and accurate measurement results following the instrument's intended use.

3.1. Validity Test

An instrument can be categorized as having high validity if the instrument has precise and accurate measurement results following the instrument's intended use. An instrument is valid if it can measure what it wants and get results according to the criteria. To calculate the validity of the instrument using the formula as described by [35] as follows:

$$\frac{N\sum xy - (\sum x)(\sum y)}{\sqrt{(N\sum xy)^2} - (\sum x)^2 - (N\sum y)^2 - (\sum y)^2}$$

Description:

 r_{xy} = Coefficient between variable X and variable Y $\sum xy$ = Number of multiplications between variables X and Y

 $\sum x^2$ = The sum of the squares of the X

 $\sum y^2$ = The sum of the squares of the Y values

 $(\sum x)^2$ = The sum of the X values then squared

 $(\overline{\Sigma}y)$ =The sum of the Y values then squared

 r_{xy} =A significant test is to determine the validity of each item statement by comparing the r_{xy} (r_{-count}) price with the table from pearson after r_{xy} is calculated and consulted with the r_{-table} at a significant level of 5 % [36]. Because the correlation of statement items with a total score is less than 0.355, the statement items in the instrument are declared invalid. It is said to be invalid. The summary of the validity results of the test can be seen in Table 2 below.

Table 2. Summary of instrument validity test results

Variable	Original	Item	Item
Name	Item	Drop	Valid
Willingness	60	12	48

3.2. Reliability Test

Reliability is an instrument determination when used on the same subject. An instrument can be categorized as having a high level of determination if the instrument provides consistent results. To test the reliability of the instrument using the Cronbach Alpha formula with the equation as described by [35] as follows:

$$r_{11} = \left(\frac{k}{k-1}\right) \left(1 - \frac{\sum \sigma_b^2}{\sigma_b^2}\right)$$

Description:

 r_{11} = overall instrument reliability

 $\sum_{b} \sigma_{b}^{2} = \text{number of item variances}$ $\sigma_{b}^{2} = \text{total variance}$

b = total variance

= number of questions

Decision-making for reliability is as follows:

- If variable value reliability (Cronbach's Alpha)
 >0.6, the variable is said to be reliable.
- If variable value reliability (Cronbach's Alpha) <0.6, the variable is said to be unreliable.

The reliability using a standard value of 0.6 is carried out because the value is easier to fulfill the validity of the indicator items of a variable by using the Pearson Product Moment so that it will be easier

to fulfill the validity of the item variable. Because it does not have to process the data to be perfect, it tends to be illogical, so its validity can be fulfilled. To determine the reliability of the test data using SPSS can be seen in the following Table 3 below.

Table 3. Reliability statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,883	,882	60

Table 3 above can be declared reliable because the variable the reliability (Cronbach's Alpha) > 0.6, namely variable 0.883, so the data is declared reliable. Classification determines the level of reliability can be determined by using the Alpha formula, seen in Table 4 below.

Table 4. Classification of reliability statistics

Reliability Index	Classification
0.81 - 1.00	Very high
0.61 - 0.80	High
0.41 - 0, 60	Enough
0.21 - 0.40	Low
0.00 - 0.20	Very low

Source: [35].

The information preparing organize incorporates information structure designing, coding, altering, and information passage activities. The information is put away utilizing Microsoft Exceed expectations. After the data is pronounced substantial, at that point the information is prepared to be processed. Information examination utilizing SPSS. The estimation comes about are presented in the chart figure results (Fig 1 and Fig 2). In detail the information handling and analysis utilized are as takes after:

- Tabulating: Data analysis of constraints on implementing online learning is measured using concentration data (calculated frequency, mean, mode, percentage, average value, standard deviation, minimum value, and value maximum).
- Distribution: The information examination technique used in this investigation may be a quantitative descriptive analysis procedure. Each respondent was asked to fill out the questionnaire. Each aspect in one variable is categorized to determine the data distribution from filling out the questionnaire.

To determine the ideal average score, the normal curve benchmark [36] is used as follows:

Mi = (max ideal score + min ideal score)

Sdi = 1/6 (max ideal score + min ideal score)

Where:

Mi = Ideal average score

Sdi = Standard deviation

4. Results

Data on student work-willingness was obtained through questionnaires from 48 statements and 31 respondents to determine the work willingness of XII-grade students in the study program of TITL to enter the world of work with five (5) alternative student answers, namely 5 for the highest score, and 1 for the lowest score. The results of the data described in this research are a general description of the work will of VHS 5 Padang students in carrying out PRAKERIN.

4.1. Work Willingness Indicator Results

Work status is conditions include at least three aspects: 1) knowledge, needs, motives, and goals, 2) physical, mental and emotional conditions, and 3) skills and expertise [37], [38]. Adjustment of these conditions will someday affect the tendency to respond. Based on the research test [39], the insight of modern fieldwork (X) with student work preparation according to Indonesian public work skills (Y) has a coefficient of 0.530 in a very high. The level of availability of students in the information field is 3.19, attitude status is 3.88, and skill status is 3.81. Students are more dynamic and imaginative in their skill status after completing for the internship.

Fig 1 explains that from the number of respondents in class XII TITL 1, it can be said that the level of work will of students after carrying out industry placements is in the characterization of 168 X < 216, which indicates a ready classification with a level of 45%. On work willingness, students majoring in TITL are categorized as ready with a classification score of 168 X < 216 with a percentage of 45%. It means that 55% of students who graduate from 2021-2022 TITL at VHS 5 Padang are not so ready to work. They may be more interested in entering college or entrepreneurship. However, there is still a need for evaluation from the school and industry so that students' work willingness will be further improved.

Based on Fig 1 it can be explained that the knowledge (cognitive) willingness indicator obtained through a questionnaire from 18 statements out of 31 respondents to find out indicators of knowledge willingness can be grouped as follows: 1) very high category shows a percentage of 9.6%; 2) the high category shows a percentage of 25.8%; 3) the moderate category shows a percentage of 51.6%; 4) the low category shows a percentage of 12.9%; and 5) very low category shows the percentage of 0%. Based on statistical calculations about the indicators of the willingness of knowledge owned by TITL XII-grade students to enter the world of work, it is in the

classification 45 X < 63 is quite sufficient, this can be proven by the respondent's level of achievement of 51.60%. The following is a graph of work willingness variables based on each indicator, such as knowledge willingness, attitudes, and skills, Fig 1 as follows.

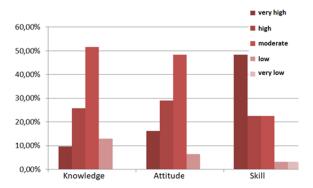


Figure 1. Graph of work willingness indicator

This is in line with the research [40] states that the cognitive domain can be trained by giving tasks: 1) deepening the theory to be carried out related to practical assignments; 2) connecting various theories that have been obtained during the practicum; 3) applying the theories that have been obtained in solving real problems. It means that subjects included in the cognitive domain can support the ability to practice later in the work world. Meanwhile, according to [41], she states that "people who can regulate and direct their mental activities in the cognitive field will be much more effective and efficient in using all the concepts and rules that have been studied compared to people who do not have such abilities". Therefore, better efforts are needed to increase students' knowledge from teachers, industry, and students. Likewise, students must participate in various learning efforts to obtain good learning outcomes.

Based on Fig 1 above, it can be explained that the attitude (affective) willingness indicator was obtained through a questionnaire from 14 statements, and 31 respondents to determine the attitude willingness of the XII class TITL students to enter the world of work after the PRAKERIN implementation can be grouped as follows: 1) very high category shows the percentage is 16.1%; 2) the high category shows a percentage of 29.0%; 3) the moderate category shows a percentage of 48.3%; 4) the low category shows a percentage of 6.4%; and 5) the very low category shows a percentage of 0%.

Based on statistical calculations about the knowledge willingness indicator, it is classified as 35 X < 49, which shows the sufficient category with a percentage of 48.3%. It is in line with [42] which states that "Attitude is a tendency to react to people, institutions or events, both positively and negatively, which is a relatively stable and continuous tendency to behave in a certain way". Thus it can be said that

students' willingness after participating in internships must be based on the willingness of a good (affective) attitude so that students have a positive tendency in activities that will be carried out in the world of work. Meanwhile, according to [43], skills are high-level abilities that allow a person to perform a complex motor act smoothly with accuracy. Therefore, the skills are prioritized in the form of practicum to support the work willingness of TITL students at VHS 5 Padang after PRAKERIN, it must be supported by psychomotor willingness.

4.2. Work Willingness Variable Results

Based on the inquiry about comes about over, it can be concluded that the work preparation of class TITL students at VHS 5 Padang has characteristics under the theory above. It can be seen from 1) students during internships; 2) awareness to increase student willingness for teachers, students, and industry; and 3) skill improvement in each knowledge, attitude, and skill. The questionnaire's research results for statement categories adapted theory [40]. They are based on the Likert scale that is converted into very ready (SS), ready (S), moderately ready (CS), less ready (KS), and very unprepared (STS) to categorize the results of research on indicators that have been processed with SPSS. In the results of the research, several facts and information related to the work will of class XII TITL students at VHS 5 Padang were found. The data was obtained from a questionnaire distributed to one class. The following is a discussion of the results obtained from the questionnaire in Fig 1 below.

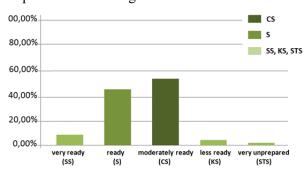


Figure 2. The graph of work willingness variable

5. Conclusion

Based on the comes about of inquiries about that have been carried out, it can be concluded that the investigation comes about on "Work willingness after carrying out internships for TITL students at VHS 5 Padang" can be concluded and categorized as quite ready. There are several elements of student work willingness, namely 1) knowledge willingness; 2) attitude willingness; and 3) skills willingness. Student work willingness significantly affects

students majoring in TITL, so the work will of TITL students are categorized as ready with a classification score of 168 X < 216 with a percentage of 45%. It means that 55% of students who graduate from 2021-2022 TITL at VHS 5 Padang are ready to work and possibly more interested in entering college or entrepreneurship. So, in line with work willingness is the overall individual condition, including physical, mental, and experience of life, as well as the willingness and ability to carry out a work or activity. In this case, the need for learning and debriefing at school aims to make it easier to adapt and interact so that they can explore knowledge during street vendors or internships according to their fields.

Acknowledgments

This research is supported by the Faculty of Engineering (Department of Electrical Engineering) - Universitas Negeri Padang which is annual mandatory research conducted.

References

- [1]. Priyambodo, P., & Hasanah, E. (2021). Strategic Planning in Increasing Quality of Education. *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam*, 6(1), 109-126.
- [2]. Rahmatullah, A. S., Mulyasa, E., Syahrani, S., Pongpalilu, F., & Putri, R. E. (2022). Digital era 4.0: The contribution to education and student psychology. *Linguistics and Culture Review*, 6, 89-107.
- [3]. Fahrurrozi, M. (2022). Evaluation of Educational Service Quality of Vocational High School (VHS) Based on Importance Performance Analysis (IPA) Quadrant. Eurasian Journal of Educational Research, 97(97), 27-42.
- [4]. Agustina, M. (2021). Transitivity Analysis of Efl Students'narrative Text in Vocational High School. *Jurnal Pendidikan Bahasa Inggris undiksha*, 9(3), 298-307.
- [5]. Maknun, J., & Rahmawati, Y. (2022, March). Improving Teacher Competence through Industrial Experience Practice on the Teacher Professional Education (PPG) Program to Support Industry-Based Learning in Vocational High Schools. In 4th International Conference on Innovation in Engineering and Vocational Education (ICIEVE 2021) (pp. 198-201). Atlantis Press.
- [6]. Fadilah, I., & Budayawan, K. (2022). Desain dan Karakteristik Antena Microstrip Sebagai Sensor Non–Destructive. *Voteteknika* (*Vocational Teknik Elektronika dan Informatika*), 10(2), 1-7.
- [7]. Tahir, M. A., Malik, M. N., & Djuanda, D. (2022). The Correlation Between School Partnership and the Business World/Industrial World in the Implementation of Practices (A Case Studies Program Installation Engineering Utilization of Electrical Power). Pinisi Journal of Art, Humanity and Social Studies, 2(2), 93-99.

- [8]. Devi, Y. P., Ekoriano, M., Sari, D. P., & Muthmainnah, M. (2022). Factors associated with adolescent birth in Indonesia: a national survey. *Rural and Remote Health*, 22(2).
- [9]. Istiqomah, I. (2022). Pelatihan Dasar Full-Stack Programming Network Bagi Siswa Smk Bintang Nusantara: bahasa indonesia. AMMA: Jurnal Pengabdian Masyarakat, 1(07), 766-771.
- [10]. Gallahue, D. L., & Donnelly, F. C. (2007). *Developmental physical education for all children*. Human Kinetics.
- [11]. Irwansyah, M. R., Meitriana, M. A., & Suwena, K. R. (2020, December). Student Work Readiness in Vocational High School. In 5th International Conference on Tourism, Economics, Accounting, Management and Social Science (TEAMS 2020) (pp. 285-290). Atlantis Press.
- [12]. Abdullah, N., Yasin, M. H. M., Deli, A. A. A., & Abdullah, N. A. (2015). Vocational education as a career pathway for students with learning disabilities: Issues and obstacles in the implementation. *International Journal of Education and Social Science*, 2(3), 98-104.
- [13]. Supriyadi, A., & Rusmawati, R. D. (2022). Implementation of link and match program development through online practice handbook. *Technium Soc. Sci. J.*, 32, 95.
- [14]. Orion, N., & Hofstein, A. (1994). Factors that influence learning during a scientific field trip in a natural environment. *Journal of research in science teaching*, 31(10), 1097-1119.
- [15]. Widodo, J., Samsudi, & Sunyoto. (2017, March). Implementation of Industrial Work Practice management at vocational high school. In AIP Conference Proceedings, 1818(1), 020069. AIP Publishing LLC.
- [16]. Fürstenau, B., Pilz, M., & Gonon, P. (2014). The dual system of vocational education and training in Germany–what can be learnt about education for (other) professions. In *International handbook of research in professional and practice-based learning* (pp. 427-460). Springer, Dordrecht.
- [17]. Wayong, A. D. C. (2012). Relevansi Pendidikan Sistem Ganda (PSG) pada Sekolah Kejuruan dengan Kebutuhan Dunia Kerja. *Prosiding APTEKINDO*, 6(1).
- [18]. Baroody, A. J., Clements, D. H., & Sarama, J. (2022). Lessons Learned from 10 Experiments That Tested the Efficacy and Assumptions of Hypothetical Learning Trajectories. *Education Sciences*, 12(3), 195.
- [19]. Azizah, D. N., Muslim, S., & Cholik, M. (2021). The correlation of industrial work experience and soft skills on work readiness of graduated of vocational high school. *International Journal for Educational* and Vocational Studies, 3(4), 248-255.
- [20]. Pangestu, D. A., & Sudrajat, A. (2020, November). Industrial Revolution 4.0: Prophetic Character Education in Purpose to Become the Ideal Society of Indonesia. In ICSSED 2020: The Proceedings of the 4th International Conference of Social Science and Education, ICSSED 2020, August 4-5 2020, Yogyakarta, Indonesia (p. 283). European Alliance for Innovation.

- [21]. Sugandi, M. (2017, September). Implementation of project based learning on the Prakerin subject of vocational high school students of the building engineering to enhance employment skill readiness of graduates in the construction services field. In *AIP Conference Proceedings*, 1887(1), 020065. AIP Publishing LLC.
- [22]. Qomariyah, L., & Febriyanti, M. N. (2021). Exploration of the Factors of Work willingness during the Pandemic COVID-19. Proceedings Series on Social Sciences & Humanities, 2, 153-160.
- [23]. Harkins, M. A. (2000). Career education in the primary grades: Building work-readiness through an experiential curriculum. *Childhood Education*, 76(4), 219-224.
- [24]. Pichurin, V. V. (2015). Coping strategies and psychological readiness of students for professional work. *Pedagogics, psychology, medical-biological problems of physical training and sports*, 19(2), 53-59.
- [25]. Ali, A., Ahmed, I., & Shah, A. (2017). Exploring factors influencing employability of vocational training graduates in Pakistan: A factor analysis. *Global Regional Review*, 2(1), 389-404.
- [26]. Ramli, N., Muljono, P., & Afendi, F. M. (2018). External Factors, Internal Factors and Self-Directed Learning Readiness. *Journal of Education and e-Learning Research*, 5(1), 37-42.
- [27]. Dewey, J. (2016). Excerpts from democracy and education (1916). *Schools*, *13*(1), 127-139.
- [28]. Abdullah-Al-Mamun, M. (2012). The soft skills education for the vocational graduate: Value as work readiness skills. *British Journal of Education, Society & Behavioural Science*, 2(4), 326-338.
- [29]. Messmann, G., & Mulder, R. H. (2011). Innovative work behaviour in vocational colleges: Understanding how and why innovations are developed. *Vocations and Learning*, 4(1), 63-84.
- [30]. Clifton, K. J., & Handy, S. L. (2003). Qualitative methods in travel behaviour research. In *Transport survey quality and innovation*, 283-302. Emerald Group Publishing Limited.
- [31]. Tshabalala, T., & Ncube, C. (2014). Teachers' perceptions on challenges faced by rural secondary schools in the implementation of the technical and vocational education and training policy in Nkayi district. *International Research Journal of Teacher Education*, 1(2), 10-15.
- [32]. Anggraini, A., Sudiyanto, S., & Indrawati, C. D. S. (2020). The effectiveness of the problem-based learning model using peer assessment in vocational high school. *Jurnal Pendidikan Vokasi*, 10(2), 159-166.
- [33]. Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert scale: Explored and explained. *British journal of applied science & technology*, 7(4), 396.
- [34]. Arikunto, S. (2010). Metode peneltian. *Jakarta:* Rineka Cipta.
- [35]. Schmitt, A., Zacher, H., & Frese, M. (2012). The buffering effect of selection, optimization, and compensation strategy use on the relationship between problem solving demands and occupational wellbeing: a daily diary study. *Journal of occupational health psychology*, 17(2), 139.

- [36]. Lee, J. (2012). College for all: Gaps between desirable and actual P-12 math achievement trajectories for college readiness. *Educational Researcher*, 41(2), 43-55.
- [37]. Muspawi, M., & Lestari, A. (2020). Membangun kesiapan kerja calon tenaga kerja. *Jurnal Literasiologi*, 4(1).
- [38]. Nurlaela, S. (2021, January). Determinants of Work-Readiness. In *Conference on International Issues in Business and Economics Research (CIIBER 2019)* (pp. 199-205). Atlantis Press.
- [39]. Siregar, R. F. (2017). Hubungan Pengalaman Praktik Kerja Lapangan Industri (Pkli) Dengan Kesiapan Kerja Siswa Sesuai Standar Kompetensi Kerja Nasional Indonesia (Skkni) Kelas Xii Paket Keahlian Teknik Kendaraan Ringan Smk Negeri 2 Medan Ta 2016/2017 (Doctoral dissertation, UNIMED).

- [40]. Sugiyono. (2018). *Metode Penelitian Kuantitatif*. Bandung: Alfabeta.
- [41]. Handayani, N. (2015). Penerapan strategi pembelajaran react dengan pendekatan rme untuk meningkatkan kemampuan koneksi matematis. *J. Semin. Nas. Mat*, 233-240.
- [42]. Nursiah, S. (2015). Peningkatan hasil belajar matematika melalui penerapan strategi kognitif dalam pemecahan masalah. *Sainsmat: Jurnal Ilmiah Ilmu Pengetahuan Alam*, 2(2), 119-130.
- [43]. Meswari, S. Y. W., Rahmiati, R., & Rosalina, L. (2017). Perbandingan Tingkat Kompetensi Karyawan Salon Kecantikan Lulusan SMK Tata Kecantikan dengan Lulusan SM/SMK Non Kecantikan di Kota Padang. *Journal of Home Economics and Tourism*, 13(3).