

Development of a Self-Efficacy Scale for Vocational School Student

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Abstract: This study aims to develop a self-efficacy scale instrument for Vocational High School students as well as to determine the validity of the instrument points and the instrument reliability of the experts and practitioners. The type of research used is research and development (R&D), the research model used is Four-D (4D). The 4D model consists of four stages of research namely define, design, develop, and disseminate. Analysis of the data used is to test the validity of manual book product content with the Lawshe CVR and CVI formulas. Tests carried out by 5 experts or experts who are competent in the field of Counseling and Psychological Guidance. The results of the research based on content validity analysis are the per-item CVR values obtained between +1 to 0 (CVR > 0). Furthermore, the results of the Lawshe CVI analysis obtained a score of 0.96 greater than 0 (0.96 > 0). Based on the analysis of these data means the value of the validity of the instrument content is high and for the reliability results obtained at 0.78 > 0.60 thus all items of the questionnaire are declared reliable

Keywords: Scale instrument, Self-Efficacy



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Introduction

Output of Vocational High School (SMK) students will face very intense competition from year to year in an effort to get a job available in various fields of expertise that exist today that we know that the imbalance between the number of graduates produced with vacancies existing work. This has led to a growing number of unemployed people, especially in Indonesia. In accordance with the statement said by the Deputy Minister of Economy, Edy Putra Irawadi, who said that the condition for the formation of a developed country was to have entrepreneurs of at least 2% of the total population.

At present we know that the number of entrepreneurs in Indonesia is around 700 thousand people and still needs 4 million new entrepreneurs. The statement delivered by the Director of Vocational Development of the Directorate General of Primary and Secondary Education Mandikdasmen namely Joko Sutrisno stated that although the material about the world of entrepreneurship had been given to students, there were still obstacles that could hamper students' enthusiasm in doing entrepreneurship, where these obstacles among them are teaching teachers who do not yet have a sense of business, lack of discipline in managing time, and lack of equipment or facilities and infrastructure to support entrepreneurship learning. Vocational High School (SMK) graduates are expected to be able to apply the knowledge or skills gained in school in the world of business and business, so they are expected to be able to create their own jobs (accessed from (<http://www.timlo.net/baca>) / 5130 / smk-mandatory-to-use-produces / dated 14 april 2020) Vocational High School (SMK) is an educational institution that has the aim of preparing students who have spirit and professional spirit, are able to do their own work (independent), able to fill available job vacancies Santoso (2009) believes that one of the basic competencies that Vocational High School (SMK) students must possess is personal development, a high sense of responsibility, and maturity in social relations with people around. Where social relationships are intended is the ability of students to interact socially with people around well and have full confidence, by having a belief in themselves, students are expected to be able to believe all the potential possessed within themselves, so students can accept others in various ways situations and conditions, even though students are in a new environment and without having to be awkward. But bringing up the character of students as mentioned above is not easy because of the reality in the field so many students who are still inferior in getting along, hard to accept the situation and new friends. Circumstances like that which indicate that students' Self-Efficacy is low in social relations.

Perceived self-efficacy is defined as people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self efficacy beliefs determine how people feel, think, motivate themselves and behave. Such beliefs produce these diverse effects through four major processes. They include cognitive, motivational, affective and selection processes (Bandura : 1994)

Chemers et al. (2001) found that academic self-efficacy is related to achievement and self-adjustment, (it directly affects academic achievement, while indirectly affects it through expectations and perceptions of coping). According to Pajares & Miler: 1994) Self-efficacy is the highest variable role in determining student achievement. According to (Brown et al., 2005) Self-efficacy and goal level are positively related to achievement when role overload is low, but the relationship is not significant if role overload is high. According to (Brown et al., 2005) Self-efficacy and goal level are positively related to achievement when role overload is low, but the relationship is not significant if role overload is high. When related to the level of task complexity, Judge and colleagues' results show that self-efficacy can only predict achievement on simple tasks, self-efficacy cannot predict achievement on complex tasks (Judge et al., 2007).

Smith and Betz (in Satici, Kayisa & Akin: 2013) define social self efficacy as "an individual's confidence his / her ability to engage in social interactional tasks necessary to initiate and maintain interpersonal relationships" Gecas (in Satici, Kayisa, Akin: 2013) states that individuals with good social self efficacy are skilled in initiating social contacts and developing new friendships and friendships. Thus social self-efficacy or social self-efficacy is a person's beliefs about his ability to initiate and maintain social relations and manage conflicts with others. Social self-efficacy is important not only in interpersonal relationships so that one can establish effective social relationships with others, but it is important to influence psychological adjustment and mental health, so that good self-efficacy is needed by individuals in making friendships with other individuals.

Self Efficacy is a belief that an individual has about the extent to which an individual can estimate the ability he has in carrying out a task to achieve a goal. According to Bandura which was downloaded via Wikipedia The Free Encyclopedia, which states that there are 4 sources that can affect the Self-Efficacy of

an individual, where the 4 sources include the first permanent experience which means the events that occurred in the past, both events that cause a failure or events that cause a success in achieving something, usually experiences that lead to success will trigger repetition and events that trigger failure will tend to stop.

Second, experiences that are felt directly by individuals, sometimes individuals will make an assessment of their abilities by paying attention to what others are doing. The success obtained by other people often indicates individuals in doing the same thing done by others, so as to obtain the same success.

Third is the existence of social persuasion of people around, where someone who gets persuasion or motivation from people around will tend to be able to complete all tasks with full confidence compared to people who do the task without any motivation or social persuasion from others.

Fourth is the psychological state of the individual, where the psychological state of the individual will greatly affect the individual's Self-Efficacy in carrying out a task. Biasnya if individuals do something stressful, sick, tired, and others will tend to reduce self-efficacy in the individual.

According to Huang (1998: 20) which states that self-efficacy in several studies showed a relationship between academic achievement and self-efficacy in determining students' academic achievement. Where students who have low self-efficacy tend to cause symptoms such as avoiding the tasks given by the teacher, because of the low student confidence in the ability to complete all the tasks given by the teacher, the opposite is true if students who have self-efficacy High will tend to show an attitude that involves themselves in various learning activities and trying to achieve success or their success, will indirectly emerge a feeling that the success he achieved is the result of his ability so that his beliefs appear in carrying out everything well.

The level of strength of self-efficacy possessed by an individual will greatly affect the behavior of the individual, including: (1) whether the behavior will be carried out or not, (2) how much effort will be generated, and (3) how long the effort will be supported in facing challenges.

Self-efficacy will greatly help students in understanding themselves well believe in the abilities contained in him. Students who have good self-efficacy will be able to believe in their abilities so they can adapt themselves to the situation and the surrounding environment, while conditions that are often encountered in the field are the personal conditions of students who do not develop, among others, are not sure of their abilities and are often fragile. Personal development that is not optimal as that which will greatly inhibit the maturity of the individual. Previous studies conducted at the Vocational High School in Bali through observation and interviews with school guidance and counseling teachers related to the above problems. From the results of observations and interviews found the results include a crisis of individual confidence in him.

Behaviors shown by students include students often feeling inferior in carrying out social relationships, students often close themselves so that they become a quiet person, students tend to be picky about friends in getting along. The emergence of behaviors exhibited by students is closely related to the low self-efficacy of students which will greatly affect student self-development. Therefore the Guidance Counseling teacher must make creative efforts in directing students to become individuals who have great confidence in themselves. To be able to know the state of students' self-efficacy, the counselor / counselor guidance teacher must conduct data mining, so that the counselor / counselor teacher can provide optimal services to students. However, events in the field obtained by researchers through interviews and observations made to counseling guidance teachers in vocational high schools are the absence of accurate instruments that can be used as a reference in conducting student self-efficacy assessments.

Seeing the importance of self-efficacy for students in high school, the researcher is interested in developing a self-efficacy assessment instrument that is owned by students, so that counseling guidance

teachers can also have accurate data in handling, so the title raised in this study is "Development of Self-Efficacy Scale Assessment Instruments in Vocational High Schools (SMK). From the background and issues related to the importance of developing character assessment instruments, the researcher is interested in examining this matter and taking the title "Development of Vocational Instrument Self-Efficacy Scale Instruments"

Method

This research is a research or development and research (R&D). This research is a development process and also an instrument validation process. Where the research model used in this study is a \$ D research model which include: 1) Define, 2) Design, 3) Develop and 4) Disseminate. This model was chosen to produce a scale instrument in order to assess the self-efficacy of Vocational High School (SMK) students.

The instrument developed in this study will be tested for eligibility with content validity using Lawshe data analysis, which aims to determine whether the instrument produced in this study is suitable for use in assessing the self-efficacy scale of Vocational High School (SMK) students. This validity test will be carried out by 5 experts, including 3 professors in the Department of Counseling Guidance and 2 counseling guidance teachers in the Vocational High School (SMK). The technique used in analyzing data is the Lawshe CVR and CVI formulas, with the formula:

$$CVR = \frac{n_e - N/2}{N/2}$$

source: (Lawshe, 1975)

The formula above will produce a value with a range of numbers from +1 to -1, where a positive value will indicate that the item rated as important / essential, so if the greater the CVR value produced, the more important and the higher the validity of the instrument. (Hendryadi, 2017).

The second data analysis used the formula CVI (content validity index) which aims to assess the relevance of each item statement in the instrument, where the formula of CVI is:

$$CVI = \frac{\sum CVR}{k}$$

source: (Lawshe, 1975)

The third analysis conducted is an analysis to measure the level of consistency of the items presented in the instrument, where in measuring the consistency a reliability test is needed. Reliability in the instrument

will be expressed numerically in the form of a coefficient. If the resulting coefficient is high, the reliability in the instrument items will also be high. One way that can be used to measure the reliability of an instrument is by using the Cronbach Alpha or Alpha Coefficient. The Cronbach alpha reliability formula is as follows:

$$r_{ii} = \frac{k}{k-1} \left(1 - \frac{\sum \sigma^2}{\sigma^2_{\Sigma}} \right)$$
$$\sigma^2 = \frac{\sum \sigma^2 - \frac{\sum X^2}{N}}{N}$$

source (Juliansyah Noor, 2012 : 165)

Results and Discussion

Based on the analysis carried out using the CVR formula, the items of 30 instruments are said to be valid or essential, but there are 3 items that get a CVR value <1, which means the need for a deeper look. The second analysis is the content validity index of the instrument as a whole using the CVI formulation (Lawshe, 1975).

Based on calculations it is known that $\sum CVR = 28.80$. The results of the CVI calculation from the self-efficacy scale instrument based on the assessment of 5 experts is 0.96 (special). This result means that based on the assessment of experts using an assessment instrument consisting of 30 statements, the developed instrument has a special content validity index (CVI).

Based on the results of the instrument assessment by the judges, there are several assessment items related to the instrument that still have a CVR index <1 which indicates the need for improvements to the instrument associated with the item. For this reason, improvements were made to the contents of the instrument by taking into account the effective use of language as well as improvements to the writing system regarding the neatness and suitability of the writing on the instrument. A variable is said to be reliable or reliable if the answers to questions are always consistent. So the results of the reliability coefficient items character assessment points of 0.7, it turns out to have a value of "Alpha Cronbach" greater than 0.600, which means that all items are declared reliable instruments or meet the requirements. In this research, there are some limitations that need to be studied further, namely the fourth step in the 4D disseminated research design, which is a revised research instrument disseminated to other subjects to obtain implications from the research product. In this study it could not be carried out due to the limitations of the situation and conditions of the Covid-19 outbreak.

Conclusion

Based on the results of this research and development, the self-efficacy scale instrument is suggested to be used as an instrument by BK teachers in schools to develop student self-efficacy. Further research and development on character assessment instruments is needed to develop other psychological aspects so that they are able to complete the guidance service instrument school counseling. The results of this research and development are intended to be disseminated so that they can be used more widely.

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