The Relationship of Self-Regulation and Career Planning: a study of Senior High School Students

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ABSTRACT: This research aims to determine whether there is a relationship between self-regulation and career planning among twelfth-grade students at Senior High School (SMAN) 100 East Jakarta. This study was conducted using a quantitative approach, specifically a correlational research design. The population of this study consisted of all twelfth-grade students at SMAN 100 East Jakarta, totaling 235 students. Sample calculation using the Slovin formula resulted in a sample of 148 students using simple random sampling technique. Data collection employed psychological scales for self-regulation and career planning. Data analysis technique involved simple linear regression analysis, followed by classical assumption tests including normality test, multicollinearity test, and heteroskedasticity test. The research instruments utilized psychological scales for self-regulation and career planning. The results of the study indicate a positive and significant relationship between self-regulation and career planning, with a significant value of .000 and an F value of 99.409. Therefore, since the significance value is less than .05 and the F value is greater than the F table value (3.06), the null hypothesis (H0) is rejected, and the alternative hypothesis (H1) is accepted. Based on the coefficient of determination, the obtained R Square value of .578 indicates that self-regulation influences career planning by 57.8%, while the remaining 42.2% is influenced by other factors.

INTRODUCTION

The level of readiness in making quality career choices depends on individuals’ understanding of the careers they choose. Students must realize that understanding in career choice is crucial for them because they will face decisions in choosing jobs or selecting majors in college. Lack of knowledge and information about careers can lead to errors in career decision-making, both in choosing jobs and further studies. Furthermore, career choices should also be based on confidence in one’s abilities and effective self-regulation or self-direction.

According to Fikriyani et al. (2020), career choice is one of the most crucial decision-making processes in an individual’s life, and the decisions made will impact their lives significantly. Career planning is also an inevitable aspect of individuals’ social life because it involves decision-making processes after several stages of life development.
According to Crites (cited in Kurniawan et al., 2019), career direction and planning should not be based on fantasy or imagination but on interests, capacities, and values possessed by individuals after exploring the world by collaborating and clarifying interests, talents, abilities, and personal values following a sufficiently long career development period.

A preliminary study by researchers at SMAN 100 East Jakarta revealed that some twelfth-grade students have difficulty and confusion in choosing careers after graduating from school because they lack confidence in selecting careers according to their interests and talents. Additionally, some students are unable to organize and control their daily activities and behaviors to achieve their desired goals. Based on the research conducted by Leathwood & O’Connell (2003) there are students who struggle to plan their careers, both in choosing universities or majors that match their desires and abilities. They cannot identify their careers, lack career information, and many students cannot regulate themselves to achieve a goal in the learning process, which will later be oriented towards career planning. Similarly, the results of surveys and interviews conducted by Lauren et al. (2019) among students at SMA Sekolah Agama Medan show that students have low career planning, as they experience confusion in choosing and determining their career goals.

From the explanations provided above, career choices are influenced by several factors originating from individuals themselves. One of the internal factors is individuals' beliefs in career selection or self-efficacy and how individuals regulate or control themselves to achieve their desired careers after graduating from school. According to Zimmerman (cited in Ghufron et al., 2010), self-regulation refers to self-generated thoughts, feelings, and actions planned and adjusted feedback to achieve goals.

Self-regulation means having intentions and purposes, performing actions directed towards goals, monitoring them, and ensuring success (Pratiwi & Retnowati, 2019). This indicates that there are still students who have not considered their actual circumstances when planning their career choices (Kushendar et al., 2022). The research conducted by Lauren et al. (2019) on self-regulation and career planning among students at religious schools in Medan shows a positive relationship between self-regulation and students' career planning. This research indicates that the self-regulation variable influences career planning by 40.9%, while the remaining 59.1% is influenced by other factors not examined.

Our research also examines the role of self-regulation in career planning, which refers to students' beliefs in their capacity to plan and direct their career planning. Active career planning consists of processes of building, reconstructing, and forming a cohesive and meaningful identity (Savickas, 2002). Previous research indicates that students engaging in proactive career planning behaviors perceive themselves as more likely to obtain jobs (Chiesa et al., 2020), implying that they will be able to maintain their current jobs or find equivalent or better employment in the future (Vanhercke et al., 2014).

Kleine et al. (2022) demonstrate how students' career planning skills and job-related self-efficacy help reduce dysfunctional future ideas and career anxiety. In other words, students who have confidence in their ability to plan their careers tend to be more optimistic about their future because they feel capable of facing the challenges ahead. Additionally, research reveals that students with a strong future orientation, namely those involved in career planning activities, are more academically successful (Mazzetti et al., 2020). Consequently, students who perceive reasons related to their formative professional identity as the primary reasons for feeling more competent and confident about their career planning abilities.

Based on the above phenomena, the researcher is interested in measuring the relationship between self-regulation and career planning by statistically uncovering the relationship between the two variables. Thus, the results can provide a correlation concept between the two variables, which can serve as input for counselors to provide appropriate counseling services in addressing difficulties in self-regulation related to individual career planning.
Considering these issues, the current researchers are examining the relationship between self-regulation and career planning in a sample of high school students in Indonesia attending SMA 100 Jakarta. With this aim, it is hypothesized that there will be a relationship/significance between self-regulation and career planning resulting from the intervention on high school students. The positive impact of self-regulation is perceived through the ability to plan for future careers and manage efforts in developing learning activities.

METHODS

Design
The research method used in this study is quantitative research, employing a correlational approach. In quantitative research, there are independent variables (X) and dependent variables (Y). The research is conducted through problem determination, literature review, research method development, data collection, data analysis, and drawing conclusions from the research results. In this study, psychological scales developed through Winkel (2004) conceptualization of self-regulation and career planning taken from Zimmerman (1989) are utilized.

Participant and Procedure
This research was conducted in the metropolitan city of Jakarta, one of the provinces in Indonesia. The population in this study is all students of the twelfth grade at SMAN 100 East Jakarta, with a total of 235 students. Their eligibility was assessed using inclusion and exclusion criteria. The specific criteria included being within the age range of 17 to 18 years, possessing a school identification card, and others. Those excluded lacked parental consent and were unable to participate in the study. To determine the sample, the researchers used the Slovin formula. Therefore, if the population size is 235 and the sampling error is 5%, the required sample size for this study would be n=148.031, rounded to 148 students. The research lasted for seven weeks. Sessions one to three focused on introduction, socialization, and explanation of the research. Sessions four to six were dedicated to instrument distribution. Several weeks later (7 weeks), the researchers redistributed the instruments for the final measurement. After collection, the gathered data were sent for data analysis.

Instrument
Based on the validity test results obtained from the self-regulation variable of 54 statement items, there were 3 invalid statements, namely numbers 9, 32, 33, and the total number of valid instrument items was 51. Therefore, 51 statement items categorized as valid were used in the study. Meanwhile, based on the validity test results obtained from the career selection variable of 50 statement items, there were 13 invalid statements, and the total number of valid instrument items was 37. Therefore, 37 statement items categorized as valid were used in the study. The reliability test result for the career planning variable yielded a Cronbach's alpha value of .871. The reliability test result or instrument reliability coefficient of .871 > .207 indicates reliability, comprising 37 statement items.

Data Analysis
The analysis technique used in this study is simple linear regression analysis. Simple linear regression analysis aims to measure the strength of the relationship between two variables and indicate the direction of the relationship between the dependent variable and the independent variable. Furthermore, classical assumption tests were conducted, including the normality test, which aims to test whether in a regression model, the dependent variable, independent variable, or both have a normal distribution using the Kolmogorov-Smirnov test. It was found that the significance value Asymp.Sig (2-tailed) of .200 is greater than .05, indicating that the data are normally distributed.
Multicollinearity test results showed that the tolerance value of .448 > .1 and the VIF (Variance Inflation Factor) value of 2.232 < 10, indicating no multicollinearity among independent variables. This test aims to examine whether correlations exist among independent variables in the regression model. The heteroskedasticity test was conducted using the Glejser test, which showed that the significant value of the self-regulation variable (X) of .279 > .05 and the career planning variable (Y) of .595 > .05. This indicates that there is no heteroskedasticity between the two independent variables because the significance is > .05, fulfilling the heteroskedasticity assumption, which aims to test whether there is variance inequality of residuals from one observation to another in a regression model.

**Ethical Compliance**

The approval to conduct this study was obtained from the Faculty of Education, University of Nigeria. The parents of the children gave their informed consent orally when they gathered for the Parents-Teachers Association meeting. All the children whose parents gave their consent were assessed using conditions measures and inclusion criteria.

**RESULTS AND DISCUSSION**

**Results**

The results were analyzed by using simple regression analysis. Results of data analysis using SPSS obtained the following results in table 1. Based on the analysis results, a significant value was obtained for the self-regulation variable (X) of .000 < .05, and the t-value (6.360) > t-table (1.655). This means that there is a positive partial relationship between self-regulation (X) and career planning (Y). Furthermore, based on data analysis using SPSS (Statistical Product and Service Solution) 26.0 for Windows, the regression equation was obtained as $Y = 32.931 + .346X$. The regression equation above indicates the relationship between the independent variable and the dependent variable, from which it can be concluded that the average value of the dependent variable (Y) is estimated to change by .346 for each unit change in the variable X. Based on the analysis results, this research shows a positive relationship between self-regulation and career selection among 12th grade students at SMAN 100 East Jakarta. Through the T-test analysis, a significant value for the self-regulation variable was obtained as .000, with a t-value of 6.360. Thus, the significance value is less than .05, and the t-value is greater than the t-table, indicating a positive and significant relationship. Consequently, it can be said that the higher the self-regulation, the higher the level of students' career selection ability.

Furthermore, the F-test is conducted by comparing the calculated F-value with the F-table and a significance level of 5%. If the significance value is < .05 and the calculated F-value > the F-table value, then H0 is rejected and H1 is accepted, indicating a significant influence between the independent variable (X) and the dependent variable (Y), and vice versa. The results of the simultaneous F-test calculation can be seen in the following table 2.

<table>
<thead>
<tr>
<th>Model</th>
<th>$T_{count}$</th>
<th>$T_{table}$</th>
<th>$B$</th>
<th>SE</th>
<th>Coefficients</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
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<td>6.360</td>
<td>1.655</td>
<td>.365</td>
<td>.054</td>
<td>.512</td>
<td>.000</td>
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</table>

<table>
<thead>
<tr>
<th>Model</th>
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<th>Df</th>
<th>MS</th>
<th>F</th>
<th>Sig.</th>
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</thead>
<tbody>
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<td>6202.960</td>
<td>99.409</td>
</tr>
<tr>
<td></td>
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<td>62.398</td>
<td></td>
</tr>
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<td></td>
<td>Total</td>
<td>21453.676</td>
<td>147</td>
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<td></td>
</tr>
</tbody>
</table>
positive relationship between the independent variable (X) and the dependent variable (Y) simultaneously.

Discussion

The analysis results indicate a positive and significant relationship between self-regulation and students’ career selection. This is related to the theoretical basis explained by Zimmerman, where self-regulation or self-management is related to the initiation of thoughts, feelings, and planned actions, as well as the adjusted feedback in achieving personal goals. This means that an increase in self-regulation variables will also lead to an increase in career planning variables (Ghufron et al., 2010). This research result aligns with the study by Whitcomb, which suggests that adolescents must engage in good career planning to select a career path, starting with proper self-regulation (Santrock, 2007).

In career planning, students must be able to manage and regulate themselves well in their daily lives. For example, students must manage their time effectively, control their behavior and emotions, and evaluate their behavior in daily life to achieve their career choices. Career planning is a crucial function in an individual’s life, and this process must be individualized and specific to clearly identify career opportunities and professional goals (Mayra et al., 2022). Career planning helps individuals see suitable job prospects, assess their potential, self-management, and self-management.

Through career planning, individuals can identify their abilities and interests, consider job opportunities, and devise strategies to achieve their desired career goals. Based on correlation analysis results between self-regulation and career planning indicator variables, it is known that the indicator of optimizing behavior functions contributes significantly to individual career planning. This is because the main factor supporting an individual’s success begins with self-reflection from observation results. Self-regulation includes three phases: planning, implementation, and evaluation.

Planning phase contains one of the strategic planning processes. This strategy is a process and action that individuals take with directed goals and shows skills they can use to achieve their career goals. In this strategic planning process, individuals will direct their skills to achieve career goals. The chosen strategy, when appropriate, can improve performance by developing cognition, controlling affect, and directing motor activities. Planning and selecting strategies require continuous adjustment due to changes in the individual or environmental conditions (Pajares & Urdan, 2006).

Self-regulation refers to how individuals control and direct their own actions (Taylor et al., 2009). Through self-regulation, individuals can easily envision their future because they will formulate goals and pursue them using self-regulation skills. Through good self-regulation abilities, individuals can control and direct their actions to remain focused on achieving set goals, even while facing other tasks simultaneously. An individual is considered to have self-regulation when their thoughts and actions are under their own control, not controlled by others or external conditions (Zimmerman, 1989). An individual with self-regulation is one who has aspects of self-regulation, such as self-set standards and goals, self-monitoring, self-evaluation, and self-set consequences.

Self-regulation helps individuals to achieve effective results in managing careers (Coetzee, 2018), by setting career goals and action plans directed at an individual who will be actively willing to find information about the career he wants (Bezuidenhout, 2011; Uy et al., 2015). Self-regulation facilitates individual beliefs and expectations in finding work (Toit, 2018), by fostering an attitude of responsibility for his career (de Souza, 2014), that they have independence and responsibility for their decisions and eventually believe that their efforts were able to produce results in the future (Clarke & Patrickson, 2008). Self-set standards and goals mean individuals set their own standards to evaluate each behavior and set goals as the direction of their behavior to achieve desired goals.

These goals are future careers, the result of good career planning. Self-monitoring means observing everything one does; by monitoring oneself, individuals become aware of their progress towards their goals and will continue their efforts. This is expected to enable individuals to make good
career plans. Self-evaluation means assessing one's own behavior. By assessing performance and behavior, individuals determine the quality of the career planning they have made. When the assessment results are positive, it will affect good career planning, and vice versa if the results are negative, individuals may struggle to plan their careers effectively. Finally, self-set consequences mean creating consequences, either positive reinforcement or punishment for individual behavior. By doing this, individuals can regulate their behavior better, eventually leading to good career planning.

The results of this study are consistent with the research conducted Amri (2018), which examined the relationship between self-regulation and self-confidence with career planning among eighth-semester students at the Semarang State University. This indicates that students have confidence in their abilities to perform and complete a series of tasks to achieve their goals. There is a positive and significant relationship between self-efficacy and career planning among eighth-semester students at Semarang State University. This means that the better the self-efficacy, the better the career planning for future eighth-semester students at Semarang State University. Self-regulation of eighth-semester students at Semarang State University was in the moderately good category, with an empirical mean of 95.3966 in the moderate category. This means that students are sufficiently able to self-regulate themselves effectively. There is a positive and significant relationship between self-regulation and career planning among eighth-semester students at Semarang State University. This means that the better students are at self-regulation, the better their career planning for the future.

The findings of this study also support previous research conducted by Istriyanti & Simarmata (2014) on 135 respondents with criteria of adolescents aged 15-20 years, in a study on the relationship between self-regulation and career planning in adolescent girls from Bali, showing a positive and significant correlation between the two variables, meaning that if self-regulation increases, career planning also increases. Lauren et al. (2019) in their research on self-regulation and career planning among religious school students found that higher self-regulation also correlates with higher career planning. Similarly, the research findings by Hasibuan & Syahrizal (2019) examining the influence of self-efficacy on employee career planning with career motivation found a significant relationship between the two variables with a correlation coefficient of .441, meaning that as self-efficacy increases, so does career planning. These research findings are also consistent with the findings of the study by Nugraha & Rositawati (2018) which found that female hafidzah students at Darussalam Kersamanah Garut Islamic boarding school have a moderately positive relationship between self-regulation and career planning with a correlation coefficient of .434, categorized as moderate.

Self-regulation consists of sociological skills (Skibbe et al., 2015), and cognitive (Clark et al., 2016), which help individuals control and plan their behavior. More specifically, to achieve their learning goals, individuals strive to enhance their learning strategies (cognitive, motivational, and emotional) (Panadero et al., 2015). Self-regulation can be enhanced directly through promotion or indirectly through increasing student incentives. Self-regulation activities can act as a mediator variable between personal, environmental factors, and actual performance (Pintrich, 2004).

Thus, after following the appropriate research procedures and data analysis, this study has achieved its goal of determining that self-regulation has a positive relationship with the career planning and has successfully proven the hypothesis that there is a positive relationship between self-regulation and career planning for 12th-grade students at SMAN 100 East Jakarta.

Implication

As in other qualitative and quantitative studies, the implications of these findings are highly limited, especially to the high school level. This research suggests that experts utilize the assumptions derived from this study to identify children experiencing issues with self-regulation and career
planning. Some children may not be aware of these problems. Elementary school counselors and teachers should collaborate with parents who can provide crucial information that professionals can use to care for and guide these children in their respective schools.

Limitation and Future Research
This study has several methodological weaknesses that may affect the generalization of these findings. Firstly, there is a lack of analysis of automatic thoughts and actions in the pretest and posttest assessments. Although schoolchildren were assessed at the pre-treatment level, we should present the results as indicated before establishing a baseline based on the automatic thinking scale. Given this reason, we suggest that future researchers pay more attention to this area. On the flip side, this research is one of the few studies in Indonesia that investigates the dependency relationship between self-regulation and career planning. Another strength is that this study tests participants on aspects that are highly relevant to their age.

CONCLUSION
In this study, the relationship between self-regulation and career planning among 12th grade students at SMAN 100 East Jakarta becomes highly relevant. Research indicates that individuals with high levels of self-regulation tend to have better career planning and are more successful in achieving their career goals. This is because they possess the ability to manage themselves effectively and make informed decisions based on a strong understanding of their desires, interests, and abilities. The existence of a relationship between self-regulation and students’ career planning can be used as one of the references for students that having high self-regulation and facilitate career selection for the future. Therefore, it is important for individuals to develop their self-regulation skills as part of their career planning process. This involves self-awareness, reflection, and a commitment to continuously monitor and evaluate their progress towards their career goals. By doing so, they can enhance their chances of success in achieving their career planning.

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REFERENCES


