# SELF-EFFICACY AND STUDENT ACHIEVEMENT FOR ENHANCING CAREER READINESS: THE MEDIATION OF CAREER MATURITY

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#### ABSTRACT

Increasingly dynamic and volatile employment trends and the rapid development of the globalization era resulted in the transformation of the world of work to be faster, diverse and challenging to predict. Therefore, individuals are encouraged to have a flexible attitude to adapt and work according to their current career development. The purpose of this study was to determine the effect of self-efficacy and academic achievement on career readiness outside the profession through career maturity as a mediator. The survey method with a quantitative approach was applied in this study using a sample of 80 students. This study selected the sample based on purposive sampling on all Office Administration students of the State University of Semarang. Data analysis performed using Smart PLS 3.0. This study tested the proposed model through two aspects: measurement and structural models. This study found that self-efficacy and career maturity positively and significantly affected career readiness outside the profession. Academic achievement, in this case, also affects career readiness partially. Thus, it can conclude that self-efficacy influences career readiness. These findings make an essential contribution for lecturers and institutions to pay more attention to student career readiness so that their opportunities as university graduates to be accepted into the world of work can run smoothly.

Keywords: career maturity, career readiness, self-efficacy, student achievement

# **INTRODUCTION**

Career readiness outside the profession development defines a significant for adolescents considering the role of preparedness in enhancing personal growth, social adaptation, and welfare for them in career developmental theories, readiness, or awareness of the choices will also influence the information on the world of work. In this sense, planning that supports career choices is a significant predictor of success in career choices and the transition from school and campus to work. In general, Crites explained that career theory focuses on two factors that influence educational decisions and the application of career choices, namely competency factors and attitude factors [1].

Competency factors (often referred to as cognitive domains) in choosing or making career decisions consist of self-knowledge, occupational information, goal selection, planning, and problem-solving. This opinion is in line with the social cognitive approach theory, which states that adolescent competence plays an essential role in determining their life path. Attitude factors emphasize the development of positive attitudes towards career planning and exploration. This attitude factor is also known as non-cognitive factors or often referred to as the affective domain. This affective domain includes achievement goals, self-efficacy, and academic outcomes [2]. In addition to competency factors that guarantee individual success in career planning, positive attitude factors also play an essential role in one's career success [3]. These competency factors and positive attitude factors are complementary components in career planning and exploration. Thus, as a result, competence and positive attitudes are used to facilitate career choices.

This study examines the direct and indirect effects of career choice decisions on students' competency and attitude factors. The competency component of the career preparation process in this study is career choice readiness outside the profession. The self-efficacy concept emphasizes the degree of self-confidence of a person to successfully engage in tasks related to career choices [4]. Generally, the developmental theory accepts that self-efficacy plays an essential role in determining attitude and career preparation [5]. Using grade point average (GPA) is considered a reflection of academic success, pedagogical goals achievement to measure academic achievement. In line with York et al., [6] the most frequently used indicator of academic success is academic achievement or, more concretely, GPA. Although academic achievement is a GPA or value, this cognitive domain variable involves knowledge and intellectual skill development [2], [7].

Previous research found that the social cognitive career theory (SCCT) reveals a correlation between the main variables in preparing career choices, and the results are positively related. These variables consist of self-efficacy beliefs, individual performance or academic achievement, and career persistence. Low self-efficacy is related to a person's hesitation in preparing for a career and fear of commitment. Self-efficacy affects attitude in career decision-making and career maturity. This finding is corroborated by Koivisto et al. 's research, which also found that the individual's ability to determine subsequent career decisions is related to commitment, a component of successful academic achievement [8]. Several previous researchers have found that readiness to choose a career has a beneficial influence on the future [9].

Therefore, this study adds a career maturity variable to mediate between variables so that the results obtained to explore the direct and indirect effects of self-efficacy and academic achievement on career readiness outside the profession with career maturity as an intervening variable. The novelty of this research lies in the data analysis tool that is using SmartPLS. Meanwhile, previous research also has not conducted further research related to the variables studied in this study. Thus, this study aims to determine the effect of self-efficacy and academic achievement in increasing job readiness with career maturity mediation.

#### METHOD

The method used should be accompanied by references. Data analysis techniques emphasized literature items obtained from literature reviews and expert opinions. Data regarding self-efficacy, academic achievement, career readiness, and career maturity were collected through a questionnaire using an online survey model via a google form. This research sample is active students in the Office Administration Education Study Program at Semarang State University. The data collection process lasted for two months, in which the respondents were selected based on the purposive sampling technique. Respondents who received the questionnaire were those who volunteered with pre-stated consent. The questionnaire questions were rated based on a Likert scale (1: strongly disagree-5: strongly agree). We distributed to all respondents and received as many as 80 return questionnaires, all of which were valid for further analysis. Table 1 the data shows demographic results. Respondents totaling 80 people consisted of 18.75% male and 81.25% female; the respondents' mean age was 21 years, and most do not have work experience.

Table 1.	Demographic	Data of I	Respondents
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Attribute	Classification	%
Gender	Male	18.75
	Female	81.25
Age (year)	20	27.50
	21	61.25
	22	10.00
	23	1.25
Experience in	Yes	40.00
industrial work	No	60.00

There are two parts in the questionnaire design for data collection: the introductory

section and the questionnaire questions. The preceding paragraph includes a series of helpful items for obtaining participant demographic data, such as gender, age, and work experience. Meanwhile, part two is arranged based on a Likert scale ranging from 1 to 5 (1: strongly disagree, 5: strongly agree). It is developing to measure and ensure the model's construct based on the literature, adjusted to the object research.

Tabel 2. Measuring Dependent Construct

Constructs		Indicators	Source
Career	REA1	Crystallizing	[10]
readiness	REA2	Exploring	
		occupations	
	REA3	Deciding	
	REA4	Preparing	
Career	CAR1	Concern	[3]
maturity	CAR2	Control	
	CAR3	Curiosity	
	CAR4	Confidence	

Table 3. Measuring Independent Construct

Constructs		Indicators	Source
Self-efficacy	SEF1	Self-appraisal	[11]
	SEF2	Occupational information	
	SEF3	Goal selection	
	SEF4	Planning	
	SEF5	Problem- solving	
Academic achievement	GPA.1	Grade point average	[2], [6], [12]

The number of variables tested in this study consisted of four variables, namely selfefficacy (SEF), academic achievement (GPA), career readiness outside the profession (REA), and career maturity (CAR), which formulated the following hypotheses.

- H1: Self-efficacy directly affects career readiness outside the profession
- H2: Academic achievement directly affects career readiness outside the profession
- H3: Career maturity directly affects career readiness outside the profession
- H4: Self-efficacy affects career readiness outside the job through career maturity Academic achievement affects career
- H5: readiness outside the job through career maturity

The data in this study were analyzed using the Partial Least Squares Structural Equation Model (PLS-SEM). This analysis aims to test the model. This methodology adopts a structure based on a variant of the structural equation model approach for multivariate analysis, which recognizes that assumptions are more flexible and offer more accurate testing of model hypotheses [13], [14].

There are two main advantages offered by the PLS-SEM technique compared to other covariance analysis-based structural equation models. The first advantage is that it allows the inclusion of the variables modeled as formative composites and each indicator's loading factor value. The second advantage is that this approach is oriented towards the target variable and measures its antecedents' predictive strength [15]. Therefore, PLS-SEM is considered an adequate methodology. This approach's analysis includes the measurement model testing stage and the hypothesis assessment stage [15]. In testing the measurement model, the variables' validity and reliability need to determine in advance. Meanwhile, the hypothesis assessment explains the variance and predictive power of the model. The research analysis uses SmartPLS 3.2.5 software [16], [17].

#### **RESULTS AND DISCUSSION**

Table 4 presents the results of the descriptive analysis of the variables in the study. The maximum value obtained from the self-efficacy variable is 80; minimum value 32; mean value 64.30; and a standard deviation of 8,372. Furthermore, the academic achievement variable has a maximum of 3.96, a minimum amount of 3.00, a mean value of 3.6925, and a standard deviation of 0.15747. Meanwhile, the career readiness variable has a maximum amount of 50, a minimum score of 19, a mean of 42.26, and a standard deviation of 5.269. The career maturity variable has a maximum value of 75, a minimum amount of 29, a mean of 64.51, and a standard deviation of 8.823.

18 Jurnal Pendidikan Teknologi dan Kejuruan, Vol. 27, No. 1, May 2021

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Variable	Ν	Min.	Max.	$\bar{x}$	SD
Career	80	19.00	50.00	42.26	5.269
readiness					
Self-efficacy	80	32.00	80.00	64.30	8.372
Academic	80	3.00	3.96	3.69	0.157
Achievement					
Career	80	29.00	75.00	64.51	8.823
maturity					

Table 4. Descriptive Statistics for the Path Analysis Model

This study used the Split-half coefficient and Cronbach Alpha Coefficient to ensure instrument consistency and stability with SPSS software version 24. If Split-half and Cronbach's Alpha is higher than 0.70, it shows reliability [18], [19]. As shown in Table 5, both have values higher than 0.70, indicating that the instrument has a high value.

Since the instruments used do not have a strong theoretical foundation, research should test their structural validity. The questionnaire contains four latent variables, and this study conducts an exploration factor of each analyst. Further analysis, the KMO (Kaiser Meyer Olkin Measure of Sampling) value of all dimensions is more significant than 0.70, and the significance is less than 0.01; it means that the researcher can use the data for analysis. Long [20] supported that if the cumulative percentage exceeds 60%, then the extracted factor represents all variables.

The KMO (Kaiser Meyer Olkin Measure of Sampling) values signify, and cumulative rates of each Table 5. When performing exploration factor analysis, loading factors below 0.40 should be removed [21]. Thus, Table 6 shows the loading factor value on each variable. The next step is the analysis of confirmatory factors. The purpose of the measurement model assessment is to confirm the construct's reliability and validity [18].

Table 5. Reliability and Validity (n=30)

Variable	α	Split- half	КМО	Sig.	Cumulative %
REA	0.846	0.768	0.612	0.000	96.6
SEF	0.943	0.950	0.622	0.000	94.3
CAR	0.949	0.846	0.660	0.000	86.4

Table 6a. Loading Factor Value (n=30)

Items	Component				
	CAR	GPA	REA	SEF	
CAR1.2	0.652				
CAR1.4	0.828				
CAR1.5	0.804				
CAR1.6	0.787				
CAR2.1	0.870				
CAR2.2	0.748				
CAR2.4	0.827				
CAR2.5	0.788				
CAR3.1	0.829				
CAR3.2	0.925				
CAR3.3	0.871				
CAR3.4	0.863				
CAR3.5	0.795				
CAR4.1	0.634				
CAR4.2	0.857				
CAR4.3	0.909				
CAR4.4	0.844				
CAR4.5	0.844				
GPA		1.000			

Table 6b. Loading Factor Value (n=30)

Items	Component				
	CAR	GPA	REA	SEF	
REA1.2			0.790		
REA1.4			0.835		
REA1.5			0.807		
REA1.6			0.751		
REA2.1			0.747		
REA2.2			0.705		
REA2.3			0.773		
REA3.1			0.701		
<b>REA3.2</b>			0.860		
REA3.3			0.806		
REA4.2			0.781		
REA4.3			0.828		
SEF1.1				0.766	
SEF1.2				0.813	
SEF1.4				0.778	
SEF1.5				0.867	
SEF2.2				0.919	
SEF2.3				0.920	
SEF2.4				0.866	
SEF2.5				0.871	
SEF3.2				0.870	
SEF3.3				0.872	
SEF3.4				0.696	
SEF4.1				0.708	
SEF4.3				0.834	
SEF4.5				0.637	
SEF5.1				0.726	
SEF5.2				0.837	
SEF5.3				0.753	

As suggested, the reliability analysis using Cronbach's Alpha and composite reliability values. Cronbach's Alpha aims to measure internal consistency reliability. Cronbach's Alpha range is 0.880 to 1,000, and the composite reliability range in the model is 0.905 to 1,000, greater than 0.70 [18]. To confirm convergent validity, researchers took into account the outer loadings of the indicator, as well as average variance reliability (AVE) [18]. The outer loading value ranges from 0.714 to 1,000, as shown in Figure 1. If the value of the outer loading is below 0.70, they must be removed [18]. According to Brataningrum & Saptono [22], if the outer loading value is between 0.50-0.70, the indicator does not need to be removed if it has an AVE value higher than 0.50.

The average variance extracted (AVE) is a measure for building convergent validity [18]. Should AVE be higher than 0.50, considered that the construct is valid [23]. For more details, Table 7 displays the AVE value of each construct greater than 0.50, indicating that the model's convergence validity is good. To know discriminant validity, the researcher can also use the Fornell-Larcker criteria. As shown in Table 7, each variable's AVE square root value is

higher than the coefficient of another variable. Therefore, it indicates that the tool has sufficient discrete validity [18].

In addition to using the Fornell-Larcker criteria, the researcher can also operate from heterotrait-monotrait ratio (HTMT) [18]. According to the HTMT value, the confirmed discriminant validity indicated that the HTMT value was below the acceptable threshold value  $\leq$  of 0.90 (Table 6). After determining the measurement model's reliability and validity, the next step is to analyze the structural model to check the predicted hypothesis's significance.

This study uses Bootsrap SmartPLS 3.0 to test the significance of the path coefficient and its effectiveness according to the t value. If t greater than 1.96 means significant. Otherwise, if t less than 1.96 means insignificant [18]. Table 8 shows that the GPA path coefficient  $\rightarrow$  REA 0.016, the T value is 0.292, smaller than 1.96, and the p-value is 0.771, which is greater than 0.05, and cannot pass the significance test. The coefficient remaining path passes the significance test, as shown in Figure 2. The amount of direct and indirect influence is the total effect. The effect of the variable model shows in Table 8.



Figure 1. Value Outer Loading Model of Student Career Readiness

20 Jurnal Pendidikan Teknologi dan Kejuruan, Vol. 27, No. 1, May 2021

	-	-	-								
Variables	α	CR	AVE		Fornell-L	arcker			HTM	ЛТ	
			-	GPA	CAR	REA	SEF	GPA	CAR	REA	SEF
GPA	1.000	1.000	1.000	1.000							
CAR	0.953	0.965	0.874	0.178	0.935			0.182			
REA	0.907	0.933	0.777	0.189	0.903	0.882		0.196	0.791		
SEF	0.880	0.905	0.657	0.145	0.853	0.786	0.810	0.176	0.390	0.878	

Table 7. Reliability and Convergent Validity Analysis (n=110)



Figure 2. Path and Significant Coefficient in Structural Model Assessment (n=110)

Table 8. Effect of the Model						
Path	Direct	Indirect	Total			
	effect	effect	effect			
SEF→REA	0.801	0.00	0.801			
SEF→CAR	0.878	0.000	0.878			
GPA→REA	0.016	0.000	0.051			
GPA→CAR	0.043	0.000	0.043			
CAR→REA	0.812	0.000	0.000			
SEF→CAR→REA	0.000	0.714	0.714			
GPA→CAR→REA	0.000	0.035	0.035			

The value of the determination coefficient is a standard based on the structural model in comparison. In other words, the researcher can use cumulative influence on independent variables on dependent variables. According to Cohen, 0.26 is substantial, 0.13 moderate, and 0.02 weak. Hair et al. state that the value of R2 0.20 is considered high in social disciplines [18]. Table 9 shows a summary of the R-square values for each of the latent variables. As presented in Table 9, the amount of student career maturity is 0.731, which indicates that the variance value of career maturity is explained by self-efficacy and academic achievement, namely by a percentage of 73.1%.

In contrast, the rest is explained by other variables not examined in this research model. The R-square value for the career readiness variable obtained is 0.817, which indicates that self-efficacy and student achievement can influence career readiness by 81.7%. In contrast, other variables outside the research model explain the rest. Stone-Geisser is a founder of predictive relevance ( $Q^2$ ) application. The  $Q^2$  value of more than 0 indicates that an independent variables [18]. Table 9 displays the  $Q^2$  value. All predictive relevance values are more significant than zero; this means that the model is highly predictive.

Table 9.	The	Results	of R	-Square
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Variables	$\mathbb{R}^2$	R <sup>2</sup> Adjusted	$Q^2$
CAR	0.731	0.724	0.642
REA	0.817	0.810	0.337

The goodness of Fit (GoF) aims as a diagnostic tool to assess the suitability of PLS-SEM models. GoF is measured using the geometric average values of the extracted variance average and the R<sup>2</sup> value and calculated using the following equation  $GoF = \sqrt{AVE \times R^2}$ [24]. When the GoF value is more significant than 0.36, the model matches; when GoF 0.25, then the model is quite fitting; when GoF is less than 0.10, it does not match [25]. For the model used in this study, the GoF value was 0.58, indicating a good model match. However, Henseler et al. show that GoF does not represent PLS-SEM conformity criteria [26]. Hair et al. suggested that researchers should not use GoF as a measure [18]. Henseler et al. [26] recommend Standardized Root Mean Square Residual (SRMR) as a good conformity measure for PLS-SEM to avoid model specification errors. A value of less than 0.08 is considered suitable. In this study, the SRMR value was 0.068, less than 0.08. So, the fit model is also good with the SRMR index.

The purpose of this study was to examine the direct and indirect effects of self-efficacy and academic achievement on career readiness outside the teaching profession through career maturity. As has been hypothesized, this finding indicates that self-efficacy and career maturity positively and significantly affect career readiness outside the teaching profession. Supporting by the p-values of 0.032 and 0.000, which are less than 0.050, and the estimated values are 0.088 and 0.812. Thus, hypothesis 1 in this study is supported. The amount of the selfefficacy variable's direct influence on student career activities is 0.088 and 0.812.

This finding is consistent with previous research that was influenced by self-efficacy [27]–[29]. Supported by Jones et al., Ko & Kim, and Parikh-Foxx et al. [30]–[32]increasing selfefficacy in career decision making is essential considering that self-efficacy is a behavior to prepare for an influential career. Considering social cognitive theory, students' career readiness in making career choices results from career exploration motivation. In line with hypothesis 3, career maturity, as we know, increases readiness in career planning. In line with social cognitive theory, this reinforces students' commitment to applying their skills, which complements student readiness's influence on other career choice behaviors [33].

Previous research has found that someone who has a career maturity will tend to be more ready to work as planned [34]–[37]. Caballero et al. found that career maturity makes a significant contribution to career readiness because someone who has career maturity will improve his quality and abilities for the future career [38].

In contrast to hypothesis 2 in this study, academic achievement has no significant effect on career readiness, as evidenced by a p-value of 0.771 less than 0.05 and an estimated value of 0.016. The results support previous research, which found that learning achievement had no insignificant effect on student work-readiness [39]-[41]. Based on SCCT, career maturity mediates the impact of self-efficacy on career readiness. This finding is consistent with Bandura and Lent et al., which shows that selfefficacy can form outcome expectations [5], [42]. These findings are consistent with previous research, which states that values and beliefs support the assumption that adolescents value tasks where they think they can succeed [33], [43]. Therefore, a positive influence on selfefficacy has a close relationship with career readiness.

As hypothesized on H4, this study supports career maturity as a construct that mediates the effect of self-efficacy on career readiness. These findings are significant, with previous studies showing that the role of selfefficacy in increasing career readiness influences individual career maturity [44]. Formation of career readiness is effective if the education system is focused on research educational commercialization [45] and also on future professional competency development [46]. On the other hand, career maturity in this study has a partial role in increasing career readiness. In contrast to hypothesis 5, the role of career maturity as a mediator has different findings. It is probably since academic achievement is assessed based on subjectivity so that the output in the form of a grade point average (GPA) value obtained is not what it should be. For this reason, career maturity is limited as a predictor.

The survey respondents in this study were students with different family, ethnic, and religious backgrounds; besides, the finding was only based on students' views. On the other hand, in this study, an instrument developed for education was used so that the respondent could understand the measurement of career readiness outside the teaching profession. Thus, there is still room for investigating other variables using other instruments to determine student career readiness.

# CONCLUSION

The results of this study add to the literature on career readiness by proving that self-efficacy and career maturity play an essential role in increasing career choice readiness. In contrast to academic achievement, it does not affect career readiness. Thus, based on this research and previous findings, the most significant step to improve career readiness is to increase self-efficacy and career maturity to face their future careers well. On the other hand, this study found that career maturity mediates partially on self-efficacy on career readiness. This study includes an investigation of the proposed mediation role with other factors that enhance student career readiness. The next should carry out investigations research regarding other vital factors that affect student career readiness. Also, further researchers should expand the sample and reveal the effectiveness of student career readiness.

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24 Jurnal Pendidikan Teknologi dan Kejuruan, Vol. 27, No. 1, May 2021

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