KONSELOR

The relationship among academic self-concept, academic self-esteem, and academic achievement

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Abstract
This research aims to: 1) identify the levels of academic self-concept and academic self-esteem, 2) analyze the relationship among academic self-concept, academic self-esteem, and academic achievement, and, 3) analyze the mediating effect of academic self-esteem in the relationship between academic self-concept and academic achievement. The research population is 907 students of STKIP Singkawang, and then a sample of 482 students (107 male and 375 female) is taken using a simple random sampling technique. The research instruments are the academic self-concept and the academic self-esteem scales which are obtained from adaptation, and the GPA documentation. The data are analyzed using SPSS with descriptive statistics, correlation, and regression techniques. The results show that the students mostly have a high level of academic self-concept but moderate academic self-esteem level. There is a significant relationship between academic self-concept and self-esteem, but it is not significantly related to academic achievement. Academic self-esteem does not have a mediating effect on the relationship between academic self-concept and academic achievement. Academic self-concept also does not have a direct effect on academic achievement but is a predictor of academic self-esteem.

Keywords: Academic self-concept, academic self-esteem, academic achievement

Introduction

Academic achievement is one of the most important indicators and is a measure of the students' success during their education journey. Academic achievement is of course obtained from the results of evaluations carried out during one semester or one academic year. Slavin (2010) explained that academic achievement can be seen by evaluating and measuring the students' performance through quizzes and written assessments, which are then processed in numerical forms or grades. Students with high academic achievement are declared successful in learning, while those with low academic achievement are decided to fail. Achieving high academic achievement is certainly not easy. The students must follow every learning activity well and not lose focus in learning steps. Empirically, many factors influence the high or low level of students' achievement, namely demographics, intelligence, behavioral characteristics, and psychological factors which include attitudes, self-esteem, self-efficacy and self-concept motivation for success; motivation, and self-regulation (Dzulkifli & Alias, 2012; Al-Zoubi & Younes, 2015; Doostian et al, 2014, Clearly & Kitsantas, 2017).

Some factors that influence academic achievement certainly have different effects, so an in-depth study is needed to determine the level of the influence of each factor. Psychological factors are the researcher's concern in this paper, namely self-concept and self-esteem. Academic self-concept is a real view of oneself that is believed to be true through the process of perception of knowledge, skills, attitudes, physical and mental strength, expectations, and assessments of others related to his/her academic abilities. This author's opinion is corroborated by Flowers et al. (2013) who emphasized that academic self-concept is someone's belief related to his/her abilities in the academic field using psychological construction. The explanation

related to this academic self-concept shows that an individual is conditioned to perceive himself as a learner who lives within an academic environment and interacts with his learning environment (Emmanuel et al., 2014). Individuals who have a positive academic self-concept feel that they are superior in academics (Ellingsen, 2013) through hard-working and always try to train their cognitive functions so that they have good learning performance (Ordaz-Villegas et al., 2013).

A positive self-concept supports positive ways of behaving, thinking, understanding, and acting (Bastaman, 2005). Thus, individuals who have a good self-concept will not delay their academic tasks because they can manage their learning times efficiently (Goldberg, 2014). Self-esteem is a general assessment based on thoughts and emotions that the individual gives towards himself (Babu et al, 2020). Individuals who have high self-esteem tend to perform adaptive coping when facing a challenge, while those having low self-esteem tend to be emotional in dealing with difficult conditions because of limited coping mechanisms (Browne, 2016). Likewise in an academic context, self-esteem is an individual assessment of one's academic abilities. A positive assessment on academic abilities shows that individuals have high self-esteem, while negative assessments indicate that they have low self-esteem.

Self-concept and self-esteem have a significant relationship, meaning that any increase in self-concept will strengthen self-esteem (Srivastava & Joshi, 2014). Essentially, self-concept and self-esteem cannot be separated because they are closely related to one another. Therefore, many authors use this term unchanged (Srivastava & Joshi, 2014). The big difference between the two is that self-concept refers to students' perceptions of competence or adequacy in academic & non-academic domains, while self-esteem is an overall evaluation including feelings of happiness and satisfaction in general (Manning, 2007). If self-concept or self-knowledge contains a descriptive component that effectively answers the question of who I am (Hattie, 1992), self-esteem contains an effective and evaluative component and answers the question of how I feel about who I am' (Campbell & Lavellee, 1993). Therefore, academic self-esteem is an evaluative component of self-concept (Byrne, 1996).

Based on some explanations above, it can be concluded that academic self-concept, academic self-esteem, and academic achievement have a significant relationship with each other. However, several studies show a weak relationship between academic self-concept, academic self-esteem, and academic achievement (Meerah & Mazlan, 2017; Ayu & Prayitno, 2018). Some previous results form the basis of this research. Also, the mediating effect of academic achievement has not been studied deeply in several studies so this topic needs to be explored in more detail. Next, the research variables have never been studied on this research population. Therefore, the objectives in this research is to analyze the relationship among academic self-concept, academic self-esteem, and academic achievement

Method

Research Design

Based on the research objectives, the research is designed as a quantitative study with a survey approach. Creswell (2014) defined that the survey approach is used to study a sample of the population by collecting data in quantitative or numerical forms, attitudes, or opinions.

Population and Sample

The population in this research is the students of STKIP Singkawang. Based on data from student affairs, the number of active students in the odd semester of 2020 is 907 students. The population is then taken as a sample of 482 students (male; 107 and female; 375) using a simple random sampling technique ($\alpha = .01$) (Cohen, Manion, & Morrison, 2007). For more information about population and sample please look forward to Table 1.

Data Collection Method and Instruments

The data are collected using questionnaires in form of Likert scale and documentation. The questionnaire consists of four items, namely demographic information (Gender, Year of Study, major), academic achievement, self-concept, and self-esteem. The self-concept uses is measured using the instrument developed by Liu & Wang (2005) and has also been developed by Matovu (2014) which consists of 20 items, then the self-esteem instrument is an adaptation of the instrument developed by Rosenberg (1965) which consists of 10 items. Meanwhile, academic achievement is measured by using student academic achievement index documentation. To test the validity and reliability of the instruments, the researcher first conducts a pilot study by distributing the instrument to 100 students outside the research

sample. The results indicate that all statement items are valid and reliable, with a Cronbach alpha value on the self-concept instrument of .798, and the self-esteem instrument of .736. It means that the instrument is reliable for use in research.

Tabel 1 <Frequency and Percentage of Respondents Demographic Information>

Demographic Information		Frequence	Percentage
Gender	Male	107	22.2
	Female	375	77.8
Major	Counseling	19	3.9
	Physic Education	15	3.1
	Math Education	29	6.0
	Indonesian Language	64	13.3
	Primary School Teacher Education	355	73.7
Years of Study	1st Years	203	42.1
	2nd Years	199	41.3
	3rd Years	80	16.6

Data Analysis Procedure

Questionnaires that have been adapted and tested for validity and reliability are distributed directly to students who become the research sample. After the data are collected, the researcher then analyzes them using SPSS program version 23.0. To analyze the results of the research, the researcher uses descriptive statistics (frequency, percentage, mean, and SD), correlation, and regression techniques. The level of significance for all data analyzes is 5%.

Results and Discussion

Results

Level of Self-Concept, Self-Esteem, and Academic Achievement

Based on table 2, the results indicate that the average student academic self-concept is in the high category, namely 72%, while academic self-esteem is at a moderate level (63.9%).

Table 2 <Frequency and Percentage: Academic Self-Concept, and Academic Self-Esteem>

Variable	Frequence			Percentage		
	Hight	Middle	Low	Hight (%)	Middle (%)	Low
Academic Self Concept	350	132	0	72.61	27.39	0
Academic Self Esteem	174	308	0	36.10	63.90	0

The relationship among Academic Self-Concept, Academic Self-Esteem, and Academic Procrastination

The results in table 2 show that academic self-concept has a significant relationship with academic self-esteem (r = .553, p <.05) and not significantly related to academic achievement (r = .070, p> .05). Academic self esteem also does not have a significant relationship with academic achievement (r = .042, p> .05).

Table 3 <Intercorrelation among Academic Self-concept, Academic Self-esteem and Academic Achievement>

Variable	Mean	SD	1	2
Academic Self Concept	57.1	5.9	-	-
Academic Self Esteem	25.3	3.1	.553**	-
Academic Achievement	3.4	.4	.070	.042

Mediating effect of self-esteem in the relationship between self-concept and academic procrastination

Chart 1 explains the mediation effect of academic self-esteem on the relationship between academic self-concept and academic achievement using the SPSS macro PROCESS model (Preacher & Hayes, 2004). The results of the research in step 1 show that academic self-concept can predict academic self-esteem significantly, with an effective value of .2921 and p <.05. Then, the results in step 2 indicate that academic self-esteem by controlling academic self-concept cannot significantly predict academic achievement, with an effective value of .0005 and p> .05. The results in step 3 show that academic self-concept does not have a significant direct effect on academic achievement, with an effective value of .0048 and p> .05. Next, the results in step 4 show that academic self-concept by controlling academic self-esteem cannot significantly predict academic achievement, with an effective value of .0049 and p> .05. The indirect estimation effect shows no mediation, with an effect value of .0002 (Se = .002, 95% CI = -.0041 to .0044). The indirect effect shows that academic self-esteem cannot mediate the relationship between academic self-concept and academic achievement.
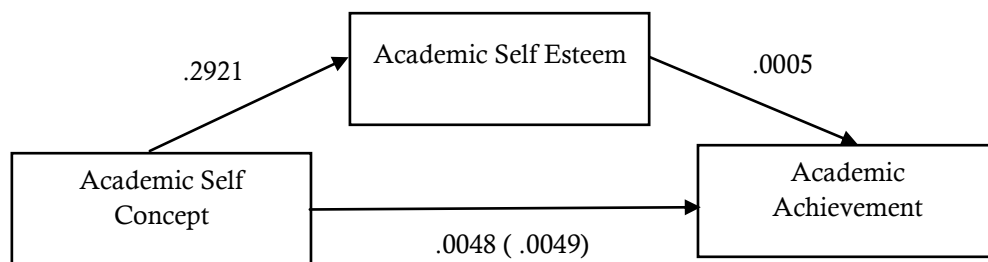

Chart 1 <Mediator Effects of Academic Self-Esteem on the Relationship between Self-Concept and Academic Achievement>

Discussion

The first objective of this research is to identify the level of academic self-concept, academic self-esteem, and academic achievement. From the results, it can be seen that most students already have high academic self-concepts. This means that almost all of them can participate in all types of academic activities well. The high academic self-concept is supported by those who are already in the late teens. Papalia & Feldmen (2014) revealed that knowledge mastery, acceptance, and self-evaluation have developed well during the late teens. For academic self-esteem, many of them are at a moderate level. This shows that nature and the way the students act are not much different from those at high levels, but the students with a moderate level of academic self-esteem are not so sure in assessing themselves and mostly depend on the acceptance of their social environment (Mruk, 2006).

The second objective of this research is to analyze the relationship among academic self-concept, academic self-esteem, and academic achievement. The results show that there is a significant positive relationship between academic self-concept and academic self-esteem. A positive relationship implies that if the academic self-concept increases, it will be followed by an increase in academic self-esteem. The results are supported by Srivastava & Joshi (2014) who explained a strong relationship between self-concept and self-esteem. Franken (1994) argued that self-concept is related to self-esteem and there are very clear differences in self-concept in individuals who have high self-esteem. Then, the academic self-concept with academic achievement does not have a significant relationship, meaning that when the academic self-concept has increased or decreased, it does not influence academic achievement. This is supported by Meerah & Mazlan (2017) who found that the relationship between self-concept and academic achievement is not significant. However, several studies have found contrasting results to this research, where academic self-concept and academic achievement have a significant relationship (Izuchi & Onyekuru, 2017; Hanifah & Abadi, 2019). Likewise, the relationship between academic self-esteem and academic achievement is not significantly related. This result is supported by previous research with findings of the weak or insignificant correlation between academic self-esteem and academic achievement (Rakasiwi et al., 2015; Ayu & Prayitno, 2018; Margono, 2014; Giunta et al., 2013; Zheng et al., 2014).

Other research findings show a significant relationship between academic self-esteem and academic achievement (Kucukibis, 2019; Wibowo, 2016; Arshad et al., 2016). The difference in the results of this research with several previous studies may be caused by various indicators that can influence academic achievement so that each study population has a different tendency regarding indicators of academic

achievement. Ahmadi & Supriyono (2004) divided the determinants of academic achievement indicators into three important points, namely: 1) stimuli provided in learning, such as learning materials, assignments, and learning dynamics; 2) learning and teaching methods, such as practicum, training, optimization of the senses in learning, and guidance in learning, and; 3) internal factors, such as maturity, age, gender, experience, health, and learning motivation.

The third objective is to analyze the mediating effect of self-esteem on the relationship between self-concept and academic achievement. The results show that academic self-esteem is not capable of being an effective mediator in the relationship between academic self-concept and academic achievement. This can be due to the insignificant relationship among academic self-concept, academic self-esteem, and academic achievement. Next, the analysis results indicate that academic self-concept and academic self-esteem cannot significantly predict academic achievement. These results can also be the cause of self-esteem inability to effectively become a mediator between academic self-concept and academic achievement. The findings are different from some other studies which show that academic self-concept and academic self-esteem are strong predictors of academic achievement (Arefi & Naghebzadeh, 2014; Malhotra et al, 2019; Asakereh & Yousofi, 2018). On the other hand, the research findings indicate that academic self-concept can predict academic self-esteem well. It means that every increase in academic self-concept for someone will be followed by an increase in academic self-esteem. This can be because academic self-esteem is an evaluative component of academic self-concept (Byrne, 1996).

Conclusion

Based on the results of research data analysis, it can be concluded that academic self-concept is at a high level and academic self-esteem is at a moderate level, and they do not have a significant relationship with academic achievement. Furthermore, academic self-esteem cannot be an effective mediator in the relationship between academic self-concept and academic achievement. These findings indicate that there should be further research to explore other variables as the strong predictors of academic achievement.

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