



Research Article

Identification of Factors Affecting of Character Education Program on High School Students' Self-Regulation Skills

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Abstract

The purpose of this study is to identify the factors of character education that affect students' self-regulation skills. Research uses a quantitative approach. The instrument used was adapted from SRLOQ, which was developed by (Vrieling et al., 2013), but modified with words to fit the context of this study. The research instrument consisted of two parts: measurement of self-regulation skills and student demographic information with a total of 108 students who took part in a character education training program at a high school in Islamic boarding schools. Data analysis involves t test, analysis of variance and multiple regression analysis. The results of this study indicate that gender and age have a strong and significant influence on self-regulation skills. Previous education was also found to have an indirect impact on self-regulation skills. This shows that age maturity is an important component of self-regulation skills, because the higher the age level, the higher the student's thinking ability. In addition, gender is also a component that affects self-regulation skills because there are differences in the way of thinking between men and women. The findings of this study indicate that self-regulation skills become dynamic entities especially with increasing age and gender differences.

Keywords:

self-regulation skills, high school student, character education program, regression analysis

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Introduction

Self-regulation skills take into account many educational system nowadays. Many researchers highlighted this affective domain for development of character education programs (Yeager et al., 2014; Anam et al., 2019). For example, self-regulation skills differ among gifted students (Tortop, 2015), self-improvement depends on regulation (Odinokaya et al., 2019), become an independent learner (Sholeh, 2019), SRL skills impact learning interest (Kizilcec et al., 2017), and the application of various teaching methodologies in SRL (Siddiqui & Malik, 2019), improve reasoning for students (Roslan et al., 2014), develop better understanding (Suardi & Hamid, 2013), emphasis on skills (Greene et al., 2015), strategic activities play an important role in learning (Isohätälä et al., 2017), helping them to think critically (Ratminingsih et al., 2017), improve metacognition and cognitive abilities (Pantiwati, 2017), shifting from the task understanding stage to monitoring activities (Järvelä et al., 2016). From that point on, character education training programs have formed attributes to develop graduates. Whatever the conditions, actual learning achievement often depends on students who have the mind, aspiration and willingness to do (Weinstein et al., 2011). Lindner & Harris (1992) explained that self-regulated learning is an integrated process of the ability of cognition, metacognition, motivation, perception, and environment to achieve success.

Character Education Program in Islamic Boarding School (IBS)

The Character Education Program at the IBS is sufficient to put in place an educational institution that shapes students' affections to form a balanced human character. Because IBS are educational institutions that are very effective in developing character (Anam et al., 2019). The characters that are developed in IBS are discipline, independence, religious, togetherness, caring, compassion, simplicity, respect, courtesy, responsibility, honesty, and sincere (Mangun & Machali, 2014; Abdurrahman, 2016; Restiyanti et al., 2017), IBS have values that are inherent in society (Ma'arif, 2019). Self-regulation of students in the character education program developed at the IBS has special rules that must be obeyed by students, studying religious knowledge and learning general knowledge (Yasmadi, 2005). The principle goal of in IBS character education training programs is integrating science with religious knowledge (Ma'arif, 2018), they also have learning target of religious knowledge and personality of students (Fatmawati, 2018), and their orientation is to develop students' behavior, values and norms (Yeyeng, 2017).

Basically, learning in IBS is a partnership between students and teachers, therefore, this research explores the factors that support students to organize their learning independently. Understanding these factors helps facilitate learning, create opportunities and conditions for students and assist to have self-regulation learning in IBS. The results of previous studies indicate that internal and external factors are factors that influence student self-regulation. According to Woolfolk (2010) self-

regulation in learning, internally influenced by knowledge, volume and motivation. In addition to internal factors there are also external factors that can affect student self-regulation which includes the environment to support the learning process (Suardi, 2015), and external stimuli (Suardi & Hamid, 2013). From the results of previous studies found that older students failed to develop cognitive strategies and appropriate motivation to regulate their own learning. Even if students have knowledge of strategies, they may not have the insight or motivation to apply them at the right time (Bembenutty, 2011a). In the sense that students who have low self-regulation ability will have an impact on student academic failure (Bembenutty, 2011a). In other studies, students' goals, work prospects, self-efficacy, metacognitive knowledge, prior learning experiences, peer and family influences have a significant influence on student self-regulation in learning (Balapumi et al., 2016). Much remains to be learned about the factors that influence students' self-regulation in learning (Bembenutty, 2011b), and investigate the factors that influence the formation of students' self-regulation motivation in learning (Stewart et al., 2015).

Referring to the background, this study aims to identify the factors of character education that affect students' self-regulation skills. And also hopes to be used as input in providing the support needed for students in developing and maintaining the self-regulation skills of high school students according to schools that provide character education training programs.

Problem of Study

This study main problem is that is there any relation and differentiation of high school students' self-regulation skills and different factors (gender, age and previous education). Subproblems are as follow;

- Is there any differentiation high school students' self regulations skills according to age?
- Is there any differentiation high school students' self regulations skills according to gender?
- Is there any differentiation high school students' self regulations skills according to previous education?
- Is there any differentiation high school students' self regulations skills according to school that given character education training program (IBS)?
- What are the high school students' self-regulation skills depend on factors (gender, age, and Previous education) ?

Method

Research Design

This research is based on a survey research with a quantitative approach (Little, 2013). The study was conducted quantitatively with the stratified sampling technique. Quantitative measurements are carried out to determine the factors that influence student self-regulation skills in IBS character education training program.

Participants

The participants of this study was 108 people, consisting of Nurul Jadid IBS students, each of whom consisted of junior high school students, high school students and college students in Indonesia. Stratified Sampling technique is used because the population is not homogeneous, consisting of different strata (Prasetyo & Jannah, 2005). Strata that are intended in this study are students of junior high schools, high schools and students in tertiary institutions. The total number of sample members is determined through the Taro Yaname and Slovin Formulas. The demographic attributes of the respondents are shown in Table 1.

Table 1.

Demographic Features of the Students Participating in the Study

Variables	Category	Percentage	
Gender	Men	46%	
	Women	54%	
	Age	13 years old	2%
		14 years old	8%
		15 years old	25%
		16 years old	8%
		17 years old	21%
		18 years old	13%
19 years old		7%	
20 years old		8%	
Previous Education	21 years old	4%	
	22 years old	2%	
	23 years old	2%	
	24 years old	1%	
	26 years old	1%	
	Public School	39%	
	Islamic School	61%	

Data Collection

The instrument used in this study was obtained from SRLOQ, which was developed by (Vrieling et al., 2013), but modified the words to fit the context of this study. The research instrument was divided into two parts. Part 1 covers demographic information, including gender, age, and previous education, while the second part covers self-regulation skills in learning. To determine the level of reliability using Cronbach's Alpha, which shows directly the reliability of a

questionnaire (Murniati et al., 2013). The following are the results of the calculation of reliability and validity:

Table 2.

Summary of Case Processing in Cronbach's Alpha

		N	%
Cases	Valid	108	100.0
	Excluded ^a	0	.0
	Total	108	100.0

From the table above, it can be concluded that the number of respondents used in this study was 108 respondents and no data was lost so that the N or sample used remained 100% in accordance with the actual situation.

In this study the Cronbach's Alpha test model shows reliability with a high number of Cronbach Alpha values, the level of data reliability will be better and can be said to be a reliable instrument. This is as in the following table 3:

Table 3.

Reliability Test Results on the Instrument about Students' Self-regulation Skills

Cronbach's Alpha	N of Items
.894	56

In the Cronbach's Alpha test it was 0.894, included in the high reliability category with the number $0.894 > 0.05$ (alpha). So it can be concluded that the questions in the questionnaire variable Self-regulation skills used in this study can be trusted.

Data Analysis

The research data were analyzed using t test, Analysis of Variance (ANOVA) and Multiple Regression Analysis, assisted by SPSS. t-Test was used to determine differentiation of students' self-regulation skills of on gender. While the Analysis of Variance (ANOVA) is used to determine the effect of age on Self-Regulation Skills. Multiple regression analysis is used to see the extent to which the influence of a number of dependent variables is able to predict the independent variable.

Results and Discussion

This section presents Research Results and Discussion. Results and discussion are based on the problems raised in the study.

Results Related Subproblem 1: Self-regulation Skills & Age

Age is one indicator in the measurement of factors that influence Self-regulation Skills, so in this study take an example with a different age from high school students in the character education training program. To find out the effect of age

on Self-regulation Skills, data analysis was done using ANOVA. Presented in the following table:

Table 4.

ANOVA Results for the Differentiation of Students' Self-Regulation Skills According to Age

Source	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2030.095	2	1015.047	32.340	.000
Within Groups	3295.572	105	31.386		
Total	5325.667	107			

Table 4 shows there was an influence of age level on students' self-regulation. The results of the study obtained a significance value of $0,000 < 0,05$; it shows that the significance $0,000 < 0,05$. The hypothesis is accepted and H_0 is rejected. It means that the results of this study indicates that there is an influence of the age level of students on student-self regulation skills. Thus, age becomes the dominant factor for the regulation of student skills. So it can be assumed that the higher the age level of students, the higher the regulation skills possessed by students.

Self-regulation skills are a critical competency that must be a central and explicit goal in education. Apart from the importance of this self-regulation process, this study confirms previous research (Hamman et al., 2000), that age and professional development phase are important factors in the regulation of student skills (Hargreaves, 2005). Thus the results of this study support the findings of the previous theory.

Results related Subproblem 2: Self-regulation Skills & Gender

To find out the effect of gender on students' Self-regulation skills in a high school character education training program, an analysis and testing was done using t test. As in the following table:

Table 5

t-Test Results for the Differentiation of Students' Self-Regulation Skills According to Gender

Gender	N	Mean	Df	T	P
Male	50	76.2600	106	-2.352	.061
Famale	58	79.3966	88.881	-2.301	.024

Based on the results of analysis shown in Table 5, the independent variable has t count of -2,352 and -2.301, a p value of 0.061 from men and 0.024 women. From these data that men are greater than 0.05 ($\geq 0,05$), while women are less than or equal to 0.05 ($\leq 0,05$). In this case it means that there are differences between male and female self-regulation. Thus the data says that there is an effect of gender on the Student's Self-Regulation skills.

This finding supports the findings of previous studies as the findings of Zimmerman & Martinez-pons (1990) that gender differences influence the self-

regulated learning strategy, where women are significantly more able to maintain and monitor, develop the environment, and make plans and goals better than men guys. This shows that women are better in self-regulated learning strategies than men. Women tend to show high anxiety in lessons (Pajares & Miller, 1994). The results showed that women have higher self-regulation skills compared to men.

Results related Subproblem 3: Self-regulation Skills & Previous Education

Previous education from a student influences how they perceive their current learning. This previous education can include knowledge, learning experiences and academic achievements of the previous Education of each student. Thus, to find this out, in this sub-problem the results data are presented using t-tests in order to find out the effect of previous learning experiences on students' Self-Regulation Skills in character education training programs in high school. As presented in the following table:

Table 6

t-Test Results for the Differentiation of Students' Self-Regulation Skills According to Previous Education

Previous Education	N	Mean	Df	T	P
Public School	42	77.2857	7.76259	-.773	.441
Islamic School	66	78.3636	6.59285	-.745	.459

Table 6 shows the independent variable has a t -2,352 and -2,301, p of 0.441 and 0.459. Significance is more than 0.05 (≥ 0.05), the hypothesis is rejected. In this case there is no difference in students' self-regulation skills based on previous education. Whether it's from public school or Islamic school. This means that the results of this study indicates that there is no influence on the level of previous education on student self-regulation skills.

This finding is different from previous findings about students' previous education and their academic performance (Trigwell et al., 2013). Thus the findings of this study reject the role of previous education in influencing self-regulation skills for students in character education training programs.

Results related Subproblem 4: Self-regulations Skills in Character Education of Training Program

Self-regulation skills in character education training programs are an important aspect that must be possessed by every student. Self-regulation does not appear by itself. There needs to be habituation and practice to be able to have good self-regulation. Students of character education programs have diverse self-regulation skills. To understand this, a One-Sample Test is carried out as in the following table:

Table 7

t-Test Results of Self-regulation Skills in Character Education Training Program

	N	Mean	Df	T	P
Self Regulation Skill	108	77.9444	7.05497	-3.028	.003

Table 7 above shows the differences in the self-regulation skills of students of character education training programs, in this case it appears that p is 0.003, because the significance ≤ 0.05 means H_0 . Rejected while H_a . accepted means that there are differences in the self-regulation skills of students in character education training programs.

Results related Subproblem 5: Relation of High School Students' Self-Regulation Skills with Some Variables

This study used 108 participants from the character education training program students and 108 students from the regular education program students. Hypothesis testing in this study uses multiple regression to predict student skills in self-regulation. While the independent variables in this study are gender, age and Previous Education. Hypothesis testing in this study was carried out using multiple regression.

The results of the multiple regression analysis of character education of training programs obtained from data processing are presented in Table 8 as follows:

Table 8.

Regression Analysis of Students' Self-regulations with Gender, Age, Previous Education Model 1

Variable	Regression Coefficient		T	Sig
	B	Std. Error		
(Constant)	36.143	4.337	8.334	.000
Gender	3.446	.984	3.501	.001
Age	1.964	.206	9.512	.000
Previous Education	2.027	1.009	2.009	.057
Dependent Variable	Self-Regulation Skills			
F Statistics	34.208			
Sig F	.000			
R square	.497			
Adjusted R ²	.482			

The results of the multiple regression test in Table 8 above shows that the testing of the Dependent variable on the independent variable shows the results of the feasibility of the regression which is indicated by the significance of .000 which is smaller than the value of 0.05, thus the above regression equation shows a positive influence where the factors which affects the Self-Regulation Skills of students will have an impact on increasing Self-Regulation Skill of Student character education training programs. So that in character education training programs there is a dependence on several factors that influence.

Table 9.

Regression Analysis of Students' Self-regulations with Gender, Age, Previous Education Model
2

Variable	Regression Coefficient		T	Sig
	B	Std. Error		
(Constant)	34.460	14.076	2.448	.016
Gender	-1.295	1.412	-.917	.361
Age	2.522	.834	3.024	.003
Previous Education	.700	1.764	.397	.692
Dependent Variables	Self Regulation Skills			
F Statistic	3.242			
Sig F	.025			
R square	.086			
Adjusted R ²	.059			

The multiple regression test in Table 9 above shows the results of the feasibility of the regression which is indicated by the significance of F .025 which is smaller than the value of 0.05, thus the regression equation above shows a positive effect where the factors that influence the Self-Regulation Skills will have an impact on increasing the Self-Regulation Skills of Regular School Students. While separately, it can be seen that age is at a significance level of .003 in the sense of influencing students' self-regulation skills, while other independent variables do not have an effect on students' self-regulation skills. That is, for Regular school students, Gender and Education factors are not factors that have an impact on their self-regulation skills. So it can be said, there is no dependency for regular school students in improving self-regulation skills. Based on the table above, students of the Training Program for Character Education have a higher significance than Regular Students in terms of factors that influence self-regulation skills.

Discussion and Conclusion

This study aims to identify the factors that influence students' self-regulation skills. Three factors (gender, age, and previous education) are explored to ensure that these factors influence students' self-regulation skills in the IBS Character Education Training Program.

The main goal of students studying in the Training Program for Character Education is to gain religious knowledge and general science. These two sciences are seen as the prospect of facing life in the future. So that self-regulation skills in IBS Character Education Training Program is the main thing that must be applied. Considering the high density of activities and the high demands in IBS, this allows students to be able to organize themselves well by creating progress in understanding and learning (Miyake & Kirschner, 2014), through group interactions (Cress et al., 2015), placement in different groups (Barbara et al., 2012). This is in order to adjust to the development needs of students (George, 2010).

In self-regulation, gender factor is one of the causes of the high self-regulation of students. Summary (2014), women have a high level of achieving learning outcomes. This is also in line with research findings on the achievements of female students who are more dominant than men (Dabbagh & Khajehpour, 2011). It is then the gender of students predict a more optimal independent learning strategy (Bozpolat, 2016). Thus it should be a concern for teachers in IBS in applying SRL for students. It is more likely if SRL applied to female students. Even though men are considered less have high SRL, it should be noted that the age aspect, men may also have a high SRL, because age is one of the factors that influence SRL and students' way of thinking (Cahan & Cohen, 1989), related with performance (Mutangi, 2016). Thus, teachers in IBS need to pay attention to the maturity of students' age in applying SRL.

As mentioned above, that the main target of students in studying in IBS is to have religious and general science. Students must strive to achieve that goal. In applying SRL, students who have long studied in IBS are said to have high SRL (Araujo & Murray, 2010), as well as an impact on experience, behavior change, and personality (Iftikhar & Ajmal, 2015). This is certainly an important thing that must be considered, because the successful implementation of SRL is determined by the experience of students in IBS as evidenced by the length of study in IBS. But that does not mean the application of SRL depends only on the factor of length of study, which must be considered is the level of formal education which is also one of the deciding indicators that influence the application of SRL, this is consistent with the view of Zimmerman & Martinez-pons (1990) that class levels are related closely with SRL, so that higher levels of education get higher learning motivation (Irdianto & Putra, 2016). This is proof that the success of SRL will be determined by the level of formal education being undertaken by students.

Students who have previously learned the experience and knowledge of metacognition naturally should contribute to their self-regulation, but in this study, this was not found. This fact is contrary to previous research which states that previous student learning experiences serve as a basis for students' initial self-efficacy beliefs about learning, which shape skills in learning involvement (Kusurkar et al., 2010; Wilkinson et al., 2004). The experience, knowledge and skills gained from new learning engagements will strengthen their effectiveness and then support their self-regulation in continuous learning. But previous education is not really a guarantee in strengthening self-regulation skills in character education training programs in the long run, students also need to have the knowledge and skills to organize their own learning. When a student is in a IBS, he will have the accumulation of self-regulation skills shaped by the IBS environment and other social factors.

The results of this study have identified the factors that influence students' self-regulation skills in IBS character education training programs. This study predicts that Gender and Age, have a stronger and more significant influence on students' self-regulation skills. Meanwhile, the results of this study also showed that students considered that previous education were not factors that could improve their self-regulation skills. So that from this study it was found that the dependence of self-regulation skills on character education training programs on influencing factors, which tends to be different from regular schools that tend to self-regulation skills do not depend on gender, age and previous education.

Recommendations

For Further Studies

This research has identified the factors that influence character education on self-regulation skills. And this has broadened the existing research at SRL in the character education training program. This study recommends the need for further research for this study. Further Studies are expected to identify other factors of self-regulation skills in the training program for character education. It is also recommended that future research broaden the scope of the research into cross-country and cultural comparisons to better understand the best ways to support self-regulation skills in the training program for character education.

For Applicants

As the results of this study, administrators and teachers in training programs for character education must develop students self-regulation strategies by taking into account some of the factors mentioned above. Furthermore, the training program for character education must create a supportive environment for students' self-regulation skills through the creation of a culture of self-regulation.

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