Analysis of Goals, Metacognition and Academic Achievement Students' of Muhammadiyah Malang University

Fidrayani[1], Fauzan, Desi Nahartini[1], Atik Yuliani[1] and Asep Ediana Latip[1]

[1]*Faculty of Educational Sciences, Syarif Hidayatullah State Islamic University (UIN) Jakarta*

Keywords: goals orientation, metacognition, academic achievement

Abstract: This study was examined the relationship between goals orientation, metacognition, and academic achievement. This research is a quantitative design which 263 students. Instrument using Goals Inventory, Metacognitive Awareness Inventory (MAI). They were asked about goals achievement, mastery goals and performance goals, and demographic factors (age, graduated, sex). The relationship between the mastery goals was related with metacognition but unrelated with the academic achievement. The performance goals were related to academic achievement directly. The relationship between goals orientation with academic achievement unpredicted, because of the teacher have to improve the students with the other strategy can achieve the academic result

1 INTRODUCTION

Academic achievement is an important thing to be achieved by the students, this was due to the acquisition of achievement of student learning outcomes achieved during a certain period. Achievement is a special level of success to learn tasks or a certain level of expertise in school assignments or academic. In education or academic, achievement is a special level of expertise in the acquisition or the results of academic work is assessed by teachers, through the tests that have been standardized, or through a combination of these two things (Chaplin, 2006). Academic achievement is a measurement obtained from formal education which is called by the test results, rankings, and the average (Laurens & Vimala, 2012).

The first year at college is a critical transition period for the students because of this age student persistence and success laid the foundation for their further academic standards. GPA (grade point average) in the first semester of the first year is one of the factors most responsible for the graduation College (Aboma, 2009). In addition to cognitive abilities, non-cognitive ability is an important contributor, so it is not enough to get to know students solely based on academic merit. Cognitive factors usually refer to measurements such as high school rank and standardized test scores while non-

cognitive measurements related to psychological factors, such as social support and skills related to the academic (Aboma, 2009).

Earned GPA on track different admissions, students who enter via the pathway SMPB have a higher GPA, but has a completion period of study is longer. Research on GMU student admissions through three channels, Students Admissions (SA), Written Test (WT) and High Yield Clone (HYC) indicates that the GPA of students who entered through the SA higher than WT and HYC. Also found are that the student through the HYC has a study period that is shorter than the path WT and SA (Ningrum, Widyobroto, Martani, 2013).

Factors that affect the low academic achievement among demographic factors (Casanova, García-Linares, de la Torre and de la Villa Carpi, 2005; Ray, 2010; O'Sullivan, 2009), intelligence (Deary, Strand, Smith and Fernandes , 2007), behavioral characteristics (Ergul, 2004; Lane, Barton-Arwoo, Nelsonz, & Wehby, 2008), and psychological factors, namely (Erdogan, Bayram, and Deniz, 2008; Olatunde, 2009), self-esteem (Lockett & Harrell, 2003; Schmidt and Padilla, 2003), self-efficacy (Ferla, Valcke & Cai, 2009; Onyeizugbo, 2010) and self-concept (Holliday, 2009).

Academic achievement on the gender differences are also different (Eitle, 2005). Women showed better performance than men (Chambers &

Schreiber, 2004). Demographic factors such as gender, ethnicity and father's occupation is a significant contributor to academic achievement (McCoy, 2005; Peng & Hall, 1995).

The same is confirmed by Abesha (2012) that academic achievement is influenced by the style of parenting, self-efficacy and achievement motivation. By using path analysis revealed that parenting style, a cognitive social model of achievement show a good model to empirical data among all the samples, both men and women. Research conducted in Ethiopia revealed that parenting style turned out to give a positive direction and significant effect on students of female sex and not on the male gender.

Environmental and personal characteristics play an important role in student achievement. School staff, family members, and community to provide assistance and support to the quality of academic performance. Social assistance has an important role in achieving the goal of student performance schools (Goddard, 2003). In addition, the social structure, parental involvement in children's education increases the academic achievement of their children (Furstenberg & Hughes, 1995).

Krashen (2005) concluded that students with highly educated parents have a high value on standardized tests than students whose parents are not educated. Educated parents are able to communicate better about school work, activities and important information learned in school (Fantuzzo & Tighe, 2000).

Academic achievement is closely related to the student's ability to know his way of thinking itself. The ability to know how to think is called metacognition. Kemal (2010) affirms that consciousness metacognition and learning strategies are important factors to the success of a student's academic, added also that consciousness metacognition is a positive predictor of the academic success.

Metacognition awareness of every individual is seen as an important factor in learning through the span of human life, creativity, and critical thinking, and build self-confidence (Memnun and Akkaya, 2009). Metacognition obtained human consciousness through the process of environmental and internal potential.

Metacognition awareness is the ability to reflect on how to think and use problem-solving skills in dealing with learning difficulties (Joseph, 2010). As confirmed by Schraw and Dennison (1994) that metacognitive awareness is the ability to plan, organize, and monitor learning that directly improves academic performance. Students with

good metacognitive awareness will be easier to regulate and monitor their lesson, they have the ability to provide critical information and apply learning strategies to solve any problem with ease.

Simsek and Balaban (2010) found a positive correlation and significant contributions between use learning strategies to the level of a student's academic performance. Even research Cho and Ahn (2003) also found similar results, the results indicated that when using more strategies in learning, it will be more successful.

Young and Fry (2008) conducted a study to test the metacognitive awareness of students with GPA measured at the beginning of the semester and the final semester. The results show that there are significant differences, this was due to the end of the semester students are already capable of using metacognitive awareness well through interventions learning strategies.

Nosratinia, Saveiy, and Zaker (2014) examined the relationship between metacognitive awareness, self-efficacy, and learning strategies in 150 college students who study English in Iran. The results show that there is a significant relationship between self-efficacy and metacognitive awareness, self-efficacy and learning strategies, as well as between consciousness metacognition and learning strategies. The research was conducted by Sperling, Howard, Miller & Murphy (2002) examined the elementary school students' metacognition is based on observations of teachers to student learning outcomes. The results found that the assessment of students' metacognition varies by age. The higher the grade and age of the student, the higher metacognition owned.

Coutinho (2007) conducted a study to examine the relationship between goals, metacognition and academic success of the students. The result is that students who have a primary goal in learning will increase academic success. Students who have the primary goal in the study also had a good metacognition thus increasing academic success.

When students are in the learning environment, they have a learning goal refers to goal achievement. Dweck (1999) states that the purpose of achievement is the results obtained by students in the learning environment. achievement goal consists of two main types, namely mastery objectives and performance objectives People with performance goals to encourage students to focus on the outcome or value and avoid a negative assessment of their competence. While the objective of the control is the people who are happy with a challenging task and able to survive in a difficult situation.

Interest mastery and performance is a multidimensional construct of motivation. The goal provides the framework through a wide variety of behavioural, cognitive, and effective (Ames, 1992). For example, researchers who are in the scope of the laboratory and the classroom setting found that students with the aim of showing the variation control of adaptive behaviour and attitudes larger but does not look at all students. Students with the goal of mastering looking for ways to develop their skills through new skills and knowledge to overcome the difficulties and problems that are difficult.

Adoption of the control objectives associated with the completion of the study. At the college level, this translates into a good exam and levels semester termed GPA (Academic Performance Index). Expectations for the students with the aim of mastering an understanding, the ability to connect the old with the new information, set goals, using elaboration and adaptive strategies techniques other than the students who have performance goals (Pintrich, Zusko, Schiefele & Pekrum, 2001).

Research conducted Cautinho (2007) concluded that students who have the objective of the control and metacognition which can improve academic achievement. Despite this performance, goal has no relationship to academic success. Both can occur or exist on the student or one of them.

The research problem is formulated as follows: 1) What is the objective of the control through metacognition significant effect on academic achievement, 2) What is the purpose of performance through metacognition significant effect on academic achievement, 3) What is the purpose of mastery and performance goals through metacognition jointly significant effect on academic achievement. The purpose of the study as follows: 1) knowing whether the objective of the control through metacognition significant effect on academic achievement, 2) to determine whether the performance goals through metacognition significant effect on academic achievement, 3) to determine whether the control objectives and performance goals through metacognition jointly significant effect on academic achievement.

Academic achievement is defined as an achievement in all academic disciplines, in the classroom as activity curricular. Include the achievement of which is supported by the behavior, confidence, communication skills, time discipline, art, culture, and everything that can be achieved only when a person in a state able to set well. Trow (1956) defines academic achievement as the ability to acquire knowledge or level of competence in school work which is usually measured by standard tests and expressed in class or student performance.

Good (1959) refers to academic achievement as embodied knowledge or skills developed from school lessons designed to test scores and checked by the teacher. Mehta (1969) defines academic achievement as academic performance or curricular and non-curricular student. This indicates the student learning outcomes. In the classroom, the students showed their potential by efficiently, as a result of learning. Learning outcomes change the behavior patterns of students.

Orientation Objectives

Goal orientation theory states that when students participate in class, they are trying to achieve one or more goals (Ames & Archer, 1988; Dweck & Leggett, 1988). Two main objectives namely: the control objectives and performance goals. Students who adopt a mastery goal was more interested in learning materials in the classroom and trying to master the material taught what (Ames, 1992; Dweck & Leggett, 1988). Students who pursue performance goals are more interested in demonstrating their competence, especially to another friend (Dweck & Leggett, 1988). Interest mastery and performance is a multidimensional construct of motivation. By him, the objective of setting up a framework through a variety of behavioral, cognitive, and affective responses are supported and directed (Ames, 1992; Dweck & Leggett, 1988).

Metacognition is generally defined as an activity to monitor and control the person's cognition. Further, he said that what we know about the process of cognition and how a person uses the process in order to learn and remember (Ormrod, 2004). Researchers then split into two sub-components metacognition, metacognitive knowledge, and metacognitive regulation. The two sub-components are related to each other (Brown, 1987; Flavell, 1987; Schraw and Dennison, 1994).

Metacognitive knowledge can be described as what we know about cognitive processes. Declarative, procedural, and conditional knowledge is part of the sub-components of metacognitive knowledge (Schraw & Moshman, 1995). Declarative knowledge includes what we know about how we learn and what it does when we learn. Procedural knowledge is knowledge about learning differences and strategies memory or procedures are best for anyone. Conditional knowledge is knowledge about the condition when someone implements a variety of cognitive strategies. Overall, cognitive knowledge refers to what we know about how to learn, what we

know about the procedures and the most effective strategy for us and what we know about the conditions in which a variety of highly effective cognitive activity (Schraw and Moshman, 1995).

Metacognition refers to a person's consciousness about knowledge, what is known or not, and a person's ability to understand, control, and manipulate cognitive processes (Meichenbaum, 1986). This includes knowledge of when and where to use learning strategies and solve problems as well as possible by using these strategies. Metacognition is the ability to use existing knowledge to devise a strategy in learning a task, take the appropriate steps to resolve the problem, reflect and evaluate the results of modifying the learning approach is needed.

Pugalee (2001) states that metacognition is important to ensure the knowledge and the right strategy to solve a problem. In other words, students who use metacognition can explain how they think to solve the problem. Larkin (2000) further revealed that metacognition is important to develop learning and critical thinking. In a quality learning environment, students should be able to learn how to learn, how to remember, and effective learning how to control and direct their own learning (Loyens, Magda & Rikers, 2008).

2 THE RELATIONSHIP BETWEEN MASTERY OBJECTIVES, METACOGNITION, AND ACADEMIC

Academic achievement is a predictor of academic achievement. Landine & Stewart (1998) examined 108 students in grade 12 results indicate a significant positive relationship between metacognition, motivation, the locus of control, self-efficacy and academic achievement. Young and Fry (2008) result is a significant relationship between consciousness metacognition with achievement in the final year students or who have had a longer learning process. Metacognition awareness directly improves academic performance (Schraw and Dennison, 1994).

Interest mastery and performance demonstrating the important role of academic achievement. Dweck (1999) revealed that the effects of this goal are to change and strengthen during times of stress or challenge. Hayert and O'Dell (2004) examined the relevance of goal achievement in test conditions, see

what happens in the next exam after a failure. The result is that students who use the object of the control gain increased fifteen points at the next exam, while students with performance goals decreased by ten points. Not just a different pattern on goal orientation, but it is very strong and consistent influence achievement.

Students with mastery goal have metacognition better and become better learners than students with performance goals (Young & Fry, 2008). Students with performance objectives do not enjoy the fruits of academic achievement even though they are trying so hard to get it. The conceptual framework has shown by the Figure 1.
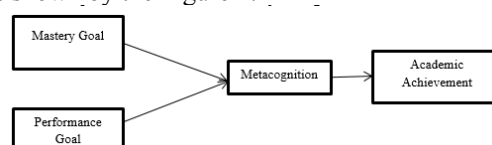

Figure 1. Relationship between goals, metacognition, and academic achievement

The figure 1. clearly shows that the objective of the control has a correlation with academic achievement but through metacognition. The objective of the control is a predictor of academic achievement of students. Students with good metacognition predicted to get a good academic record. At the level of the students need to be conducted this research because it can be used to provide supplies to the students how to use metacognitive strategies to get better learning results (Coutinho, 2007).

2.1 Methodology

The approach used in this study is the quantitative approach. Respondents are sixth semesters of undergraduate students of psychology faculty of UMM. Students are taken to be the respondent is taken from the total number of class members. Subject amounted to 263 people (72 men, 191 women). Students who participated were members of the class overall. The age range between 19-26 years (M = 20.69, SD = .913). Characteristics of the study subjects are presented in table 1.

Table 1.

Characteristic	Amount	Percentage
Age		
19-20	114	43,3 %
21-22	142	53,6 %
23-26	7	3,1 %
Gender		
Male	72	27.4 %
Female	191	72.6 %
Ethnic		
Javanese	174	66.1 %
Banjarnese	22	0.08 %
Maduranese	11	0.04 %
Buginese	10	0.04 %
Sundanese	5	0.02 %
Others	41	33.7 %
Educational background		
Senior High School	200	76.05 %
SMK	7	2.66 %
MA	20	7.60 %
Others	36	13.69 %

Subject charge sheet containing data on demographics (age, gender, ethnicity) and grade point average. It aims to reveal some aspects of demography and get the GPA which is the dependent variable.

The research instrument to reveal the purpose of achievement are Goals Inventory (Roedel, Schraw & Plake, 1994) consists of 12 items that measure the objective of the control and 5 items. Goals Inventory measure two aspects, namely the objective of the control and performance goals. Subjects answered the statement by writing the number 1 (strongly disagree) to point 5 (strongly agree). On the objective of the control, a high score indicates a high ability students to master what they learned, while in the performance goals, the high score indicates low levels of student performance. Examples of items about the objective of the control: I liked the school a challenging task. Example question the purpose of performance: I'm glad people think that I know a lot. Test subjects were 60 respondents. The results of trials in Malang as many as 60 people obtained the consistency alpha of 0.749.

2.2 Instruments

The research instrument used to reveal the students are metacognitive awareness Awareness Inventory (MAI) (Schraw, G. & Dennison, RS (1994), which consists of 52 items and statements using a Likert scale of 1-5. Subjects answered the statement by writing the number 1 (strongly disagree) to point 5 (strongly agree). Scores MAI is in the range of 52-260. a high score indicates high awareness of metacognition. Example question of item scale: I set the speed of learning so that I have enough time to learn. Research Hidayet, Ozgan, and Bulent Dos (2010) obtained a value of α = .962 and reliability value of α = .944. the results of trials in

Malang as many as 60 people obtained the consistency alpha of 0.935.

2.3 Data Analysis

This study uses regression analysis to analysis the strength of the relationship, showing the direction of the relationship, predict and minimize the deviation between the actual value and the estimated value of the dependent variable and independent variables.

3 RESULT AND DISCUSSION

Comparing the empirical mean value (46.97) and the mean hypothetical (36) on the objective of the control can be seen that the objective of the control is in the very high category. In the performance goal empirical mean value (18.45) is greater than the hypothetical mean value (15) this indicates that the purpose of the performance in the high category. In meta-cognition empirical mean value (204.04) is higher than the hypothetical mean value (156) this shows that metacognition is at the very high category.

F-test or ANOVA, F count values obtained $ 5.25, meaning that the objective of the control relationship and metacognition has a significant positive relationship to academic achievement, it explains that the higher the objective of the control mediated by metacognitive the higher academic achievement. The correlation coefficient .197 means that there is a strong relationship between the objective of the control and metacognition to academic achievement. Subsequently found the r^2 value of .039, demonstrating mastery goal contributes 3.9% to academic achievement, while the rest influenced by other factors. Are presented in table 3.

Table 2: Model variables influence mastery purpose, performance goals, metacognition to academic achievement.

	Model	Sum of square	Df	Mean Square	F	sig.
Mastery goals_metacognition	Regression	2.192	2	1.096	5.256	.006*
	Residual	54.223	260	.209		
	Total	56.415	262			
Goals orientation_metacognition	Regression	2.918	2	1.459	7.090	.001*
	Residual	53.498	260	.206		
	Total	56.415	262			
Mastery goals_goal orientation_metacognition	Regression	2.924	3	.975	4.718	.003*
	Residual	53.492	259	.207		
	Total	56.415	262			

Table 3: Correlation table

Model	Beta	T	Sig
Constant	2.096	5.147	.000
Mastery goals	.036	.472	.638
Goal orientation	.120	1.973	.055
Metacognition	.119	1.882	.061

The objective of the control and performance goals have a weak correlation (r = .23, p = 000) this suggests that the objective of the control and performance goals is something that stands alone and students who have a high mastery goal has lower performance goals. Interest mastery has a strong correlation with metacognition (r = .60, p = .000) compared to the performance objectives (r = .23, p = .000). This indicates that students who have a good metacognition also have a good mastery destination where students with high-performance goals do not necessarily have a good metacognition. Interest mastery correlated with GPA (r = .14, p = .023) compared to the performance objectives that do not have a significant relationship with the GPA (r = .16, p = .010). It means that on a weak connection, students who have a good mastery of the destination also has a good GPA although we cannot predict that a student GPA is determined by the strength or weakness of performance goals. The latter, metacognition has a weak correlation to the GPA (r = .19, p = .001), indicating that it is difficult to conclude that either students or less metacognition have a good GPA.

In the regression analysis is used to determine significant correlations and determining the GPA predicted value of the objective of the control, performance goals, and metacognition. Usefulness regression to predict the future GPA. For example, if metacognition is an important predictor of GPA, then we can classify the GPA of students who completed metacognition same scale, it is assumed that metacognition remained stable. Regression is also used to test the mediation which variable or variables that affect other mediating variables. Results are presented in Table 2.

If the purpose of mastery and metacognition tested simultaneously, the result is objective of the control was not significant (t = .64) greater than the significance level of 5% and metacognition significant value, then the variable metacognition actually serves as a moderator variable, but if the goal mastery and metacognition significantly, the independent variables metacognition is not a moderator. On testing variables and variable performance goals metacognition together to variable academic performance, the significant value of the variable performance goals above 5% then the variable metacognition also serves as moderator and not the independent variable. The test is jointly variable mastery purpose, performance goals, metacognition, and academic achievement, and it turns out the significant value of interest mastery and performance goals greater than 5% and in academic achievement variable significance value below 5%. The regression analysis to test the mediating effect on the relationship between metacognition mastery objectives and performance goals. Interest mastery positive effect on metacognition β = 2.92 p = 0.000. The relationship between the objective of the control and the index is not significant with metacognition in the equation, indicating partial models. Performance goals are not related to GPA β = 0:04, p = 0.008 and no mediator.

4 CONCLUSIONS

The study examined the relationship between mastery purpose, performance goals, metacognition, and achievement that is the value grade point average (GPA). Previous research shows that the conflict between the relationship of performance goals with academic performance which is mentioned in some research that there is no relationship between performance goals with the performance itself (Butler, 1993; Buton, Mathieu, and Zajac, 1996) whereas some other studies state that students with goal-oriented performance in itself could do with a good performance (Elliot & Church, 1997; Midleton & Midgley, 1997). The conclusion from this study support previous research that found no relationship between performance goals with the GPA.

Students with the goal of mastering thinking about metacognition good, and being good learners compared with students who are concerned with performance objectives (Young & Fry, 2008). Students with performance goals are not enjoying the fruits of their academic achievement even though they may work hard to get good results. Students should be encouraged to adoption mastery-oriented learning approach. Students tend to be driven by performance goals will benefit from the training that is associated with the goal of mastery and metacognition.

Several studies have shown that metacognition skills can be taught to the students to improve their learning. Jayapraba (2013) studied the effect of metacognitive and cooperative learning strategies to improve academic achievement in science subjects. The results found that metacognitive strategies very effective in improving academic achievement.

Multi-regression analysis showed a significant relationship between consciousness metacognition and academic achievement. Teachers can adopt metacognitive learning in the classroom so that students learn more efficiently and improve academic achievement.

Weaknesses were found in this study were participants reported how they felt about the purpose and metacognition, not what is really their goal or metacognition, which may be different. Participants also reported their GPA and the GPA cannot be verified. Other deficiencies found in this study is the use of the CPI to measure academic achievement instead of learning achievement. CPI measure performance in the classroom compared to learning. Therefore, doing the same research to measure learning outcomes compared with GPA may be given a deeper insight.

One other limitation of this study was the use of a survey method where it is difficult to determine cause and effect relationships. It is difficult to determine whether the destination mastery causes a good GPA or if a good GPA through several semesters due to good governance objectives. The causal link may be seen in other research settings, such experiments as taught how mastery lessons and use metacognition well which can increase the GPA. Characteristics of participants in the study also restrict this research, which means that the results obtained in scope and limited space. The different results might be obtained in different contexts. Finally, the students in the classroom may have performance objectives since they can be through one semester well. The possibility of students using a strategy of performance goals to meet the performance requirements although they may use the objectives required mastery in setting good learning outcomes is not a good GPA. Further research may be required to test environments where performance objectives play the little role and more emphasis on the learning environment and use the information obtained.

The study aimed to test the mastery purpose, performance goals, metacognition, and academic achievement. Participants fill out an instrument that contains data about goal achievement, metacognition, and GPA as well as demographic data (age, gender, and ethnicity). The results show that the objective of the control is not associated with a GPA while performance objectives associated with GPA. This indicates that there is not a clearer picture of the relationship between the objective of the control of academic achievement, making it difficult to ascertain that students with good

metacognitive also affect academic achievement. Students who prefer the performance objectives without understanding the information they can also be a good result.

A study conducted by Camalahan (2006) found that student achievement can be improved when students are given the opportunity to organize themselves and explicitly teach metacognitive learning strategies. Metacognitive skills directly affect the learning behavior and its consequences have an effect on learning outcomes. Veenman (2008) estimate that metacognitive skills contributed 40% to the variation in learning outcomes of some completion tasks. The findings Landine & Stewart (1998) also recommends to the teacher or school counselor to use metacognitive strategies as components in primary school teaching students how to analyze their task, how to monitor and decide how good resolution.

Jayapraba (2013) emphasized the importance of classroom situations that support the use of metacognition strategies. Teachers should have awareness of metacognition first before teaching the students. Provide wider opportunities for students to practice strategies and metacognition are supported by teachers. Feedback on the results of the practice student needs to be given so that they understand how the metacognitive strategies are necessary to improve academic achievement. Leat and Lin (2003) states that the role of teachers in the learning metacognitive including stimulation of teaching strategies, divide the class into groups or individually, encourage students to ask questions, bringing together ideas, encourage and guide the discussion, the students explain their answers, give feedback, establish connections between students, and communicate the learning objectives. In short, teachers can use some of the metacognitive strategies to enhance student learning.

REFERENCES

Abesha, A. G. (2012). *Effects of parenting styles, academic self-efficacy, and achievement motivation on the academic achievement of university students in Ethiopia.* Dissertation; Unpublish. Cowan University Australia

Aboma, O. (2009). Predicting first-year university students' academic success. *Electronic Journal of Research in Educational Psychology*, 7 (3), 1053-1072.

Ames, C. (1992). Classrooms: goals, structures, and student motivation. *Journal of Educational Psychology*, 84, 261-271.

Ames, C., and Archer, J. (1988). Achievement goals in the classroom: Students' learning strategies and motivational processes. *Journal of Applied Psychology* 76, 478-487.

Camahalan, F. M. G. (2006). Effects of self-regulated learning on mathematics achievement on selected Southeast Asian children. *Journal of Instructional Psychology*, 33(3), 194-205.

Casanova, P. F., García-Linares, M. C., de la Torre, M. J., & de la Villa Carpi, M., (2005). Influence of family and socio-demographic variables on students with low academic achievement, *Educational Psychology*, 25 (4), 423–435.

Chaplin. (2006). *The impact of youth development programs on academic achievement*. National collaboration for youth. Download tanggal 24 Januari 2015 tersedia

http://nationalassembly.org/Knowledge/documents/School SuccessBrief.pdf

Cho, S. & Ahn, D. (2003). Strategy acquisition and maintenance of gifted and non-gifted young children. *Council for Exceptional Children*, 69(4), 497-505.

Coutinho, S. A. (2007). The relationship between goals, metacognition, and academic success, *Educate,* 7 (1), 39-47.

Deary, I.J., Strand, S., Smith, P., & Fernandes, C. (2007). Intelligence and educational achievement. *Intelligence*, 35(1), 13-21. http://dx.doi.org/10.1016/j.intell.2006.02.001.

Dweck, C. S. (1999). *Self-theories: Their role in motivation, personality, and development*. Philadelphia: Psychology Press.

Dweck, C. S., and Leggett, E. S. (1988) A social-cognitive approach to motivation and personality. *Psychological Review* 95, 256-273.

Erdogan, Y., Bayram, S., and Deniz, L. (2008). Factors that influence academic achievement and attitudes in web-based education, *International Journal of Instruction*, 1 (1): 31-48

Ergul, H. (2004). The relationship between student characteristics and academic achievement in distance education and application on students of Anadolu University, *Turkish Online Journal of Distance Education*, 5(2). [Online] Available: http://tojde.anadolu.edu.tr/tojde14/articles/ergul.htm

Fantuzzo, J., & Tighe, E. (2000). A family involvement questionnaire. *Journal of Educational Psychology*, 92 (2), 367-376.

Ferla, J., Valcke, M., & Cai, Y. (2009). Academic self-efficacy and academic self-concept: Reconsidering structural relationships. *Learning and Individual Differences,* 19: 499–505. http://dx.doi.org/10.1016/j.lindif.2009.05.004

Flavell, J. H. (1979). Metacognition and cognitive monitoring. A new area of cognitive-developmental inquiry. *American Psychologist*, 34, 906-911.

Furstenberg, F. F., & Hughes, M. E.(1995). Social capital and successful development among at-risk youth. *Journal of Marriage and the Family*, 57, 580-592.

Goddard, R. D. (2003). Relational networks, social trust, and norms: A social capital perspective on students' chances of academic success. *Educational Evaluations & Policy Analysis*, 25, 59-74.

Holliday, A. (2009). Understanding the Implications of Self - Concept and Academic Self - Concept Has on African Americans and Latino's. Version 2. Knol. [Online] Available: http://knol.google.com/k/alon-holliday/understanding-the-implications-self/37qlgwid1fl4z/7.

Hoyert, M. S., & O'Dell, C.D. (2004). The impostor phenomenon and goal orientation. *Journal of the Indiana Academy of Social Sciences*, 7, 1-10.

Jayapraba, G. (2013). Metacognitive instruction and cooperative-learning strategies for promoting insightful learning in science. *International Journals on New Trends in Education and Their Implication,* 4(1), 165-172.

Joseph, N. (2010). Metacognition needed: Teaching middle and high school students to develop strategic learning skills, *Preventing School Failure*, 54 (2), 99-103.

Laurens, A.S.A & Vimala A.(2012). School environment and academic achievement of standard IX students. *Journal of Educational and Instructional Studies in the world* 2 (3), 2146-2163.

Leat, D., & Lin, M. (2003). Developing a pedagogy of metacognition and transfer: Some signposts for the generation and use of knowledge and the creation of research partnerships. *British Educational Research Journal*, 29, 383-415.

Lockett, C. T., & Harrell, J. P. (2003). Racial Identity, self-esteem, and academic achievement: Too much interpretation, too little supporting data. *Journal of Black Psychology*, 29(3), 325-336. http://dx.doi.org/10.1177/0095798403254216

Meichenbaum, D. (1986). Metacognitive methods of instruction: Current status and future prospects. In M. Schwebel & C. A. Maher (Eds.), *Facilitating Cognitive Development: International Perspectives, Programs, and Practices* (pp. 23-32). New York: The Haworth Press.

Memnun, D.S.& Akkaya, R. (2009). The levels of metacognitive awareness of primary teacher trainees, *Procedia social and Behavioral Sciences* 1, 1919-1923.

McCoy, L. P. (2005). Effect of demographic and personal variables on achievement in eighth-grade algebra. *Journal of Educational Research*, 98 (3), 131-135.

Ningrum T. P, Widyobroto, B. P, & Martani. (2013). Prestasi Akademik mahasiswa ditinjau dari sistem jalur penerimaan mahasiswa baru di Universitas Gadjah Mada di download tanggal 16 Januari 2015 tersedia http://mmpt.pasca.ugm.ac.id/downloads/2.%20Extend ed%20Abstract%20MMPT_Tita%20Pavita.pdf

Nosratinia, M., Saveiy, M. & Zaker, A. (2014). EFL learners' self-efficacy, metacognitive awareness, and use of language learning strategies: how are they

associated? *Theory and Practice in Language Studies*, Vol. 4, No. 5, pp. 1080-1092.

Olatunde, P. (2009). Students attitude towards mathematics and academic achievement in some selected Secondary Schools in Southwestern Nigeria. *European Journal of Scientific Research*, 36 (3): 336-341.

Ormrod, J.E. (2003). *Educational Psychology: Developing Learners*. (4th ed.) New Jersey: Merrill-Prentice Hall.

O'Sullivan, E. M., (2009). The demographic and academic profile of Irish dental school faculty members. *Journal of the Irish Dental Association*, 55 (6), 296-301.

Onyeizugbo, E. U. (2010). Self-efficacy and test anxiety as correlates of academic performance. *Educational Research*, 1(10): 477-480. [Online] Available: http://www.interesjournals.org/ER

Pintrich, P. R., Zusho, A., Schiefele, U. & Pekrun, R. (2001). Goal orientation and self-regulated learning in the college classroom: A cross-cultural comparison. In F. Salili, C. Y. Chiu & Y. Y. Hong (Eds.), *Student Motivation: The Culture and Context of Learning*. New York: Plenum.

Pugalee, D. K. (2001). Writing, mathematics, and metacognition: Looking for connections through students' work in mathematical problem-solving. *School Science and Mathematics*, 101, 236-245.

Ray, B. D. (2010). Academic Achievement and Demographic Traits of Homeschool Students: A Nationwide Study, *Academic Leadership*, 8 (1). [Online] Available: http://www.academicleadership.org/pdf/ALJ_ISSN15 33-812_8_1_392.pdf

Schraw, G. & Dennison, R.S. (1994). Assessing metacognitive awareness, *Contemporary Educational Psychology* 19, 460-471.

Schmidt, J. A., & Padilla, B. (2003). Self-esteem and family challenge: An investigation of their effects on achievement. *Journal of Youth and Adolescence*, 32, 37-46. http://dx.doi.org/10.1023/A:1021080323230

Simsek, A. & Balaban, J. (2010). Learning strategies of successful and unsuccessful university students, *Contemporary Educational Technology*, 1(1), 36-45.

Sperling, R.A., Howard, B.C., Miller, L.A., & Murphy, C. (2002) Measures of children's knowledge and regulation of cognition. *Contemporary Educational Psychology* 27, 51–79.

Veenman, M.V.J. (2008). Giftedness: Predicting the speed of expertise acquisition by intellectual ability and metacognitive skillfulness of novices. In M.F. Shaughnessy, M.V.J. Veenman, & C. Kleyn-Kennedy (Eds.), *Meta-cognition: A recent review of research, theory, and perspectives* (pp. 207-220).

Young, A. Fry, J. D. (2008). Metacognitive awareness and academic achievement in college students. *Journal of the Scholarship of Teaching and Learning*, Vol. 8, No. 2, May 2008, pp. 1-10.