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Student's Tutorial System Perception, Academic Self-Efficacy, and Creativity Effects on Self-Regulated Learning

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Abstract

Tutorial system perception, academic self-efficacy, and creativity are assumed as factors influencing homeschooling students' self-regulated learning. Do the tutorial system perception, academic self-efficacy, and creativity have effect simultaneously to homeschooling students' self-regulated learning? The purpose of this study is to measure the direct and indirect effect in the model of tutorial system perception, academic self-efficacy, and creativity to homeschooling students' self-regulated learning. The subjects are 205 homeschooling students in Jakarta. Tutorial system perception constructed from Eggen and Kauchack (2009) (α = 0.885), academic self-efficacy constructed from Bandura (1997) (α = 0.831), self-regulated learning constructed from Zimmerman (1996) (α = 0.862), and creativity measured by Figural Test from Torrence's concept. Structural Equation Model is used to analyze the data. The empirical model has goodness of fit. The model could explain the influence of tutorial system perception, academic self-efficacy, and creativity to homeschooling students' self-regulated learning. The other finding is only tutorial system perception and academic self-efficacy has direct effect to self-regulated learning, respectively. Tutorial system not only developing homeschooling students' self-regulated learning but also increasing the academic self-efficacy. Tutorial system perception, academic self-efficacy, and creativity are important in shaping homeschooling students' self-regulated learning.

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Keywords: Self-regulated learning, Homeschooling students

Introduction

Self-regulated learning (SRL) is one of the aspects of metacognition, which includes *(1)* people's knowledge or awareness of their cognitive processes, and (2) the ability to use self-regulatory mechanism to control these processes. The second ability is called as self-regulated learning. Thus SRL is mechanism of cognition regulatory used actively by students during problem solving (Cleary & Zimmerman, 2004).

Tutorial system is the governance of learning in which the teacher serves as a tutor. Hence, the students must act independently in discovering and identifying the subject matters while the teacher only serves as a facilitator rather than instructor. Learning with the tutorial system is essentially process-based approach learning. The learning

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does not emphasize on the amount of learning materials but on the process of how students can master the materials. Semiawan (1997) stated that what needs to be emphasized for students to master the materials is the process of mastering the learning methods. By mastering the methods and the materials, students will be able to develop the human capital skills and academic achievement, all of which form the basis for the establishment of the required skills of the labor force (Cote & Livine, 2000).

Learning by way of tutorial system with process-based approach learning is very suitable to be applied on homeschooling. Philosophically and psychologically, conventional school does not endorse the natural charateristics of children as free individuals and who are in the process of growing (Beechick, Suarez, & Suarez, 2006). On the basis of these things, the idea of establishing homeschooling emerged. Homeschooling is a school of which most of its time is set by parents at home. Also parents set the schedules, which is not a strict timetable, so as not to cause distress, even otherwise it may cause a sense of comfort and fun. The materials are given according to their talents and interests which are also in accordance with the values and norms adopted by the family and norms, so that the character and moral developments of the children are as expected by the parents.

Tutorial system demands students to do the assignments by themselves and such demand requires creativity. Through assignments, it is expected that students will have the inquiries of the subject matters, regarding the knowledge and skills, as well as the way to solve the problems in hand by themselves, not based on the instructions or the manner provided by the teacher. Ideally, through this students will learn something new. If it is properly nourished, it can be said to have social significance. Since the students discover something new by themselves and not through imitation taught by teachers or others, it means that it is original in nature. With the development of thinking skills that contain the elements of novelty, originality, and the element of social significance, it means students' creativity develops (Al Dhobaiban, 2005; Basuki, 2004). Thus it can be said that the tutorial system can develop students' creativity.

Description of creativity that has been put forward is the ability to think (aptitude traits). In addition to the creativity as the ability to think, creativity is also a personality trait (non-aptitude traits) (Guilford in Munandar, 1999). Students who are able to properly accomplished many assignments as in line with the feedbacks given by their teachers will generate confidence of their own or also known as self-efficacy. (Baron, Byrne, & Branscombe, 2006). Physical performance, academic assignments, performance in properly accomplishing the assignments and ability to cope with anxiety and depression will lead to strong sense of self efficacy (Baron, Byrne, & Branscombe, 2006).

Junior high school students frequently experience degression in terms of self-confidence, grades, and intrinsic motivation in academic assignments (Cleary & Zimmerman, 2004). Bandura (1997) stated that the greatest concern is when students no longer believe that they have the ability to properly accomplish academic assignments or lack of self-efficacy. Poor self confidence often damages students' motivation and potentially leads to neglecting the school assignments. Low self-efficacy can even cause distractions in academic regulations such as paying attention during class, failing to prepare for exams and even dropping out (Zimmerman & Cleary 2006).

Through tutorial system and learning with the approach on process with the focus of properly accomplishing the assignments which is adjusted to the students psychological needs, they will be able to cultivate and develop their self-efficacy (Zimmerman & Cleary 2006). Students who have a good self-efficacy will have better self-control (Cleary & Zimmerman, 2004).

Researchers on self-efficacy argued that there are three aspects of self-efficacy which become important predictors of the behavior in question, namely (1) academic self-efficacy, (2) social self-efficacy (3) self-regulating or self-efficacy related to the ability to resist peer pressure and prevent oneself from engaging in high-risk activities (Baron, Byrne, & Branscombe, 2006).

From the above elaboration, it can be stated that the perception of tutorial system and learning with the approach on process have influence towards self-regulated learning, creativity and academic self-efficacy. This study will probe the model of tutorial system perception variables influence towards self-regulated learning, creativity and academic self-efficacy as well as the influence of creativity and self efficacy towards self-regulated learning.

Method

The participants in this study were all high school students of Homeschooling Kak Seto. There were 205 students. The sampling technique used was total sampling. Homeschooling Kak Seto is located in South Tangerang. The age of the participants ranged from 15 to 19 years old. Their residence ranged from Jakarta, Depok, Bogor,

Bekasi and Tangerang.

Tutorial system perception. This variable was measured through four aspects, namely (1) the learners or students construct their own understanding, (2) learn something new depends on what has been understood, (3) learning is facilitated by social interaction, (4) meaningful learning occurs in authentic learning task (Eggen & Kauchack, 2009). This scale has the Alpha of 0.885.

Self-regulated learning. This variable was measured on indicators of self-regulated learning, namely (1) self-evaluation, (2) setting goals and planning, (3) searching for information, (4) keeping records, (5) self- consequence, (6) seeking social support, (7) checking records, and (8) setting the environment (Zimmerman, 1994). This scale has the Alpha of 0.862.

Creativity. This variable was measured from characteristics of creative thinking abilities, namely (1) continuity, (2) flexibility, (3) originality, and (4) ability to elaborate. Measurement of creativity in this study was using Figural Creativity Test. Figural Creativity tests used in this study is an adaptation of Torrance's Circle Test, which in 1988 conducted a standardized research (for ages 10-18 years) at the Faculty of Psychology, University of Indonesia, Educational Psychology Section.

Academic self-efficacy. This variable was measured on academic self-efficacy component which was developed from Bandura's basic theory of self-efficacy (1997), namely (1) magnitude, (2) generality, and (3) strength. This scale has the Alpha of 0.831.

Results and Discussion

The results of this study seemed to indicate that the model of tutorial system perception influence towards self-regulated learning, creativity and academic self-efficacy as well as the influence of creativity and academic self-efficacy towards self-regulated learning, by using SEM (Structural Equation Model) analysis, showed empirical model which is in accordance with theoretical model. That is, the empirical model in this study has goodness of fit because it meets the criteria of Chi-square of 1,133 with probability of 0.287 (p> 0.05).

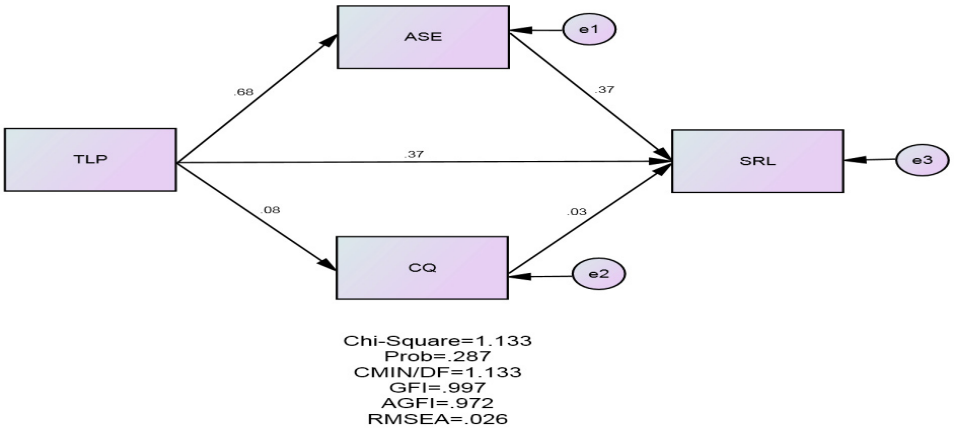

Figure 1. Model of Self-Regulated Learning, Tutorial System Perception, Academic Self-Efficacy, and Creativity

Based on the empirical model, it appears that the regression coefficient of tutorial system perception towards the variable of self-regulated learning = 0.373 with significance level of 0.000 (p <0.01). This means that the influence of tutorial system perception towards self-regulated learning is significant (R^2 = 0.687 or 68.7%). The importance of self-regulated learning in the the context of high school has been put forward by Cassidy (2011). Self-regulated learning has become the cornerstone of students' process and learning styles while studying at higher level of which academic demands become more complex. This is similar to the findings of Mulyadi et al. (2015). This means learning with the approach on process has positive influence on the students' academic achievement compared to conventional learning which tends to be rigid (Efendioglu & Yelken, 2010).

Teachers or tutors provide meaningful instruction and support to students as well as clear expectations

regarding the expected academic outcomes (Vansteenkiste et al., 2012). Teachers or tutors should be able to develop methods of teaching that demand students to become increasingly self-sufficient with a variety of specific teaching strategies (Van Beek, De Jong, Minnaeret, & Wubbles, 2014). In the context of homeschooling, this kind of learning characteristic of is very important to be implemented.

Also, There is significant influence of tutorial system perception towards academic self-efficacy. Franken (2002) argued that teenagers need to feel a sense of independence or autonomy. Cognitively and developmentally, this result also means that they are also able to be more independent and show better self control. In the conventional classroom, it is often they are not given enough opportunities to develop and practice their independence (Cleary & Zimmerman, 2004).

Zimmerman and Cleary (2006) stated that the greatest concern is when students no longer believe that they have the ability to properly accomplish academic assignments or lack of self-efficacy. Poor self confidence often damages students' motivation and potentially leads to neglecting the school assignments (Cleary & Zimmerman, 2004). It can cause distractions in academic regulations such as paying attention during class, failing to prepare for exams and even dropping out (Zimmerman & Cleary 2006).

The results also showed significant influence of academic self-efficacy towards self-regulated learning. This finding is in line with several previous studies that show correlation and positive influence of academic self-efficacy towards self-regulated learning (Madonna & Philpot, 2013; Sadi & Uyar, 2013). Students with good academic self-efficacy tend to have a more positive perception towards the academic demands (Ramdass & Zimmerman, 2008). When students feel more confident that they are able to do and accomplish all academic demands in the form of assignments and exams, they will develop a process of self-learning or self-regulated learning (DiBenedetto & Bembenutty, 2013). Academic self-efficacy provides a strong foundation for students to reduce dependence or presence of teachers or tutors. As a result, students become more able to develop self-regulated learning in their learning process.

An interesting point was stated by Peng, Cheng, Chen, and Lin (2013) in their study that creativity is not necessarily demanded coming from the students themselves as it needs to be triggered. Peng Cheng, Chen, and Lin (2013) argued process-based learning through tutorial system is able to condition students to be more active in the learning process. Tutorial system is expected to not only provide more space for students to express themselves in learning, but also to make students more fun and enjoy the learning process. When students enjoy what they are doing in learning, then it will help them to be more creative in accomplishing academic demands (Chang, 2012; Mulyadi et al., 2015). This means that process-based learning has influence towards creativity as well as towards self-regulated learning.

However, in this study, it turns out that the influence of creativity towards self-regulated learning is not significant. There is assumption why this could occur when conceptually and supported by several previous studies, this should have been significant. The possibility of this is because this study used Figural Creative Test as a tool to measure the creative thinking abilities (aptitude traits). While creativity in Mulyadi et al's study. (2015) used personal trait (non aptitude trait) to measure creativity. Thus, it means tutorial system with process-based approach learning is to cultivate creativity as a personality and not as ability to think.

The latter argument is supported by the results of interview conducted by way of focus group discussion to 40 (forty) students, divided into four (4) groups. The result showed the students think that tutorial system with process-based approach learning tends more to cultivate creative personality than creative thinking abilities. Creative children and teenagers are usually quite independent and have self-confidence (Czikzemihalyi, 1996). They took risks (but with calculations) compared to other children in general. They are not afraid to make mistakes and express their opinion even though it may not be approved by others.

Conclusion

Model of tutorial system perception influence towards self-regulated learning and academic self-efficacy fits with data or has goodness of fit. This means that these variables will have influence if they function within the arrangement or configuration as depicted in the model, namely having significant influence. Similarly, academic self-efficacy influences self-regulated learning significantly. It is supported by theories and results of studies as described above.

Meanwhile, the influence of creativity towards self-regulated learning is not significant. This can happen because the measuring instrument used was Creative Figural Test that measures the ability to think creatively (aptitude traits). This means that tutorial system develops creativity more as personality (non aptitude traits) than

creativity as the ability to think (aptitude traits).

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