THE EFFECT OF GOAL SETTING, SELF EFFICACY, INTEREST AND PEER SUPPORT ON SELF REGULATED LEARNING

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Abstract

This research aims to see whether goal setting, self-efficacy, interest and peer support altogether have impact on self-regulated learning of students of STSN. Research population is 328 students of first to fourth year of STSN, while the sample is 291 students which filtered using convenience sampling method. This is a quantitative research. Research validity is examined using Confirmatory Factor Analysis (CFA). Data is analysed using multiple regression analysis. The result shows that goal setting, self-efficacy, interest and peer support altogether have impact on self-regulated learning. Variables of intensity, course efficacy, and intrinsic orientation have significant impact on self-regulated learning. While variables of content, roommate efficacy, social efficacy, affected related valence, value related valence, intrinsic orientation, tangible, belonging, appraisal, and self-esteem are statistically not proven to have an impact on self-regulated learning. In particular, this research shows that peer support independently has no effect on self-regulated learning meanwhile previous research has shown the opposite. Further research needs to consider the utilization of operational language which culturally appropriate regarding questionnaire drafting. It is because the questionnaire with the basis of local culture will ignite appropriate response from the respondents.

Keywords: Self-regulated learning; goal setting; self-efficacy; interest; peer support

Abstrak


Kata kunci: berpengaruh bersama-sama; terhadap regulasi diri; efikasi diri; minat dan dukungan teman sebaya


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Introduction

There are many studies conducted about learning and its methods in Indonesia (see, Rosfiani, O., Akbar, M., Neolaka, A., 2019; Ratnaningsih et. al, 2018) but rarely it focused on some concepts related self-regulated learning. Even though, self-regulated learning is pivotal concept that can be basic foundation of success in any learning particularly in higher education. Hence, studies on self-regulated learning are still needed.

One of the biggest challenges for future universities is to prepare their students for self-learning capability. From an educational point of view, self-regulated learning means having the capability to regulate one’s learning process (Schunk & Zimmerman, 2003; Zimmerman, 2002), which can be mentioned as self-regulated learning.

Self-regulated learning is the ability to be held responsible to direct and regulate the learning process (Balapumi & A. Aitken, 2012), the ability to persist when facing learning difficulty, self-resources and time management.

Research from Allgood, Risko, Alvarez, and Fairbank (2000) mentioned that most of the students who want to continue their education to higher level are not ready to handle the learning process in university. This happens because the students cannot control their own learning process (Rosario, Mauao, Nunez, Gonzales-Pienda, Solano & Valle, 2007), also they lack self-regulation strategy in learning,, which is considered as the main factor in failure at the university (Tuckman, 2003). Students who can’t learn independently will have difficulty to identify and to determine their academic goals, develop and maintain suitable learning strategy and motivation (Lieberman & Remedios, 2007; Stewart, Stott, & Nuttall, 2015).

Usually in college, students are given independency about when and how would they learn. But many students still find it difficult to balance time for learning, social activities, and family responsibilities. In fact, the ability and skill to manage time for learning and learning itself enables students to better adapt to academic demands and balance it better with social demands in college (Pintrich, 1995).

In contrast, freedom and independence in learning at boarding schools are different because they are influenced by education provider system and policies. Cookson et al. (2009) remarked that students who learn at boarding school have strict regulation and schedule, in the form of students’ daily routine which dictates when should they wake up, sleep, eat, and participate in recreational activity, and direct how, when, and where should they finish their homework and assignments, and access to telephone and computer (Cookson, 2009; Cree, 2000; BR Lee & Barth, 2009; Williams, 2011).

Perven and Kazmi (2011), Zirima (2012), Behaghely (2015) have different points of view about boarding school. Boarding school is seen as to make the learning atmosphere more enjoyable because there is a strategy to manage and self-control in learning, improve academic capability in supportive 24 hours’ environment, extracurricular, interaction with other people, and independence fostering.

Based on interviews with students of STSN (September 2017 - May 2018), there are several ineffective learning strategy indicators in each educational level which affect the quality of student learning, such as limitation in developing learning strategies, lack of knowledge and information about assignment, inability to determine assignment characteristic, and miscalculation on time needed to finish an assignment. These happen because the students are unable to set goals, execute plan, evaluate and
control the learning process (Bembenutty, 2011; Pintrich & Zusho, 2002).

Research suggests several factors which support self-regulated learning, such as learning goal setting, learning attentively and concentration (interest), utilizing strategy to organize code and rehearse learned information, learning performance monitoring, effective time management, seeking help from friends or other people (peer support), confidence in their own ability (self-efficacy), have learning value, knowing factors that affect learning and anticipate outcomes, and insightful and valuable experience gained from effort (McCombs, 1989; Pintrich & De Groot, 1990; Weinstein & Mayer, 1986; Zimmerman, 1994).

Self-regulated Learning

Self-regulated learning is an action and process which is directed to gain information and skills involving purpose and perception, equipment needed by the students including method to organize and transform information, consequence on oneself, seeking information, practicing and utilizing memory aid devices (Zimmerman & Martinez-Pons, 1986; Bandura, 1986; Pintrich, Cross, Kozma & McKeachie, 1986).

Definition of student self-regulated learning in this research refers to Pintrich (1995) that there is an active effort from students by directing goals, self and behaviour control, motivation, and cognition in completing individual assignments.

This research uses self-regulated learning dimensions based on components from (Pintrich, Smith, Garcia & McKeachie, 1991). They are value, expectation, sentiment cognitive and metacognitive strategies, resources management strategy, effort regulation.

Goal Setting

Goal setting is the simplest introspective observation by showing awareness, individual strength, particular directed behaviour, dan purposeful (Locke & Latham, 1990; Ryan, 1970; Zimmerman, 2002). In classroom teaching, goal setting is defined as a process to build learning direction, which is clarified as learning motivation and to improve academic achievement (Marzano, Pickering & Pollock, 2001; Schunk, 2009; Rowe, Mazzoti, Ingram & Lee, 2017).

There are two dimensions of goal setting i.e. content and intensity that are used in this article: Content and Intensity (Lee, Locke & Latham, 1989; Locke & Latham, 1990; Locke & Latham, 1990)

Self-efficacy

Self-efficacy is a belief to one’s ability to successfully accomplish something (Bandura, 1994). Meanwhile, Zimmerman (2003); Pintrich dan De Groot (1990) defined self-efficacy as related to academic development in the form of perception and utilization of self-regulation strategy to student’s ability to accomplish clear and useful academic goals. (Bandura,1997; Fenollar, Roman & Cuestas, 2007; Zajacova, Lynch, & Espenshade, 2005; Solberg et al, 1993).

Self-efficacy dimensions are based on research from Solberg & friends (Solberg, O’Brien, Villarreal, Kennell, & Davis, 1993) in college i.e. course efficacy, roommate efficacy, and social efficacy.

Interest

Interest is defined as positive and balanced feeling refers to attraction, favorite, desire or want (Valsiner, 1992). Among educational research, interest is considered as great curiosity (Ainley, 1987) or to like planned learning.
(Renninger et al., 2004; Krapp, Renninger & Hoffman, 1998).

According to Hidi (2006) and Renninger (2006), interest is defined as psychological condition as characteristic of affective component such as positive emotion and cognitive component such as concentration. (Hidi & Renninger, 2006), which contains and motivated by experience. Interest is the center of intrinsic motivation, a form of independence of extrinsic motivation (Deci, 1992; Ryan & Connel, 1989), and an extreme form of experience of interest called flow (Csikszentmihalyi, 1975; Schiefele, 1991; Durik & Harackiewicz, 2007).

There are three dimensions of interest i.e. feeling related valences, value related valences, and intrinsic orientation (Schiefele, 1983; Prenzel, 1988; Berlyne, 1960; Alport, 1961; Dewey, 1913; Rathunde & Csikszentmihalyi, 1993).

Peer Support

Peer support is a system that enables individuals to give and receive help, based on the principle of appreciation, sharing responsibility, and mutual agreement about the help. Peer support involves empathy understanding through emotional sharing experiences and psychological issues (Shery Mead, David Hilton, & Lourie Curtis, 2000; Dennis, 2003).

According to Cohen and Huberman (1983), peer support is support given to peers in the form of financial or material support, social support in the form of ownership support, self-esteem support, and appraisal support. (Cohen, 2004; Santrock, 2007) Dimensions of peer support consists of four dimensions (Cohen & Hoberman, 1983) i.e. tangible, belonging, appraisal and self-esteem.

Research Hypothesis

Major Hypothesis: There are significant influences from goal setting (content, intensity), self-efficacy (course efficacy, roommate efficacy, social efficacy), interests (affected related valence, value related valence, intrinsic orientation), peer support (tangible, belonging, appraisal, self-esteem) towards self-regulated learning.

Minor Hypothesis: 1) Content has an impact on goal setting on self-regulated learning; 2) Intensity has an impact on goal setting on self-regulated learning; 3) Course effect has an impact on self-efficacy on self-regulated learning; 4) Roommate efficacy has an impact self-efficacy on self-regulated learning; 5) Social efficacy has an impact on self-efficacy on self-regulated learning; 6) Affected related valence has an impact on interest on self-regulated learning; 7) Value of valence has an impact on interest on self-regulated learning; 8) Intrinsic orientation has an impact on interest on self-regulated learning; 9) Tangible has an impact on peer support on self-regulated learning; 10) Belonging has an impact on peer support on self-regulated learning; 11) Appraisal has an impact on peer support on self-regulated learning; 12) Self-esteem has an impact on peer support on self-regulated learning.

Methods

The research population is 328 students of National Crypto Institute (Sekolah Tinggi Sandi Negara - STSN) ranging from first year to fourth year of education year 2018 - 2019. Questionnaires were distributed by author via Google Forms in collaboration with the Department of Technology and Student Affairs of STSN.

Sampling technique used in this research is non probability sampling, with convenience sampling technique. This is a non-probability sampling where sampling is taken based on the
elements availability and gathering convenience. Samples were taken or selected because the samples were in the right place and time. This sampling technique is suitable for research with focused group (Shaughnessy, 2012).

Motivated Strategies for Learning Questionnaire (MSLQ) scale by (Pintrich et al., 1991) were used as measuring instrument for self-regulated learning. Pintrich and colleagues consists of self-report with 81 items based on motivational components (Pintrich, 2003; Wingfield & Eccles, 2000), and learning strategies in particular training or lessons, which consists of value components, expectation components, sentiment components, cognitive and metacognitive strategies, resources management strategy.

Goal setting questionnaire is used as goal setting measuring instrument, which refers to of Locke & Latham (90), consists of 2 dimensions i.e. content and intensity. Each content consists of factors: specificity, proximity; difficulty; and meaningful. There are 19 total items.

College self-efficacy inventory (CSEI) from Solberg, O’Brien, Villarreal, Kennel, & Davis, (1993) is used as self-efficacy measuring instrument. This instrument contains 20 questions that measure believe and confidence level of students to show their performance in college. This instrument relates to three dimensions, self-efficacy to tasks (7 items), social self-efficacy (9 items), and roommate self-efficacy (4 items). The instrument uses a 4-point Likert scale from scale 1 (very insecure) to scale 4 (very confident).

Interest measuring instrument used Study Interest Questionnaire (SIQ) scale which was introduced by Winteler & Schiefele (1987) and has been revised twice by Winteler, Sierwald & U. Schiefele, 1988. This measuring instrument of interest was made to apply the concept of interest, as a subject assessment in college (Schiefele, Krap, Wild & Winteler, 1993). The instrument uses a 4-point Likert scale from scale 1 (very compatible) to scale 4 (very incompatible) with total of 17 items.

Research on peer support used The Interpersonal Support Evaluation List (ISEL) (Cohen & Hoberman, 1983), a multidimensional inventory measuring instrument that measures social perception support. The author used this inventory because ISEL uses students as population research. This inventory contains 4 subscales i.e. (1) appraisal, valuable perceptions of others to offer advice, cognitive guidance and information, 2). tangible, in the form of assistance, material or instrumental support, 3). Self-esteem, in the form of social comparison, and 4). belonging, refers to valuable perceptions for others and friendship. The instrument uses a 4-point Likert scale from scale 1 (very compatible) to scale 4 (very incompatible).

Results and Discussion

Table 1. Analysis Summary Model Regression

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std Error of Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>df1</td>
<td>df2</td>
<td>Sig F</td>
<td></td>
</tr>
<tr>
<td>Change</td>
<td>R Square</td>
<td>Change</td>
<td>F</td>
<td>df1</td>
<td>df2</td>
</tr>
</tbody>
</table>

Table 1 shows that obtained value of R2 is 0.518 or 51.8%. This means that proportion variance of self-regulated learning, which is explained by all independent variables (content, intensity, course efficacy, roommate efficacy, social efficacy, affected related valence, value related valence, intrinsic orientation, tangible, belonging, appraisal, self-esteem) in this research is 51.8%, while the other 48.2% is affected by
other variables outside this research. Next, the author analyzed the impact of all independent variables on self-regulated learning. F test result can be seen in table 2.

Table 2. Anova Effect of all IV towards DV

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
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<tbody>
<tr>
<td>Regression</td>
<td>15031.86</td>
<td>12</td>
<td>1252.62</td>
<td>2.407</td>
<td>.000*</td>
</tr>
<tr>
<td>Residual</td>
<td>18975.14</td>
<td>278</td>
<td>68.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>33956.99</td>
<td>290</td>
<td>118.30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: F_SRL

Table 3. The Regression Equation

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>14.459</td>
<td>4.124</td>
<td>1.57</td>
<td>0.113</td>
</tr>
<tr>
<td>Content</td>
<td>0.057</td>
<td>0.061</td>
<td>1.11</td>
<td>0.275</td>
</tr>
<tr>
<td>Intensity</td>
<td>0.195</td>
<td>0.072</td>
<td>2.61</td>
<td>0.017*</td>
</tr>
<tr>
<td>Course Efficacy</td>
<td>0.271</td>
<td>0.071</td>
<td>3.89</td>
<td>0.000*</td>
</tr>
<tr>
<td>Roommate Efficacy</td>
<td>0.077</td>
<td>0.067</td>
<td>1.15</td>
<td>0.247</td>
</tr>
<tr>
<td>Social Efficacy</td>
<td>-0.05</td>
<td>0.071</td>
<td>-0.72</td>
<td>0.476</td>
</tr>
<tr>
<td>Affected Related Valence</td>
<td>0.098</td>
<td>0.066</td>
<td>1.48</td>
<td>0.149</td>
</tr>
<tr>
<td>Cognitive Orientation</td>
<td>0.095</td>
<td>0.071</td>
<td>1.36</td>
<td>0.177</td>
</tr>
<tr>
<td>Tangible</td>
<td>-0.027</td>
<td>0.074</td>
<td>-0.36</td>
<td>0.714</td>
</tr>
<tr>
<td>Belonging</td>
<td>-0.05</td>
<td>0.073</td>
<td>-0.71</td>
<td>0.482</td>
</tr>
<tr>
<td>Appraisal</td>
<td>-0.078</td>
<td>0.067</td>
<td>-1.17</td>
<td>0.247</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>-0.038</td>
<td>0.043</td>
<td>-0.88</td>
<td>0.382</td>
</tr>
</tbody>
</table>

a. Dependent Variable: F_SRL.
b. Note: *Significant P <0.05

Self-regulated learning = +14.629 + 0.052 (Content) + 0.195 (Intensity) + 0.271 (Course Efficacy) + 0.077 (Roommate Efficacy) - 0.053 (Social Efficacy) + 0.098 (Affected Related Valence) + 0.092 (Value Related Valence) + 0.164 (Intrinsic Orientation) - 0.025 (Tangible) - 0.05 (Belonging) - 0.076 (Appraisal) - 0.038 (Self-esteem).

From the regression equation above, it appeared that from 12 independent variables, there are 3 significant variables which are intensity, course efficacy, and intrinsic orientation. Explanation of the regression coefficient values obtained for each independent variable is as follows: 1) Content: obtained from regression coefficient of 0.052 with Sig of 0.448 (Sig> 0.05), thus null hypothesis which states that there is no significant effect of content on self-regulated learning is accepted. This means that content does not have a significant effect on self-regulated learning; 2) Intensity: obtained from regression coefficient of 0.195 with Sig of 0.007 (Sig <0.05), thus null hypothesis which states there is no significant effect of intensity on self-regulated learning is rejected. The results above show that the intensity has a significant positive effect. This means that the higher the intensity the higher self-regulated learning and conversely the lower the intensity the lower the self-regulated learning; 3) Course Efficacy: obtained from regression coefficient of 0.271 with Sig of 0.000 (Sig <0.05), thus null hypothesis which states there is no significant effect of course efficacy on self-regulated learning is rejected. The results above show that course efficacy has a significant positive effect. This means that the higher the course efficacy, the higher self-regulated learning, and conversely, the lower the course efficacy the lower the self-regulated learning; 4) Roommate Self-Efficacy: obtained from the regression coefficient of 0.077 with Sig of 0.251 (Sig> 0.05), thus null hypothesis which states that there is no significant effect of roommate self-efficacy on self-regulated learning is accepted. This means that roommate self-efficacy doesn’t have a significant effect on self-regulated learning; 5) Social Efficacy: obtained from regression coefficient of - 0.053 with Sig of 0.496 (Sig> 0.05), thus null hypothesis which states that there is no significant effect of social efficacy on self-regulated learning is accepted. This means that social efficacy doesn’t have a significant effect on self-regulated learning; 6) Affected Related Valence: obtained from regression coefficient of 0.098 with Sig of 0.139 (Sig< 0.05), thus null hypothesis which states that there is no significant effect of affected related valence on self-regulated learning is accepted. This means that affected related valence does not.
have a significant effect on self-regulated learning; 7) **Value Related Valence**: obtained from regression coefficient of 0.092 with Sig of 0.197 (Sig > 0.05), thus null hypothesis which states that there is no significant effect of Value Related Valence on self-regulated learning is accepted. This means that Value Related Valence does not have a significant effect on self-regulated learning; 8) **Intrinsic Orientation**: obtained from regression coefficient of 0.164 with Sig of 0.024 (Sig < 0.05), thus null hypothesis which states there is no significant effect of the Intrinsic Orientation on self-regulated learning is rejected. This means that Intrinsic Orientation has a significant positive effect on self-regulated learning. The higher the Intrinsic Orientation the higher the self-regulated learning, and conversely the lower the Intrinsic Orientation the lower the self-regulated learning; 9) **Tangible**: obtained from regression coefficient of -0.025 with Sig of 0.738 (Sig > 0.05), thus null hypothesis which states that there is no significant effect of Tangible on self-regulated learning is accepted. This means that Tangible does not have a significant effect on self-regulated learning; 10) **Belonging**: obtained from regression coefficient of -0.05 with Sig of 0.492 (Sig > 0.05), thus null hypothesis which states that there is no significant effect of Belonging on self-regulated learning is accepted. This means Belonging does not have a significant effect on self-regulated learning; 11) **Appraisal**: obtained from regression coefficient of -0.076 with Sig of 0.254 (Sig > 0.05), thus a null hypothesis which states that there is no significant effect of Appraisal on self-regulated learning is accepted. This means that Appraisal does not have a significant effect on self-regulated learning; 12) **Self-esteem**: obtained from regression coefficient of -0.038 with Sig of 0.369 (Sig > 0.05), thus null hypothesis which states that there is no significant effect of Self-esteem on self-regulated learning is accepted. This means that Self-esteem does not have a significant effect on self-regulated learning.

Based on the hypothesis test result above, it can be concluded that there are only 3 of 12 variables that have a significant impact on self-regulated learning. They are the intensity, course efficacy, and intrinsic orientation.

To determine which predictor among each dependent variable has the greatest impact on dependent variable can be seen through column standardized coefficient beta in Table 3 regression coefficient. Regardless of the positive or negative, independent variable with the largest beta coefficient can be concluded as a predictor that has the greatest impact on dependent variable.

Based on the beta coefficient, independent variable with the biggest predictor of self-regulated learning is the variable of course self-efficacy, which equals to $\beta = 0.271$.

Table 4. Proportion Summary Model on Each IV towards DV

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of Estimate</th>
<th>Estimate</th>
<th>Change Statistics</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig F Changes</th>
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<tbody>
<tr>
<td>1</td>
<td>.232</td>
<td>.053</td>
<td>.043</td>
<td>.017</td>
<td>6.0216</td>
<td>1.571</td>
<td>62.657</td>
<td>1</td>
<td>280</td>
<td>.011</td>
</tr>
<tr>
<td>2</td>
<td>.671</td>
<td>.446</td>
<td>.431</td>
<td>.223</td>
<td>6.8602</td>
<td>.095</td>
<td>22.574</td>
<td>1</td>
<td>280</td>
<td>.010</td>
</tr>
<tr>
<td>3</td>
<td>.640</td>
<td>.418</td>
<td>.436</td>
<td>.134</td>
<td>7.4787</td>
<td>.181</td>
<td>16.854</td>
<td>1</td>
<td>280</td>
<td>.010</td>
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<tr>
<td>4</td>
<td>.650</td>
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<td>.442</td>
<td>.185</td>
<td>7.6998</td>
<td>.205</td>
<td>3.128</td>
<td>1</td>
<td>280</td>
<td>.121</td>
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<tr>
<td>5</td>
<td>.650</td>
<td>.425</td>
<td>.434</td>
<td>.163</td>
<td>7.6931</td>
<td>.192</td>
<td>3.128</td>
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<td>.121</td>
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<td>1</td>
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<td>.121</td>
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</table>

Model Summary: Model R: R Square Adjusted R Square Std. Error of the Estimate F Change df1 df2 Sig F Changes

Based on Table 4, it can be concluded as follows: 1) **Content**: variable contributed 17.8% to the variance of self-regulated learning. The variance is significant, with F change = 62.617, df1 = 1 and df2 = 289 with Sig. F change = 0.000 (Sig F change < 0.05); 2) **Intensity:**
variable contributed 6% to the variance of self-regulated learning. The variance is significant, with F change = 22,574, df = 1 and df2 = 288 with Sig F change = 0.000 (Sig F change <0.05); 3) Course Efficacy: variable contributed 18% to the variance of self-regulated learning. The variance is significant, with F change = 88.84, df = 1 and df2 = 287 with Sig F change = 0.000 (Sig F change <0.05); 4) Roommate Efficacy: variable contributed 0.5% to the variance of self-regulated learning. The variance is not significant, with F change = 2,418, df = 1 and df2 = 286 with Sig F change = 0.121 (Sig F change> 0.05); 5) Social Efficacy: variable contributed 0% to the variance of self-regulated learning. The variance is not significant, with F change = 0.005, df = 1 and df2 = 285 with Sig F change = 0.942 (Sig F change> 0.05); 6) Affected Related Valence: variable contributed 4.7% to the variance of self-regulated learning. The variance is significant, with F change = 25.26, df = 1 and df2 = 284 with Sig F change = 0.000 (Sig F change <0.05); 7) Value Related Valence: variable contributed 1.7% to the variance of self-regulated learning. The variance is significant, with F change = 9,348, df = 1 and df2 = 283 with Sig F change = 0.002 (Sig F change <0.05); 8) Intrinsic Orientation: variable contributed 1.1% to the variance of self-regulated learning. The variance is significant, with F change = 6,444, df = 1 and df2 = 282 with Sig F change = 0.012 (Sig F change <0.05); 9) Tangible: variables contributed 1.3% to the variance of self-regulated learning. The variance is significant, with F change = 7,191, df = 1 and df2 = 281 with Sig F change = 0.008 (Sig F change <0.05); 10) Belonging: variable contributed 0.3% to the variance of self-regulated learning. The variance is not significant, with F change = 1,713, df = 1 and df2 = 280 with Sig F change = 0.192 (Sig F change> 0.05); 11) Appraisal: variable contributed 0.3% to the variance of self-regulated learning. The variance is not significant, with F change = 1,606, df = 1 and df2 = 279 with Sig F change = 0.206 (Sig F change> 0.05); 12) Self-esteem: variable contributed 0.1% to the variance of self-regulated learning. The variance is significant, with F change = 0.809, df = 1 and df2 = 278 with Sig F change = 0.369 (Sig F change> 0.05).

Based on the explanation above, it can be concluded that there are 7 variables that contribute significantly to the variance of self-regulated learning based on the amount of R2 produced. The 7 predictors are content, intensity, course efficacy, affected related valence, value related valence, intrinsic orientation, tangible.

Discussion

Course efficacy variable has significant impact and contributes to self-regulated learning by 18%. This research result supports the statement of Corno (1993), Kuhl (1984), Zimmerman (1998), Pajares and Schunk, (2001) that course efficacy impacts the process of self-regulated learning in increasing student confidence and ability to complete college assignments, as well as performance and perseverance for better learning.

Students who can regulate themselves well, will effectively regulate their thoughts, motivation, and behavior in order to achieve learning goals and success (Bandura, 1986; Pintrich, 1995, 2004; Philip H Winne, 2010; Zimmerman, 2002). Their activities are to direct, modify, and maintain expected result which includes the ability to follow instructions, process and knowledge integration, practicing information memorization, as an assurance to their learning ability and to anticipate the result (Schunk, 1986).

The next variable, goal setting is intensity. Intensity has impact and contributes to self-regulated learning by 6%. This finding
corroborates the research of Lee, Locke and Latham, (1989); and Locke and Latham (1990) that intensity impacts self-regulated learning, through individual commitment to control cognitive, sentiment and actions in the form of tasks completion. Likewise, intensity is done by setting and working on goals that must be completed in a short time and meaningful.

Intrinsic orientation variable, significantly impacts and contributes to self-regulated learning by 1.1%. The results of this study corroborate the statement of Rathunde and Csikszentmihalyi (1993), that interest which originates from intrinsic orientation increases the activity of attachment to assignments through a combination of emotional characteristics and orientation components of personal values. This combination arises when there is incentive from oneself or others in the form of appreciation, satisfaction, and happiness during the learning process.

Peer support variables (tangible, belonging, appraisal, self-esteem) do not have a significant effect on self-regulated learning, but still have a contribution although not as large as intensity, course efficacy and intrinsic orientation variables. Tangible (1.3%), belonging (0.3%), appraisal (0.3%), and self-esteem (0.1%). This finding contradicts the research of Brar, Ryu, Shaikh, Altman, Jeremy (2012), Llamas and Sánchez Ramos (2013), Stracke and Kumar (2014), and Hafzan, Nasirah, Norida, Kalthom (2015), which states that peer support has a significant effect on self-regulated learning.

Conclusions

There is a significant impact from content, intensity, course efficacy, roommate efficacy, social efficacy, affected related valence, value related valence, intrinsic orientation, tangible, belonging, appraisal, and self-esteem altogether towards self-regulated learning. There are three variables of 12 variables that have a significant impact on self-regulated learning i.e. goal setting (intensity), self-efficacy (course efficacy), and interest (intrinsic orientation). The most dominant variable which impacts self-regulated learning (DV) is course efficacy with beta value = 0.271.

For further research on self-regulated learning, it is suggested to: 1) Take independent variables that also affect self-regulated learning such as character building, interpersonal interaction, positive psychology, self-value, environmental, community psychology, boarding schools at the university level, and samples of universities with different cultural or ethnic backgrounds; 2) Research result showed the value of R2 51.8% tends to be large, this happens: a) possibly because there are many strong theories, so the regression model can properly explain the data according to hypothesized; b) There was a serious violation of the regression assumptions and a violation of 3 requirements of good independent variable; 3) This research was conducted with boarding students as sample, so character building is an important part that needs to be instilled to students, and further research will be more interesting if the process of character building can be carried out using self-regulated learning strategies, in which there are cognitive, motivational, and behavioral control processes. for practical suggested to: 1) Conduct seminars on socialization to students and lecturers about the description and influencing factors; 2) Provide workshops on effective learning techniques and strategies, phases in self-regulated learning (planning phase by analyzing perceptions of prior learning, monitoring metacognitive awareness, controlling actions goals that have and have not been done, making evaluation materials, and track record of student learning processes), the meaning and benefits of self-regulated learning itself; 3) Provide training
to lecturers, about building effective learning communities, in the form of effective teaching methods, which can maximize cognitive strategies function such as elaboration, organization and critical thinking. Connect lessons with various fields of study or other work, in innovative and meaningful way. Provide challenging tasks with certain difficulty level, but with clear deadlines and specification of expected results; 4) Conduct regular workshops on time management strategies, and maximize the role of mentoring and study groups on a regular basis. Create a control and evaluation book to identify which learning that has been understood, as track record of the learning process, and control different stages; 5) Make outbound and inbound activities to improve peer support quality among students related to self-regulated learning such as teamwork to overcome group problems, working together to make resumes and mind maps on the material, role playing, group project based on going cases, debate match about values, character and ethics problems faced by students; 6) Create discussion and sharing forum about the meaning and benefits of peers towards the learning process, conducted in the foster family community or group mentor. Maximizing student senate functions to facilitate students to get to know better the characteristics of roommates and classmates; 7) Conduct effective communication training or “johari windows”, about self-values, interests, preferences and hopes with roommates, classmates, and all students, as well as competitions involving synergy with roommates; 8) Make regular programs (posters, jargon, group activities) to students and lecturers about internalization of STSN values, which can increase collective efficacy, the true spirit of the solidarity in learning activities and development of student self-identity (character quality improvement), in order to have better group confidence.

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