Student Engagement Among High School Students: Roles of Parental Involvement, Peer Attachment, Teacher Support, and Academic Self-Efficacy

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Abstract: Student engagement becomes one of concepts in students who have an important role in students’ academic performance. Based on previous literature studies, this study aims to analyze the predictions of parental involvement, peer attachment, teacher support, and academic self-efficacy to student engagement. Respondents of this research are 100 high school students. Measurements for student engagement variables in the study used student engagement scale that adapted by Sa’diyah and Qudsyi from School Engagement Scale by Frederick et al. Meanwhile, measurement of parental involvement using an instrument from Wantara and Qudsyi which is an adaptation of the scale by Hoover-Dempsey et al. Peer attachment variable using a measurement tool adapted from Inventory of Parent and Peer Attachment (IPPA) developed by Armsdern and Greenberg, teacher support variable using a measurement tool adapted from Perceived Teacher Academic Support Scale (PTASS) from Chen, and academic self-efficacy variable using instruments from Raharjo and Qudsyi which is adaptation from Butler. Based on data analysis that has been done, the results obtained indicate a significant relationship between parental involvement, academic self-efficacy, teacher support, peer attachment, and student engagement among high school students. The results were obtained from value of R = 0.476 and value of p = 0.000 (p <0.01). Thus, it can be said that parental involvement, academic self-efficacy, teacher support, and peer attachment together can predict significantly student engagement in high school students, with an effective contribution of 22.7 percent. Based on another regression analysis, the results showed that academic self-efficacy was the strongest variable in predicting student engagement in high school students. Even though other variables (in this case parental involvement, teacher support, and peer attachment) were not included in the analysis process, academic self-efficacy variable can still predict student engagement independently, with an effective contribution of 17.6 percent.

Keywords: student engagement, academic self-efficacy, social support

INTRODUCTION

Student engagement in school is one of the main factor in students’ academic success. Student engagement is an outpouring of a number of physical and psychological energies by students to gain academic experience through both learning and extracurricular activities. In this condition students will involve two elements, namely: behavior (such as perseverance, effort, attention) and attitude (such as: motivation, positive learning values, enthusiasm, pride in success). Students will be involved looking for activities, inside and outside the classroom that lead to successful learning. Students will also show great curiosity, desire to know more, and positive emotional responses to learning and school (Gibbs & Poskitt, 2010). The importance of student engagement in school is very much realized by educators. Fredricks, Blumenfeld, & Paris (2004) explain that researchers, educators, and policymakers currently focus more on student engagement as the key to overcoming problems in students who are low achievers, bored, and have high drop out rates. This is supported by research conducted by Connell and Wellborn (1991) which shows that students who engage in school will show behavioral
involvement in learning and have a positive emotional attitude, they endure in the face of challenges. Results of the study by Dharmayana, et al (2012), show that emotional competence and student engagement in schools play a positive role on student academic achievement. It means, increasing emotional competence students will be able to increase student engagement in schools that play a direct role in student academic achievement.

Active student engagement and optimizing one's abilities while at school, do not automatically arise. Student engagement behavior is influenced by many things. Basically, factors that influence student engagement are internal factors and external factors. These internal factors are students' interests and perceptions of school rules (Brickman, Alfaro, Weimer, & Watt, 2013; Pennisi, 2013), students' self-confidence (Warwick, 2008), students' characteristics (Li, Lerner, & Lerner, 2010; Bakker, Vergel, & Kuntze, 2015), students' planning (Dennis, Patrick, Roderick, Hinckley, Micaela, & Woolley, 2010; Veiga, Melo, Pereira, Frade, & Galvao, 2014), internal motivation (Siu, Bakker, & Jiang, 2014; Saeed & Zyngier, 2012) and students' emotional state (Van Ryzin, Gravely, & Roseth, 2009; 2011).

While external factors are parenting (Smalls, 2009), peer support (Lynch, Lerner, & Leventhal, 2013; Van Ryzin, 2011; Cappella, Kim, Jennifer, & Jackson, 2013), emotional support (Park, Holloway, Arendtsz, Bempechat, & Li, 2012), a conducive classroom environment (Dotterer & Lowe, 2011; Young & Bruce, 2011; Li, Lerner, & Lerner, 2010), teacher support (Luse, 2002; Chiu, Pong, Mori, Yin-Chow, 2012; Conner & Pope, 2013; Adema & Connell, 2004; Van Ryzin, 2011), teaching techniques (Kartina, Aisyah, Nulhakim, Evendi & Faturrohman, 2010; Delialioğlu, 2012), school size (Weiss, Carolan, Baker-Smith, 2010), social support (Daly, Shin, Thakral, Selders, & Vera, 2009) and external motivation (Saeed & Zyngier, 2012).

In addition, Kraft and Dougherty (2012) conducted a study that aimed to evaluate the effectiveness of teacher, parent and student communication as a way to increase student engagement or involvement. Results of this study prove that there is a 40% increase students complete the homework, a 25% decrease in cases where the teacher must be very extra to direct students' attention in class, and 15% increase in student participation in class. Based on this study it can be concluded that communication between teachers, parents and students plays an important role in increasing student engagement in school. This is in line with descriptive research conducted by Connell and Wellborn (1991), showing that relationship between teachers, students, and parents plays an important role in determining engagement with school.

Based on explanation, it can be concluded that effectiveness of teaching and learning activities is supported by students’ engagement in school. This study will look at variations in relationship between parental involvement, peer attachment, teacher support, academic self-efficacy, and student engagement. This study has differences with the previous study that concern on relationship between external factors (parental involvement, teacher support, peer attachment) and internal factor (academic self-efficacy) together with student engagement.

**RESEARCH METHOD**

**Participants**

Participants in this study are 100 high school students in Yogyakarta; male (34 students) and female (66 students); age 15 years old (7 students), 16 years old (26 students), 17 years old (44 students), 18 years old (23 students); in grade 10 (17 students), grade 11 (33 students), and grade 12 (49 students).

And the description of participants scores can be seen in table below.
Table 1. Description of participants scores

<table>
<thead>
<tr>
<th>Variable</th>
<th>Minimum Score</th>
<th>Maximum Score</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student engagement</td>
<td>20</td>
<td>50</td>
<td>34.02</td>
<td>4.809</td>
</tr>
<tr>
<td>Parental involvement</td>
<td>84</td>
<td>230</td>
<td>177.38</td>
<td>29.267</td>
</tr>
<tr>
<td>Academic self-efficacy</td>
<td>68</td>
<td>138</td>
<td>107.77</td>
<td>14.181</td>
</tr>
<tr>
<td>Teacher support</td>
<td>32</td>
<td>83</td>
<td>63.19</td>
<td>10.766</td>
</tr>
<tr>
<td>Peer attachment</td>
<td>39</td>
<td>88</td>
<td>69.06</td>
<td>9.314</td>
</tr>
</tbody>
</table>

Measurements

Student engagement

Student engagement in this study measured with School Engagement Scale from Fredericks et al (2004) that adapted by Sa’diyah & Qudsyi (2015). Adaptation of this scale has Cronbach Alpha coefficient 0.859 with 15 items. This scale has 5 responses, always (5), often (4), sometimes (3), rarely (2), and never (1), and vice versa for reverse items. The higher scores obtained by participants in student engagement scale, the higher level of participants’ student engagement, and vice versa.

Parental involvement

Measurement of parental involvement variable used with Parental Involvement Scale from Hoover-Dempsey et al (2005) that adapted by Wantara & Qudsyi (2015). Adaptation of this scale has Cronbach Alpha coefficient 0.950 with 47 items. This scale has 5 responses, always (5), often (4), sometimes (3), rarely (2), and never (1). The higher scores obtained by participants in parental involvement scale, the higher level of participants’ perception of their parental involvement, and vice versa.

Peer attachment

Peer attachment in this study measured with scale that translated and adapted from Inventory of Parent and Peer Attachment (IPPA) by Armsden & Greenberg (1987). Adaptation of this scale has Cronbach Alpha coefficient 0.92 with 25 items (for peer attachment subscale). This scale has 5 responses, strongly agree (5), agree (4), rather agree (3), disagree (2), and strongly disagree (1), and vice versa for reverse items. The higher scores obtained by participants in peer attachment scale, the higher level of participants’ perception of their peer attachment, and vice versa.

Teacher support

Measurement of teacher support variable translated and adapted from Perceived Teacher Academic Support Scale by Chen (2005). This scale has Cronbach Alpha coefficient 0.913 with 23 items. This scale has 5 responses, always (5), often (4), sometimes (3), rarely (2), and never (1), and vice versa for reverse items. The higher scores obtained by participants in teacher support scale, the higher level of participants’ perception of their teacher support, and vice versa.
Academic self-efficacy

Academic self-efficacy in this study measured with Academic Self-Efficacy Scale by Raharjo & Qudsyi (2015) that adapted from Butler (2011). This scale has 33 items and 5 responses, always feeling sure (5), often feeling sure (4), sometimes feeling sure (3), rarely feeling sure (2), and never feeling sure (1). The higher scores obtained by participants in academic self-efficacy, the higher level of participants’ academic self-efficacy, and vice versa.

Data analysis

This study uses regression analysis to analyze the predictive power of independent variables to dependent variables. Regression analysis is a form of analysis that matches predictive models to research data and uses the model to predict the value of a dependent variable from one or more independent variables (Field, 2005). In short, regression analysis speaks of the predictive power of a variable or more, so in regression analysis, the term independent variable is also called a predictor and the dependent variable is also called an outcome (Field, 2005). This study uses regression analysis, because this study does not merely test the relationship between variables, but also wants to see the predictive power of independent variables on dependent variables.

RESULTS AND DISCUSSION

Purpose of this study was to test empirically prediction of parental involvement, peer attachment, teacher support, and academic self-efficacy to student engagement among high school students. Based on the results of data analysis using regression analysis, following results were obtained.

Table 2. Regression test results with enter method

<table>
<thead>
<tr>
<th>Predictors</th>
<th>F</th>
<th>p</th>
<th>r</th>
<th>r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parental involvement, academic self-efficacy, teacher support, peer attachment</td>
<td>6.955</td>
<td>0.000</td>
<td>0.476</td>
<td>0.227</td>
</tr>
</tbody>
</table>

*dependent variable = student engagement

Based on the analysis that has been done before, the results indicate a significant relationship between parental involvement, academic self-efficacy, teacher support, peer attachment, and student engagement among high school students. The results were obtained from the value of r=0.476 and value of p=0.000 (p<0.01). Thus, it can be said that parental involvement, academic self-efficacy, teacher support, and peer attachment together can predict significantly student engagement among high school students, with an effective contribution of 22.7 percent.

Table 3. Regression test results with stepwise method

<table>
<thead>
<tr>
<th>Predictors</th>
<th>F</th>
<th>p</th>
<th>r</th>
<th>r²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic self-efficacy</td>
<td>20.892</td>
<td>0.000</td>
<td>0.419</td>
<td>0.176</td>
</tr>
</tbody>
</table>

*dependent variable = student engagement

Based on regression analysis with other methods, namely the backward method, the results showed that there was a significant relationship between academic self-efficacy and student
engagement among high school students when the influence of parental involvement, teacher support, and peer attachment were controlled. These results obtained consistently both with the backward method and with the stepwise method, with the value of $r=0.419$ and value of $p=0.000$ ($p<0.01$). Based on these results, it can be said that academic self-efficacy can predict student engagement among high school students significantly, with an effective contribution of 17.6 percent. These results indicate that academic self-efficacy is a variable that can predict student engagement among high school students independently, without having to look at the influence of parental involvement, teacher support, and peer attachment. Including if this academic self-efficacy variable wants to be united with one variable in predicting student engagement can still be done.

Table 4. Regression test results with backward method

<table>
<thead>
<tr>
<th>Predictors</th>
<th>F</th>
<th>p</th>
<th>r</th>
<th>$r^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parental involvement, academic self-efficacy, teacher support, peer attachment</td>
<td>6.955</td>
<td>0.000</td>
<td>0.476</td>
<td>0.227</td>
</tr>
<tr>
<td>Parental involvement, academic self-efficacy, peer attachment</td>
<td>8.354</td>
<td>0.000</td>
<td>0.455</td>
<td>0.207</td>
</tr>
<tr>
<td>Parental involvement, academic self-efficacy</td>
<td>11.964</td>
<td>0.000</td>
<td>0.445</td>
<td>0.198</td>
</tr>
<tr>
<td>Academic self-efficacy</td>
<td>20.892</td>
<td>0.000</td>
<td>0.419</td>
<td>0.176</td>
</tr>
</tbody>
</table>

*dependent variable = student engagement

As the results show that academic self-efficacy together with parental involvement and peer attachment can predict student engagement significantly ($r=0.455$, $p=0.000$, $r^2=0.207$). In addition, academic self-efficacy and parental involvement also can predict student engagement among high school students significantly ($r=0.445$, $p=0.000$, $r^2=0.198$). Refer to these results, academic self-efficacy is variable that has the largest contribution in predicting student engagement among high school students. It can be said also; that academic self-efficacy is the only variable that is the most powerful in predicting student engagement among high school students. Even though other variables (in this case parental involvement, teacher support, and peer attachment) are not included in analysis process, academic self-efficacy can still predict student engagement independently.

Not only that, based on the analysis that has been done before, results obtained that teacher support cannot predict student engagement independently, and must be together with parental involvement, academic self-efficacy, and peer attachment if it wants to be a predictor for student engagement among high school students. Somewhat different from parental involvement variable, even though both cannot be independent predictors for student engagement, parental involvement can predict student engagement if together with academic self-efficacy, teacher support, and peer attachment, and if teacher support omitted, and peer attachment variables omitted, parental involvement can still predict student engagement among high school students when together with academic self-efficacy.

Results of this study consistent with previous studies as well as existing theoretical concepts, in which this study has proven that parental involvement, academic self-efficacy, teacher
support, and peer attachment are closely related to student engagement (Veiga et al., 2012). Veiga et al (2012) explained that many scientific studies have explained that personal variables (such as self-efficacy and self-concept), as well as contextual variables (such as peers, school, family), are closely related to student engagement in school. Self-efficacy allows students to develop cognitive strategies and self-regulation in context of their education. In addition, the existence of positive relationships with peers, teacher support, and quality of relationships in family were related to the high level of student involvement (Veiga et al., 2012).

More specifically, results of this study are also consistent with the results of previous studies regarding *positive role of parent or family involvement in student engagement* (Mulya & Qudsyi, 2017; Al-Alwan, 2014; Murray, 2009; Malczyk & Lawson, 2017; Simons-Morton & Chen, 2009; Furrer & Skinner, 2003), *the role of peers in student engagement* (Sa'diyah & Qudsyi, 2016; Arifani & Qudsyi, 2018; Patrick, Ryan, & Kaplan, 2007; Bishop & Pflaum, 2005; Kizildag, Demirtas-Zorbaz, & Zorbaz, 2017; Furrer & Skinner, 2003), *the role of teacher or school in student engagement* (Krauss, Kornbluh, & Zeldin, 2017; Jani & Qudsyi, 2017; Martin & Rimm-Kaufman, 2015; Patrick, Ryan, & Kaplan, 2007; Murray, 2009; Furrer & Skinner, 2003), and *the role of student self-efficacy in student engagement* (Husnita & Qudsyi, 2017; Martin & Rimm-Kaufman, 2015; Oriol-Granado, Mendoza-Lira, Covarrubias-Apalaza, & Molina-Lopez, 2017). Thus, this study can corroborate the results of previous studies which showed a relationship between parental involvement, peer attachment, teacher support, and academic self-efficacy with student engagement.

Although this study shows that parental involvement, academic self-efficacy, teacher support, and peer attachment together can predict student engagement among high school students, the most powerful variable in predicting student engagement is academic self-efficacy. Academic self-efficacy can predict student engagement independently, even if not together with other variables in this study. These results reinforce previous findings, that self-efficacy is a variable that has a large role in student involvement in schools (Martin & Rimm-Kaufman, 2015; Oriol-Granado, Mendoza-Lira, Covarrubias-Apalaza, & Molina-Lopez, 2017; Husnita & Qudsyi, 2017). Self-efficacy is one of the concepts of Albert Bandura in Cognitive Social theory. This concept has been very widely used to explain how individuals can optimize their ability to achieve optimal performance. Pajares (1996) argues, that how individuals interpret the results of their performance, inform and change their environment and beliefs, which in turn informs and changes next performance. This is the basic concept of reciprocal determinism from Bandura, which consists of personal factors (cognition, affection, biology), behavioral factors, and environmental influences, which then create interactions called *triadic reciprocity* (Pajares, 1996).

Bandura (Pajares, 1996) states, that self reflection is the most unique individual ability, where through this process individuals will form self-referents by evaluating and changing their thinking and behavior. Self-evaluation process includes the process of self-efficacy, where self-efficacy is a person's belief in his ability to organize and implement a series of actions needed to manage future situations (Bandura in Pajares, 1996; Bandura in Schunk, 1989). Schunk (1989) explains, that individuals with low self-efficacy will tend to avoid the tasks, and those who have high self-efficacy will be able to engage and participate with enthusiasm. Including if individuals are facing obstacles, individuals who have high self-efficacy will tend to work hard and last longer than individuals who doubt their abilities (Schunk, 1989). Pajares (1996) add, that self-efficacy will influence individual behavior in various ways. Self-efficacy will influence the choices made by person and the series of actions that person will carry out (Pajares, 1996).
Schunk and Mullen (2012) explain, that individuals often choose tasks and activities that they feel are competent in them. Self-efficacy can affect how much cognitive and physical effort mobilized by individuals in carrying out their activities, how long individuals can survive when faced with difficulties, and self-efficacy can show how much the level of learning and individual achievement (Schunk & Mullen, 2012). Also added by Schunk and Mullen (2012), that students with high self-efficacy tend to set goals that are challenging, work diligently, survive in the face of failure, and can restore their sense of self-efficacy after experiencing setbacks. Behavior like this allows individuals to engage in learning process and person education. As stated by Schunk and Mullen (2012), that students involved in learning have a sense of self-efficacy in learning. They have hope for positive results and respect for learning. The role of student engagement is seen from how students set goals and evaluate their progress, students decide what they believe to be an effective strategy for learning material and succeeding in it, and students will focus their attention on the task and try to avoid interference in their learning (Schunk & Mullen, 2012). Self-efficacy will help students to be motivated and actively involved in learning (Schunk & Mullen, 2012). Regarding previous explanation, it is understandable why self-efficacy has the greatest contribution in student engagement.

This research certainly has limitations. Some of things that need to be evaluated from this study are that methodically, research still needs to be improved in the future, especially with regard to measurement tools that has a higher reliability coefficient. In addition, in selection of research respondents, it needs to be extended again to the characteristics of respondents and to increase the number of respondents, moreover the variables studied in this research are more than 3 variables. Researchers also need to do further analysis to look at the relationship model between variables.

CONCLUSION

Based on the previous analysis and discussion, it can be concluded that parental involvement, academic self-efficacy, teacher support, and peer attachment together can predict student engagement in high school students very significantly. Another conclusion from this study is that academic self-efficacy has a predictive power independently of student engagement when compared with other variables in this study. Contribution of this research that it is important for students to have strong self-efficacy in the learning process. So that it can strengthen the student engagement they have. Beside that, this research also contributes that social system still be one of support system to encourage student engagement. So, it is important for social system to involve in students’ educational process.

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REFERENCES


Van Ryzin, M.J. (2011). Protective factors at school: reciprocal effects among adolescent’ perceptions of the school environment, engagement in learning, and hope. *J Youth...


