

The Influence of Parental Support on Student Engagement through Self-System Processes

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Abstract—Nowadays studies concerning student engagement, examine the aspects of self-system processes individually. However, little knowledge of how all aspects of self-system processes influence student engagement together. To fill this gap, researchers conducted a study aimed at analyzing the effects of parental support on student engagement through self-system processes. Parental support is support consisting of structure, autonomy and involvement. The self-system processes consist of sense of relatedness, sense of autonomy, and sense of competence. Participants in this research were 632 high school students from 8 public high schools selected from 8 school areas in Bandung used random sampling technique. All measuring instruments for this research which consist of parental support, student engagement, self-system processes are compiled by the research team based on Connell's theory. Data were analyzed by Partial Least Square (PLS) method. The results show that there is an influence of parental support on student engagement through self-system processes.

Keywords—parental support; self-system processes; student engagement

I. INTRODUCTION

The involvement of learning is important for achieving good quality human resources. In fact, in Bandung Indonesia, students have not been fully bound to learn in school. Research conducted by Mustika and Halimah in Public High Schools in Bandung showed regarding student engagement, the state of student engagement is still low, so this is still a problem [1, 2]. For teens or high school students, parents are considered important in determining student engagement [3, 4]. Likewise, adolescents themselves are also important in determining student engagement. The important factors in adolescents that determine student engagement is self-system processes [5], where self-system processes are mediators between parent factors and learning involvement [5]. Therefore the purpose of this study is looking at the influence of parents' support for student engagement through self-system processes

Student engagement is a state which is a manifestation of motivation that shows the quality of motivation that reflects goal directed action. Student engagement is an energized action, directed, and persisted when facing learning difficulties. The existence of engagement is reflected in the dimensions of cognition, emotion and behavior of students during school

learning [6]. Behavioral engagement includes effort, intensity, persistence, determination, and perseverance in the face of obstacles and difficulties [7]. Emotional engagement or affective engagement includes enthusiasm, enjoyment, fun, and satisfaction [7]; cognitive engagement includes attention, focus, "heads-on" participation (full cognitive participation / concentration), and willingness to go beyond what is required [7].

Skinner et al. stated that student engagement is influenced by external factors [7]. Based on the studies conducted, external factors that influence student engagement are parental involvement [3, 8], types of parental involvement [4], relationship between mother and children [9], family functions [10], peers functions [10, 2]; teachers [11], ecological assets [12], social context [5, 6]. In this research, researcher wanted to know more about social context, especially parental support. Connell describe that social context that can have a positive influence on student engagement is the social context that contains interaction between parents and children which contains structure, autonomy support dan involvement [5]. What is meant by interaction that contains the structure is the conveyed expectation of parents about the achievements that must be achieved by the child / student; there are consequences if students cannot meet the expectations of parents; given optimal challenges by parents; and giving positive feedback from parents to students [5]. Interactions that contain autonomous support is the opportunity for children or students to carry out what they want in learning according to their personal goals and scores [5]. The interaction that contains emotional involvement is the presence of attention, the closeness, the pleasure of parents when together with children or students [5].

Student engagement also influenced by internal factors. Based on research conducted is personal assets [12], sense of relatedness [13], self-system processes [5, 6]. Internal factors that influence student engagement are self-system process [6]. Self-system processes are students' assessment of themselves, especially student activities related to fulfilling 3 basic psychological needs of students, namely need for relatedness, need for autonomy, and need for competence. The need for relatedness is defined as the need to feel safe in establishing social relationships with the surrounding environment and the need to gain experience that he is a useful person, people

deserve to be loved and scored [6]. The need for autonomy is defined as the need to choose, carry out activities and organize activities on their own, and the need to connect between actions and personal goals and scores [6]. The need for competence is defined as the need to experience oneself as a person capable of producing desired outcomes and avoid negative outcomes [6]. When individuals develop or increase in age until adulthood, self-system processes will occur. Connell states that self-system processes develop due to the interaction between basic psychological needs and certain social contexts [6]. In this model the developing person is seen as an individual who actively constructs the self system from birth. The self-system is seen as a set of assessment processes where individuals evaluate their status in a particular social context related to three basic psychological needs. These three basic needs will become individual priorities where the self-system is organized. The role of individuals in the development of self-system manifests through the development of how he seeks experiences to fulfill these three basic needs. The role of the social context is to facilitate or provide a social environment that will be able to fulfill these three basic needs. The prior research conducted by Connell and Forrer examines the influence of one social context (parental support or teacher context or peer context) with one of three self-system processes (sense of competence or sense of autonomy or sense of relatedness only towards student engagement [5, 6, 13]. In this research, researchers conduct research on the influence of parental support and three of the joint self-system processes (sense of relatedness, sense of autonomy and sense of competence) on student engagement. There for, the aim of this research is to analyzed the influenced of parental support on student engagement through self-system processes.

II. RESEARCH METHODS

The design of this research is causal correlation, where the causal relationship between parental support as an independent variable is seen; student engagement is a dependent variable, and self-system processes are mediator variables.

The research subjects were 632 students who show problems in learning from 8 high schools representing 8 school areas in Bandung which were randomly selected. The instrument of data collection is a questionnaire. There are 3 questionnaires in the form of a scale consisting of 4 alternative answers. The instrument student engagement questionnaire using a frequency scale, never, rarely, often, always. The parental support and self-system processes instruments use very inappropriate, inappropriate, appropriate, very appropriate scales. All instruments are made by a research team based on Connell's theory. To test validity, construct validity is used, by correlating item scores with the total score of each instrument. The correlation used is Rank Spearman correlation because of ordinal scale research data. As for the reliability test carried out with Cronbach Alpha

Data analysis techniques in this study are quantitative and use statistics. The method used to test the conceptual model is the PLS method, because research data is not followed normal distribution. PLS the steps that must be implemented are as follows [14]: 1) Designing the Inner Model: This model is used to see how the relationships between constructs. 2) Designing

the Outer Model: This model is used to determine the validity and reliability that connects indicators with their latent.

III. RESULTS AND DISCUSSION

The following are the Evaluation of Outer Model that will show the extent to which indicators can measure each construct that will be examined. Analysis results are displayed as follows:

TABLE I. THE RESULT OF OUTER MODEL EVALUATION

Construct	Cronbach Alpha (0,7)	AVE (0,5)	Composite Reliability (0,7)	Category
Parental Support	0.75	0.67	0.86	Good
Student Engagement	0.86	0.78	0.91	Good
Sense of Autonomy	0.52	0.51	0.74	Good
Sense of Competence	0.63	0.73	0.84	Good
Sense of Relatedness	0.46	0.64	0.78	Good

Based on table 1, explain the measurements used to evaluate the outer model. The composite reliability value and cronbach's alpha above the upper limit of 0.7 means acceptable and the average value of average variance extracted (AVE) of 0.5 indicates good convergent validity. Of the three measurements there are at least two sizes that fit the criteria, so constructs can be said to be good. So that the construct of parental support, student engagement, sense of autonomy, sense of competence and sense of relatedness has good composite reliability

TABLE II. ESTIMATED SCORE OF PLS LOADING FACTOR OUTER MODEL

Construct	Indicator	Loading Factor	T Statistics	Validation Indicator (T-Table : 1.68)
Parental Support	Autonomy support	0.80	14.33	valid
	Involvement	0.82	14.09	valid
	Structure	0.84	17.36	valid
Sense of Relatedness	Perceived emotional security	0.69	5.70	valid
	Perceived for closer relationship	0.90	17.92	valid
Sense of Autonomy	Identified Self-regulated	0.83	21.25	valid
	Introjected self-regulated	0.46	2.72	valid
	Intrinsic self-regulated	0.78	11.21	valid
Sense of Competence	Perceived Capacity	0.89	21.35	valid
	Perceived Strategy	0.82	12.68	valid
Student engagement	Emotional engagement	0.89	36.39	valid
	Cognitive engagement	0.87	26.30	valid
	Behavioral Engagement	0.88	32.39	valid

From Table 2, we can see the construct of parental support, the indicator of autonomy support has a value of loading factor 0.80 (T statistic > T table), involvement indicator has a value of loading factor 0.82 (T statistics > T table), and structure indicators have a value of loading factor 0.84 (T statistics > T

table). Judging from the value of T Statistics > T table, it can be seen that all indicators are valid in measuring the constructs of parental support.

Likewise from Table 2 it appears that in the sense of relatedness construct, indicators perceived emotional security have a loading factor of 0.69 (T statistics> T table) and perceived for closer relationships have a value of loading factor 0.90 (T statistics > T table). This means that indicators perceived emotional security and perceived for closer relationships are valid in measuring the construct of sense of relatedness, when viewed from the value of T Statistics > T table, it can be seen that all indicators are valid in measuring the construct of sense of relatedness.

Likewise from Table 2 it appears that in the sense of competence construct, indicators of perceived strategies have a loading factor of 0.82 (statistical T > tables) and perceived capacity has a loading factor value of 0.89 (T statistics > T table) . This means that indicators are perceived strategies and perceived Valid capacities in measuring the construct of sense of competence, when viewed from the value of T Statistics > T table, it can be seen that all indicators are valid in measuring the construct of sense of competence.

Table 2 also shows the construct of sense of autonomy can be measured through externally self-regulated indicators (the value of loading factor = 0.25881 and statistical T value 1.145 < T table 1.96), identified self-regulated (value of loading factor = 0.83 with statistical T value > T table), introjected self-regulation (value of loading factor = 0.46 with statistical T value > T table) and intrinsically self-regulated (value of loading factor = 0.78 with statistical T value > T table). It can be concluded that the indicator is externally self-regulated is not valid in measuring sense of autonomy while, identified self-regulated, introjected self-regulation and intrinsically self-regulated is valid in measuring the construct of sense of autonomy

From Table 2 it also appears that the construct of learning involvement can be measured through behavioral involvement indicators, with the value of loading factor = 0.88 (T statistic > T table); emotional involvement with the value of loading factor = 0.89 (T statistic > T table), cognitive involvement with the value of loading factor = 0.87 (T statistic > T table). This means that indicators of behavioral involvement, emotional involvement and cognitive involvement, can be said to be valid in measuring the construct of learning involvement, in addition, when viewed from the value of T Statistics > T table, it appears that all indicators are valid in measuring the construct of learning involvement.

The following are the Evaluation of Inner Model that will show the significance of each Path Coefficients on the relationships between constructs to be examined. The results of the analysis are shown as follows:

TABLE III. ESTIMATED SCORE OF PATH COEFFICIENTS INNER MODEL IN PLS

Causal Relations	Path Coefficient	T Statistics	Significant relationship (T-Table : 1.68)
Parental Support → sense of relatedness	0.47	5.28	Significant
Parental Support → sense of autonomy	0.29	3.04	Significant
Parental Support → Sense of Competence	0.14	1.20	Not Significant
sense of relatedness → sense of autonomy	0.33	3.38	Significant
Sense of autonomy → Sense of competence	0.45	4.69	Significant
Sense of relatedness → Student engagement	0.17	1.66	Not Significant
Sense of autonomy → Student engagement	0.37	3.62	Significant
Sense of Competence → Student engagement	0.21	2.05	Significant

From table 3, it appears that the path coefficient parental support for sense of relatedness is 0.47 with a statistical T value of 5.28 > T table 1.68. This means that parental support significantly affects the sense of relatedness. From table 3 it also appears that the path coefficient of parental support for sense of autonomy is 0.29 with a statistical T value of 3.04 > T table 1.68. This means that parental support affects the sense of autonomy significantly. From table 3 it also appears that the path coefficient of parental support for the sense of competence is 0.14 with a statistical T value of 1.20 < T table 1.68. This means parental support does not significantly affect sense of competence. From table 3 it appears that the path coefficient sense of relatedness for sense of autonomy is 0.33 with a T value of 3.38 statistics > T table 1.68. This means that the sense of relatedness significantly affects the sense of autonomy. From table 3 it also appears that the path coefficient of sense of autonomy for the sense of competence is 0.45 with a statistical T of 4.69 > T table of 1.68. This means that sense of autonomy significantly affects sense of competence. From table 3 it also appears that the path coefficient of sense of relatedness for student engagement is 0.17 with a statistical T of 1.66 < T table of 1.68. This means that the sense of relatedness does not significantly affect student engagement. From table 3 it also appears that the path coefficient of sense of autonomy for student engagement is 0.37 with a statistical T value of 3.62 > T table 1.68. This means that the sense of autonomy significantly affects student engagement. From table 3 it also appears that the path coefficient of sense of competence to student engagement is 0.21 with a statistical T value of 2.05 > T table 1.68. This means that sense of competence significantly affects student engagement.

IV. HYPOTHESIS TESTING

A. Influence Parental Support for Sense of Relatedness

The first hypothesis is that parental support influences the sense of relatedness. From table 3, it can be seen that the path coefficient calculation shows that the parentage score of support affects the sense of relatedness is 0.47. This score can

be said to be sufficient, but significant. This means that parents who are emotionally involved in interacting with students, such as showing interest in students, paying attention to students and parents who take the time and enjoy time with students will fulfill student's need of relatedness and will cause students to feel safe. The existence of a sense of security in students will make students feel free to explore the environment and to engage constructively in every activity that they do and in interacting with others [13], one of which is in learning activities. So it is proven that there is a parental support effect on sense of relatedness.

B. Influence Sense of Relatedness to Student Engagement

The second hypothesis is that sense of relatedness affects student engagement. The path coefficient calculation result from table 3 shows that the score of sense of relatedness affecting student engagement is 0.17. But the results are not significant. This means, how much comfort the students feel when interacting with their parents does not directly affect the student engagement. This is not in line with the results of research by Furrer in participants of middle childhood age who stated that children's sense of relatedness plays an important role in their academic motivation and performance [13]. This is not in line with the research of Mo too that parents who love their children, who pay attention to their children, understand their children and enjoy activities with their children influence the involvement of learning emotional aspects [15]. And also this is not in line with the research results of Ackerson that the closeness of the mother-child relationship, the child will succeed in school [9]. These results imply that in adolescents / high school students that emotional closeness with parents is not directly related to student engagement. But in high school students, closeness to peers in school influences student learning involvement in school [2]. This is because the feeling of being part of a peer group will make students feel interested, excited and want to participate in learning activities in the classroom [13]. As Qudysi said stated that support from peers was significantly a predictor of student engagement [10]. The emotional support of friends in class makes students not give up quickly in completing difficult tasks [10].

C. Influence Sense of Relatedness to Sense of Autonomy

The next hypothesis is that there is an influence of sense of relatedness on sense of autonomy. From table 3 the calculation of path coefficient is seen, the score of the influence of sense of relatedness on sense of autonomy is 0.33, and this effect is significant. This means that a sense of comfort in students due to the fulfillment of the need for relationships will make students dare to determine what actions they will do in accordance with the goals and personal scores of students. Likewise vice versa if the sense of security in students is absent or underdeveloped, students will not dare to act on their own desires in accordance with their personal goals and scores.

D. Influence Parental Support to Sense of Autonomy

The next hypothesis is that there is a parental support effect on sense of autonomy. The results of path coefficient calculation (table 3) show that the score of parental support for sense of autonomy is 0.29, and this effect is significant. This

means that there is a parental support effect on sense of autonomy. Parents who provide autonomy support in the form of the freedom of students to determine their own actions that will be done or given the choice to act according to the goals and personal scores affect the sense of autonomy of students.

E. Influence Sense of Autonomy to Student Engagement

The next hypothesis is that there is an influence of sense of autonomy on student engagement. Path coefficient calculation results (table 3) show that the influence of sense of autonomy on student engagement is 0.37, and this effect is significant. This shows that the sense of autonomy has enough influence on student engagement. This means how is the ability of students to organize their activities, whether they conduct academic activities because students enjoy and enjoy academic activities at school (intrinsically self-regulated), or because of fulfilling identified self-regulated goals, or for fear of punishment or expecting rewards from the environment; all of them will encourage him to be involved in academic activities at school or motivate him to be involved in academic activities at school. The influence of this sense of autonomy on student engagement is sufficient with the sense of autonomy, students will have the awareness that students who have the choice to set something, decide something, this will motivate students or encourage students to carry out their choices involved in academic activities at school or outside school. Conversely, if the sense of autonomy is less formed then the awareness that students determine the activities that they will do in learning does not exist in students so this will not motivate students in learning, as a result they will not be involved in learning.

F. Influence Sense of Autonomy to Sense of Competence

The next hypothesis is that there is an influence of sense of autonomy in the sense of competence. Path coefficient calculation results (table 3) show that the score of the influence of the sense of autonomy in the sense of competence is 0.45 and this effect is significant. This score can be said to be sufficient. This shows that the sense of autonomy affects the sense of competence. This means how is the ability of students to organize their activities, whether they conduct academic activities because students enjoy and enjoy academic activities at school (intrinsically self-regulated), or because of fulfilling identified self-regulated goals, or for fear of punishment or expecting rewards from the environment; everything will affect the sense of competence. The more independent action (carried out on the basis of self-consideration) and the more he realized that he was the one who had to make decisions, it will make students believe in their own abilities so that this will affect the quality of the sense of competence. The sense of competence is the student's assessment of his competence in achieving academic success, where students know the right strategy to succeed in school and students have the confidence that he is able to carry out the right strategy. Having knowledge of the right strategies to succeed in school and having the belief that students are able to carry out the strategy will increase their motivation to learn, which in turn makes them involved in learning activities.

G. Influence Parental Support to Sense of Competence

The next hypothesis is that there is an influence of the parental support in the sense of competence. The result of path coefficient calculation (table 3) shows that the weight of parental support influence on sense of competence is 0.14 and this effect is not significant. This means, parental support that contains structure, autonomy support, and involvement does not affect the sense of competence.

H. Influence Sense of Competence to Student Engagement

The next hypothesis is the influence of sense of competence on student engagement. The statistical calculation results of the path coefficient in Table 35 show that the construct score of the sense of competence in influencing the student engagement construct is 0.21. This score can be said to be small but significant. This means that students' knowledge of strategies about what should be done to succeed in school (perceived strategies) and students' confidence in their ability to carry out the right strategies to succeed in school will cause students to have successful motivation in school which in turn affects student involvement with academic activities at school and outside school. It is proven that there is an influence of sense of competence on student engagement.

I. Goodness of Fit Model (GoF)

TABLE IV. SCORE R SQUARE AND COMMUNALITY

Construct	R Square	Communality
Parental Support		0.67
Student Engagement	0.38	0.78
Sense of Autonomy	0.26	0.51
Sense of Competence	0.27	0.73
Sense of Relatedness	0.20	0.64
Average Score	0.28	0.67
GoF	0.43	

Table 4 is used to validate the overall model, then the goodness of fit (GoF) will be used. Based on Table 4 which contains the scores of communalities for each construct, the average communalities are 0.67 while the average score based on Table 6 is 0.28 so that:

$$GoF = 0.43 \text{ (high GoF)}$$

Based on the calculation shows that the GoF score of 0.43 is more than 0.36 so that it is categorized as a large GoF, meaning that the model has been made between teacher construct variables, construct sense of relatedness, construct of sense of autonomy, construct of student engagement sense of competence and construct high in explaining data or phenomena that have occurred so far. This means that the concept of Connell's theory can already be applied to phenomena in the field

V. CONCLUSIONS

From the research above, it can be concluded that parental support in the form of structure, autonomy support and involvement for children / students affects student engagement through meeting the needs of emotional relations, the need for autonomy and the need for competence or the students'

achievement of a sense of relatedness, sense of autonomy, and sense of competence.

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REFERENCES

- [1] R. A. Mustika and S. Kusdiyati, "Studi deskriptif Student Engagement pada Siswa kelas XI IPS di SMA Pasundan 1 Bandung". *Prosiding Psikologi Spesia Seminar Penelitian Sivitas Akademika Unisba*, vol. 1, 2015.
- [2] L. Halimah, S. Kusdiyati, and S. Susandari, "Pengaruh Konteks Teman Sebaya terhadap Keterlibatan Belajar dengan Mediator Self-System Processes", *Psymphatic Jurnal Ilmiah Psikologi*, vol. 4, pp. 265 – 274, 2017.
- [3] Y. L. Juwita, S. Kusdiyati, "Hubungan antara Parental Involvement dengan Student Engagement pada Siswa Kelas XI di SMK TI Garuda Nusantara Cimahi", *Prosiding Psikologi Spesia Seminar Penelitian Sivitas Akademika Unisba*, vol. 1, 2015, pp. 252 - 261.
- [4] C. P. Mombuarquette, "A Research of the Relationship between The Type of Parent Involvement and High School Student Engagement, Academic Achievement, Attendance, and Attitude Toward School". *Theses. University of Montana. Scholar Works of University of Montana*, 2007.
- [5] J. P. Connell and J. G. Wellborn, *Competence, autonomy, and relatedness: a motivational analysis of self system process*. University of Rochester, 1991.
- [6] J. P. Connell, *Context, Self, and Action: A motivational Analysis of Self- System Processes across the Life Span dalam The Self in Transition Infancy to Childhood oleh Cicchetti dan Marjorie Breeghly*. 1990.
- [7] E. A. Skinner, T. A. Kindermann, J. P. Connell, and J. G. Wellborn, *Engagement and disafection as organizational constructs in the dynamics of motivational development. Dalam Handbook of Motivation in School*, edited by Kathryn R. Wentzel & Allan Wigfield , Taylor And Francis, 2009.
- [8] C. Y. M. Yuen and A. Cheung, *School Engagement and Parental Involvement: TheCase of Cross-border Student in Singapore*. Australian Educational Researcher, 2013.
- [9] E. A. B. Ackerson, *School Engagement and Mother-Child Relationships*. Dissertation. University of Iowa, 2016.
- [10] H. Qudsyi, S. K. Sa'diyah, and R. Mahara, *Student Engagement Among High-School Students in Indonesia: Prediction of Family Functioning and Peer Support*. International Conference on Education, Psychology, and Social Science (ICEPS). Kuala Lumpur, 2016.
- [11] A. M. Klem and J. P. Connell, "Relationships matter: linking teacher support to student engagement and achievement", *Journal of School Health.*, vol. 74, ProQuest Education Journals pp. 262, 2004.
- [12] Y. Li, J. V. Lerner, and R. M. Lerner, "Personal and Ecological Assets and Academic Competence in Early Adolescence: The Mediating Role of School Engagement", *Journal of Youth Adolescence*, vol 39, pp. 801 – 815. 2010.
- [13] C. Furrer and E. Skinner, "Sense of Relatedness as a Factor in Children's Academic Engagement and Performance", *Journal of Educational Psychology*, vol 95, pp. 148–162. American Psychological Association, Inc, 2003.
- [14] I. G. N. M. Jaya and I. M. Sumertajaya, *Pemodelan Persamaan Struktural dengan Partial Least Square*. Semnas Matematika dan Pendidikan Matematika, 2008.

[15] Y. Mo and K. Singh, "Parent Relationships and Involvement Effect on Student School Engagement", *RMLE Online Research in Middle Level*

Education, vol. 31, 2008.