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Learning Motivation, Democratic Parenting, and Peer Relations Predict Academic Self-Concept

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Abstract: Students' academic self-concept is a concerning concept in educational research. The purpose of this research is to examine the simultaneous influence and relationship of learning motivation, democratic parenting, and peer relations with academic self-concept in students. This is a correlational research with a cluster random sampling method used to collect data from 962 students. The result showed that learning motivation, democratic parenting, and peer relations had a partial and simultaneous relationship with students' academic self-concept. Furthermore, support from guidance and counselors, homeroom teachers, and parents is essential for students to actualize and develop their character optimally and effectively.

Keywords: *Academic self-concept, democratic parenting, learning motivation, peer relations, students.*

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Introduction

Students' learning activities in school are a condition where they are related to skills that refer to the cognitive, affective, and behavioral domains (Appleton, 2012; Da Rocha Seixas et al., 2016; Phan et al., 2016). The cognitive domain focuses more on the self-regulation needed to finish the tasks (Collie et al., 2016). The affective domain refers more to the positive feelings felt by students to participate in fun learning activities at school (Kim et al., 2018; Wang & Lieberoth, 2016). Furthermore, the behavioral domain refers to completing assignments within and outside the school environment (Hart et al., 2014). One of the affective domains that influence learning is academic self-concept, which colors students' learning process in school.

In reality, most students experience failures in teaching and learning activities due to a lack of self-understanding towards personality aspects, such as the academic self-concept. This consideration underlies the importance of research on academic self-concepts, which is closely related to problems. Some students take risks during academic activities at school, for example, they provide unsure answers (Rüschepöhler & Markic, 2019). According to Hamachek (1995) when students have a positive view of their academic ability, they are confident and capable of motivating themselves. On the other hand, when students are pessimistic about their academic ability, they feel lower and lack the motivation to achieve learning. Based on this statement, when students do not have academic self-concept and self-confidence to achieve learning in school, they are not motivated to succeed. When people activate their learning goal orientation, they interpret the situations as opportunities, which means they perceive themselves as capable of obtaining academic excellence (Rüschepöhler & Markic, 2019).

Therefore, preliminary observations were made based on these conditions by collecting data from guidance and counseling teachers at three State Junior High Schools in Kediri, Indonesia, through interviews. The result showed that students had a low academic self-concept capable of affecting their achievement. The preliminary research showed that 25% of 8th-grade students tend to have negative academic self-concepts due to their inability to express themselves in class and were undisciplined in conducting their assignments. Besides, some students lacked future goals and were not motivated to improve their current condition, while others did not know where they would continue their studies. Students doubted their abilities and believed in friends' answers rather than theirs in completing assignments from

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teachers. This category of students is afraid of providing wrong answers to teachers' questions and being laughed at by friends. Therefore, there must be efforts to solve this condition from both teachers and parents to achieve maximum results.

Academic self-concept is very important in educational research due to its wide range of outcomes such as interest, persistence, variety of tasks, achievement (Craven & Marsh, 2008; Marsh, 1990; Marsh & Craven, 2006), and global self-esteem (Hassan et al., 2016). Individuals with a high academic self-concept are termed successful with mediators that lead to other beneficial educational outcomes (Arens et al., 2011). Academic self-concept is a form of self-perception with students' experiences and opinions of the school environment (Marsh & Craven, 1997; Shavelson et al., 1976). The relationship between academic self-concept and achievement has become an important issue in current research field. Academic self-concept plays an important role in increasing students' motivation and preferences for schoolwork. The main finding of this research is that academic self-esteem systematically and accurately predicts school achievement by mediating students' opinions (Pullmann & Allik, 2008).

Moreover, there is still a low academic self-concept in students, implying counselors play an essential role in supporting their positive adjustment experiences (Haktanir et al., 2018). The results of research conducted by Christie and MacMullin (1998), Hui (2001), Kong et al. (2006, as cited in McInerney et al., 2012) stated that students often experience worries about the future and their achievements. They feel anxious about their education because of learning problems, such as managing study time, fear of exams, low scores, and pressure from school policies. According to Marsh (2003), the factors that influence a person's academic self-concept are low self-confidence, acceptance, and esteem. These findings are very important because an increase in academic self-concept leads to a rise in subsequent achievement and other educational outcomes. Therefore, self-concept plays a central role in mediating the effects of different desired educational results. These findings also have significant implications for international education policy and practice (Marsh, 2003). Ireson and Hallam (2009) stated that the existence of different student intentions to learn in the future is a factor that affects self-concept rather than achievement in the school. The findings show that ability grouping in schools affects students' academic self-concept.

Fin and Ishak (2014) stated that academic self-concept is a significant factor that directly affects achievement, while non-academics have direct and indirect. The existence of an independent attitude, strong will, and motivation to achieve academic goals is reflected in students' ability and involvement in the learning process, which is a hallmark of self-concept (Darling-Hammond et al., 2020; Fry et al., 2009; Mercer, 2011). Meanwhile, Ahmavaara and Houston (2007) emphasized that academic self-concept is information about students' perceptions of tests or academic exercises on specific subjects and activities related to school and their future goals. Pehlivan and Koseoglu (2012) reported that academic self-concept helps students develop cognitive, social, and emotional abilities. This indicates supporting components within and outside the individual is needed to improve students' academic self-concept, learning motivation, democratic parenting, and peer relations. This is in line with Riffert et al. (2021) research on students' emotions, academic self-concept, engagement, and achievement, which are significantly influenced by teachers' learning approach. It increases students' behavioral involvement during the learning process and strengthens their academic self-concepts.

Literature Review

Students with a positive academic self-concept are motivated and determined to achieve their goals due to their high confidence. These psychological attributes help them improve directly and indirectly increase their learning achievement positively. Several preliminary research also proved that a positive self-concept is one factor that substantially improves students' self-regulation within the learning process (Cvencek et al., 2018; Klapp, 2018; Lawrence & Saileela, 2019). Academic self-concept also moderates teachers support and students involvement in schools (Galugu & Samsinar, 2019). Wilson et al. (2014) stated that several factors influence academic self-concept, namely difficulties in self-acceptance, self-understanding, and academic achievement (Marsh & Martin, 2011; Van Soom & Donche, 2014), which are all related to learning strategies (Soufi et al., 2014).

The academic self-concept factor is explained from a general perspective as a necessary dynamic needed for adolescents to achieve educational success. Marsh and Yeung (1997) reported that academic self-concept specifically influences adolescent academic achievement in certain subjects, but investigations are still needed to determine other associated factors.

The internal factor capable of influencing academic self-concept is learning motivation, which positively correlates with it (Guay et al., 2010; Urhahne et al., 2011; van den Berg & Coetzee, 2014), and students' academic self-concept significantly impacts the learning environment (Guo et al., 2021; Kulakow, 2020). Bandura and Graham (as cited in Okeke et al., 2009) reported that positive belief in self-efficacy leads to better results in African-American adolescents. Meanwhile, Liu (2010) stated that the correlation between academic self-concept and learning motivation is positive, leading to better output. Furthermore, self-concept has a significant correlation to teachers motivation in teaching (Utomo et al., 2019) and positively impact Junior High School performance (Hidayat & Wulandari, 2020).

Conversely, parenting and peer relations are external factors that are thought to influence students' academic self-

concepts significantly. The self-concept built from the family environment will provide a strong foundation in shaping the child's mindset to understand the academic potential and take the proper development steps. This point of view aligns with the concept of parenting expressed by Dagnev (2018), which stated that the strategies used by parents to interact, assess, and appreciate their children will significantly impact their self-concept. This is reinforced by Agustawati (2014), which stated that educating, guiding, and disciplining children to adulthood is a direct or indirect parenting style. Several research results show that parenting styles can be a factor that influences the formation of students' academic self-concept (Dagnev, 2018; Franklin et al., 2017; Wang & Liu, 2008). Its application impacts the building of self-confidence, behavior, and academic excellence of adolescents (Azizi et al., 2005; Othman & Normalina, 2010). Effective communication patterns between thoughtful parents and adolescents play an essential role in preventing other problems related to parenting styles (Jee & Shahlan, 2017). Aside from parenting factors, preliminary research suggested that making friends with peers significantly impacts children in adulthood. Problems and success in adulthood are often associated with failed or successful friendships in childhood (Ladd & Asher, 1985; Pellegrini & Glickman, 1991). In addition, friendship satisfaction and academic motivation lower students' addiction to smartphone use (Bae, 2015).

This research explores the relationship between learning motivation, democratic parenting, peer relations, and academic self-concept and determines whether these factors influence academic self-concept in students. Dagnev (2018) stated that parenting, academic self-concept, and academic motivation positively and negatively affect academic achievement.

The researchers estimate that there is a positive relationship between learning motivation and academic self-concept (H1); there is a positive relationship between democratic parenting and academic self-concept (H2); there is a positive relationship between peer relations and academic self-concept (H3); and there is an interaction between learning motivation, democratic parenting, and peer relations with students' academic self-concept (H4).

Methodology

Research Design

This is a quantitative research with a correlational design used to investigate the influence of variables (Fraenkel et al., 2011). A multiple regression design was used to analyze the magnitude of the relationship, the effect of the criterion variable, and the combination of two or more predictors (Gall et al., 2007). There are three predictor variables employed, namely learning motivation (X₁), democratic parenting (X₂), and peer relations (X₃). The predictable variable is academic self-concept (Y), while the research design is shown in Figure 1.

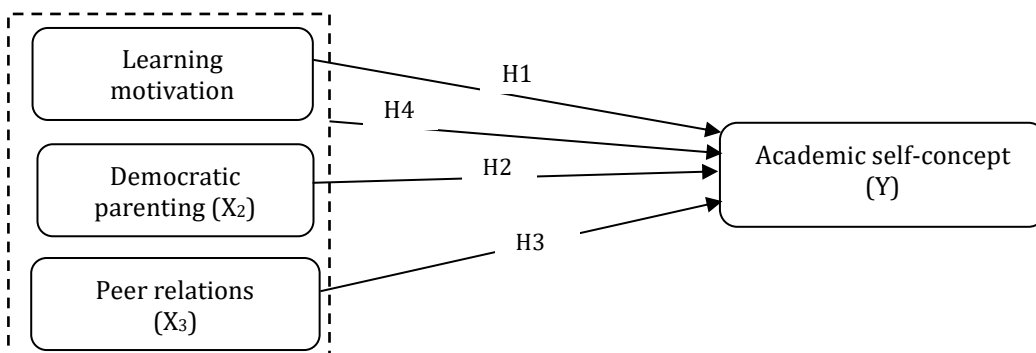


Figure 1. Research Design

Sample and Data Collection

Data were collected from Junior High School students in three sub-districts, namely Kediri City, Mojoroto, and Pesantren, using the cluster random sampling technique. The sample was primarily 962 8th grade students consisting of 40% male and 60% female.

Measurement was conducted using validity and reliability tests. The validity test was used to determine whether each question item is valid and capable of reflecting the measured attribute. The measurement of the instrument level of validity uses Aiken's V analysis by paying attention to the content coefficient, which is based on the expert panel's assessment (Aiken, 1985). The reliability test was conducted using Cronbach's alpha with SPSS 22.0 software (Azwar, 2012). Learning motivation refers to the internal and external drive realized by the individual through the learning approach. Indicators of learning motivation include physiological, psychological, social, and non-social aspects, duration, frequency, consistency, and tenacity. The learning motivation variable instrument was measured using a scale to determine student motivation's external and internal levels. The learning motivation scale was compiled in Indonesian by the researcher based on the theoretical concept of Syah (1999) with 17 items and four answer choices, namely very appropriate, appropriate, not appropriate, and very inappropriate. Based on the Aiken's V validity test, this

instrument has a discrimination index from the item-total correlation analysis between .373 to .761, with a Cronbach's alpha reliability coefficient of .842. Examples of statements are "I am passionate about taking lessons that match my interests," "I have a high desire to learn because I want to give the best to my family," "I am highly determined to achieve my desired learning achievement."

The variable of democratic parenting was measured using a scale of dialogical parenting to enable children to grow, develop optimally and become responsible, confident, and disciplined. The scale of democratic parenting was compiled in Indonesian based on the dimensions of control and warmth developed by Baumrind (1991). The item validation results showed 28 items with four answer choices, namely very appropriate, appropriate, inappropriate, and very inappropriate. Based on Aiken's V validity test, the coefficient value ranges for democratic parenting is .564 to .79, and Cronbach's alpha reliability coefficient is .926. An example of the statement is, "my parents require me to act according to their standards," and "my parents are enthusiastic and attentive to my activities."

A scale was used to measure the peer relation variable in social groups at school and the community. According to Gottman and Parker, the peer relations scale was developed with theoretical concepts, as quoted by Santrock (2007). The validation results show 54 items with four answer choices: very appropriate, appropriate, not appropriate, and wildly inappropriate. The validity and reliability test of the instrument shows that the instrument is valid and reliable because the Aiken's V coefficient value ranges for .632 to .84, with a Cronbach's alpha reliability of .964. Examples of statements are "I find it easy to form friendships with my peers," "I feel that my potential is not honed in social circles," and "My peers provide opportunities for me to express myself."

In this research, students' academic self-concept was measured to assess their thoughts, feelings, and perceptions. According to Calhoun and Acocella (1995), theoretical concepts were used to develop the academic self-concept scale. The validation results show 40 items with four answer choices: very appropriate, appropriate, not appropriate, and wildly inappropriate. The validity and reliability test results indicated that the instrument was valid and reliable, with the Aiken's V value ranging from .613 to .789 and a Cronbach's alpha reliability of .949. Examples of statements are "I feel weak in following the lesson," "I feel I am challenged to be active in group discussions," and "Teachers' approach to teaching is fun and challenging."

The data collection procedure was carried out for two days at each school. Before the collection process, a coordination with the school and homeroom teachers to explain the objectives and instructions for filling out the scale was carried out. This coordination is necessary because data collection was carried out after students' learning activities ended and they were given directions to fill out forms.

Data Analysis

The data were analyzed using multiple regression techniques, such as SPSS 22. It started with a requirements test by analyzing the normality, multicollinearity, heteroscedasticity, and autocorrelation. The normality test can be determined from the probability plot value and Kolmogorov-Smirnov analysis. Normally distributed data are spread around the diagonal line and follow the direction (Ghozali, 2011). Test results showed that these points strictly followed the diagonal line and verified the normality. The Kolmogorov-Smirnov test results have a significance value of .284 and are more excellent than .05. Therefore, the research data is typically distributed without any multicollinearity problem.

Based on the test results using SPSS, the coefficient value, tolerance, and variance inflation factor (VIF) column of the three predictor variables are greater than .999 and an overall value of less than 10. The results of the heteroscedasticity test show the data are well distributed without symptoms of autocorrelation because the Durbin Watson value is 1.536 where the value is still in the range of -2 to 2. Symptoms of autocorrelation do not occur assuming the Durbin Watson value is between (du value) to (4-du) (Ghozali, 2011).

Results

The results of this research include a description of the relationship between variables, the determinant coefficient, predictor academic self-concept.

The Descriptive of Relationship between Variables

The description results of the relationship between the variables are shown in Table 1.

Table 1. The Descriptive Results of Relationship Between Variables

		Correlations			
		Academic Self- Concept (Y)	Learning Motivation (X1)	Democratic Parenting (X2)	Peer relations (X3)
Pearson Correlation	Academic Self-Concept (Y)	1.000	.563	.503	.495
	Learning Motivation (X1)	.563	1.000	.025	.015
	Democratic Parenting (X2)	.503	.025	1.000	.019
	Peer relations (X3)	.495	.015	.019	1.000
Sig. (1-tailed)	Academic Self-Concept (Y)	.	.001	.001	.002
	Learning Motivation (X1)	.001	.	.217	.316
	Democratic Parenting (X2)	.001	.217	.	.281
	Peer relations (X3)	.002	.316	.281	.
N	Academic Self-Concept (Y)	962	962	962	962
	Learning Motivation (X1)	962	962	962	962
	Democratic Parenting (X2)	962	962	962	962
	Peer relations (X3)	962	962	962	962

Based on the descriptive results between variables, the significance value of the learning motivation variable on academic self-concept is smaller than the probability ($p < .05$). This means there is a significant relationship between learning motivation and academic self-concept. Similarly, the significance value of the democratic parenting variable on academic self-concept is smaller than the probability ($p < .05$), meaning a significant relationship between the two. Peer relations have the lowest effect on academic self-concept than the other two independent variables. However, the peer relations variable has a significant relationship with academic self-concept.

The Coefficient of Determination

The determinant coefficient is used to analyze the contribution of learning motivation, democratic parenting, and peer relations to students' academic self-concept, as shown in Table 2.

Table 2. The Coefficient Results of Determination Value

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.910 ^a	.828	.801	3.428

a. Predictors: (Constant), Peer Relations (X3), Learning Motivation (X1), Democratic Parenting (X2)

b. Dependent Variable: Academic Self-Concept (Y)

Table 2 showed that the result of the coefficient of determination value for the academic self-concept variable is .828. This means that the percentage variation in the magnitude of change in the academic self-concept variable explainable by learning motivation, democratic parenting, and peer relations is $.828 \times 100\% = 82.8\%$, while the remaining 17.2% is analyzed by other factors not examined in this research.

The Relationship between Predictor Variables and Academic Self-Concept

The results of the relationship between learning motivation, democratic parenting, and peer relations with academic self-concept are summarized in Table 3.

Table 3. The Relationship Results Between Predictor Variables and Academic Self-Concept

Model	Unstandardized Coefficients		Unstandardized Coefficients Beta	t	Sig.
	B	Std. error			
(Constant)	84.938	6.204		13.690	.000
1 Learning Motivation (X1)	.180	.058	.354	3.107	.002
Democratic Parenting (X2)	.122	.040	.276	3.087	.002
Peer relations (X3)	.077	.027	.198	2.886	.004

a. Dependent Variable: Academic Self-Concept (Y)

The results of data analysis in table 3 show that: (a) learning motivation has a positive correlation with academic self-concept with a significance value of .002 ($p < .05$); (b) democratic parenting has a positive correlation with academic self-concept with a significance value of .002 ($p < .05$); (c) student peer relations also have a positive correlation with academic self-concept with a significance value of .004 ($p < .05$).

The Simultaneous Relationship Test Results

Analysis of variance (ANOVA) was used to verify whether there is a relationship or influence between variables, which is summarized in Table 4.

Table 4. The Simultaneous ANOVA Test Results Between Variables

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	4073.785	3	1357.928	9.544	.000 ^b
Residual	136306.935	958	142.283		
Total	140380.719	961			

a. Dependent Variable: Academic Self-Concept (Y)

b. Predictors: (Constant), Peer Relations (X3), Learning Motivation (X1), Democratic Parenting (X2)

Based on the results of the simultaneous test analysis carried out, it can be seen that the significance value is smaller than .05 ($p < .05$). It is proven that learning motivation, democratic parenting, and peer relations simultaneously affect academic self-concept with a significance value of .000 ($p < .05$).

Discussion

The results of this current research show a positive and significant relationship between learning motivation and students' academic self-concept. These support Prabadewi and Widiastuti (2014), which found that academic self-concept is closely related to the achievement motivation of orphanage adolescents. The research conducted by Dwija (2008) also showed that academic self-concept is supported by the existence of motivation and parental attention. Meanwhile, Dhatu and Ediaty (2015) reported that achievement motivation can influence the self-concept of Junior High School students. Based on this research, students with high learning motivation have a better academic self-concept and vice versa.

The relationship between learning motivation and academic self-concept coefficient value is close to 0.6. This research proves that learning motivation is an essential indicator in shaping the academic self-concept of Junior High School students in Kediri. Abuameerh and Saudi (2012) stated that the high achievement motivation of students is related to the goals to be achieved and persistence. This research also explains that intrinsic motivation not only supports academic self-concept but can also improve other learning components. Chetri (2014) reported a relationship between motivation and student academic achievement. Therefore, the results of this research can promote students to grow along with the increased accountability of teachers and become more dedicated in private or public schools.

The findings of this research also confirm the theoretical review and the findings of previous studies. Guay et al. (2010) stated that self-concept and academic achievement were triggered by autonomous learning motivation, an important dimension in developing a student's academic self-concept. Isiksal (2010) reported that academic self-concept is shaped by intrinsic and extrinsic motivation. Van Soom and Donche (2014) also stated that students' autonomous motivation and gender influence academic self-concept, which are essential prerequisites for successful studies in science, technology, engineering, and mathematics. This research is relevant and supports the analysis that students with low motivation and academic self-concept tend to have the behavior procrastinating the work given by teachers. Motivation influences academic self-concept, meaning that it must be considered while learning. Collaboration between educators improves students' learning and teachers' emotional support because a positive self-concept encourages self-regulation, achievement motivation, and feelings of pleasure (Galugu & Samsinar, 2019; Saka, 2021).

This research also shows that democratic parenting has a positive relationship with academic self-concept. The relationship between democratic parenting and academic self-concept coefficient value is relatively high at .503. The results are relevant to preliminary findings, which have not been widely implemented at the Junior High School level. Previous research provided good support for the development of academic self-concept for Elementary School children (Guay et al., 2003; Skaalvik & Hagtvet, 1990), and adolescents (Marsh & Yeung, 1997) which need further development. Pramawaty and Hartati (2012) examined the relationship between parenting patterns and the self-concept of school children (10-12 years), which found the results of the two variables with a significant correlation, and a real picture for parents that give the right parenting style for children to improve self-concept. The findings of previous research conducted by Dasmo et al. (2012) also showed that applying appropriate parenting patterns promotes children's learning outcomes and achievements. This provided clear instructions on the importance of proper parenting for children in improving their learning outcomes and students' academic performance (Yasmeen, 2013).

The relationship between parenting patterns and student learning outcomes is also the focus of research conducted by Calafat et al. (2014). Positive parenting is related to self-concept and the effectiveness of the school's role in Junior High School students. The findings of this research prove that the high and low learning outcomes of children are the implications of the parenting model. Children who are raised in a democratic parenting model show high learning outcomes, and vice versa, that children raised using authoritarian parenting show low learning outcomes. Similar research is also stated by Septiani (2012) that democratization in parenting is reflected in the appreciation of parents on the ability of children. However, the lack of self-control from parents causes a decrease in self-concept in adolescents (Boudreault-Bouchard et al., 2013).

Based on the research findings above, parents need to select the right and ideal parenting style for their children. Parents need to apply democratic parenting for children to be able to explore their potential and increase students' academic self-concept. According Baumrind (as cited in Santrock, 2002) democratic parenting applied by parents can make children feel safe, exploratory, straightforward, and able to control themselves and carry out activities as desired. Therefore, the implications of applying parenting styles impact psychological adaptation, social development, academic achievement, and problematic behavior (Chang, 2014).

In addition to the factors of democratic parenting, peer relations are important for forming students' academic self-concepts. It provides a coefficient value, which has a positive and significant relationship with students' academic self-concept. This view is supported by research carried out by StefanusTaa and Sawitri (2017), stating that peer support provides an adequate, practical contribution to the academic self-efficacy of Senior High School (SMA) or Vocational High School (SMK) Papuan ethnic students in Semarang. Academic self-efficacy is related to self-concept and two other factors, namely academic procrastination and self-esteem. According to Espinoza et al. (2014), peer support indirectly influenced students' academic self-concept, and parental support plays an essential role in student adjustment at school. It supports the research results that peer contribute to school academic administration, including students' academic self-concept.

The findings of other preliminary research with data collected from 447 students aged between 11-16 years indicate an influence of acceptance and peer friendship in adolescents on their academic achievement (Gallardo et al., 2016). Students completed a sociometric assessment of their friend acceptance and friendship during the fall semester (Time 1). Academic achievement data were obtained from their report cards at time 1 and during the spring semester (Time 2) of the same academic year. The results showed the success rate in early adolescence is higher than in middle adolescence. The findings of this study are relevant to the implications of deepening understanding of the application of peer relationships that positively affect adolescent academic achievement.

Changes in academic self-concept variables show that peers and democratic parenting have a more negligible effect on academic self-concept than students' learning motivation. These three factors need the counselor to collaborating with parents to provide democratic parenting for students to form the expected academic self-concept. The counselor should also develop a peer-to-peer climate by designing guidance that allows interaction and motivates students.

Several research showed the importance of supporting the influence of parenting on academic self-concept. This opinion is reinforced by Rahmawati et al. (2014), which found a relationship between parenting styles and learning achievement. Furthermore, Dasmo et al. (2012) indicated a relationship between education level and parenting style on science learning achievement. Fan and Chen (2001) stated a positive relationship between parenting styles and students' learning outcomes. The learning outcomes also affect students' academic self-concept, and to improve learning outcomes, it is important for educators to create a learning environment where students have positive learning experiences inside and outside the classroom (Guo et al., 2021). Kim-Spoon et al. (2014) stated that the development of academic self-concept is influenced by family, peers, and good relations in friendship. This opinion can give parents an idea of the importance of applying democratic parenting to children and supports the fact that parental involvement with authoritative parenting is flexible (Utomo et al., 2021).

Conclusion

This research provides empirical information about academic self-concept and its relationship with learning motivation, democratic parenting, and peer relations. This research concludes that (1) learning motivation has a positive and significant relationship with students' academic self-concept. It is due to the encouragement of students, which leads to learning activities to achieve the expected goals, namely learning achievement; (2) democratic parenting has a positive and significant relationship with students' academic self-concept. It is due to the role of parents to balance control and warmth to form a disciplined, independent, challenging, and responsible child's personality; (3) Peer relation has a positive and significant relationship with students' academic self-concept due to the ability to interact with friends who have similarities. It allows students to make friends, get competency stimulation, physical, ego, social adjustment, and intimacy; (4) learning motivation, democratic parenting, and peer relations have a simultaneous relationship with a contribution of 82.8% towards students' academic self-concept. Based on this description, learning motivation, democratic parenting, and peer relations influence the academic self-concept of Junior High School students. This result implies that tutoring services are beneficial for students and guidance and counselors

in schools. The development of tutoring programs conducted by teachers is very effective in improving students' academic self-concepts in schools. An example is group guidance in understanding students' self-esteem through interventions with powerful training techniques (Rusmana et al., 2020).

Recommendations

This research recommends that counseling and guidance teachers, homeroom teachers, and parents work together to foster and improve the academic self-concept. Support from guidance and counseling teachers, homeroom teachers, and parents has an essential meaning for students to actualize their character and potential optimally and develop effectively. As a result, students have self-concepts and desires to do something better. Further research should comprehensively use other factors, such as talent, personality, and emotional intelligence based on different cultures and genders, to understand students' self-concept, both academically and non-academically.

Limitations

This research was limited to Junior High Schools located in Kediri City, East Java. Therefore, the results cannot be generalized as a representation of Junior High Schools in Indonesia due to the diverse culture and ethnicity. Future research needs to involve more respondents from several regions to understand students' academic self-concept based on different ethnicities and cultures.

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Authorship Contribution Statement

Ningsih: Conceptualization, design, analysis, writing. Degeng: Reviewing, writing, supervision, final approval. Triyono: Data analysis/interpretation, supervision. Ramli: Critical revision of manuscript, editing, supervision.

References

- Abuameerh, O. A., & Saudi, M. A. (2012). The relationship between achievement motivation and academic achievement for secondary school students at salt in Jordan. *Dirasat Educational Sciences*, 39(1), 313–320. <https://bit.ly/3MGXn2a>
- Agustiawati, I. (2014). *Pengaruh pola asuh orangtua terhadap prestasi belajar siswa pada mata pelajaran Akuntansi kelas XI IPS di SMA Negeri 26 Bandung* [The influence of parenting styles on student achievement in accounting subjects in class XI IPS at SMA Negeri 26 Bandung] [Master's thesis, Universitas Pendidikan Indonesia]. Universitas Pendidikan Indonesia. <http://repository.upi.edu/12418/>
- Ahmavaara, A., & Houston, D. M. (2007). The effects of selective schooling and self-concept on adolescents' academic aspiration: An examination of Dweck's self-theory. *British Journal of Educational Psychology*, 77(3), 613–632. <https://doi.org/10.1348/000709906X120132>
- Aiken, L. R. (1985). Three coefficients for analyzing the reliability and validity of ratings. *Educational and Psychological Measurement*, 45(1), 131–142. <https://doi.org/10.1177/0013164485451012>
- Appleton, J. J. (2012). Systems consultation: Developing the assessment-to-intervention link with the student engagement instrument. In S. Christenson, A. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 725–741). Springer. https://doi.org/10.1007/978-1-4614-2018-7_35
- Arens, A. K., Yeung, A. S., Craven, R. G., & Hasselhorn, M. (2011). The twofold multidimensionality of academic self-concept: Domain specificity and separation between competence and affect components. *Journal of Educational Psychology*, 103(4), 970–981. <https://doi.org/10.1037/a0025047>
- Azizi, H. Y., Boon, Y., & Kamaliah, N. (2005). *Hubungan antara konsep sendiri, motivasi dan gaya keibubapaan dengan pencapaian pelajar* [The relationship between self -concept, motivation and parenting style with student achievement]. Universiti Teknologi Malaysia Institutional Repository. <http://eprints.utm.my/id/eprint/2332/>
- Azwar, S. (2012). *Reliabilitas dan validitas* [Reliability and validity] (4th ed.). Pustaka Pelajar.
- Bae, S. M. (2015). The relationships between perceived parenting style, learning motivation, friendship satisfaction, and the addictive use of smartphones with elementary school students of South Korea: Using multivariate latent growth modeling. *School Psychology International*, 36(5), 513–531. <https://doi.org/10.1177/0143034315604017>
- Baumrind, D. (1991). The influence of parenting style on adolescent competence and substance use. *The Journal of Early Adolescence*, 11(1), 56–95. <https://doi.org/10.1177/0272431691111004>

- Boudreault-Bouchard, A. M., Dion, J., Hains, J., Vandermeersch, J., Laberge, L., & Perron, M. (2013). Impact of parental emotional support and coercive control on adolescents' self-esteem and psychological distress: Results of a four-year longitudinal study. *Journal of Adolescence*, 36(4), 695–704. <https://doi.org/10.1016/j.adolescence.2013.05.002>
- Calafat, A., García, F., Juan, M., Becoña, E., & Fernández-Hermida, J. R. (2014). Which parenting style is more protective against adolescent substance use? Evidence within the European context. *Drug and Alcohol Dependence*, 138(1), 185–192. <https://doi.org/10.1016/j.drugalcdep.2014.02.705>
- Calhoun, J. F., & Acocella, J. R. (1995). *Psychology of adjustment and human relationship*. Mc. Graw Hill.
- Chang, Y. (2014). Associations between adolescent-perceived parenting styles and aggressive behavior. *Korean Journal of Youth Studies*, 21(1), 313–341. <https://bit.ly/3MDJFgI>
- Chetri, S. (2014). Self-concept and achievement motivation of adolescents and their relationship with academic achievement. *International Journal of Advancements in Research & Technology*, 3(5), 236–253. <https://bit.ly/38cNA58>
- Christie, E., & MacMullin, C. (1998). What do children worry about? *Australian Journal of Guidance and Counselling*, 8, 9–24. <https://doi.org/10.1111/j.1467-8624.1995.tb00897.x>
- Collie, R. J., Martin, A. J., Papworth, B., & Ginns, P. (2016). Students' interpersonal relationships, personal best (PB) goals, and academic engagement. *Learning and Individual Differences*, 45, 65–76. <https://doi.org/10.1016/j.lindif.2015.12.002>
- Craven, R. G., & Marsh, H. W. (2008). The centrality of the self-concept construct for psychological wellbeing and unlocking human potential: Implications for child and educational psychologists. *Educational and Child Psychology*, 25(2), 114–118
- Cvencek, D., Fryberg, S. A., Covarrubias, R., & Meltzoff, A. N. (2018). Self-concepts, self-esteem, and academic achievement of minority and majority north American elementary school children. *Child Development*, 89(4), 1099–1109. <https://doi.org/10.1111/cdev.12802>
- Da Rocha Seixas, L., Gomes, A., & De Melo Filho, I. (2016). Effectiveness of gamification in the engagement of students. *Computers in Human Behavior*, 58, 48–63. <https://doi.org/10.1016/j.chb.2015.11.021>
- Dagneu, A. (2018). The relationship among parenting styles, academic self-concept, academic motivation and students' academic achievement in fasilo secondary school, Bahir Dar, Ethiopia. *Research in Pedagogy*, 8(2), 98–110. <https://doi.org/10.17810/2015.76>
- Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), 97–140. <https://doi.org/10.1080/10888691.2018.1537791>
- Dasmo, D., Nurhayati, N., & Marhento, G. (2012). Pengaruh tingkat pendidikan dan pola asuh orangtua terhadap prestasi belajar IPA [The influence of education level and parenting style on science learning achievement]. *Formatif: Jurnal Ilmiah Pendidikan MIPA*, 2(2), 132–139. <https://doi.org/10.30998/formatif.v2i2.94>
- Dhatu, O. M., & Ediati, A. (2015). Konsep diri akademik dan motivasi berprestasi pada siswa SMPN 24 Purworejo [Academic self-concept and achievement motivation in SMP 24 Purworejo students]. *Empati*, 4(4), 233–238. <https://doi.org/10.14710/empati.2015.14348>
- Dwija, I. W. (2008). Hubungan antara konsep diri, motivasi berprestasi dan perhatian orang tua dengan hasil belajar sosiologi pada siswa kelas II sekolah menengah atas unggulan di Kota Amlapura [The relationship between self-concept, achievement motivation and parental attention with sociological learning outcomes for second grade high school students in Amlapura City]. *Jurnal Pendidikan Dan Pengajaran*, 41(1), 1–17. <https://bit.ly/3LRPPst>
- Espinoza, G., Gillen-O'Neel, C., Gonzales, N. A., & Fuligni, A. J. (2014). Friend affiliations and school adjustment among Mexican-American adolescents: The moderating role of peer and parent support. *Journal of Youth and Adolescence*, 43(12), 1969–1981. <https://doi.org/10.1007/s10964-013-0023-5>
- Fan, X., & Chen, M. (2001). Parental involvement and students' academic achievement: A meta-analysis. *Educational Psychology Review*, 13(1), 1–22. <https://doi.org/10.1023/A:1009048817385>
- Fin, L., & Ishak, Z. (2014). Non-academic self concept and academic achievement: The indirect effect mediated by academic self concept. *Research Journal in Organizational Psychology & Educational Studies*, 3(3), 184–188.
- Fraenkel, J., Wallen, N., & Hyun, H. (2011). *How to design and evaluate research in education* (8th ed.). McGraw-Hill Education.
- Franklin, A. S., Debb, S. M., & Colson, D. G. (2017). Predictors of academic self-concept for African American college

- students. *Journal of Black Psychology*, 43(6), 636–653. <https://doi.org/10.1177/0095798416671578>
- Fry, H., Ketteridge, S., & Marshall, S. (2009). *A handbook for teaching and learning in higher education: Enhancing academic practice* (5th ed.). Routledge. <https://doi.org/10.4324/9780203891414>
- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction* (8th ed.). Pearson.
- Gallardo, L., Barrasa, A., & Guevara-Viejo, F. (2016). Positive peer relationships and academic achievement across early and midadolescence. *Social Behavior and Personality*, 44(10), 1637–1648. <https://doi.org/10.2224/SBP.2016.44.10.1637>
- Galugu, N. S., & Samsinar, S. (2019). Academic self-concept, teacher's supports and student's engagement in the school. *Jurnal Psikologi Pendidikan dan Konseling: Jurnal Kajian Psikologi Pendidikan dan Bimbingan Konseling*, 5(2), 141. <https://doi.org/10.26858/jppk.v5i2.10549>
- Ghozali, I. (2011). *Aplikasi analisis multivariate dengan program IBM SPSS 19* [Multivariate analysis application with IBM SPSS 19 program]. Badan Penerbit Universitas Diponegoro.
- Guay, F., Marsh, H., & Boivin, M. (2003). Academic self-concept and academic achievement: Developmental perspectives on their causal ordering. *Journal of Educational Psychology*, 95(1), 124–136. <https://doi.org/10.1037/0022-0663.95.1.124>
- Guay, F., Ratelle, C. F., Roy, A., & Litalien, D. (2010). Academic self-concept, autonomous academic motivation, and academic achievement: Mediating and additive effects. *Learning and Individual Differences*, 20(6), 644–653. <https://doi.org/10.1016/j.lindif.2010.08.001>
- Guo, J. P., Yang, L. Y., Zhang, J., & Gan, Y. J. (2021). Academic self-concept, perceptions of the learning environment, engagement, and learning outcomes of university students: Relationships and causal ordering. *Higher Education*, 83(4), 809–828. <https://doi.org/10.1007/S10734-021-00705-8>
- Haktanir, A., Watson, J. C., Ermis-Demirtas, H., Karaman, M. A., Freeman, P. D., Kumaran, A., & Streeter, A. (2018). Resilience, academic self-concept, and college adjustment among first-year students. *Journal of College Student Retention: Research, Theory & Practice*, 23(1), 161–178. <https://doi.org/10.1177/1521025118810666>
- Hamachek, D. (1995). *Psychology in teaching, learning and growth*. Allyn & Bacon.
- Hart, S. R., Stewart, K., & Jimerson, S. R. (2014). The student engagement in schools questionnaire (SESQ) and the teacher engagement report form-new (TERF-N): Examining the preliminary evidence. *Contemporary School Psychology*, 15(1), 67–79. <https://doi.org/10.1007/BF03340964>
- Hassan, A., Jami, H., & Aqeel, M. (2016). Academic self-concept, self-esteem, and academic achievement among truant and punctual students. *Pakistan Journal of Psychological Research*, 31(1), 223–240
- Hidayat, N., & Wulandari, F. (2020). The impact of leadership behavior on school performance. *Cakrawala Pendidikan*, 39(3), 493–506. <https://doi.org/10.21831/cp.v39i3.31005>
- Hui, E. K. P. (2001). Hong Kong students' and teachers' beliefs on students' concerns and their causal explanation. *Educational Research*, 43, 279–294. <https://doi.org/10.1080/00131880110081044>
- Ireson, J., & Hallam, S. (2009). Academic self-concepts in adolescence: Relations with achievement and ability grouping in schools. *Learning and Instruction*, 19(3), 201–213. <https://doi.org/10.1016/j.learninstruc.2008.04.001>
- Isiksal, M. (2010). A comparative study on undergraduate students' academic motivation and academic self-concept. *Spanish Journal of Psychology*, 13(2), 572–585. <https://doi.org/10.1017/S1138741600002250>
- Jee, P., & Shahlan, S. (2017). Gaya keibubapaan dengan tingkahlaku devian dalam kalangan remaja [Parenting styles with deviant behaviors among adolescents]. In J. Badusah, N. Nordin, M. Abdullah, K.H. Hasan, N.F.M. Noor, M.J.Ab. Aziz, M.M. Hanafiah, W.M.R.W. Mohammad, M.H Norman, & N.A. Kamrozzaman (Eds.), *Prosiding seminar pendidikan transdisiplin (STED 2017)* (pp. 230-237). Fakulti Pendidikan Universiti Kebangsaan Malaysia. UKM.
- Kim-Spoon, J., Farley, J. P., Holmes, C., Longo, G. S., & McCullough, M. E. (2014). Processes linking parents' and adolescents' religiousness and adolescent substance use: Monitoring and self-control. *Journal of Youth and Adolescence*, 43(5), 745–756. <https://doi.org/10.1007/s10964-013-9998-1>
- Kim, L. E., Dar-Nimrod, I., & MacCann, C. (2018). Teacher personality and teacher effectiveness in secondary school: Personality predicts teacher support and student self-efficacy but not academic achievement. *Journal of Educational Psychology*, 110(3), 309–323. <https://doi.org/10.1037/edu0000217>
- Klapp, A. (2018). Does academic and social self-concept and motivation explain the effect of grading on students' achievement? *European Journal of Psychology of Education*, 33(2), 355–376. <https://doi.org/10.1007/s10212-017-0331-3>

- Kong, L. S. Y., Westwood, P., & Yuen, M. T. (2006). School-related worries of adolescents in Hong Kong: A single school study. *HongKong Special Education Forum*, 8, 21–41
- Kulakow, S. (2020). Academic self-concept and achievement motivation among adolescent students in different learning environments: Does competence-support matter? *Learning and Motivation*, 70, 1–15. <https://doi.org/10.1016/j.LMOT.2020.101632>
- Ladd, G., & Asher, S. (1985). Social skill training and children's peer relations. In L. L'Abate & M. Milan (Eds.), *Handbook of social skills training and research* (pp. 219–244). John Wiley & Sons.
- Lawrence, A. S., & Saileela, K. (2019). Self-Concept and self-regulation of higher secondary students. *Journal on Educational Psychology*, 13(1), 53. <https://doi.org/10.26634/jpsy.13.1.15497>
- Liu, H.-J. (2010). The relation of academic self-concept to motivation among university EFL students. *Feng Chia Journal of Humanities and Social Sciences*, 20, 207–225
- Marsh, H. W. (1990). A multidimensional, hierarchical model of self-concept: Theoretical and empirical justification. *Educational Psychology Review*, 2(2), 77–172. <https://doi.org/10.1007/BF01322177>
- Marsh, H. W. (2003). A reciprocal effects model of the causal ordering of academic self-concept and achievement. In P.L. Jeffery (Ed.), *Nzare Aare conference 2003: Conference proceedings* (pp. 1-17). Australian Association for Research in Education.
- Marsh, H. W., & Craven, R. (1997). Academic self-concept: Beyond the dustbowl. In G. D. Phye (Ed.), *Handbook of classroom assessment: Learning, achievement, and adjustment* (pp. 131–198). Academic Press. <https://doi.org/10.1016/B978-012554155-8/50008-9>
- Marsh, H. W., & Craven, R. G. (2006). Reciprocal effects of self-concept and performance from a multidimensional perspective: Beyond seductive pleasure and unidimensional perspectives. *Perspectives on Psychological Science: A Journal of the Association for Psychological Science*, 1(2), 133–163. <https://doi.org/10.1111/j.1745-6916.2006.00010.x>
- Marsh, H. W., & Martin, A. (2011). Academic self-concept and academic achievement: Relations and causal ordering. *British Journal of Educational Psychology*, 81(1), 59–77. <https://doi.org/10.1348/000709910X503501>
- Marsh, H. W., & Yeung, A. (1997). Causal effects of academic self-concept on academic achievement: Structural equation models of longitudinal data. *Journal of Educational Psychology*, 89(1), 41–54. <https://doi.org/10.1037/0022-0663.89.1.41>
- McInerney, D. M., Cheng, R. W. Y., Mok, M. M. C., & Lam, A. K. H. (2012). Academic self-concept and learning strategies: Direction of effect on student academic achievement. *Journal of Advanced Academics*, 23(3), 249–269. <https://doi.org/10.1177/1932202X12451020>
- Mercer, S. (2011). *Towards an understanding of language learner self-concept*. Springer. https://doi.org/10.1007/978-90-481-9569-5_1
- Okeke, N. A., Howard, L. C., Kurtz-Costes, B., & Rowley, S. J. (2009). Academic race stereotypes, academic self-concept, and racial centrality in African American youth. *Journal of Black Psychology*, 35(3), 366–387. <https://doi.org/10.1177/0095798409333615>
- Othman, M., & Normalina, M. (2010). *Profil gaya didikan Ibu Bapa pelajar cemerlang berbanding pelajar lemah*. [Parents' parenting style profile of excellent students compared to weak students]. Universiti Teknologi Malaysia Institutional Repository. <http://eprints.utm.my/id/eprint/10489/>
- Pehlivan, H., & Koseoglu, P. (2012). An analysis of Ankara Science High School students' attitudes towards biology and their academic self-concepts in terms of some family characteristics. *Procedia - Social and Behavioral Sciences*, 46, 944–949. <https://doi.org/10.1016/j.sbspro.2012.05.228>
- Pellegrini, A., & Glickman, C. (1991). *Measuring kindergartners' social competence*. ERIC Digest. <https://www.ericdigests.org/pre-9218/social.htm>
- Phan, T., McNeil, S. G., & Robin, B. R. (2016). Students' patterns of engagement and course performance in a Massive Open Online Course. *Computers and Education*, 95, 36–44. <https://doi.org/10.1016/j.compedu.2015.11.015>
- Prabadewi, K. D. L., & Widiasavitri, P. N. (2014). Hubungan konsep diri akademik dengan motivasi berprestasi pada remaja awal yang Tinggal di panti asuhan di Denpasar [The relationship between academic self-concept and achievement motivation in early adolescents living in an orphanage in Denpasar]. *Jurnal Psikologi Udayana*, 1(2), 261–270. <https://doi.org/10.24843/JPU.2014.v01.i02.p05>
- Pramawaty, N., & Hartati, E. (2012). Hubungan pola asuh orang tua dengan konsep diri anak usia sekolah (10-12 Tahun) [The relationship between parenting patterns and self-concept of school-age children (10-12 years)].

- Jurnal Keperawatan Diponegoro*, 1(1), 87–92. <https://bit.ly/3LEtwWP>
- Pullmann, H., & Allik, J. (2008). Relations of academic and general self-esteem to school achievement. *Personality and Individual Differences*, 45(6), 559–564. <https://doi.org/10.1016/j.paid.2008.06.017>
- Rahmawati, F., Sudarma, I. K., & Sulastri, M. (2014). Hubungan antara pola asuh orang tua dan kebiasaan belajar terhadap prestasi belajar siswa SD Kelas IV semester genap di Kecamatan Melaya- Jembrana [The relationship between parenting patterns and study habits on the learning achievement of fourth-semester elementary school students in Melaya-Jembrana District]. *Mimbar PGSD Undiksha*, 2(1), 1–11. <https://bit.ly/38FdK0G>
- Riffert, F., Hagenauer, G., Kriegseisen, J., & Strahl, A. (2021). On the impact of learning cycle teaching on Austrian high school students' emotions, academic self-concept, engagement, and achievement. *Research in Science Education*, 51(6), 1481–1499. <https://doi.org/10.1007/s11165-020-09918-w>
- Rüschepöhler, L., & Markic, S. (2019). A mixed methods approach to culture-sensitive academic self-concept research. *Education Sciences*, 9(3), 1–17. <https://doi.org/10.3390/EDUCSCI9030240>
- Rusmana, N., Hafina, A., Siddik, R. R., & Nur, L. (2020). Self-esteem development of vocational high school students in Indonesia: Does group counseling with assertive training technique help? *Cakrawala Pendidikan*, 39(3), 573–582. <https://doi.org/10.21831/cp.v39i3.31363>
- Saka, A. O. (2021). Can teacher collaboration improve students' academic achievement in junior secondary mathematics? *Asian Journal of University Education*, 17(1), 33–46. <https://doi.org/10.24191/ajue.v17i1.8727>
- Santrock, J. (2007). *Child development* (11th ed.). McGraw-Hill.
- Santrock, J. W. (2002). *Perkembangan masa hidup* [Lifespan development]. Erlangga.
- Septiani, S. (2012). *Mencetak balita cerdas dan pola asuh orang tua* [Printing Smart Toddler and Parenting Patterns]. Nuha Medika.
- Shavelson, R. J., Hubner, J. J., & Stanton, G. C. (1976). Self-concept: Validation of construct interpretations. *Review of Educational Research*, 46(3), 407–441. <https://doi.org/10.2307/1170010>
- Skaalvik, E. M., & Hagtvet, K. A. (1990). Academic achievement and self-concept: An analysis of causal predominance in a developmental perspective. *Journal of Personality and Social Psychology*, 58(2), 292–307. <https://doi.org/10.1037/0022-3514.58.2.292>
- Soufi, S., Damirchi, E. S., Sedghi, N., & Sabayan, B. (2014). Development of structural model for prediction of academic achievement by global self-esteem, academic self-concept, self-regulated learning Strategies and autonomous academic motivation. *Procedia - Social and Behavioral Sciences*, 114, 26–35. <https://doi.org/10.1016/j.sbspro.2013.12.651>
- StefanusTaa, S., & Sawitri, D. (2017). Hubungan antara dukungan teman sebaya dengan efikasi diri akademik pada peserta didik SMA dan SMK beretnis Papua di kota Semarang [The relationship between peer support and academic self efficacy in Papuan ethnic high school and vocational school students in Semarang city]. *Empati*, 7(3), 212–216. <https://doi.org/10.14710/empati.2017.19750>
- Syah, M. (1999). *Psikologi pendidikan suatu pendekatan baru* [Educational psychology a new approach]. PT. Remaja Rosda Karya.
- Urhahne, D., Chao, S. H., Florineth, M. L., Luttenberger, S., & Paechter, M. (2011). Academic self-concept, learning motivation, and test anxiety of the underestimated student. *British Journal of Educational Psychology*, 81(1), 161–177. <https://doi.org/10.1348/000709910X504500>
- Utomo, H. B., Iswantiningtyas, V., & Yulianto, D. (2021). Be strong or weak: The contribution of parenting style toward parent involvement motivation in accompanying children during learning from home. *Journal of Educational, Health and Community Psychology*, 10(4), 686–703. <https://doi.org/10.12928/JEHCP.V10I4.22280>
- Utomo, H. B., Suminar, D. R., & Hamidah, H. (2019). Capturing teaching motivation of teacher in the disadvantaged areas. *Cakrawala Pendidikan*, 38(3), 398–410. <https://doi.org/10.21831/cp.v38i3.26411>
- van den Berg, G., & Coetzee, L. R. (2014). Academic self-concept and motivation as predictors of academic achievement. *International Journal of Educational Sciences*, 6(3), 469–478. <https://doi.org/10.1080/09751122.2014.11890158>
- Van Soom, C., & Donche, V. (2014). Profiling first-year students in stem programs based on autonomous motivation and academic self-concept and relationship with academic achievement. *PLOS ONE*, 9(11), 1–13. <https://doi.org/10.1371/journal.pone.0112489>
- Wang, A. I., & Lieberoth, A. (2016). The effect of points and audio on concentration, engagement, enjoyment, learning, motivation, and classroom dynamics using kahoot! In T. Connolly & L. Boyle (Eds.), *Proceedings of the European*

conference on games-based learning (pp. 2243–2257). Academic Conferences and Publishing International Ltd.

- Wang, C., & Liu, W. (2008). Teachers' motivation to teach national education in Singapore: A self-determination theory approach. *Asia Pacific Journal of Education*, 28(4), 395–410. <https://doi.org/10.1080/02188790802469052>
- Wilson, H. E., Siegle, D., McCoach, D. B., Little, C. A., & Reis, S. M. (2014). A model of academic self-concept: Perceived difficulty and social comparison among academically accelerated secondary school students. *Gifted Child Quarterly*, 58(2), 111–126. <https://doi.org/10.1177/0016986214522858>
- Yasmeen, S. (2013). Role of parenting styles in academic performance of college students. *Pakistan Journal of Education*, 30(1), 39–58. <https://doi.org/10.30971/pje.v30i1>