The Influence of Peer Group Interaction and Academic Self-Concept on Academic Achievement

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Abstract. This investigation addressed the influence of peer acceptance/rejection and academic self-concept on academic achievement. The study involved 138 students from two elementary schools in Sleman, Yogyakarta. The findings showed that there were positive and significant relationships between peer acceptance/rejection, academic self-concept, and academic achievement. Result of stepwise regression analysis showed that peer acceptance/rejection and academic self-concept influenced academic achievement (R^2=22.7%) and peer acceptance/rejection was the main predictor of academic achievement (R^2= 16.8%). Accepted students reached higher academic achievement than rejected students. Furthermore, reading self-concept, as a part of academic self-concept, was significantly related to *Bahasa Indonesia* achievement ($R = 0.370$, $p > 0.01$), general academic achievement ($R = 0.337$, $p > 0.01$), and math achievement ($R = 0.276$, $p > 0.01$).

Keywords: peer acceptance/rejection, academic self-concept, academic achievement

Abstrak. Penelitian ini melaporkan pengaruh penerimaan/penolakan sebaya dan konsep-diri akademik terhadap prestasi akademik. Studi ini melibatkan 138 siswa dua sekolah dasar di Sleman, Yogya-karta. Temuan menunjukkan adanya hubungan positif bermakna antara penerimaan/penolakan sebaya, konsep-diri akademik, dan prestasi akademik. Hasil analisis regresi bertahap menunjukkan bahwa penerimaan/penolakan sebaya dan konsep-diri akademik memengaruhi prestasi akademik (R^2 = 22.7%) dan penerimaan/penolakan sebaya merupakan prediktor utama prestasi akademik (R^2 = 16.8%). Siswa yang diterima mencapai prestasi akademik yang lebih tinggi daripada siswa yang tertolak. Selain itu, konsep-diri membaca, sebagai bagian konsep-diri akademik, terkait secara bermakna pada prestasi Bahasa Indonesia ($R^2 = 0.370$, $p > 0.01$), prestasi akademik umum ($R = 0.337$, $p > 0.01$), dan prestasi matematik ($R = 0.276$, $p > 0.01$).

Kata kunci: penerimaan/penolakan sebaya, konsep-diri akademik, prestasi akademik

The purpose of this study is to find out how peer acceptance/rejection and academic self-concept will affect students' academic achievement. Academic achievement problems appear to have lasting effects, such as school dropout and graduation from high school (Finn, Gerber, & Boyd-Zaharias, 2005). Given the pervasive effect of early school achievement difficulties, researchers have tried to identify factors which may impede or foster children's achievement. Much of this research has focused on psychological mechanism (Kurdek & Sinclair, 2000; Englund, Luckner, Whaley, & Egeland, 2004), family factors (Kurdek & Sinclair; Englund et al.), and classroom climate (Finn et al.) that may contribute to academic achievement. For example, Englund et al. reported that parent-child interaction early in children lives provide a foundation for later educational activities, mother's quality of instructions, parental involvement in school, and parental expectation have an effect on children's achievement in third grade over and above mother's educational level, children's IQ, and children's previous achievement.

Other studies have been found that peer factors (Guay, Boivin, & Hodges, 1999; Kurdek & Sinclair, 2000; Wentzel, 1991) and academic self-concept (Barker, Dowson, & McInerney, n.d; Guay et al.;

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Sanchez & Roda, n.d.) also may influence academic achievement.

Peer Acceptance/Rejection and Academic Achievement

Peers may also contribute to children's achievement because they can influence children's day-to-day behavior in school. There are some evidences that children's level acceptance has been positively related to their achievement scores and their favorable perception to school (Guay et al., 1999; Wentzel, 1991). Wentzel categorized sociometric status group into *popular* (whom many of their peers nominate or rate favorably), *rejected* (who are widely disliked), *neglected* (who are rarely nominated), *controversial* (who are regarded very favorably by some peers but seen as disruptive by others) and *average* (who are generally accepted and do not re-ceive extreme scores in peer's ratings) and made comparison to early adolescence's academic a-chievement. It reported that the sociometric status was related significantly to grade point average (GPA) as well as social competences specifically. Popular and neglected children's GPA were significantly higher and rejected children's GPA significantly lower than those of average status children. Students who experience success are likely to asso-ciate with friends who value academic excellence. However, self selected affiliations with peers reflect shared interests and activities; classmates provide learning conditions that influence academic perfor-mance. Since peer group acceptance and member-ship have been related to academic motivation, peer rejection has been related to low levels of interest in school and disengaging altogether by dropping out. Children who are rejected by their peers had lower academic achievement scores than more famous children. Study of preschoolers demonstrated how the presence of familiar peer could promote explo-ration in new setting and general adjustment to school. Meanwhile, the loss of a familiar peer group has negative ef-fect on self esteem and general in-terest in school (Coolahan, Fantuzzo, Mendez, & Mc-Dermott, 2000). Kurdek and Sinclair's study (2000) of elementary-aged students reported that they tended to self-select into groups of peers that had similar motivational orientations to school.

The construct of peer acceptance or rejection has been defined at the level of the peer group (at the level of dyad), and it has been construed as an atti-tudinal variable that reflects the collective valence of group members' sentiments (liking/ disliking) toward individuals in the group. Buhs and Ladd proposed a model to describe the effect of peer re-jection on children's achievement which is media-ted through two processes (Buhs, Ladd, & Herald, 2006), (1) the negative behavioral treatment that re-jected children receive from peers, and (2) resulting changes that such treatment causes in children's classroom participation.

From their study, it was revealed that children who were rejected by their classmates in the fall of the school year were more likely to be maltreated by classmates and that exposure from these reject-ing behaviors partially mediated the negative asso-ciation found between peer rejection in the fall of kindergarten and changes in classroom participa-tion over the course of the school year. In a deeper study of peer exclusion and victimization, it was reported that chronic peer abuse was predicted by children's peer rejection in kindergarten and this form of maltreatment did predict increased school avoidance during grade school (Buhs et al., 2006). Moreover, poor peer relations have been linked to psychosocial maladjustment and conduct problems. Displayed aggression behavior in peer interaction is associated with externalizing behavior problems and withdrawal from peer interaction is associated with internalizing behavior problems (Coolahan et al. 2000).

Academic Self-Concept and Academic Achievement

Self concept helps individuals to understand their social environment and guide future behaviors. It is considered as an important construct within educa-tion since it links to student's motivation, achieve-ment, confidence, and psychological well being (Hay, 2005). Some studies have identified that stu-dents whose self-concept score tests were low, com-pared to their peers with high self-concept scores, had less positive classroom characteristics in the do-mains of classroom behavior, cooperation, persis-tence, leadership, anxiety, expectation for future

schooling, and peer interactions.

Academic self concept is defined as children's perceived academic competence or children's perceptions of their academic abilities. Perceived academic competence predicted academic achievement. Guay et al. (1999) found that perceived academic competence was positively associated with change in academic achievement over a 3-year school period. As children grow older, their academic self-concept responses became more reliable, more stable, and strongly associated with academic achieve-ment (Guay et al.). Students in the middle elementary school years (third and fourth grades) have more stable and reliable academic self concept than when they were in early elementary school years.

The Present Study

From the explanation above, it can be seen that peer acceptance/rejection and academic self concept affect the academic achievement. Students who are accepted in a peer group tend to show positive emotions than those who are rejected. Peer rejection leads to overall feeling of loneliness, revealing a lack of companionship and a diminished sense of belongingness, on the one hand; and lack of emotional support and affection, on the other hand. This sense will affect the academic self concept (how students perceive their academic competence in school) and finally it will be revealed in their academic achievement (Guay et al., 1999). In the middle elementary school years, children's academic self concepts become more stable, reliable and strongly associated with academic achievement (Guay, Marsh, & Boivin, 2003). Academic self-concept for children in middle elementary school years is about self perceptions of their ability, enjoyment of, and interest in reading and mathematics.

Peer acceptance means students are relatively liked by peers since peer rejection shows the degree of students being disliked by peers. Positive academic self-concept is shown by high academic self concept scores, otherwise, negative self concept is shown by low academic self concept score. Peer acceptance and positive academic self concept will de-liver high academic achievement. Meanwhile, peer rejection and negative academic self concept will deliver low academic achievement.

The proposed hypothesis in this study was peer acceptance/rejection and student's academic self concept will affect academic achievement. If students are accepted by peers and have high academic self-concept score, then they will have higher academic achievement than students who are rejected by peers and have lower academic self concept score.

Method

Participants

Participants were 138 elementary school students (74 girls and 63 boys) on third and fourth grades from two state elementary schools (Jongkang Elementary School, and Karangmloko 1 Elementary School) in Sariharjo, Ngaglik, Sleman, Yogyakarta. Jongkang Elementary School students were 70 (30 third grade students and 40 fourth grade students) and Karangmloko 1 Elementary School students were 68 (33 third grade students and 35 third grade students). Students were 8 – 11 years old from middle to low socioeconomic status.

Measures

Peer acceptance/rejection. This was measured through a picture nomination sociometric procedure. Students were asked to identify three "liked most" (LM) and three "liked least" (LL) choices in each of three situation: playing together, inviting others to a birthday party, and hiring a member of task group. The questions were translated into Indonesian and using simple language for easier understanding. Scores of LM and LL were computed by summing the choices each child received from all classmates a-cross all situations. Internal reliability for LM score (α) is .88, and for LL score is .93. These LM and LL scores yielded good internal consistency. LM and LL scores were used to determine index of social preference (SP = LM - LL) and standardized within each class. Peer acceptance is shown by SP > 0, meanwhile, peer rejection is shown by SP < 0. Higher SP scores describe greater acceptance and lower rejection within the classroom (Guay, et al., 1999).

Academic self concept. This was measured by

using adapted version of the Self Description Questionnaire I (SDQI) by Marsh. The questionnaire was translated into *Bahasa Indonesia*. Eleven items measured reading self-concept (e.g. "Membaca mudah bagi saya."), and 11 items measured math self-concept (e.g. "Matematika mudah bagi saya."). Students responded to the items on a 4-point Likert scale ranging from "completely disagree" to "completely agree". Scores are ranging from 44–11 for both reading self-concept and math self-concept. Total scores for academic self-concept are 88 to 22 ($M = 55$, $SD = 11$). Higher academic self-concept means more positive perceived academic competencies. Marsh reported an internal reliability coefficient is .92 for the full scale score and a test-retest reliability coefficient is 0.87 over a 6-month period. The SDQI has been noted for its strong psychometric and theoretical construct characteristics and has been identified as a reliable and valid instrument for use in clinical and research setting (Hay, 2005).

Academic Achievement. This was measured by using the last grade point average (GPA) of students. GPAs are related significantly to standardized test scores (the Stanford Tests of Basic Skills), $r = 0.75$; $p < 0.001$ (Wentzel, 1991). It means that GPA can also be used to measure academic achievement. Beside that, *Bahasa Indonesia* and Math scores were also used to measure students' achie-vement in reading and math competencies. Acade-mic achievement for the third graders derived from the second semester achievement when they were in the second grade, and for the fourth graders derived from the second semester achievement when they were in third grade. Students' GPAs in Jongkang Elementary School are determined by scores on religion education, civilization and social science, *Ba-hasa Indonesia*, mathematics, natural science, handicraft and art, physical education, Javanese, and English. Meanwhile, in Karangmloko 1 Elementary School, students' GPAs are determined by scores in religion education, civilization and social science, *Bahasa Indonesia*, mathematics, natural science, handicraft and art, physical education, and Javane-se. English is taught starting from grade 4 in this school. GPA scores were ranging from 0 to 10 ($M = 5.5$, $SD = 1$). Students with GPA of more than 5.5 can continue to the next grade, and students with GPA of less than 5.5 cannot continue to the next grade.

Procedures

The assessment was held in the students' own classrooms and was arranged previously with the students' main teacher and the headmaster. The assessment was delivered by the writer and together with a teacher accompanying students in filling the questionnaires. Students were required to write down who "liked most" and "liked least" friends within the classroom to find out peer acceptance/ rejection. Then, the SDQI measure of academic self-concept was administered after the sociometric assessment. If all statements have been questioned by the students, the questionnaires were given back to the writer. Finally, teacher lent the recapitulation of students' academic achievements for the last semester on academic year of 2005/2006 and the writer made notes for *Bahasa Indonesia* score, math score and GPA of each student.

Results

Descriptive Analysis

The data was gathered from 132 students and six students were excluded because they had SP scores equal to zero (SP = 0, not being rejected or accepted). The summary of the data is presented in Table 1.

The average student academic achievement in this study was higher than the standard average academic achievement. Higher academic achievements are reflected in students' higher scores for the schools subjects. Higher *Bahasa Indonesia* achievement and math achievement also reflected higher academic achievement.

The average students' academic self-concepts in this study were high. High academic self-concept score indicated high perceived academic competencies. Students had positive self-concept academically. Specifically, students' reading self-concepts were relatively higher than their math self-concepts. Reading self-concept score had greater contribution to total academic self-concept score than did math self-concept score.

Social preferences (SP) score reflected peer acceptance/rejection. The average social preferences scores in this study showed degree of peer accep-

Table 1
Descriptive Statistic

Variables	Min.	Max.	Mean	SD
Academic achievement	5.64	9.33	7.097	0.668
- *Bhs. Indonesia* achievement	5.00	9.00	7.342	0.837
- Math achievement	5.00	9.00	7.034	0.953
Academic self-concept	50	88	70.32	8.412
- Reading self-concept	23	44	35.67	4.802
- Math self-concept	22	44	34.65	4.707
Peer acceptance/rejection *	-74.29	60.00	0.647	24.360

* The mean and standard deviation of peer acceptance/rejection are based on standardized social preferences scores within each class

tance as 0.647% of peers within the class-room. Higher SP score means greater peer acceptance and lower peer rejection. In this study, the most accepted student was accepted by 60% of peers in the class, and the most rejected student was rejected by 74.29% of peers in the class.

The Relationship Between Peer Acceptance/Rejection, Academic Self-Concept and Academic Achievement

As presented in Table 2, there were positive and significant correlations between peer acceptance/ rejection, academic self-concept and academic achievement. Peer acceptance/rejection had stronger correlation with academic achievement than with academic self-concept. Higher academic achievement was related to peer acceptance (higher social preferences score) and also higher academic self-concept scores. Meanwhile, lower academic achievement was related to peer rejection (lower social preferences score) and lower academic self-concept score. In addition, peer acceptance/rejection was also positively related to academic self-concept. Peer acceptance would lead to higher academic self-concept, and peer rejection would lead to lower academic self-concept. These results confirm the hypo-

Table 2
Pearson Correlation Coefficients Between Peer Acceptance/Rejection, Academic Self-concept, and Academic Achievement (N = 132)

Variables	Peer acceptance/rejection	Academic self-concept	Academic achievement
Peer acceptance/rejection	-	0.215*	0.410**
Academic self-concept	0.215*	-	0.326**

** $p < 0.01$ * $p < 0.05$

Table 3
Regression of Peer Acceptance/Rejection and Academic Self Concept on Academic Achievement

Model	R	R^2	F	B	β
1 Academic achievement ($Y`_1$)					
Constant (a)				7.090	
Peer acceptance/rejection (X_1)	0.410	0.168	26.267**	0.011	0.410
2 Academic achievement ($Y`_1$)					
Constant (a)				5.702	
Peer acceptance/rejection (X_1)	0.477	0.227	18.020**	0.010	0.356
Academic self-concept (X_2)				0.020	0.249

** $p < 0.01$

thesis that peer acceptance/rejection and academic self-concept were positively related to academic achievement.

By using stepwise regression analysis, we can predict the contribution of peer acceptance/rejection and academic self-concept to academic achievement (see Table 3).

Regression of Peer Acceptance/Rejection and Academic Self Concept on Academic Achievement

As we can observe in Table 3, peer acceptance/rejection was the main predictor of academic a-chievement with the contribution of 16.8%. In model 1, peer acceptance/rejection had a positive influence on academic achievement by 0.410 of regression standardize coefficient. It means that if social preferences score increased by 1, academic achieve-ment would increase by 0.410.

Since peer acceptance/rejection and academic self-concept were altogether predicting academic achievement (model 2), their contributions are 22.7%. While the rest 77.3% was predicted by other variables excluding this study. Model 2 should be chosen because it had greater contribution to academic achievement than model 1.

The Relationship Between Factors of Academic Self-Concept and Related Academic Achievement

As revealed in Table 4, academic self-concept was positively and significantly related to academic achievement. In regard of each of the factors of academic self-concept, several significant correlations to *Bahasa Indonesia* achievement, math achievement, and general academic achievement are found. Reading self-concept was positively and significantly related to *Bahasa Indonesia* achievement, math

Table 4

Pearson Correlation Coefficients Between Factors of Academic Self-concept and the Three of Academic Achievement Used (Bahasa Indonesia, Math, and GPA)

Variables	*Bhs. Indonesia* ach.	Math ach.	GPA
Reading Self-Concept	0.370**	0.276**	0.337**
Math Self–Concept	0.122	0.214*	0.238**
Total Academic Self-Concept	0.280**	0.277**	0.326**

** $p < 0.01$ * $p < 0.05$

Table 5

Regression of Reading Self-soncept and Math Self-concept on Academic Achievement, Bahasa Indonesia Achievement, and Math Achievement

Model	R	R^2	F	B	β
1 Academic achievement ($Y`_1$)					
Constant (a)				5.278	
Reading self-concept (X_3)				0.041	0.297
Math self-concept (X_4)	0.342	0.117	8.539**	0.010	0.070
2 *Bhs. Indonesia* achievement ($Y`_2$)				5.042	
Constant (a)	0.370	0.137	20.608**	0.064	0.370
Reading self-concept (X_3)					
3. Math achievement ($Y`_3$)					
Constant (a)				4.825	
Reading self-concept (X_3)				0.045	0.228
Math self-concept (X_4)	0.285	0.081	5.685**	0.017	0.085

** $p < 0.01$

achievement, and general academic achievement (GPA). Higher reading academic self-concept score would lead to higher achievement in *Bahasa Indonesia*, math, and also other school subjects. Math self-concept was positively related to math achievement and general academic achievement, but it was not significantly related to *Bahasa Indonesia* achievement. Thus, higher math self-concept would relate to higher achievement in math and o-ther school subjects.

From Table 5, it can be seen that reading self-concept and math self-concept gave contribution to predicting academic achievement as 11.7% and math achievement as 8.1%. Reading self-concept gave higher contribution to academic achievement than math self-concept ($B_3 > B_4$). For the *Bahasa Indonesia* achievement, math self-concept factor was excluded because it did not have significant correlation with *Bahasa Indonesia* achievement. Reading self-concept predicted *Bahasa Indonesia* achievement as much as 13.7%.

The Differences in Academic Achievement Between Accepted Students and Rejected Students

Categorization of being accepted or rejected depends on the index of social preferences (SP). SP of above zero (SP > 0) means being accepted, and of SP below zero (SP < 0) means being rejected. Students who got SP equal to zero (SP = 0) were excluded because they were considered not being accepted nor rejected. There were significant differences in academic achievements between accepted students and rejected students as shown in Table 5 and 6. Overall, accepted students reached higher general academic achievement (higher GPA), *Bahasa* Indonesia achievement, math achievement than rejected students. These findings also support the hypothesis.

Discussion

This present study examined the influence of peer group interaction and academic self concept on academic achievement. The hypothesis proposed that there would be positive relationship between peer acceptance/rejection, academic self-concept, and academic achievement. Peer acceptance and higher academic self-concept would relate to higher academic achievement. Otherwise, peer rejection and lower academic self-concept would relate to lower academic achievement (see Table 7).

The findings that peer acceptance/rejection and academic self-concept were positively and significantly related to academic achievement confirm the proposed hypothesis. Peer acceptance/rejection and academic self-concept influenced academic achievement as much as 22.7%. Moreover, peer acceptance/rejection also had association with academic self concept. These findings are consistent with Guay, Boivin, and Hodges (1999) study. Moreover, they noted a mediational role between peer experiences (being accepted or rejected) and change in academic achievement over the elementary school years.

The mediational role came from perceived loneliness and academic competence. Perceived loneliness mediated the relation between actual peer status and overall self worth. In other words, the relation between peer acceptance/rejection and academic self concept is mediated by perceived loneliness. Low academic self-concept can be derived from low motivation to school because of peer rejection so that it will influence the academic achievement.

The present study did not measure and compute perceived loneliness but the results provided support that rejected students tended to have lower academic self-concept and also academic achievement than did accepted students. The experience of peer rejection might cause the feeling of loneliness and less participation in classroom activities and finally it will affect academic achievement. The present findings are generally consistent with Guay, Boivin, and Hodges study (1999) that negative peer relationships led to a decrease in academic achievement through the mediation of self-system processes involving low perceived relatedness and low perceived academic competence. Furthermore, feelings of classroom belongingness and peer-teacher support have been associated with school motivation and expectancies for academic success. Feeling of classroom belongingness is important because it will determine the degree of school activity engagement.

Comparisons of academic achievement between accepted students and rejected students showed that

Table 6
Mean, SD and Standard Error Mean in Academic Achievement, Math Achievement,
Bahasa Indonesia Achievement for Accepted and Rejected Students

Variables	Peer Status	N	Mean	SD	Std. Error Mean
Academic achievement	Accepted	69	7.344	0.633	0.076
	Rejected	63	6.828	0.600	0.076
Math achievement	Accepted	69	7.341	0.905	0.109
	Rejected	63	6.698	0.896	0.113
Bhs. Indonesia achievement	Accepted	69	7.596	0.784	0.094
	Rejected	63	7.064	0.811	0.102

there were mean differences in *Bahasa Indonesia* score, math score, and GPA among the groups. It appears that significant differences. Children who were accepted reported relatively higher achievement in *Bahasa Indonesia*, Math and GPA than children who were rejected. As Wentzel (1991) pointed out, popular earned higher GPA than rejected students. She also suggested that peer rejection placed students at risk for academic failure; it was most likely because rejected students displayed high levels of socially irresponsible behavior at school.

Elementary-aged students tend to self-select into groups of peers that have motivational orientations to school similar to their own. Over the course of the academic year, these orientations appear to become stronger and more similar within groups (Wentzel, 1999). Moreover, Kurdek and Sinclair (2000) reported that high average level of peers' academic performance was linked to high end-of-the-year academic achievement.

Children who join into a group of high achievement students will be influenced to have high motivation for achievement as well as others. Good influences from their peer group will influence motivation to study and be active in school activities so that academic achievement will increase by the time. Otherwise, if children join into a group which consists of low achievement students, they might be influenced to have low motivation for achievement too.

Guay and Valerand (as cited in Guay, Boivin, & Hodges, 1999) reported that self-determined academic motivation (i.e. engagement in an activity out of personal choice and pleasure) is a key mediator between academic self-concept and academic achievement. Connell and Wellborn (as cited in Guay et al.) showed that academic self-concept influences teacher-rated student engagement (i.e. positive emotion, flexible problem solving, and extracurricular academics), which in turn is associated with students' grades and achievement scores.

The present findings are corroborated by previous studies although the present study did not focus on any specific pattern of actions that could mediate the linkages between self-system processes and school related outcomes. In sum, focusing on specific psychological variables that could intervene in the self-concept-outcomes relationship could benefit our understanding of the paths leading to academic achievement

In this study, academic self-concept was positively and significantly related to academic achievement although the influence was not as great as peer acceptance/rejection. The data showed that academic self-concept of children was relatively stable and positive. In the present study, academic self-concept measured children's perceived competence in reading (reading self-concept) and in math (math self-concept). Reading self-concept was significantly related to *Bahasa Indonesia* achievement, general academic achievement, and math achievement. Reading competence can increase achievement in all subjects not only in *Bahasa Indonesia*. Good reading ability can help children to learn and understand other lessons.

Table 7
T– test for Peer Acceptance/Rejection and Academic Achievement

Variables	t	df	p (2-tailed)	Mean Differences
Academic achievement	4.793	130	0.001	0.516
Math achievement	4.090	130	0.001	0.642
Indonesian achievement	3.834	130	0.001	0.532

Students who have high reading self-concept may find it easier to learn so that they can achieve better GPA than children who have low reading self-concept. These findings are consistent with those in the previous study. Sanchez and Roda (n.d.) reported that reading self-concept has positive and significant association with achievement in language art, mathematics, and general school subjects. Reading self-concept also predicts positively and significantly general academic achievement. Slightly different from reading self concept, math self-concept is significantly related to math score and general academic achievement.

The results approve earlier work that math self-concept was positively and significantly related to math achievement. Math self-concept has affected math achievement significantly (Barker, Dowson, & McInnerney, n.d.) and predicted math and general academic achievement (Sanchez & Roda, n.d.).

Generally, academic self concept has strong relation to academic achievement. Guay et al. (1999) revealed that academic self-concept was positively associated with change in academic achievement over a 3-year school period. Guay et al. (2003) added that, as children grow older, their academic self-concept responses became more reliable, more stable, and more strongly correlated with academic achievement.

Conclusion

Based on the results, it can be concluded that peer acceptance/rejection and academic self-concept influence academic achievement. Regression analysis showed that peer acceptance/rejection predicted academic achievement significantly. Academic self-concept also predicted academic achievement but less significantly. High-ability students (students who have high achievement) tend to be accepted by their peers and having higher academic self-concepts. In turn, low-ability students (students who have low achievement) tend to be rejected by their peers and have lower academic self concepts.

Besides that, regarding factors in academic self-concept, reading self-concept has been associated with *Bahasa Indonesia* achievement, academic achievement in general subjects, also math achievement. Higher reading ability can help students in learning process in which they will have better understanding about the lessons. Vice versa, lower reading ability can impede the learning process.

Those findings are consistent with those in the previous studies. Nevertheless, there was limitation in present study. Academic achievement scores were derived from the result of examination scores for all school subjects. The examination questions were made by each school teacher so that the questions might be different in each school and were adjusted by the average student abilities in every single school.

Regarding the finding that peer rejection can lead to poor academic achievement, students who experience peer rejection should have special attention from the teachers also their parents. Students are invited to have private consultation and counseling to find out the causes which make them rejected by their peer and find out the best solution and treatment for them. Their parents should also try to solve this problem because children in elementary-aged still have great engagement with parents. The aim is avoiding worse impacts of peer rejection that are peer abuse and victimization.

The importance of academic self-concept in improving academic achievement should make school pay attention to the forming of positive self-concept among students. The forming of academic self-con-

cept is not only the task of the classroom teacher, but other professionals in school should also intervene. The intervention should provide a procedure that incorporates organization, elaboration, thinking, and problem solving strategy and link these to students' academic self-concept. Teachers and guidance counselors need to establish a non-threatening framework that allows them to discuss with students a range of relevant issues related to: peer pressure, parent relation, values, and life goals, in a systematic, objective and cooperative manner. The aim is helping to empower student with strategies and insights to enhance their self-concept, their understanding of their social environments, and their wellbeing.

For the future study, perceived loneliness and other emotional states, which arise as the effect of peer rejection and mediate the forming of academic self concept and the change of academic achievement can enrich our knowledge about this issue.

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