

## THE MEDIATING ROLE OF ACADEMIC SELF-EFFICACY IN THE RELATION BETWEEN PARENT-ADOLESCENT RELATIONSHIP AND ACADEMIC PERFORMANCE

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### ABSTRACT

Factors influencing academic performance among adolescents are the hot topic of all time. The present study investigated the relationships between parent-adolescent relationship, academic self-efficacy and academic performance among adolescents in Malacca, Malaysia. One step ahead, the present study further examined the mediating role of academic self-efficacy in the relation between parent-adolescent relationship and academic performance. For this purpose, a total of 446 secondary school students were recruited to participate in the present study. The findings revealed significant association between academic self-efficacy and academic performance. Although Pearson correlation analysis also revealed significant association between parent-adolescent relationship and academic performance, but the association was no longer existed after controlling for academic self-efficacy. In addition, Sobel test and bootstrapping also confirm indirect effect of parent-adolescent relationship on academic performance. Clearly, the relation between parent-adolescent relationship and academic performance was fully mediated by academic self-efficacy. Implications of the findings and suggestions for future research were provided.

Keywords: Academic self-efficacy, Parent-adolescent relationship, Academic performance

## INTRODUCTION

Getting good results in examinations is always of great interest to all students. Sadly, the current education system in Malaysia put heavy merit on academic achievement among the students (Malaysian Bahá'í Community, 2012). Adolescents who achieve good grades in examinations are believed to have better opportunities for higher achievement than those who perform badly in examinations. Moreover, existing evidences pointed that lower academic performance is significantly associated with various problematic behaviors (Choi, 2007; Li and Armstrong, 2009) and higher chance for teenage pregnancy (Kirby, 2002). For this reason, many parents are pushing their children to extra after-school classes to “ensure” they achieve good grades in examinations. Fueled by the excessive academic expectations from parents, many adolescents are competing with each others in term of examination grade. Most adolescents perceive academic failure as a nightmare which is unpleasant and undesirable.

## LITERATURE REVIEW

### Parent-Adolescent Relationship and Academic Performance

From the wide pool of literature, parent-adolescent relationship can be considered as one of the most notable contributing factors for adolescents' academic performance (Brkovic, Keresteš & Levpušček, 2013; Chen, Liu & Li, 2000; Gavazzi, 2011). It is generally accepted that the relationship quality between adolescents and their parents can greatly affect their development. That is, warm and close relationship with parents will help adolescents to perform better academically. By contrast, conflicting relationship with parents will increase the risk for academic failure among adolescents (Nebel-Schwalm, 2006). Attempting to confirm the association, Dotterer, Hoffman, Crouter and McHale (2007) conducted a longitudinal study involving 168 families with adolescent offspring. The results showed that parent-adolescent conflict in Time 1 is negatively correlates with academic achievement in Time 2 (two years later).

Echoing from the early findings, one recent study in Malaysia also found adolescents with poor academic achievement reported higher level of parental rejection than high academic performance counterparts (Abdullah, Lim & Ooi, 2015). Hence, there is reason to believe the positive association between parent-adolescent relationship and academic performance.

Yet, the association between parent-adolescent relationship and academic achievement remains questionable. It is worth noting that adolescence is a stage where parent-adolescent relationship restructures, where many adolescents will strive for autonomy and detach from their family (Fleming, 2005; Williams, 2003). There is no doubt that the journey to autonomy is accompanied by increased parent-adolescent conflicts and reduction in the quality of parent-adolescent relationship (Mann, Harmoni & Power, 1989). Even under such circumstances, many adolescents still manage to maintain excellent academic performance despite the weakened relationship with parents. In the light of this consideration, it is probable that parent-adolescent relationship alone is insufficient in explaining the deviation in adolescents' academic performance. In an attempt to understand this deviation, the present study hypothesized that academic self-efficacy mediates the relationship between the parent-adolescent relationship and academic performance.

### The Mediating Role of Academic Self-Efficacy

Academic self-efficacy refers to the confident level of an individual in achieving various academic tasks (Ferla, Valcke and Cai, 2009). Theoretically, academic self-efficacy is a tool for adolescents to evaluate the academic tasks they faced. More precisely, adolescents with high academic self-efficacy tend to feel confident in their academic skills and view the academic tasks as challenges (Hayashi, 2012). The positive attitude will motivate them to develop strategies to overcome the academic tasks. By contrast, adolescents with low academic self-efficacy tend to doubt on their academic skills and view the academic tasks as threats. Hence, they tend to be demotivated by the "threats" and arouse avoidance in academic tasks.

Given the nature of academic self-efficacy, there is considerable research which agreed on the positive association between academic self-efficacy and academic performance (Byrne, 1996; Guay, Marsh & Boivin, 2003). As reported in a meta-analysis conducted by Valentine, DuBois and Cooper (2004), adolescents with high academic self-efficacy are prone to engage in achievement-related behaviors and strive for academic achievement. For instance, they may put more efforts in completing homework and doing revision. These behaviors will enhance their academic skills, which will directly improve their academic performance.

Referring to the Social Cognitive Theory (Bandura, 1986), adolescents' self-efficacy is highly influenced by the social factors. That is, adolescents tend to learn from their environment through role-playing and mimicry. Given the family context as the initial source of self-efficacy for adolescents, warm relationship with parents will provide better environment for adolescents to sharpen and master academic skills. For instance, supportive parents might provide proper guidance to help the adolescents in completing school works. Mastery in academic skills will generate a sense of confidence in handling various academic tasks. Moreover, encouragements and appraisals from parents will further strengthen adolescents' confidence in their academic skills. Conversely, adolescents with loose and conflicting relationship with parent might be less confidence and have doubt in their academic skills. For instance, conflicting home environment will distract and demotivate adolescents to study.

Based on the above rationale, it seems reasonable for academic self-efficacy to mediate the relation between parent-adolescent relationship and academic performance. In other words, the lack of supportive home environment will jeopardize adolescents' confidence in completing challenging academic task, which will ultimately lead them to poor academic performance (Dotterer et al., 2007). On this account, the present study aimed to investigate the mediating role of academic self-efficacy in the relation between parent-adolescent relationship and academic performance.

## METHODOLOGY

### Participants and Procedure

Participants of the present study were 446 secondary school students from Malacca, Malaysia. More specifically, the age of the participants ranged from 13 to 19 years old, where the average age was 16.34 years old (standard deviation = 1.893). As far as the participants' gender is of interest, the gender breakdown of the current study was 211 males (47.3 percent) and 235 females (52.7 percent).

Upon acquiring permissions for collecting data in secondary schools from Ministry of Education Malaysia and Malacca Education Department, permission for entering secondary schools to collect data were requested from four randomly chosen secondary schools. Following that, trained enumerator was sent to the secondary schools who agreed to participate in the present study. Prior to distributing of the questionnaire, the objectives of the present study were explained to the potential participants. Besides, informed consents were sought from all potential participants. All questionnaires were collected on the spot at the same day.

### Instrumentation

The questionnaire of the present study was designed in three sections. The first section required the respondents to provide detail of personal background, which include gender and age. Besides, the respondents were required to report the average score during the last examination. This item was designed as 7-point likert item, where higher rating indicates better academic performance.

Parental Attachment Questionnaire developed by Kenny (1990) was implemented to measure parent-adolescent relationship among the respondents. This instrument consisted of 55 items designed in 5-point likert scale. The respondents are required to rate their relationship with parents. There are three subscales under this instrument, namely affective quality of relationship, parents as facilitators of independence and

parents as source of support. The sum of total score from all subscales will yield general parent-adolescent relationship, where higher total score indicates more positive relationship with parents. Examples of item are “In general, my parents are persons I can count on to provide emotional support when I feel troubled” and “When I go to my parents for help, I feel confident that things will work out as long as I follow my parents’ advice”. This instrument is generally reliable, where the Cronbach’s alpha was 0.916.

Academic Self-Efficacy Questionnaire developed by Zajacova, Lynch and Espenshade (2005) was implemented to measure academic self-efficacy. This instrument consisted of 27 items which required the respondents to rate their confident level in achieving the stated academic tasks. The response was designed in 11-point likert scale, where 0 indicates “not confident” and 10 indicates “extremely confident”. There are four subscales under this instrument, which are interaction at school, academic performance out of class, academic performance in class and managing work, family and school. Summing up the total score from all subscales will yield general academic self-efficacy. Examples of item of this instrument are “Preparing for exams” and “Asking questions in class”. The reliability test showed that this instrument is reliable (Cronbach’s alpha = .942)

## RESULTS

### Correlation between Variables

Pearson correlation was performed in order to analyze the relationships between parent-adolescent relationship, academic self-efficacy and academic performance. The result was displayed in the Table 1. In general, academic performance was positively associated with parent-adolescent relationship ( $r = 0.143$ ;  $p < 0.01$ ) and academic self-efficacy ( $r = 0.304$ ;  $p < 0.001$ ). In addition, significant positive relationship was found between parent-adolescent relationship and academic self-efficacy ( $r = 0.429$ ;  $p < 0.001$ ).

Table 1. Means, standard deviations, and correlations among variables

Variable	Mean	SD	Correlations		
			PA	ASE	AP
PA	191.657	26.940	1		
ASE	150.087	43.756	0.429***	1	
AP	3.877	1.454	0.143**	0.304***	1

Note: N = 446

SD = Standard Deviation; PA = Parent-Adolescent Relationship; ASE = Academic Self-Efficacy; AP = Academic Performance

\*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < .001$

#### Academic Self-Efficacy as Mediator

The mediating effect of academic self-efficacy was tested with PROCESS macro. PROCESS macro uses ordinary least squares (OLS) regression in measuring the coefficients (Hayes, 2012). The result of the mediation analysis was displayed in the Table 2. First, the effect of parent-adolescent relationship (predictor) on academic self-efficacy (mediator) was tested. The result showed that parent-adolescent relationship was a significant predictor for academic self-efficacy ( $b = 0.697$ ;  $p < 0.001$ ).

The second model is to test on the effect of parent-adolescent relationship (predictor) on academic performance (dependent variable). The result displayed significant predictive power from parent-adolescent relationship to academic performance ( $b = .697$ ;  $p < .01$ ).

Parent-adolescent relationship and academic self-efficacy was simultaneously entered into the regression against academic performance in the third model. The result showed that academic self-efficacy was significant predictor for academic performance ( $b = 0.010$ ;  $p < 0.001$ ). In addition, the predictive power of parent-adolescent

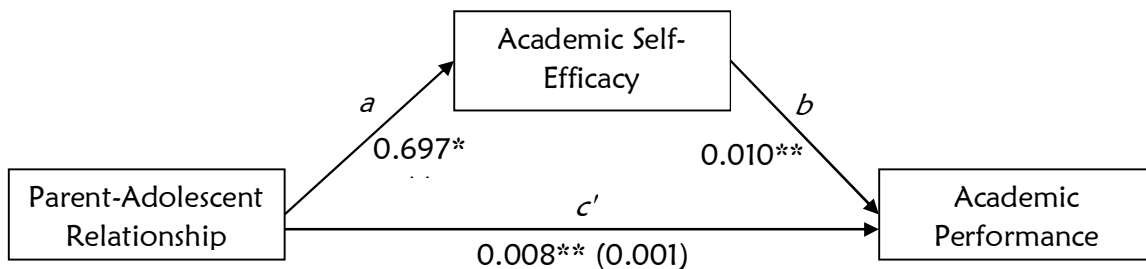
relationship on academic performance is no longer existed ( $b = 0.001$ ;  $p = .771$ ). This indicated that the association between parent-adolescent relationship and academic performance was weakened after controlling for academic self-efficacy. Altogether, the mediation analysis proposed a potential mediating role of academic self-efficacy on the relation between parent-adolescent relationship and academic performance. A graphical presentation of mediation model was displayed in the Figure 1 for better clarity.

Table 2. Standardized and unstandardized coefficients

Model	b	Standard Error	t
Model 1 PA → ASE	0.697***	0.070	10.014
Model 2 PA → AP	0.008**	0.003	3.035
Model 3 PA → AP	0.001	0.003	.291
ASE → AP	0.010***	0.002	5.952

Note: b = Unstandardized coefficients; Beta = Standardized coefficients; PA = Parent-Adolescent Relationship; ASE = Academic Self-Efficacy; AP = Academic Performance

\*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$



Note: \*\*  $p < .1$ ; \*\*\*  $p < 0.001$

Figure 1. Mediation model



Sobel test was conducted to test the mediation model. The result indicated academic self-efficacy mediate the relation between parent-adolescent relationship and academic performance ( $z = 5.098, p = 0.000$ ).

In advance, the present study used bootstrapping to further test on the mediating effect. The number of bootstrap sample was set as 5,000 samples. Results of the bootstrapping confirmed the indirect effect from parent-adolescent relationship to academic performance, where the effect size is 0.007 with 95 percent BC confidence interval between 0.004 and 0.010. However, the direct effect is not statistically different from zero, where the effect size is 0.291 ( $p = 0.772$ ) with 95 percent BC confidence interval between -0.005 and 0.006. Hence, the result revealed that academic self-efficacy fully mediates the relation between parent-adolescent relationship and academic performance among adolescents.

## DISCUSSION AND CONCLUSION

Consistent with findings of Pajares, Britner and Valiante (2000), the current study confirmed the association between academic self-efficacy and academic performance among adolescents. This might due to adolescents with high academic self-efficacy are more likely to engage in achievement-related behaviors while actively develop strategies to fulfill the academic tasks (Valentine et al., 2004). In contrast, adolescents with low academic self-efficacy tend to avoid from challenging academic tasks. Thus, it is conceivable that adolescents with higher academic self-efficacy tend to perform better academically than their lower academic self-efficacy counterparts.

On the other hand, while many of the past literatures agreed on the positive association between parent-adolescent relationship and academic performance, findings of the present study showed that the mentioned association is spurious. More precisely, the association between parent-adolescent relationship and academic performance is indirect and fully mediated by academic self-efficacy. That is, positive relationship with parents will help adolescents to develop stronger academic self-

efficacy, which will in turn improve their academic performance. This finding is supported by the concept of Social Learning Theory (Bandura, 1986), where parents are an important source of self-efficacy for adolescents. Warm and supportive home environment allow adolescents to be more focused in their study. Proper guidance and encouragement from parents will give a boost on adolescents' academic self-efficacy. Conversely, conflicting and non-responsive home environment will distract adolescents from learning and hence undermine their confidence in academic skills (Dotterer et al., 2007). Having established the mediating role of academic self-efficacy, parents who hope their adolescent-age children to perform better in academic should maintain close relationship with their children, while providing supports and encouragements to improve the children's academic self-efficacy. Rather than blindly pushing children to after-school classes, improve their academic self-efficacy seems to be a wise and effective strategy to improve their academic performance. For instance, parents shall encourage and praise their children when they perform well in certain academic tasks, which will help to fortify their academic self-efficacy. As the consequent from improved academic self-efficacy, the children will be more motivated in overcoming the challenging academic tasks, which will in turn improve their academic performance.

At this point, it would be important to highlight some limitations of the present study. Most importantly, all participants of the present study are secondary school students enrolled in Malacca, Malaysia. Hence, implication of the findings beyond this scope should be given extra care. In addition, as the present study was designed as cross-sectional study, the causality among the variables is unclear. Longitudinal studies are most welcome to investigate in this issue.

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