

Modeling the Relations among Parental Involvement, School Engagement and Academic Performance of High School Students

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Abstract

The author proposed a model to explain how parental involvement and school engagement related to academic performance. Participants were (671) 9th and 10th graders students who completed two scales of “parental involvement” and “school engagement” in their regular classrooms. Results of the path analysis suggested that the parental involvement influences school engagement directly. Also, parental involvement influences academic performance indirectly through its effects on school engagement. In addition, school engagement influences academic performance directly.

Keywords: parental involvement, school engagement, academic performance, high school students

1. Introduction

School engagement is considered one of the most important factors that affect students' learning and academic success. Specifically, it is considered the main model for understanding and predicting graduation of students from high school (Fall & Roberts, 2012). Previous studies have found that students who are careful to attend all of their classes, concentrate on learning, and obey the schools' rules and regulations, generally achieve higher grades (Caraway, Tucker, Reinke, & Hall, 2003; Wang & Holcombe, 2010). Additionally, (Finn & Rock, 1997; Moretti, 2007) pointed out that poor school engagement can increase rates of school failure, withdraw, dropout and problematic behavior. Scribner, Young, and Pedroza (1999) indicated that the lack of cooperation among schools and parents causes low achievement and higher behaviors problems rates among students. Moreover, a lot of research indicated that parents involve frequently in their children's education; their children become more socially and academically successful in school (Epstein, 2001; Hill & Craft, 2003; McWayne, Hampton, Fantuzzo, Cohen, & Sekino, 2004). The National Research Council and Institute of Medicine (2004) indicated that 30% to 50% of middle school students are disengaged from school. These findings lead educators and researchers to study school engagement as a solution for many problems.

2. Theoretical Background

Engagement in school activities is considered one important outcome of motivation; when students engage in school, they feel with pleasure, have academic self-efficacy, determine high goals, and volunteer in learning activities as predictive on the high academic achievement. Moreover, previous studies pointed out that school engagement improves academic achievement, higher school completion rates, and increases student sense of connecting in schools and other social institutions (Finn, 1989; Marks, 2000; Pearson, Muller, & Wilkinson, 2007; Willms, 2003). Higher school engagement has been linked with high school graduation and academic success (Furrer & Skinner, 2003). According to Wentzel (1999), students who engage in school activities have high academic performance. In contrast, students who disengage have low academic performance (Finn, Pannozzo, & Voelkl, 1995). Alternatively, studies suggest that students who feel connected to school are more likely to demonstrate positive behaviors and attitudes, while students who feel disconnected to school are more likely to demonstrate antisocial, uncivilized, and violent behaviors both in and out of school (Finn, 2006; Whitlock, 2006).

Engagement is typically described as having multiple components. Based on the theoretical work of Fredrick, Blumenfeld, and Paris (2004), school engagement is a multidimensional construct has three components: behavior, emotion, and cognition. Behavioral engagement refers to the actions and practices that students direct

toward school and learning; it includes positive conduct (e.g., students' attendance and completing school activities), active participation in classes, and/or involvement in extracurricular activities (Harris, 2011; Wang, Willett, & Eccles, 2011). Emotional engagement refers to the feelings, interests, and attitudes that students have toward learning and school (Skinner & Belmont, 1993). Cognitive engagement refers to the quality of the cognitive processes and learning approaches that students employ on the school assignments and homework (Walker, Greene, & Mansell, 2006), including goal-setting, intrinsic-motivation, self-regulation, and use of learning strategies (Harris, 2011).

These engagement components have positive and long-term effect on students' academic achievement (Fredrick, Blumenfeld, & Paris, 2004). Ultimately, the degree to which students engage in school behaviorally, emotionally, and cognitively influences their academic success, which in turn, may influence changes in all three aspects of school engagement (Wang, Willett, & Eccles, 2011). In addition, engagement components are understood as dynamic interaction. For example, Glanville and Wildhagen (2007) assert that while one dimension might help prevent early school withdraw, another may lead to improve academic performance.

Until recently, there have been few studies that examine the relation between school engagement and academic achievement. A recent study by Ladd and Dinella (2009) indicated that students who were cooperatively engaged in the classroom and responded to teacher instructions were more likely to show high academic performance. Also, Wentzel (1999) found that students who are actively engaged are more likely to achieve high academic performance.

On parental involvement, school engagement, and academic performance, studies have shown that these concepts seem to be positively related. Parental involvement is critical in students' educational processes (Christenson & Sheridan, 2001). Parental involvement refers to parents' role in educating and teaching their children at home and in school. Parental Involvement can take many forms, including discussions about school, help with homework and visiting the school to talk to teachers (Deslandes & Bertrand, 2005; Lavenda, 2011). Parental involvement encourages students' engagement in school activities and improves their learning (Hong & Ho, 2005; You & Sharkey, 2009). Also, parental involvement enhanced students' feeling of academic self-efficacy and self-esteem. Rasinki and Fredricks (1988) asserted that parents play a vital role in students learning; when students have a great deal of attention and caring from their parents, their school life becomes more efficiently (Zang & Carrasquillo, 1995). Cotton and Wikelund (2005) similarly found that when parents involve intensively in their students' learning; the more beneficial are the achievement effects. Khajehpour (2011) concluded that when parents monitor children's home work, encourage them to participate in extracurricular activities, are active in parents-teacher associations, and help children develop plans for their future; students are more likely to respond and do well in school. On the other hand, the research pointed out that student from poor or single-parent households, or whose parents did not complete high school, are more likely to perform poorly and dropout from school than students from families without these risk factors (Rumberger, 1995; Swanson & Schneider, 1999).

In general, a review of related literature has revealed that parental involvement has been linked to a variety of learning outcomes, including school engagement. Research on school engagement also indicated that school engagement relate to academic performance. Specifically, there is agreement among educators and researchers that when students are disengaged in school, they are likely to increase their inappropriate behavior whereas their academic success is decreased (Appleton, Christenson, Kim, & Reschly, 2006; Stewart, 2003). In addition, researchers showed that students, who involve highly in school, show increased attendance and fewer problematic behaviors (Martin & Marsh, 2006). On the contrary, students who less engage are expected to show inappropriate behavior, school failure, and dropout (Appleton, Christenson, Kim, & Reschly, 2006). Moreover, when students enter school, they encounter many important cognitive and behavioral challenges that prevent them to engage in school, so they gain low level of academic achievement. To achieve good levels of academic performance, teachers are expected students to spend a great deal of effort during classroom activities, listening carefully, follow rules, participate, and work autonomously. As students vary in their ability to respond to such expectations; these expectations represent challenges for those students. Furthermore, parental involvement and school engagement as a solution for these challenges, generates more positive and spontaneous reciprocal from teachers, which can ultimately promote their achievement related outcomes. For many students, their engagement in school declines when enter adolescence (Fredriks & Eccles, 2002). There is much evidence that parental involvement in students learning during adolescence, as during other stages of development, facilitates students' engagement and achievement (Gutman & Eccles, 1999). In spite of, most teachers believe that parents aren't working enough with their students at home, Delgado-Gaitan (2001) found that although 98% of teachers viewed parental involvement as critical.

However, parental involvement and school engagement have been the subject of extensive research for many years in Western countries; less has been done in non-Western countries. Jordan, in this respect, has a special position. Jordan spans the continent Asia and, therefore, has a socio cultural background differs from other nations. Also, previous research didn't study the relation among parental involvement, school engagement, and academic performance together. Thus, the main purpose of the present study was to address these gaps and present a working model explaining the relations among parental involvement, school engagement, and academic performance. Specifically, this study aimed to propose a casual model that explains the relations among parental involvement, school engagement, and academic performance. Figure 1 depicts the proposed model, which comprises three parts. The model assumes that parental involvement influences school engagement directly and also influences academic performance indirectly through its influence on school engagement. Moreover, the present study will help advance our understanding of academic performance in the high school students through a test of the casual relations among parental involvement, school engagement, and academic performance. In addition, the proposed model will generate knowledge that will help orient the development of educational practices which promote success in high school.

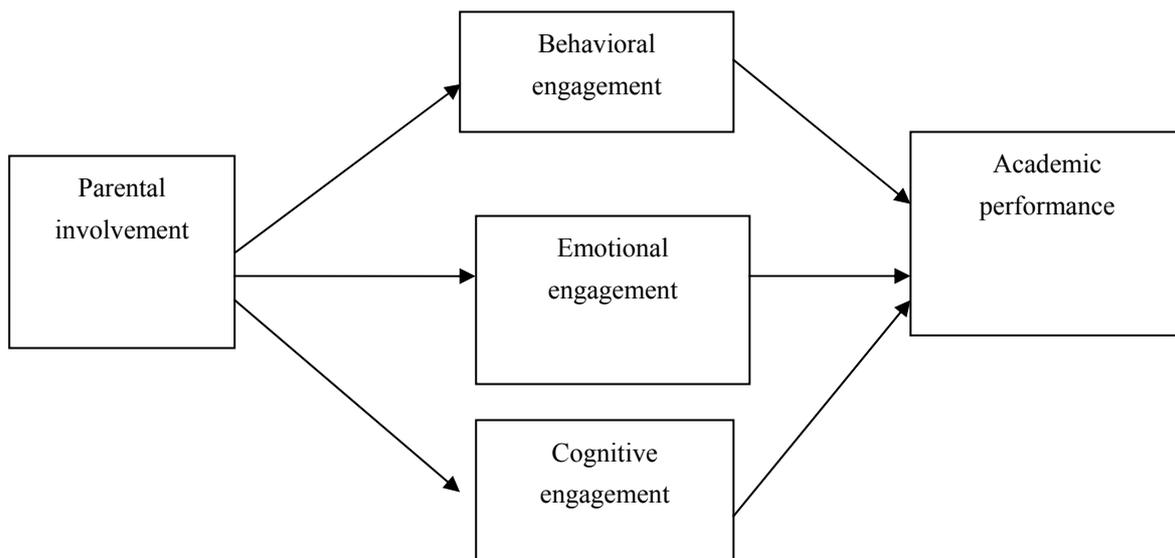


Figure 1. The proposed path model of parental involvement, school engagement (behavioral, emotional, and cognitive), and academic performance

3. Method

3.1 Participants

A sample of N=671 9th and 10th grade students (359 girls and 312 boys) participated in this study. The mean age of participants' was 15.89 years (SD=1.12). A sample represents 11 schools which were chosen randomly from 59 high schools in Amman Second Directorate of Education, Jordan at the academic year 2012/2013.

3.2 Instruments

3.2.1 Academic Achievement

Academic achievement was assessed by student's cumulative grade point average gathered at the end of year (2012/2013) school records of 4 primary courses: Arabic Language, English Language, Math, and Science.

3.2.2 School Engagement

"The assessment of school engagement" scale which was developed by (Wang, Willett, & Eccles, 2011) used to assess students' engagement in school activities. The scale consists of 23 items that represent three dimensions: behavioral, emotional, and cognitive engagement. Seven items assess behavioral engagement (e.g., "How often

do you have trouble paying attention in classes?”), eight items assess emotional engagement (e.g., “I feel happy and safe in this school”), and eight items assess cognitive engagement (e.g., “How often do you try to figure out problems and planning how to solve them?”). Responses for each item were rated along a 5- point scale, ranging from 1 (almost never) to 5 (almost always). Cronbach’s alpha was .82 for behavioral engagement, .86 for emotional engagement, and .82 for cognitive engagement. In the current study, Cronbach’s alpha at behavior, emotion, and cognitive engagement was .80, .81, and .79, respectively. The scale was translated into Arabic, and back- translation procedures were employed to ensure equivalence between the English and Arabic versions.

3.2.3 Parental Involvement

The Parental Involvement in Schooling Scale (PISS) was developed based on existing literature that describes the parent involvement in schooling (Chao, 2000; Kerr & Stattin, 2000; Steinberg, Lamborn, Dornbusch, & Darling, 1992). Following these researchers, parental involvement was assumed to assess the degree to which parents assist their child with homework, attend extracurricular activities, and help with class selection. A self-report scale which consists of 13 items with four-point Likert type (1 = not at all true, 4 = very true) was developed. The scale was validated for language and time needed for completion with a group of 15 children aged 14 to 16 years old. These children were able to read and understand each item and all completed the scale within 10 minutes. Factor analysis exhibited a global factor model. All 13 items loaded over .54 in the unrotated factor matrix. The Cronbach’s alpha for these 13 items was .86.

3.3 Procedures

Participants were given the scales in their classrooms during regular class time in the academic year 2012/2013. The researcher explained the purpose of the study. They were then asked to complete the scales individually; all who were asked did so. Most students completed the scales in approximately 20 minutes.

4. Results

Data collected from all participants were analyzed Means and standard deviations are presented in table 1. As shown table 1, the scores for school engagement subscales; behavioral, emotional, and cognitive were all above the midpoint of the 5 point Likert scale. And the scores for parental involvement scale were above the midpoint of the 4 point Likert scale. This indicates that, on average, the participants in the sample had medium to high levels of each of the mentioned constructs.

Table 1. Means and standard deviations for the school engagement subscales (behavior, emotion, and cognitive) and parent involvement

Variables	Mean	SD
Behavior engagement	3.98	.69
Emotion engagement	3.56	.54
Cognitive engagement	4.34	.75
Parental involvement	3.12	.58

4.1 Subscales Intercorrelations

Pearson Product Moment Correlations were used to examine the intercorrelations among the constructs (see Table 2). As indicated table 2, several variables of the examined ones were significantly correlated with each other. First, behavioral engagement had a statistically significant positive correlation with emotional engagement ($r=.42$), cognitive engagement ($r=.45$), parental involvement ($r=.51$), and academic achievement ($r=.49$). Second, emotional engagement had a statistically significant positive correlation with cognitive engagement ($r=.50$), parental involvement ($r=.49$), and academic achievement ($r=.40$). Third, cognitive engagement had a statistically significant positive correlation with parental involvement ($r=.53$), and academic achievement ($r=.61$). Finally, parental involvement had a statistically significant positive correlation with academic achievement ($r=.39$).

Table 2. Pearson product-moment correlations among parental involvement, school engagement (behavioral, emotional, and cognitive) and academic achievement

Variables	Behavioral engagement	Emotional engagement	Cognitive engagement	Parental involvement	Academic achievement
Behavioral engagement	1	.42*	.45*	.51*	.49*
Emotional engagement		1	.50*	.49*	.40*
Cognitive engagement			1	.53*	.61*
Parental involvement				1	.39*
Academic achievement					1

* $P \leq .05$.

4.2 Path Analysis

Path analysis was used through LISREL 8.52 (Joreskog and Sorbom, 2002) to assess how well the proposed model in Figure 1 fit the data. Figure 2 shows the path coefficients for the proposed relationships among the variables in the model. Based on the fit indices, the proposed model fit the observed data well. The chi-square value for the present model was 14.01 ($p = .478$), indicating that the observed and model-implied correlation matrices were not significantly different. Additionally, the Goodness of fit (GFI) and Comparative fit (CFI) indices reached optimal levels (.90 and greater) at .96 and 1.00, respectively. The SRMR was .02, well below .10, indicating acceptable fit. Finally, the Root Mean Square Error of Approximation (RMSEA) value for the present model was .018, clearly falling within optimal levels ($< .05$). The standardized path coefficients for direct effects are graphically depicted in Figure 2. All the path coefficients were statistically significant. Overall, the model accounted 56% of the variance in academic achievement, and 15%, 13% and 25% of the variance in behavioral engagement, emotional engagement, and cognitive engagement, respectively.

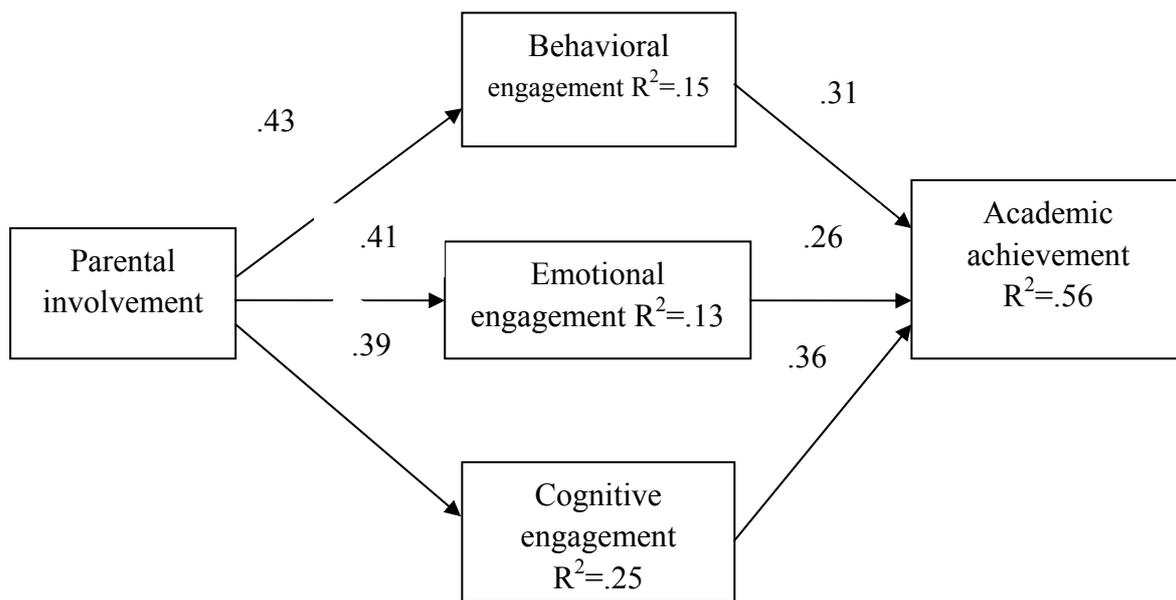


Figure 2. Path coefficients of parental involvement, school engagement (behavioral, emotional, and cognitive), and academic performance

In the model, Parental involvement exerted direct effects on behavioral engagement ($\beta = .43$), emotional engagement ($\beta = .41$), and cognition engagement ($\beta = .39$). Also, all school engagement variables were predicted with students' academic performance ($\beta = .31$ for behavioral engagement; $\beta = .26$ for emotional engagement; $\beta = .36$ for cognitive engagement). The specific indirect effect of parent involvement on students' academic achievement through behavioral engagement, emotional engagement, and cognitive engagement ($\beta = .35$; $\beta = .29$; and $\beta = .37$, respectively).

5. Discussion and Implications

A major contribution of the present study was the empirical test of the model shown in Figure 1. The results were consistent with a casual model that assumed the following relationships: achievement performance is directly influenced by variables of school engagement (behavior, emotion, and cognitive). Also, achievement performance is indirectly influenced by parental involvement through variables of school engagement. Variables of school engagement (behavior, emotion, and cognitive) are directly influenced by parental involvement. The data provided good support for the model overall, in that the fit statistics were strong and most of the proposed casual links were supported by the empirical findings.

The results concerning parental involvement were consistent with expectations that parental involvement affects students' engagement in school in many ways. First, when parents involve in school, their children conduct less disruptive behaviors, reduce levels of aggressive and absence from school, and compliance with school rules. Second, when parents involve in school, their children are more likely to respond and do well in school. Third, parental involvement through participating in school activities, facilitating parent- teacher communication; encourage teachers to discuss their children's behavior with them. In general, when parents involved in school, their children become more responsible for their behaviors, and this affect their learning. This result consistent with previous studies (Hong & Ho, 2005; You & Sharkey, 2009) that indicated parental involvement encourages students' engagement in school activities and improves their learning.

In addition, parent involvement in school affects their children's emotional engagement. This engagement affects students' feelings, interests, and attitudes toward their school. These students are more likely to be fun, enjoy school time and have high self-esteem. Also, students who engage in school are more likely to perceive school as enjoyable and satisfying experience. Moreover, when parents visit children's schools, their child feels safe, and is more likely to engage in school.

The results of this study, suggest that when parents show interest in their children through praising their efforts,

and contribute to community building within the school; they directly influence students' perception of self and nurture students' level of school engagement. In addition, when parents speak frequently with their children about school-related topics, they contribute to students' sense of identification with school, and their general perception of control. As control and identification with school are enhanced, these energizing internal mechanisms motivate students to be academically and behaviorally engaged in school activities.

One of the critical influences of parental involvement is students' motivation to learn; specifically, their self-efficacy. Students who have high self-efficacy tend to spend more effort, attention, and participate in school activities. In addition, when parents monitor their children's homework, encourage them to participate in extracurricular activities.

The present findings suggest that focusing on school engagement as a primary cause of higher achievement among Jordan children. Students who engage with their school are more likely to obey classroom rules and regulations, and students who believe in their ability to control the outcome of their educational experience are much more likely to work hard, complete homework, be attentive in English, Arabic, Mathematics, and Science and score higher on achievement tests. This result consisted with past research showed that high school engagement has been correlated with academic performance (Furrer & Skinner, 2003). In addition, students who were cognitive engagement in school, were more likely to employ meaningful processing in learning activities; this consisted with past research has shown that meaningful processing leads to enhanced performance on achievement measure (Walker, Greene, & Mansell, 2006). Also, students' participation and engagement in school enhances commitment to learning, achievement, academic aspirations, enjoyment in school, and self-esteem. In essence, school engagement enables students to develop academic and social efficacies that have critical role in academic performance. Also, cognitive engagement including; intrinsic motivation, self-regulated learning, commitment to mastery learning, and use of learning strategies; this means that these activities affect on academic performance. More importantly, cognitively engaged students used deep level learning strategies. In addition, when students engage in school, they participate in classroom activities, listen carefully, and follow directions, and complete their work autonomously. Moreover, Parent involvement characterizes parents' values and attitudes regarding education and the aspirations they hold for their children. Although values and attitudes may not directly influence academic outcomes, they may enhance academic achievement directly by promoting children's motivation and persistence in challenging educational tasks. School engagement encourages students to use self-regulation strategies, engage in effortful learning, and establishing task-oriented goals; these activities are the main source in academic performance.

In conclusion, the reviewed literature and empirical data analyzed support the notion that engagement in schooling relate to differing outcomes for students, while it is logical to assume that students who are attached to school and engage in schooling are more likely to become more engage in learning.

Moreover, the results have some implications. First; parents could have to note that their interpersonal relationships and direct interest in the academics of their children could bring a better academic performance. Thus effort should be made by them to be positively disposed to academics of their children. Second; both the home and the school need to cooperate in making the learners to be well adjusted emotionally and behaviorally as this could make academic performance. Third: effort at school reform should focus on increasing students' engagement as a means to building educational resilience among students.

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