

A priori Model of Self-Concept: The Effects of Students' Experiences in School.

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Abstract

This is an empirical study aimed at exploring the effects of school experiences on the development of students' self-concept based on a priori model of self-concept. Data were collected from a sample of 1167 secondary school students and analysed using Structural Equation Modeling. The results demonstrated that the full model fits the data adequately. School experiences contributed a significant positive direct effect on the students' self-concept. Among other findings, school experiences produced positive indirect effect on the sub-constructs of self-concept. The indirect effect of school experiences on academic self-concept was the greatest, followed by physical self-concept and social self-concept. The role of self-concept as a mediator between school experiences and the sub-constructs of self-concept was confirmed.

Keywords: school experiences, academic self-concept, physical self-concept, social self-concept

Introduction

School is an important institution in everybody's life because most of us were introduced to 'school' at a young age. The experiences gained by a student in school are important as every student spends more than ten years in school. Student's experiences in school refer to the process of development resulting from the educational system experienced by the student. Besides that, school experiences can also be evaluated based on the student's experiences with teachers and recognition given by the school to a student. Related literature revealed that the experiences contributed by school produce a significant impact on various aspects of a student's life especially the emotional, physical, intellectual and spiritual development. According to Marks (1988), schools play a vital role in students' social, personality and academic development.

Zhang (2011) found that students' interpretation of school experiences is an important factor in forming their educational expectations. Students with higher academic self-concept will possess higher educational expectations but disengagement of the students will result in lower educational expectations. Evaluations and expectations of the teachers are closely related to students' academic achievement, own educational expectations and academic self-concept. In line with the finding of Zhang (2011), Gang and Chin (2008) asserted that the school context such as peer relations, interactions with teachers, academic performance, and stress related to academic performance and non-academic talents result in a significant impact on students' development of self-esteem especially during their early adolescence. The role of school in students' self-esteem and self-efficacy was further highlighted by Brooks et al. (2010) who reported that a higher level of class activities engagement is associated with self-esteem and self-efficacy. Besides, it is also found that the level of support by the school has a non-linear positive relationship with self-esteem and teachers' encouragement of college was also related to higher levels of self-esteem. According to Ireson and Hallam (2005), students who demonstrate liking for school are those who possess higher academic self-concept and positive perceptions of teachers' teaching. Based on theory and previous studies, three aspects closely related to students' experience in schools are school engagement, school attachment and school bonding. These three aspects have an important effect on student's development since they involved three important dimensions, namely affective, behavioural and cognitive (Shane, 2003).

School attachment refers to the extent to which students feel they are accepted, appreciated, respected, and involved in the schooling system (Shochet et al., 2007). Students need to feel that they belong to their school community - that they are accepted and respected by peers and teachers. They need to feel competent and in control of their learning, with opportunities to make decisions and work toward personal goals (Certa et al., 2003). Mouton et al. (1996) advocated that school attachment plays an important role in deciding success and failure of secondary school students. Findings of previous studies have shown that school attachment is closely related to social adaptability, emotion and academic achievement as well as student's motivation (Hill & Werner, 2006; Jimerson, 2003). According to Cakar (2011), there is a positive significant relationship between school attachment and physical well-being, emotional well-being, family life, school life and relationship with friends based on the samples of third and eighth grade students. High level of school attachment is related positively to motivation in academic and academic success (Murdock et al., 2001; Samdal et al., 1999; Roeser et al., 1996; Sinclair & Fraser, 2002). A low level of school attachment manifests in students who do not involve themselves in school activities, but indulge in cheating, delinquency, discipline problems, drug abuse, and show low achievement and motivation, low attendance, low social and emotional adaptation and are school drop outs (DeWit et al., 2002; O'Farrell & Morrison, 2003; Ornelles, 2007).

School engagement can be defined as a psychological process, specifically, the attention, interest, and investment and effort students expend in the work of learning (Mark, 2000). Students with a high level of school engagement usually are happy with their school and the process of learning. Students with better academic achievement tend to demonstrate higher level of school engagement (Fullarton, 2002: National Center for School Engagement, 2006). Besides that, Fullarton (2002) also found that students' engagement in school is related positively to self-concept of ability, intrinsic motivation and perception of school climate. Lippman and Rivers (2008) summarized that school engagement can improve students' academic achievement, promote school attendance and inhibit risky youth behaviours.

School bonding refers to elements such as student's liking for teachers who taught them, their desire to attend school, and the extent of the student's trust in teachers (Murray & Greenberg, 2001). According to Catalano et al. (2004), school bonding can affect positive development and enhance academic achievement and social skills among students. Another negative facet of school bonding in elementary and middle school is that it is also consistently associated with problem behaviours such as school misbehaviour, grade repetition, and dropout (Catalano et al., 2004).

Meanwhile, self-concept refers to the way a person perceives and evaluates the self through cognitive awareness of strengths and weaknesses found based on information from others (Rogers, 1961). According to Shavelson, Hubner, and Stanton (1976), self-concept is multidimensional in nature and can be categorized into academic, physical and social self-concept. Academic self-concept discusses the perception and evaluation of persons regarding their ability to study and achieve success from the academic aspect. Physical self-concept measures individuals' opinion regarding their body, health, physical appearance, sexuality and beauty (Fitts & Warren, 1996). Social self-concept is defined as the perception of a person of his or her ability to make friends and socialize. Social self-concept of a student refers to how the student interacts with others in society especially in the school setting.

The major goal of this study is to investigate empirically the effect of students' school experiences on the development of self-concept and its sub-constructs namely academic, physical, and social self-concept based on a a priori model of self-concept using structural equation modelling (SEM). It is aimed at understanding in depth if students' school experiences can produce a direct effect or indirect effect on the forming of self-concept and its sub-constructs among secondary school students.

Methodology

Respondents for this study were tenth grade 16-year-old students of urban and rural public secondary schools. From the total of 1167 respondents, 611 were male and 556 were female students. 653 respondents were from the urban schools while 514 respondents were students of rural schools. Two stage random sampling procedure was applied to obtain the sample. In the first stage, three rural secondary schools and four urban secondary schools were selected randomly based on the list provided by the Selangor State Education Department. The second stage involved randomly selecting three tenth grade classes from each school. All the students in each class were considered as the sample. A survey was carried out to obtain the data using a self-administrated questionnaire, which consists of three parts. Part A to collect respondents' demographic information, Part B to measure self-concept and Part C to elicit respondents' experiences in school. The questionnaire was adapted from project IRPA:No:07-02-03-1042 EA142 CoPS (2007), University of Malaya. Data were analysed based on SPSS version 16 and structural equation modeling (SEM) using AMOS (Analysis of Moment Structure) version 16.0.

Result of Research

The reliability of the instruments was determined using estimates of internal consistency (Cronbach alpha). The Cronbach alpha value for self-concept is .828 and for students' experiences in school is .911. Both the instruments used in this study have attained acceptable reliability as the Cronbach alpha values are above .7 (Hinton et al., 2004). Structural equation modelling (SEM) was used to test the a priori model of self-concept constructed. Kline (1998) suggested that researchers should use at least three types of goodness-of-fit indices for testing the goodness-of-fit of the model. Four goodness-of-fit indices used in this study to determine the fit of all models were the Jöreskog Sorbom goodness of fit (GFI) index, Bentler comparative fit index (CFI), Tucker-Lewis index (TLI) and Root mean-square error of approximation (RMSEA). The cut-off for acceptable model fit is 0.9 for GFI, CFI, and TLI with values greater than 0.9 is regarded as adequate model fit. As for RMSEA, values smaller than .06 represent a good model fit (Bentler & Bonett, 1980; Hair et al., 1998; Hu & Bentler, 1999; Kline, 2005).

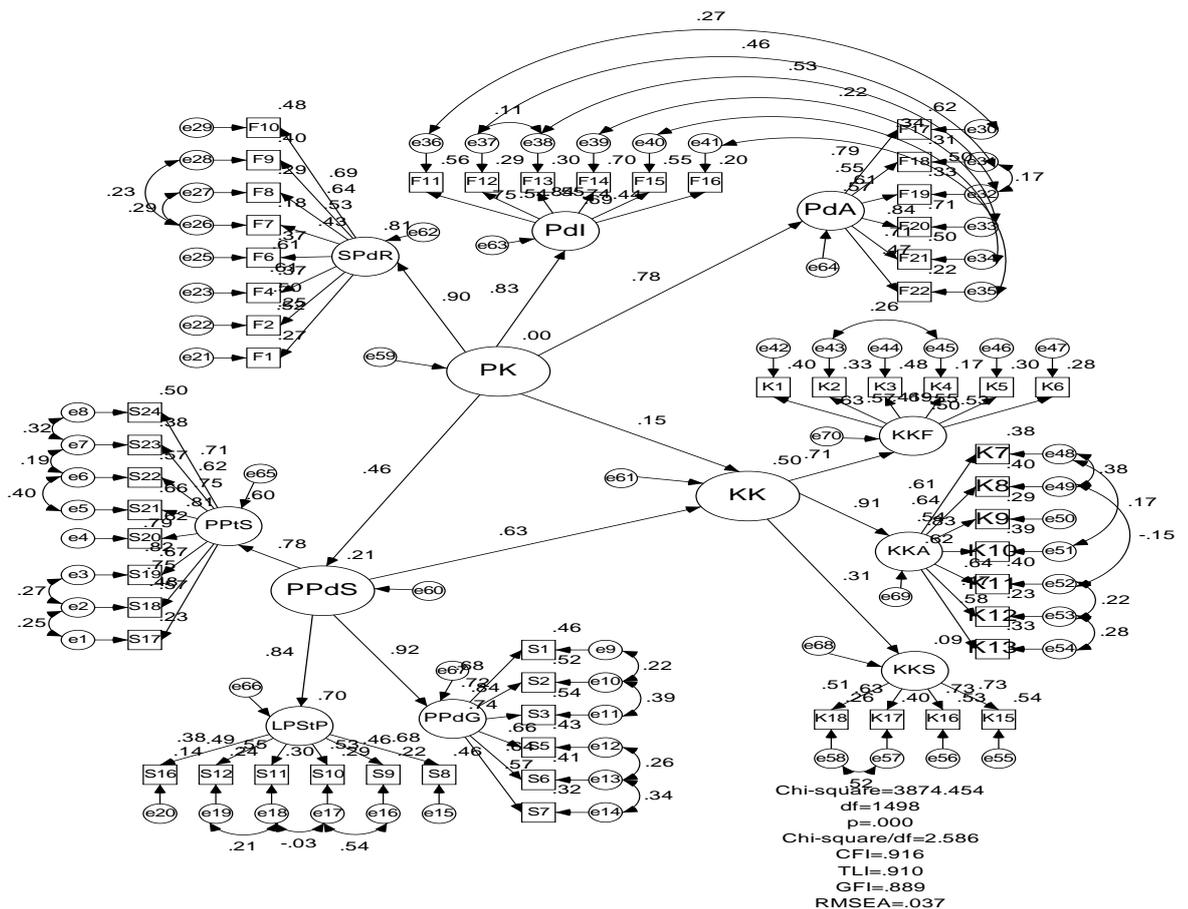


Figure 1: A priori model of self-concept

(K1–K15, F1-F22 and S1-S24 represent observed variables, e1-e58 represents error variances, PK represents family attachment, PPdS represents student's experiences in school, KK represents self-concept, SPdRr represents emotional attachment at home, PdI represents attachment with mother, PdA represents attachment with father, PPdG represents student's experiences with teachers, PPdS represents student's recognition towards school, LPSiP represents attention from school on students, KKA represents academic self-concept, KKS represents social self-concept and KKF represents physical self-concept)

Figure 1 presented the full a priori model of self-concept. The results demonstrated that the model of self-concept fit the data of the study adequately as the value of GFI = .889, CFI = .916, and TLI = .919 are above .900 whereas the value of RMSEA =.037 is less than .060 (Bentler & Bonett, 1980; Hu & Bentler, 1999; Kline, 2005; Hair, Anderson, Tatham & Black, 1998).

Table 1: Standardized Direct Effect, Standardized Indirect Effect and Standardized Total Effect of Students' Experiences in School on Self-Concept and its sub-constructs

Parameter	Estimate
PPdS → KK	
Standardized Total Effect	0.639
Standardized Direct Effect	0.639
Standardized Indirect Effect	0.00
PPdS → KKA (KK)**	
Standardized Total Effect	0.91
Standardized Direct Effect	0.00
Standardized Indirect Effect	0.91
PPdS → KKF (KK)**	
Standardized Total Effect	0.71
Standardized Direct Effect	0.00
Standardized Indirect Effect	0.71
PPdS → KKS (KK)**	
Standardized Total Effect	0.31
Standardized Direct Effect	0.00
Standardized Indirect Effect	0.31

** mediator

Table 1 revealed the standardized direct effect, standardized indirect effect and standardized total effect of students' experiences in school (PPdS) on self-concept (KK) and its sub-constructs, academic self-concept (KKA), social self-concept (KKS) and physical self-concept (KKF). The analysis shows that PPdS result in only significant positive standardized direct effect of 0.639 on KK. Thus, the standardized total effect of PPdS on KK is also 0.639. This means when PPdS increase by one standard deviation, KK will increase by 0.639 standard deviation.

On the contrary, PPdS produces only significant positive standardized indirect effect on KKA, KKS and KKF through KK as a mediator. The standardized indirect effect of PPdS on KKA is 0.91 which is the highest. Therefore, the standardized total effect of PPdS on KKA is also 0.91. This implies that if PPdS increase by one standard deviation, KKA will increase by 0.91 standard deviation. Besides that, PPdS also yields a standardized indirect effect of 0.71 on KKF. So, the standardized total effect of PPdS on KKF is also 0.71, denoting that if PPdS increase by one standard deviation, KKF will increase by 0.71 standard deviation. Finally, a standardized indirect effect of 0.31 was found on KKS from PPdS. Hence, the standardized total effect of PPdS on KKS is also 0.31. This indicates that if PPdS increase by one standard deviation, KKS will increase by 0.31 standard deviation. The analysis concluded PPdS result only standardized direct effect on KK but standardized indirect effect on KKA, KKF and KKS where KK acts as mediator.

Discussion

The findings reveal that students' experiences in school produce significant positive direct effect on self-concept. This implies that the positive experiences students obtained during their life in school can enhance the development of positive self-concept. This is due to the fact that students' experiences in school are closely related to school engagement, school attachment and school bonding which can impact the development of students in the domains of affective, cognitive and behaviour (Shane, 2003).

Besides that, the development of self-concept is greatly influenced by information students gained from the people in the environment (Rogers, 1961). Specifically, high and positive evaluation and perception of the student regarding teachers will encourage the students to complete tasks assigned by the teachers (Osterman, 2000). Moreover, positive and enjoyable experiences gained by students in school are vital in developing positive attitude toward teacher's teaching and tasks assigned by the teacher. This is because students' perception of task difficulty depends much on the quality of the student-teacher relationship (Osterman, 2000; Ireson & Hallam, 2005). The ability in completing tasks will result in positive evaluation of self within the students, which is needed in developing positive self-concept (Arsenault, 2001; Calsyn & Kenny, 1977; Skaalvik & Valas, 1999), especially in the academic domain. Furthermore, as school engagement is related to efforts made by students towards enhancing academic achievement (Finn & Rock, 1997; Johnson et al., 2001), good academic achievement will facilitate positive self-concept as explained in the skills development model (Arsenault, 2001; Calsyn & Kenny, 1977; Skaalvik & Valas, 1999).

Schools that provide appropriate freedom to students, involving them in decisions making on school activities as well as giving the students due respect can enhance school attachment (Shochet et al., 2007) and develop positive self-concept (Hoge et al., 1990; Gang & Chin, 2008). This is because students will have high evaluation of themselves as they are given responsibility and recognition. Furthermore, students who are attached to school are found to have fewer delinquency behavioural problems, which is essential in forming positive self-concept (Brownfield & Thompson, 2005; Lau & Chan, 1997; Levy, 1997; Schoot & Wong, 2011).

The findings of this study also demonstrated that students' experiences in school have a positive indirect impact on academic self-concept through the mediator of self-concept. The life students experience in school will produce a direct effect on self-concept and self-concept will influence the academic aspect of the self. Students who possess close and good relationship with members of the school will like being in school and succeed in completing school tasks (Chung et al., 2002), leading to positive evaluation and perception of his ability especially in the academic domain. This is supported by Ireson and Hallam (2005) and Robinson (2003) who reported that students who like school have a higher academic self-concept.

The indirect effect of students' experiences in school on academic self-concept is the highest compared to physical or social self-concept. This can be attributed to the close relationship between school and academic achievement besides great emphasis on academic achievement by the society. The important aspects of students' experiences in school namely, school engagement, school bonding and school attachment are significantly related to academic domain (Finn & Rock, 1997; Johnson et al., 2001; Murray & Greenberg, 2001; Eggert et al., 1994; Mouton et al., 1996; Hill & Werner, 2006; Jimerson, 2003; DeWit et al., 2002; O'Farrell & Morrison, 2003; Ormelles, 2007).

Students' experience in school is found to affect physical self-concept indirectly through self-concept. This is because students' experiences in school are associated with self-concept and physical self-concept is a sub-construct of self-concept (Hoge et al., 1990; Gang

& Chin, 2008; Way & Robinson, 2003). Students who obtain positive experiences in school will have high evaluation of themselves and are satisfied with their physical appearance, health, sexuality and beauty. Besides that, students who develop good engagement and bonding with school will tend to lead a healthy lifestyle (DeWit et al., 2002; O'Farrell & Morrison, 2003; Ornelles, 2007).

Apart from that, social self-concept can also be influenced indirectly by students' experiences in school through self-concept as a mediator. Positive interaction between students and members of the school community can facilitate the process of socialisation, which enables the students to have a more positive perception of themselves (Shane et al., 2003) especially in the social domain. Positive school experiences are needed to make students feel attached to school (DeWit et al., 2002; O'Farrell & Morrison, 2003; Ornelles, 2007). This is because school attachment is closely related to social and emotional adaptation (Hill & Werner, 2006; Jimerson, 2003).

The findings of this study have placed importance on the role of school in the development of self-concept among students. The positive experience students attained throughout the process of schooling can result in significant positive impacts on the student's self-concept (Way & Robinson, 2003). Teachers and school administrators need to create conducive environments, which will make students engaged—and bonded with the school (Smith, 2006). Teachers should cultivate close and healthy rapport with students in order to make them feel attached to school. Schools should allow students to get involved in school activities and recognise students' opinions and feelings and acknowledge students as part of the school community. In the effort to develop positive self-concept among the students especially academic, physical and social self- concept, providing positive school experiences is essential.

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