

# Family Bonding and Self-Concept: An Indirect Effect Mediated by School Experiences among Students

Z. Ishak, F.P Chew

**Abstract**—School experiences, family bonding and self-concept had always been a crucial factor in influencing all aspects of a student's development. The purpose of this study is to develop and to validate a priori model of self-concept among students. The study was tested empirically using Structural Equation Modeling (SEM) and Confirmatory Factor Analysis (CFA) to validate the structural model. To address these concerns, 1167 students were randomly selected and utilized the Cognitive Psycho-Social University of Malaya instrument (2009). Resulted demonstrated there is indirect effect from family bonding to self-concept through school experiences among secondary school students as a mediator. Besides school experiences, there is a direct effect from family bonding to self-concept and family bonding to school experiences among students.

**Keywords**—Confirmatory Factor Analysis, self-concept, family bonding, and school experience

## I. INTRODUCTION

THE experience gained by the individual in school is important considering that each individual spends about eleven years in school from primary to secondary school. Hence, it is certain that school experience can result in significant effect on various aspects of a person's development especially in intellectual and spiritual aspects. Student experiences in school refer to a process of individual development resulting from an educational system experienced and how the individual perceives school. Besides that school experience can also be evaluated based on the individual's experiences with teachers as well as service obtained from the school and recognition given by the school to the student.

Based on past studies and theory, three aspects have a close association with experience obtained by the student in school, and these are school engagement, school attachment and school bonding. These three aspects will give an effect on the individual's development process because they involve three important dimensions namely affective, behavioral and cognitive (Shane, 2003)[1].

Z. Ishak, is with Department of Educational Psychology and Counseling, Faculty of Education, University of Malaya, 50603 Kuala Lumpur, Malaysia (corresponding author to provide phone: 603-79675090/5036; fax: 603-79675010; e-mail: irahaz@um.edu.my).

F. P. Chew, is with Department of Language & Literacy Education,, Faculty of Education, University of Malaya, 50603 Kuala Lumpur, Malaysia (corresponding author to provide phone: 603-79675111; fax: 603-79675010; e-mail: fpchew@um.edu.my).

The affective dimension refers to the student's feelings about school, teachers and peers. The behavioral dimension is the behavior that can be observed or achievement of the student in co curriculum activities, in examinations whether outstanding achievement or moderate or weak or ability of student to finish homework assigned.

School attachment can be measured based on the direct behavior of the student and efforts by the student to improve academic achievement (Finn & Rock, 1997 [2]; Johnson et al., 2001) [3]. Indicators of school attachment refer to activities related to schooling, grade achievement of the student, total time allocated to finish school work, and amount of homework completed by the student. Elements of delinquency, school absenteeism, or rebellious behavior are also included in measurement of school attachment (Bullis & Yovanoff, 2002 [4]; Finn & Rock, 1997 [5]; Sinclair, Hurley, Evelo, Christenson, & Thurlow, 2001) [6]. Shane et al. (2003) [1,7] also found that a concept often used in measuring school attachment is feeling of belonging, school community, membership in school, and closeness to school. The concept of school community refers to the student's behavior towards the school environment and does not include academic orientation. The school community involves mutual interaction with the students.

In the mean time, self-concept represents one factor that can influence various aspects of student development. Rogers (1961) [8] defined self-concept the way a person thinks about him or herself based on awareness of strengths and weaknesses and information received from others. According to Shavelson, Hubner, and Stanton (1976) [9], self-concept is multidimensional in characteristics and can be categorized into academic, physical and social self concept. Academic self-concept refers to the perception and evaluation of people toward their ability to learn and achieve success from the academic standpoint. Physical self-concept is explained as the opinion of people regarding their body, health, physical image, sexuality, and looks (Fitts & Warren, 1996) [10]. Social self-concept is defined as the evaluation of people toward their capability to develop friendships and socialize well. Social self-concept of students refer to how they relate to other people in society especially fellow students in the school.

Past studies show that aspect schooling integration can produce impact such as reduce dropout risk rate and delinquency among students. According to Murray and Greenberg (2001) [11], specifically school integration refers to element such as students liking teachers who teach them,

student’s wish to go to school, and extent of student belief in teachers. Based on past studies, indicators used to measure schooling integration aspect include closeness rate or bond rate and commitments towards school goal achievement (Eggert, Thompson, Herting, Nicholas, & Dicker, 1994) [12]. Feeling of belonging to the school, school settings and membership in school are usual aspects categorized as feeling of closeness to school or feeling of inclusiveness (Firestone & Rosenblum, 1998 [13]; Johnson, Crosnoe, & Elder, 2001) [14].

II. INSTRUMENTATION

In this study, a priori model of self-concept was measured through 63 item questionnaire adapted from various self-concept scales and CoPs (Cognitive Psycho-social profile of the Malaysian) instruments.

It sought to find out students’ perceptions on:

- 1) Self-concept ( 17 items; K1-K18)
- 2) School Experiences ( 22 items; F1-F22)
- 3) Family Bonding ( 24 items; S1-S24)

The response to each item is in the form of five-point l scale of “strongly disagree”, “disagree”, “undecided”, “agree”, and “strongly agree”. The first section of the questionnaire relates to demographic characteristics and contains questions on the respondent’s background information (gender, school type, and school location).

III. METHODOLOGY OF RESEARCH

The samples for this study consisted of tenth grade 16-year-old students in public secondary schools in Malaysia. The study sample involved 1167 Form Four students form secondary school chosen at random from boarding schools, Religious residential schools, day schools, and technical secondary schools in rural and urban areas of Malaysia. The age of sample was 16 years. The sample consisted of 611 males and 556 females.

The instrument used in the study was one set of self-administrated survey forms containing two sections, Section A and Section B. Section A collects demographic information of the sample and section B explored students’ experience of school, family bonding and self concept. The instrument used was a survey questionnaire developed during the project IRPA: No: 07-02-03-1042 EA142 CoPS (2007), which has been adapted to meet the needs and level of thinking of the participants’. Instruments used in this study were subject to pilot testing and found to be having good validity and reliability. This study is a quantitative study. The data in this study were analyzed using SPSS, and Structural Equation Modeling (SEM) using AMOS (Analysis of Moment Structure) version 16.0.

IV. RESULT OF RESEARCH

The reliability of the instrument used in this study was assessed based on estimates of internal consistency (Cronbach alpha) and the instrument for self-concept Cronbach alpha

value is .828 and the instrument for Student School experiences is .911. The alpha values of both instruments exceed the cut-off point for Cronbach alpha .7. The a priori model of self-concept developed in this study was tested using SEM and as recommended by Kline (2005) [15], at least three types of goodness-of-fit indices should be used in the testing. In this study, Jorsky Sorbom Goodness of Fit Index (GFI), Bentler Comparative Fit Index (CFI), Tucker-Lewis Index (TLI) and Root Mean-Square Error of Approximation (RMSEA) were applied to test the fit of the full model. The cut-off for acceptable model fit based on GFI, CFI, and TLI is 0.9 with value greater than 0.9 indicating adequate model fit. As for RMSEA, value smaller than 0.006 is signifying good fit of a model (Bentler & Bonett, 1980; Hu & Bentler, 1999 [16]; Kline, 2005 [15,17]; Hair, Anderson, Tatham, & Black, 2010) [18]. The types of effect of school experiences among students to self-concept were determined based on a priori model of self-concept shown in Figure 1 and the full model fit the data empirically.

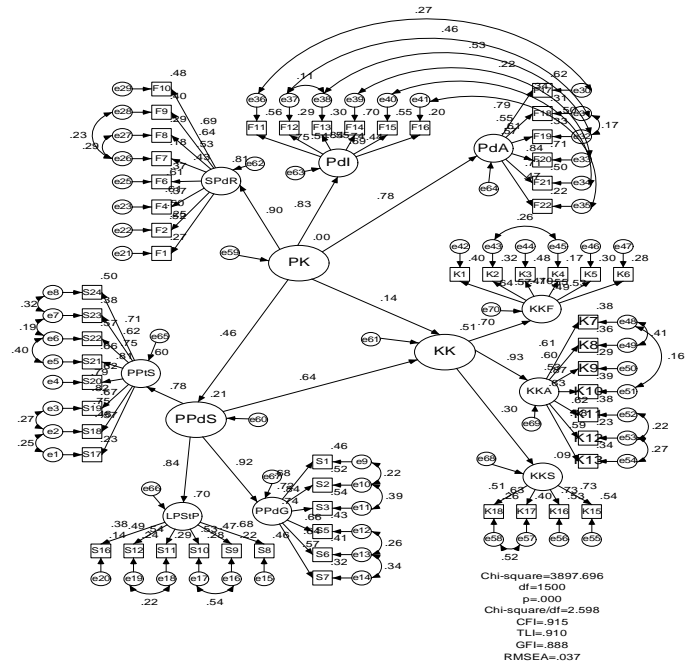


Fig. 1 A priori model of self- concept

Table I reports the analysis standardized direct effect, standardized indirect effects, and standardized total effect for the construct of student’s experience in school on the construct of self-concept and its sub constructs based on a priori model of self concept.

TABLE I  
STANDARDIZED DIRECT EFFECT, STANDARDIZED INDIRECT EFFECT AND STANDARDIZED TOTAL EFFECT FROM SCHOOL EXPERIENCES TO SELF-CONCEPT AND ITS SUB-CONSTRUCTS

Parameter	Estimate
PPdS → KK (PPdS)**	

Standardized direct effect	0.00
Standardized indirect effect	0.639
Standardized total effect	0.639

**PK → KK**

Standardized direct effect	0.144
Standardized indirect effect	0.00
Standardized total effect	0.144

**PK → PPdS**

Standardized direct effect	0.463
Standardized indirect effect	0.00
Standardized total effect	0.463

---

\*\* mediator

Petunjuk:

- PPdS = School experiences among students  
 PK = Family bonding  
 KK = Self concept

Results of analysis show that family bonding can result indirect effect size that is positive and significant valued at 0.639 on self-concept through school experiences among students' in school as a mediator. This resulted in a total effect size that is positive and significant from family bonding on self-concept with a value of 0.639. This means that when family bonding increases by one standard deviation, self-concept will increase by 0.639 standard deviation. Besides that, analysis also reports that there was standard total marks and standardized direct effect size from family bonding to self concept. Analysis showed standardized direct effect size worth 0.15 that was positive and significant can be seen from family bonding to self-concept. Standardized total effect size from family bonding to self- concept also is positive and significant with value 0.15.

This means when family bonding' increased as much as 1 standard deviation, self- concept will also increase by 0.15 standard deviation.

Apart from that, there is also standardized direct effect and significant effect size valued at 0.46 from family bonding to school experiences among students in school. Students' experience standardized total effect in school positive and significant with value 0.46. This explains that when family bonding increased as much as 1 standard deviation, school experiences among students in school will increase as much as 0.46 standard deviation

#### V. DISCUSSION

Analysis shows that students' experience in school could produce a positive and indirect effect on self concept. This shows that life and positive event that students experience when in school can affect the student self-concept formation process positively. This finding is consistent with Shane (2003)[1,7, 19]. This is because students' experience is related school with school bonding, school attachment, and school

integration that can influence affective, behavioral, and cognitive development of the student.

Specifically, students' assessment and perception on teacher that is high and positive will cause them to strive to resolve assignments given by teachers (Osterman, 2000) [20]. The capability to complete assignments will cause students to possess positive assessment of themselves and this process could lead to formation of positive self-concept. Apart from that, because the schooling bond is also associated with student efforts to enhance academic achievement (Finn & Rock, 1997 [21]; Johnson et al., 2001) [22], good academic achievement will be able to increase self-concept such as described in the skills development model.

Experience that is positive and enjoyable will cause students to behave in a positive manner to teachers' teachings and assignment ordered by teachers. This is because students' perception on level of difficulty of an assignment is heavily dependent on the quality of relationship between student and teacher. This means if students like a lesson by a teacher, then all assignments given by the teacher will be regarded as easy and enjoyable.

The school's treatment including school administrator treatment of students is an important aspect which contributes to students' experience in school. Schools that serve students well such as respecting students, giving them appropriate freedom as individuals and involving them in making decision on school activities can not only increase schooling attachment levels (Shochet et al., 2007) [23] but in fact can shape positive self-concept (Gang & Chin, 2008 [24]; Hoge et al., 1990)[25]. This is because students will be giving high assessment on themselves because they have been honored and can be given the responsibility of the assignment. Furthermore, according to Smith (2006) [26], students who are close to the school have been found to exhibit less of delinquency problem and behavior and this could lead to shaping of positive self-concept considering the close relationship between self-concept and problem behavior (Brownfield & Thompson, 2005[27]; Lau & Chan, 1997) [28].

#### VI. CONCLUSION

The survey results had shown us the important role of school institution in influencing the student's development. Experience that students achieve during the schooling process can give impact on shaping their self-concept, namely one of the important factors in deciding academic success, in fact the student's future. All citizens especially school teachers and school administrators should play the role respectively for providing a conducive to environment so students can feel very close and bonded with school, in fact even make school part of their existence. Positive experience in school also involves treatment given to all students including the low achievers. Teachers have to treat all students the same without considering their background. Teachers should establish relationship that is friendly and close with students before starting the teaching and learning process. This is because familiarity with teacher is the key to an effective teaching and learning process

The school should recognize students' presence as part of the school community and should give them opportunity to involve themselves in school activities; students' opinion and heartfelt needs also should be considered before the school makes whatever decision involving students. Apart from that, the study findings also feature indirect effect which is normally hidden but plays an important part in analyzing the relationship between two variables (Raykov & Marcoulides, 2007) [29]. Although directly students' experience aspect in school could only give effect on self-concept only, however, the influence achieved by student experience in school is much more than that. This is because events that students experience in school also can give impact on self-concept assessment whether in academic, physical or social self-concept through self-concept which functions as mediator. This means that in efforts to increase the academic, physical and social self-concept of students, their positive experience in school must be given proper consideration.

#### ACKNOWLEDGMENT

The authors are very grateful for the extensive support and guidance of Professor Dr. Saedah Siraj, Dean of the Faculty of Education, University of Malaya, Kuala Lumpur. Z. Ishak, and F.P. Chew thank University Malaya Research Grant (UMRG), University of Malaya, Kuala Lumpur for the financial and sponsor support.

#### REFERENCES

- [1] R. J Shane. The California school psychologist provides valuable information regarding school engagement, youth development, and school success. *The California School Psychologist*, 8, pp 3-6. (2003).
- [2] J. D Finn., & D. A. Rock,.. Academic success among students at risk for school failure. *Journal of Applied Psychology*, 82, pp 221-234 1997.
- [3] M. K., Johnson, R. Crosnoe., & G. H. Elder., Jr. Students' attachment and academic engagement: The role of race and ethnicity. *Sociology of Education*, 74, pp 318-340. (2001).
- [4] M Bullis., & P. Yovanoff,.. Those who do not return: Correlates of the work and school engagement of formerly incarcerated youth who remain in the community. *Journal of Emotional and Behavioral Disorders*, 10, pp 66-78, 2002.
- [5] J. D Finn., & D. A. Rock,.. Academic success among students at risk for school failure. *Journal of Applied Psychology*, 82, pp 221-234 1997.
- [6] M. F Sinclair., C. M Hurley, D. L Evelo., S. L., Christenson, & M. L Thurlow,. Making connections that keep students coming to school. In R. Algozzine, & P. Kay (Eds.), *Preventing problem behaviors: A handbook of successful prevention strategies* Thousand Oaks, CA: Corwin Press 2001 pp. 162-182.
- [7] R. J Shane. The California school psychologist provides valuable information regarding school engagement, youth development, and school success. *The California School Psychologist*, 8, pp 3-6. (2003).
- [8] C. Rogers, *Client-centered therapy*, New York: Houghton mifflin, 1951, pp 498-500.
- [9] R. J, Shavelson., J. J Hubner., & G. C. Stanton, Self-concept: Validation of construct interpretation. *Review of Educational Research*, 46(3), pp 407-441, 1976.
- [10] W. H Fitts., & W. L Warren.. *Tennessee Self-Concept Scale, TSCS2: 2. Manual.* (2nd ed.). Los angeles, CA: Western Psychological Services. 1996
- [11] C., Murray, & M. T Greenberg,. Relationships with teachers and bonds with school: Social emotional adjustment correlates for children with and without disabilities. *Psychology in the Schools*, 38, pp 25-41. . 2001.
- [12] L. L Eggert., E. A Thompson., J. R Herting., L. J Nicholas., & B. G Dicker,. Preventing adolescent drug abuse and high school dropout through an intensive school-based social network development program. *American Journal of Health Promotion*, 8, 202-215, 1994..
- [13] W. A Firestone., & S., Rosenblum, Building commitment in urban high schools. *Educational Evaluation and Policy Analysis*, 10, pp 285-299, 1988
- [14] M. K Johnson., R Crosnoe., & G. H Elder., Jr. Students' attachment and academic engagement: The role of race and ethnicity. *Sociology of Education*, 74, pp 318-340, 2001
- [15] R.B., Kline. *Principle and practice of structural equation modeling*, 2005 pp 30-35
- [16] P.M. Bentler, & D.G. Bonnet. Significance test and goodness of fit in the analysis of covariance structure. *Psychological Bulletin*, 88, pp 588-606, 1980.
- [17] R.B., Kline. *Principle and practice of structural equation modeling*, 2005 pp 30-35
- [18] J.F. Hair, W .C. Black, B. J. Babin R. E. Anderson R. I. Ttham, *Multivariate data analysis*, 7<sup>th</sup> ed. 2010, ch.4
- [19] R. J Shane. The California school psychologist provides valuable information regarding school engagement, youth development, and school success. *The California School Psychologist*, 8, pp 3-6. (2003).
- [20] K. F Osterman., Students' needs for belonging in the school community. *Review of Educational Research*, 70(3), pp 323-367, 2000.
- [21] J. D. Finn., & D. A. Rock.. Academic success among students at risk for school failure. *Journal of Applied Psychology*, 82, pp 221-234, 1997.
- [22] M. K Johnson., R Crosnoe., & G. H Elder., Jr. Students' attachment and academic engagement: The role of race and ethnicity. *Sociology of Education*, 74, pp 318-340, 2001
- [23] I. M., Shochet, T., Smyt, & R., Homel, The impact of parental attachment on adolescent perception of the school. *ANZJFT* 28(2), pp 109-118, 2007.
- [24] H. F Gang., & C. Y Chin., *Impacts of parental behaviors and school experiences on adolescents development trajectory of self-esteem*. Retrieved from [http://www.typ.sinica.edu.tw/upfiles/2\\_03.pdf](http://www.typ.sinica.edu.tw/upfiles/2_03.pdf), 2008.
- [25] D Hoge., E Smit., & S Hanson,. School experiences predicting changes in self-esteem of sixth- and seventh-grade students. *Journal of Educational Psychology*, 82, pp 117-127, 1990.
- [26] D. J Smith,. School experience and delinquency at age 13 to 16. *Edinburgh Study of Youth Transitions and Crime Research Digest no. 13.*, pp 66-70, 2006.
- [27] D Brownfield., & K Thompson,. Self-concept and delinquency: The effect of reflected appraisals by parent and peers. *Western Criminology Review*, 6(1), 22-29. 2005.
- [28] K. L Lau., & D. W. Chan, Family relationship, self-concept and delinquent behavior among Chinese adolescents in Hong Kong. *Educational Journal*, 25(1), pp 107-132. 1997.
- [29] T. Raykov., & G. A Marcoulides., A method for comparing completely standardized solution in multiple groups. *Structural Equation modeling*, 7, pp 292-300. (2000).