



The Typology of Parental Engagement and its Relationship with the Typology of Teaching Practices, Student Motivation, Self-Concept and Academic Achievement

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ABSTRACT

Objective – The aim of this study is to identify and explore the relationship of parental engagement on teaching practices, student motivation, self-concept and academic achievement.

Methodology/Technique – This study applies the perspectives of relevant ecological, socio-cultural and psychological theories. Samples comprise 1075 high school students who were randomly stratified across Malaysia. Data were extracted from questionnaires which were analyzed by Structural Equation Modeling (SEM) AMOS.

Findings – Findings show that parental engagement, teaching practices, student motivation and self-concept have a significant relationship with academic achievement.

Novelty – This study provides significant implications to the development of theoretical models for parental engagement, teaching practices, student motivation, self-concept and academic achievement in the Malaysian education system.

Type of Paper: Empirical

Keywords: Academic Achievement; Motivation; Parental Engagement; Self-Concept; Teaching Practices.

JEL Classification: I21, I23.

1. Introduction

Parental engagement is one of the many important strategies which can improving the education quality (Henderson & Mapp, 2002). Other terms used synonymously with parental engagement include “home-school partnership”, “parent participation” and “parents as partners” (Lloyd-Smith & Baron, 2010). From another view, Epstein (1993) uses the term “partner” in defining parental engagement as a means to show that both parents and teachers are equally responsible for educating students through activities, whether at school or at home. Previous studies have shown that parental engagement supports learning and improves children’s

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academic performance in school (Kordi & Baharuddin, 2010). It was also found that parental engagement reduces irresponsible behaviors among adolescents (Khan, 2013), motivates children (Khan et al., 2014), improves cognitive and social development of children (Weis, Caspe & Lopez, 2006), encourages positive development of adolescents (Jeynes, 2007), promotes good mental health among adolescents (Wang et al., 2013), and helps children to acknowledge the importance of education in their lives (Young et al., 2013). Sewell and Hauser (1980) believe that students' failure to acquaint with the aspirations of education is due to the lack of motivation by both parents and teachers. This academic failure can also be attributed to the lack of parental trust in the children's education (Fulcher & Scott, 2007) and the lack of academic resources in the family (Marsh, 2000).

Teachers, policy makers and researchers have long focused their research on parental engagement as an important complement to improve teaching, curriculum and students' achievement. Not only has there been a reporting of high and positive consequences of parental engagement (Jelas et al., 2013), teachers and parents have also reported the difficulties that they face. For example, there have been reports which say that teachers do not really welcome the involvement of parents. Similarly, there were also reports saying that there was a lack of specific proposals from teachers on how the needs of children can be addressed (Epstein & Dauber, 1991). Adding to this, were reports from the teachers indicating that there was a lack of support from school administrators in enabling parental engagement and training through effective engagement strategies. Parents have an equally important and similar role as teachers and administrators in the educational development of their children (Epstein, 2001). For a start, parental engagement in education benefits not only the children but also the teachers and parents as well. For example, teachers would feel more valued by their students; they are better able to solve problems and make decisions more efficiently, have high expectations and strengthen their teaching techniques in school. However, many studies of parental engagement in Malaysia only focused on children with special needs (Othman, 2007). Studies involving the relationship of parental engagement on teaching practices, student motivation, self-concept and academic achievement are still lacking. This matter has been addressed by a few researches (Fan & Williams, 2010; Mo & Singh, 2008) thus, it serves as an area that requires attention.

The main objective of this study is to explore the relationship between typologies of parental engagement, teacher practice, student motivation, self-concept and academic achievement. In that regard, the research question being pursued is, "Is there a significant relationship between typologies of parental engagement, to teacher practice, student motivation, self-concept, and academic achievement?"

The null hypotheses of this study are as follows:

- i. There is no significant relationship between the typology of parental engagement and motivation.
- ii. There is no significant relationship between motivation and teacher practice.
- iii. There is no significant relationship between motivation and self-concept.
- iv. There is no significant relationship between parental engagement and teacher practice.
- v. There is no significant relationship between students' self-concept and teacher practice.
- vi. There is no significant relationship between students' self-concept and academic achievement.
- vii. There is no significant relationship between motivation and academic achievement.
- viii. There is no significant relationship between parental engagement and students' academic achievement.
- ix. There is no significant relationship between teachers' practice and students' academic achievement.

2. Methodology

This research is a quantitative cross-sectional study. Data were collected using questionnaires. The samples of this study were 1075 students from five different zones in Malaysia namely, the central, east, west, south and north zones. Samples were chosen based on random stratified sampling technique as a means to ensure

that the research samples were balanced by each layer of the research population (Wright & Reeves, 1992). The sample size was determined using Krejcie and Morgan's (1970) sampling method.

The instruments used in this study were as follows:

- i. Student's Perception on Parental Engagement (Epstein & Salinas, 1993) which consists of 40 items in six domains: parenting (4 items), communication (8 items), volunteering (10 items), learning at home (10 items), decision making (10 items) and collaborating with community (4 items).
- ii. Teacher Practice (Ahmad et al., 2016) which consists of 97 items in four domains: planning and preparation (11 items), classroom climate (28 items), teaching (38 items), and professional responsibility (20 items).
- iii. Motivation of Achievement (Vallerand et al., 1992) which consists of 28 items in three domains: intrinsic motivation (12 items), extrinsic motivation (12 items) and a motivation (4 items).
- iv. Tennessee's Self-Concept Scale Second Edition, TCS:2 (Fits & Warren, 1997) which consists of 82 items in six domains: physical (14 items), moral/ethics (12 items), personal (12 items), family (12 items), social (12 items), academic (12 items) and self-critiques (8 items).

A pilot study was conducted in three different secondary schools involving 300 respondents. The Alpha Cronbach (α) value for each instrument shows high reliability values: student perception on parental engagement ($\alpha = 0.945$), teacher practice ($\alpha = 0.987$), motivation for achievement ($\alpha = 0.905$) and student self-concept ($\alpha = 0.906$).

Primary data were analyzed by AMOS Version 23. Structural Equation Modelling (SEM) and analysis was used to explore the direct and indirect relationships noted between the dependent and independent variables.

3. Results

There are four main steps in structural equation modelling: specification, identification, estimation and evaluation. The results of the assessment were used to test the hypotheses and to answer the research question. The proposed model is shown in Figure 1.

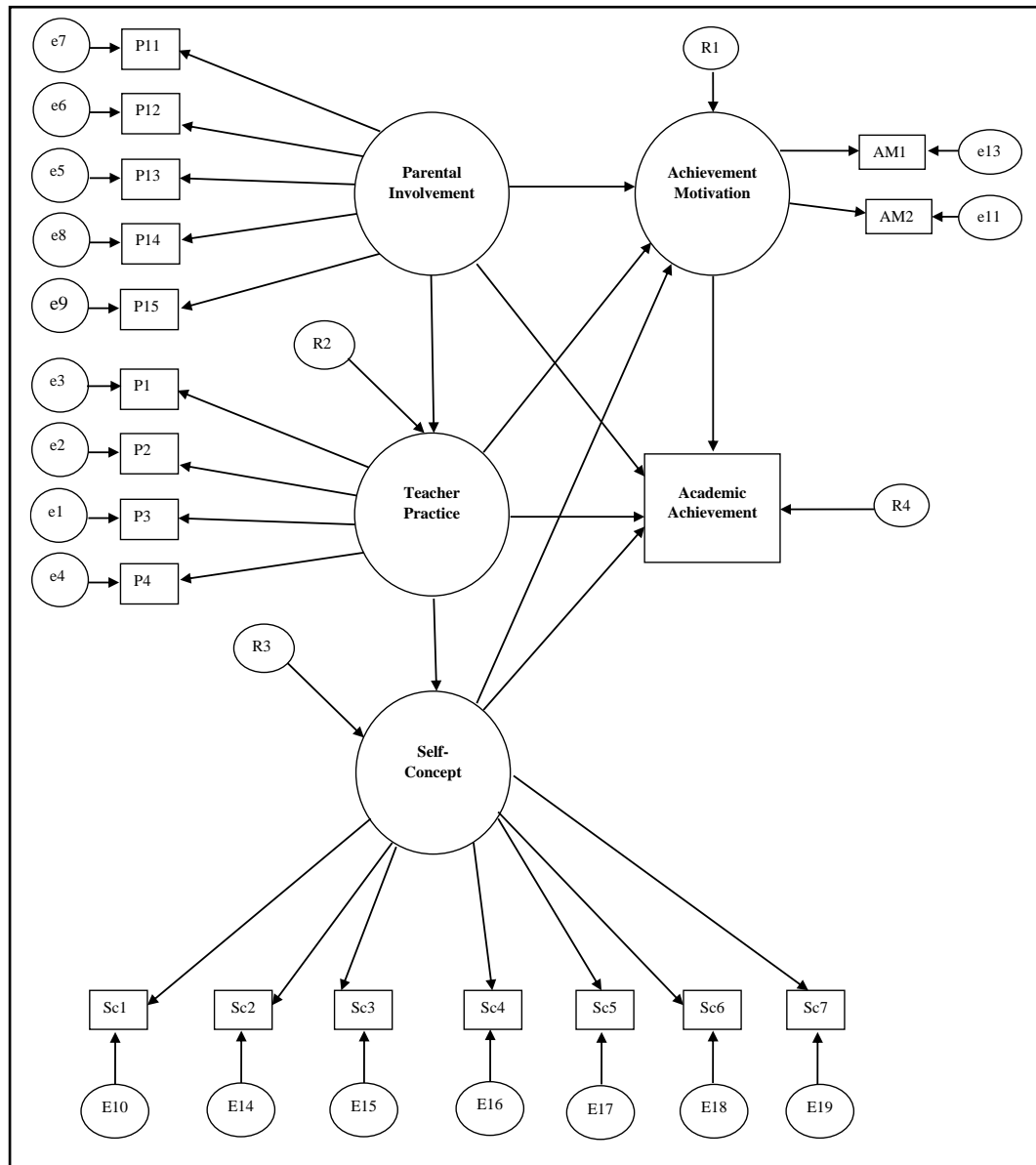


Figure 1. Proposed model for the relationship of parental engagement typology, teacher practice, motivation for achievement, self-concept and academic achievement.

Analysis by Structural Equation Modelling (SEM) shows that there are five latent variables which are parental engagement typology, teacher practice typology, student motivation, self-concept and student academic achievement. In addition, there are 19 observed variables that act as indicator to the latent variables. The full model of structural equation is shown in Figure 2 which illustrate that the index values are equivalent between models with sample data value, $\chi^2/df = 5.404$, which is greater than 1 and less than 5; Root Mean Square of Error Approximation (RMSEA) value = .065, which is less than .08; Goodness of Fit Index (GFI) value = .932; Tucker-Lewis Index (TLI) value = .934; and Comparative Fit Index (CFI) value = .949. All these values show greater value than the recommended value of .90. Thus, the overall evaluation results show good correspondence between the models and the data. Evaluation for each coefficient shows that there is significant relationship between the stated variables. Next, the parameter estimation shows that the t value of regression weights for all parameters are greater than the critical value of 1.96 and is significant at $p = .05$ ($> \pm 1.96$, $p < .05$).

This confirms that there is a relationship between the indicator and the measured constructs. The summary of the parameter estimation for the standardized form is shown in Figure 2.

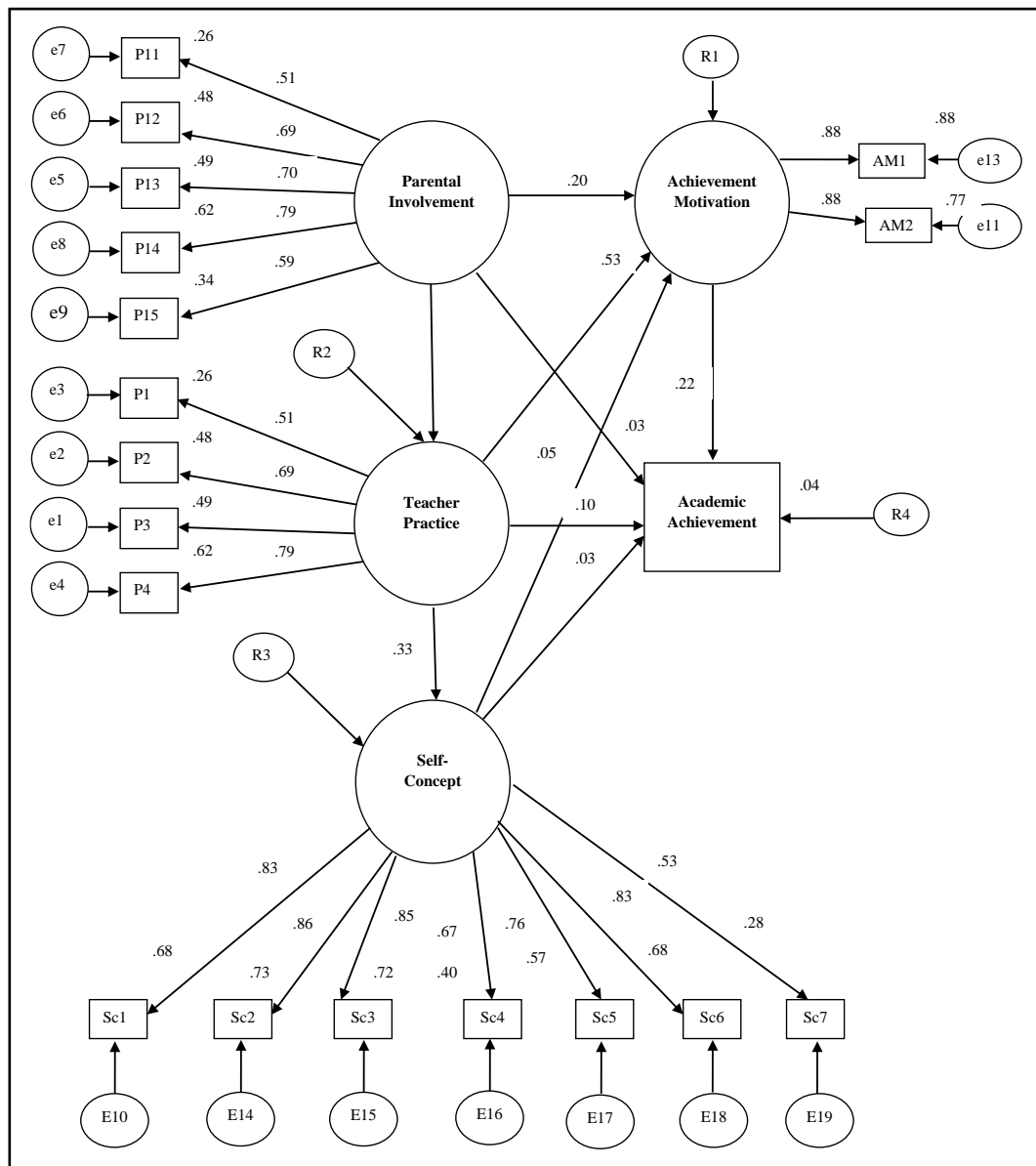


Figure 2. Parameter estimation in standard form (R and R²) for structural equation modelling

The structural model as shown in Figure 2 is then summarized to show only the coefficient paths between exogenous variables and endogenous variables. The coefficients, critical values and significant values are tabulated in Table 1.

Table 1. Coefficient paths in structural equation modelling

	Routes	β	t	p
Motivation	← Parental Involvement	.196	3.215	.000*
Motivation	← Teacher Practice	.327	.211	.000*
Motivation	← Self-Concept	-.052	-.066	.085
Teacher Practice	← Parental Involvement	.615	3.215	.000*
Self-concept	← Teacher Practice	.327	.101	.000*
Academic Achievement	← Self-Concept	.031	.005	.361
Academic Achievement	← Motivation	-.224	-.029	.000*
Academic Achievement	← Parental Involvement	-.031	-.008	.507
Academic Achievement	← Teacher Practice	.103	.005	.042*

Note: β : Beta standard (Standardized Regression Weights)

* : significant at $p = .05$

Based on the evaluation of the coefficient paths noted in the structural model, the test of null hypotheses are as follows:

The result of structural equation modelling for the coefficient path between parental engagement typology and motivation shows a significant relationship ($\beta = .196$, $t = 3.215$, $p = .000$; $p > .05$). Thus, the first hypothesis is rejected. This shows that there is a direct relationship between parental engagement and student motivation for achievement.

The result of structural equation modelling for the coefficient path between motivation and teacher practice shows a significant relationship with student academic achievement ($\beta = .327$, $t = .211$, $p = 0.000$; $p < .05$). Thus, the second hypothesis is also rejected. This shows that there is a significant direct relationship between motivation and teacher practice.

The result of structural equation modelling for the coefficient path between motivation and self-concept does not show a significant relationship ($\beta = -.052$, $t = -.066$, $p = 0.085$; $p > .05$). Thus, the third hypothesis is accepted. This shows that there is no direct relationship between motivation and self-concept.

The result of structural equation modelling for the coefficient path between parental engagement and teacher practice shows a significant relationship with student academic achievement ($\beta = .615$; $t = 3.215$, $p = 0.000$; $p < .05$). Thus, the fourth hypothesis is rejected. This shows that there is a significant relationship between parental engagement and teachers' practice.

The result of structural equation modelling for coefficient path between self-concept and teacher practice shows a significant relationship ($\beta = .327$; $t = .101$, $p = 0.000$; $p < .05$). Thus, the fifth hypothesis is rejected. This shows that there is a direct significant relationship between self-concept and teachers' practice.

The result of structural equation modelling for the coefficient path between self-concept and academic achievement does not show a significant relationship ($\beta = -.031$, $t = -.005$, $p = .361$; $p > .05$). Thus, the sixth hypothesis is accepted. This shows that there is no direct significant relationship between self-concept and academic achievement.

The result of structural equation modelling for the coefficient path between motivation and academic achievement shows a significant relationship ($\beta = -.224$; $t = -.029$, $p = 0.000$; $p < .05$). Thus, the seventh hypothesis is rejected. This shows that there is a significant direct relationship between motivation and academic achievement.

The result of structural equation modelling for the coefficient path between parental engagement and academic achievement does not show a significant relationship ($\beta = -.031$, $t = -.008$, $p = .507$; $p > .05$). Thus, the

eighth hypothesis is accepted. This shows that there is no significant direct relationship between parental engagement and academic achievement.

The result of structural equation modelling for the coefficient path between teachers' practice and academic achievement shows a significant relationship ($\beta = .103$; $t = -.005$, $p = 0.042$; $p < .05$). Thus, the ninth hypothesis is rejected. This shows that there is a significant direct relationship between teacher practice and academic achievement.

In summary, the results of the hypotheses tested indicate that six out of nine hypotheses recommended were rejected. Hypotheses 1, 2, 4, 5, 7, and 9 were accepted. This implies that there is a significant relationship between the studied variables.

4. Discussion and Conclusion

Structural Equation Modeling (SEM) analysis was used to estimate the indirect relationship between variables in the studied model. From Table 1, parental engagement shows a significant relationship with motivation for achievement while motivation shows a significant relationship with academic achievement. Thus, it can be concluded that parental engagement has an indirect relationship with academic achievement through motivation. Parents have the authority to support children's education at home and provide for their needs and this can motivate the children to learn. Although parental engagement cannot directly affect the academic achievement of their children, it can boost the motivation of their children (Henderson & Mapp, 2002; Ibanez, 2004). However, a study conducted by Domina (2005) showed that parental engagement has no effect on achievement and this is attributed to the socio-economic status of the children who belonged to the minority group (Lee & Bowen, 2006).

There was indirect relationship between parental engagement and academic achievement through teacher practice. Parental engagement showed a significant relationship with teacher practice which in turn also had a significant relationship on academic achievement. Thus, it can be concluded that parental engagement has an indirect relationship with academic achievement through teacher practice. Positive relationship between parents and teachers allow the parties concerned to freely communicate and discuss about the children while sharing their goals and expectations (Hoover-Dempsey & Sandler, 1995). This can motivate teachers to invest in the children's academic success (Dearing et al., 2006).

Table 1 shows a significant relationship between teacher practice and academic achievement and between teacher practice and self-concept. Nonetheless, self-concept showed no significant relationship with academic achievement. Thus, it can be concluded that teacher practice has a direct relationship on academic achievement and self-concept. According to Liu and Wang (2005), self-concept on academic achievement tends to decline from early to middle adolescence and this is supported by other studies which say that it tends to become weaker (Marsh et al., 2005). As teachers spend more time with their students, especially during school hours, they are able to create experiences where students can develop their self-concept through learning activities (Linnerbrink & Pintrich, 2002). At the same time, teachers can enhance students' academic achievement through motivation and social support (Adkins-Coleman, 2010).

In conclusion, this research contributes to literature on parental engagement in the context of the Malaysian education system, thus, it also addresses the gap. Parental engagement provides teachers not only with the opportunity to communicate with the parents but also the opportunity to share strategies as a means of improving the education of the children (Bower & Griffin, 2011). Previous studies also mention that parental engagement can influence higher self-esteem (Shumow, 2009), attachment to school (Yildirim & Domez, 2008) and better social functioning skills (Driessen et al., 2005). In view of the above, further study should be conducted to improve the implementation of parental engagement in schools especially, in the context of the Malaysian education.

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References

- Adkins-Coleman, T. A. (2010). "I'm not afraid to come into your world." Case studies of teachers facilitating engagement in urban high school English classrooms. *The Journal of Negro Education*, 79(1). 41–53.
- Ahmad, N. A., Hassan, S. A., Ahmad, A. R., Chua, L. N., & Othman, N. H. (2016). Inventori Kompetensi Guru versi pelajar (IKGvp). Geran Penyelidikan FRGS/2/2014/SS02/UPM/02/3: Pembinaan Model Penglibatan dan SARANA Ibu Bapa Sekolah-sekolah di Malaysia: Kesan typologi penglibatan ibu bapa ke atas typologi amalan guru, motivasi pencapaian, konsep diri dan pencapaian akademik pelajar.
- Bower, H. A. & Griffin, D. (2011). Can the Epstein model of parental involvement work in a high-minority, high-poverty elementary school? A case study. *Profesional School Counseling, ACSA*, pp. 77-87.
- Dearing, E., Kreide, R. H., Simpkins, S., & Weiss, H. B. (2006). Family involvement in school and low-income children's literacy: Longitudinal associations between and within families. *Journal of Educational Psychology*, 98(4):653–664.
- Domina, T. (2005). Leveling the Home Advantage: Assessing the Effectiveness of Parent Involvement in Elementary School. *Sociology of Education*, 78: 233-249.
- Driessen, G., Smit, F., & Slegers, P. (2005). Parental involvement and educational achievement. *British Educational Research Journal*, 31(4): 509-532.
- Epstein, J. L. & Dauber, S. L. (1991). School programs and teacher practices of involvement in inner-city elementary and middle schools. *Elementary School Journal*, 91: 291-305.
- Epstein, J. L. & Salinas, K. C. (1993). *School and family partnerships: Surveys and summaries, questionnaires for teachers and parents in elementary and middle grades*. Baltimore, MD: Center on Families, Communities, Schools and Children's Learning.
- Epstein, J. (2001). *School, family, and community partnerships: Preparing educators and improving schools*. Boulder, CO: Westview Press.
- Fan, W., & Williams, C. M. (2010). The effects of parental involvement on students' academic self- efficacy, engagement and intrinsic motivation, *Educational Psychology*, 30(1), 53-74.
- Fitts, W. H. & Warren, W. L. (1997). Tennessee Self Concept Scale TSCS:2. Second Edition Manual (2nd ed.). Los Angeles: Western Psychological Services.
- Fulcher, J. & Scott, J. (2007). *Sociology*. 3rd ed. New York: Oxford University Press.
- Henderson, A. T., & Mapp, K. L. (2002). *A new wave of evidence: The impact of school, family, and community connections on student achievement*. Austin, TX: Southwest Educational Development Laboratory.
- Hoover-Dempsey, K. & Sandler, H. (1995). Parental involvement in children's education: Why does it make a difference?. *Teachers College Record*, 97(2): 310-330.
- Ibanez, G. E. (2004). Cultural attributes and adaptations linked to achievement motivation among Latino adolescents. *Journal of Youth & Adolescence*, 33(6): 559–568.
- Jeynes, W. H. (2007). The relationship between parental involvement and urban secondary school student academic achievement: A meta-analysis. *Urban Education*, 42(1): 82-110.
- Khan, A. (2013). Predictors of positive psychological strengths and subjective well-being among North Indian adolescents: Role of mentoring and educational encouragement. *Social Indicators Research*, 114(3): 1285-1293.
- Khan, A., Ahmad, R., Hamdan, A. R., & Mustaffa, M. S. (2014). Educational encouragement, parenting styles, gender and ethnicity as predictors of academic achievement among special education students. *International Education Studies*, 7(2): 18-24.
- Kordi, A. & Baharudin, R. (2010). Parenting attitude and style and its effect on children's school achievements. *International Journal of Psychological Studies*, 2: 217-222.
- Krejcie, R. V. & Morgan, D. W. (1970). Determining sampel size for research activities. *Educational and Psychological Measurement*, 30: 6017-610.
- Lee, J. & Bowen, N. (2006). Parent involvement, cultural capital, and the achievement gap among elementary school children. *American Educational Research Journal*, 43: 193-218.

- Linnenbrink, E. A. & Pintrich, P. R. (2002). Motivation as an enabler for academic success. *School Psychology Review*, 31(3).
- Liu, W. C. & Wang, C. K. J. (2005). Academic self-concept: A cross-sectional study of grade and gender differences in a Singapore secondary school. *Asia Pacific Education Review*, 6(1): 20-27.
- Lloyd-Smith, L. & Baron, M. (2010). Beyond conferences: Attitudes of high school administrators toward parental involvement in one small Midwestern state. *The School Community Journal*, 20(2): 23-44.
- Marsh, H.W., Koeller, O., Trautwein, U., Luedtke, O., & Baumert, J. (2005). Academic self-concept, interest, grades, and standardized test scores: Reciprocal effects models of causal ordering. *Child Development*, 76: 397-416.
- Marsh, I. (2000). *Sociology: Making sense of society*. England: Pearson Education Limited.
- Mo, Y., & Singh, K. (2008). Parents' relationships and involvement: Effects on students' school engagement and performance. *RMLE Online*, 31(10), 1-11.
- Jelas, Z. M., Salleh, A. M., Azman, N., Hamzah, R., Jani, R. Hamzah, H., Hamid, Z., & Mahmud, M. I. (2013). *Analisis Gender Dalam Pendidikan: Laporan Akhir Kajian KPT.R.620-1/1/3*. 32(17).
- Othman, S. A. (2007). *Faktor kecemerlangan pelajar pekak dalam bidang akademik: Kajian kes retrospektif*. Tesis Dr Fal. Universiti Kebangsaan Malaysia.
- Sewell, W. H. & Hauser, R. M. (1980). The Wisconsin longitudinal study of social and psychological factors in aspirations and achievements. *Research in Sociology of Education and Socialization*, 1: 59-66.
- Shumow, L. (2009). *Promising practices for family and community involvement during high school*. Charlotte, NC: Information Age.
- Vallerand, R. J. & Bissonnette, R. (1992). Intrinsic, extrinsic, and amotivational styles as predictors of behavior: A prospective study. *Journal of Personality*, 60: 599-620.
- Wang, M. T., Brinkworth, M. B., & Eccles, J. S. (2013). The moderation effect of teacher-student relationship on the association between adolescents' self-regulation ability, family conflict and developmental problems. *Developmental Psychology*, 49: 690-705.
- Weis, H., Caspe, M., & Lopez, M. E. (2006). Family involvement in early childhood education. Harvard family research project. <http://www.hfrp.org/publications-resources/browse-our-publications/family-involvement-in-early-childhood-education> (accessed on 19th July 2016).
- Wright, D. H. & Reeves, J. H. (1992). On the meaning and measurement of nestedness of species assemblages. *Oecologia*, 92: 416-428.
- Yildirim, M. C. & Donmez, B. (2008). A study on the cooperation between the school and parents [Istiklal Primary School Sample]. *Electronic Journal of Social Sciences*. 7(23): 98-115.
- Young, C., Austin, S., & Growe, R. (2013). Defining parental involvement: Perception of school administrators. *Education*, 133(3), 291-29