



## Parental Involvement and Academic Achievement: A Meta-analysis

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### Abstract

This study examined the relationship between parental involvement and academic achievement through the meta-analysis technique. A total of 40 studies from 18 journal articles that fulfilled the inclusion criteria were analyzed to find the correlation between variables. The result showed the correlation between parental involvement with academic achievement with  $r=0.251$ . The result could be concluded that there was a significant correlation between parent involvement and academic achievement. The estimated correlation value of this study is consistent with the previous meta-analysis studies on a similar topic.

**Keywords:** *meta-analysis; parental involvement; academic achievement.*

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### Introduction

Academic achievement, according to the APA Dictionary (2015), has two meanings, namely: 1) any identifiable success in the field of knowledge or discipline, and 2) in educational psychology is defined as the level of proficiency in scholastic work in general or in specific skills, such as numeracy. or read. Evidence of future academic achievement is usually based on standardized aptitude test results and as a performance appraisal by a teacher or other supervisor. According to Rogers, Theule, and Adams (2009), in various previous literature, several measurement methods can be used to assess academic achievement, including school grades used by Fehrmann, Keith, and Reimers, standardized test scores used by Miedel and Reynolds, a teacher's academic performance rating by Grolnick and Slowiaczek, and a classroom behavior rating by Ketsetzis, Ryan, and Adams. McCall, Evahn, and Kratzer (Rogers et al., 2009) state that a person's grades in elementary school are predictors of various aspects of life in later years, such as future educational

attainment, career stability, and marital status.

Coleman reports explaining that non-school factors, such as family and environmental characteristics, have more impact on children's outcomes than school factors (Coleman, 1966; Harris & Robinson, 2016). In this case, it is assumed that the school process and the home process run separately. Alexander (2016) adds that there is no explanation yet on how the elements of family, school, and environment become necessary for a student, either separately or together. However, the awareness of the importance of the role of parents in the success of children's education is increasingly felt by many parties. This raises parental involvement as one of the main parts of school reform efforts and education policy in many countries (Comer, 1992; Epstein, 1985; Harris & Robinson, 2016). According to Bronfenbrenner (Papalia, Olds, & Feldman, 2008), parental involvement is part of the child's mesosystem, where interactions occur between the child's

microsystems. This direct interaction occurs between the family, in this case the parents, and the school, in this case the teacher.

Parental involvement is a collaboration between parents and teachers in the child's learning process (Uludag in Hakyemez-Paul, Pihlaja, & Silvennoinen, 2018). Parental involvement can be seen in various ways, for example, in completing homework or children's homework (Benner, Boyle, & Sadler, 2016; McNeal Jr., 2015; Silinkas & Kikas, 2019), providing stimulation and learning enrichment activities (Benner et al., 2016), and involvement in parent-teacher organizations (Benner et al., 2016; McNeal Jr., 2015). Driesen, Smit, and Slegers (Hakyemez-Paul et al., 2018) explain that parental involvement can also be called parental participation, educational partnership, or parental engagement. Similar terms used are parent-teacher partnership (Hujala, Turja, Gaspar, Veisson, & Waniganayake, 2009) and parent-practitioner relationships (Alasuutari, 2010).

Various research results explain that the stronger the parent-teacher interaction will affect children's academic performance and improve various aspects of their development. Some of these developmental aspects are pre-literacy development, socio-emotional development such as the ability to adjust to children in TPA, and psychological well-being in early childhood (Hakyemez-Paul et al., 2018; Lara & Saracosti, 2019; Pircho, Tritrini, Passiatore, & Taeschner, 2013).

Although most studies have shown a relationship between academic achievement and parental involvement, there are variations in the strength of the relationship in these studies. Several studies have found that children have better academic achievement when parents are involved in their education (Domina, 2005; Harris & Robinson, 2016; Jeynes, 2003; Muller, 1995, 1998; Sui-Chu & Willms, 1996). On the

other hand, some studies contradict these results (Izzo et al., 1999; Pomerantz, Moorman & Litwack, 2007). In addition, there are also studies showing that parental involvement occurs because children have learning difficulties (Catsambis, 2001; Desimone, 2001). This condition can be seen from Silinkas and Kikas's (2019) research, which explains two forms of parental involvement, namely parental control and parental support. Parental control is manifested in control and pressure on the children, for example, checking children's homework, being involved in doing homework even though they are not asked by the child, giving punishment if the child does something wrong. While on the other hand, there is parental support in the form of assistance given by parents when asked by children, for example, being sensitive to the child's need to be helped and willing to help if asked. These conditions show two different things: independence support associated with authoritative parenting style, high emotional support, and low psychological control. At the same time, control is associated with an authoritarian parenting style, low emotional support, and high psychological and behavioral control.

From the description above, it can be seen that there are differences of opinion regarding how parents should be involved and which aspects of parental involvement are related to increasing children's academic achievement (Harris & Robinson, 2014; 2016). One of the causes of the various conditions above is the lack of consensus of experts, causing parental involvement to be measured in various studies. One of the causes of the various conditions above is the lack of consensus of experts, causing parental involvement to be measured in various studies. Some examples are the results of research by Hoge, Smit, & Crist (1997), which explains that parental involvement includes: parental expectations, parental interest, involvement in school, and family and community. Wei-

Cheng Mau (1997) states that the most critical component of parental involvement is parental supervision of homework. Meanwhile, Hango (2007) emphasizes the relational aspect of parents' time with children.

Based on the description above, the wide variation of the relationship between parental involvement and academic achievement can be seen from various existing research results. Related to this, a study is needed to integrate the findings from several studies to bring up stronger relationships patterns than previous research (Hunter & Schmidt, 2015). Therefore, hypothesis testing is carried out using meta-analysis to determine the estimates regarding the level of relationship from previous studies. Meta-analysis is a statistical analysis of statistical analysis results (Glass in Hunter & Schmidt, 2015). Meta-analysis research can integrate contradictory research results so that the meta-analysis results can be used to clarify the relationship between the variables studied. This study hypothesized that relationship between parental involvement and academic achievement exists.

## Methods

This study uses a meta-analysis approach by following Hunter and Schmidt's correlation meta-analysis research procedure (2015). Meta-analysis correlation analysis revealed the true correlation between parental involvement and academic achievement. Meta-analysis can also be used to correct for research artifacts that affect the magnitude of the correlation, namely the impact of sampling error and the impact of measurement error on the independent and dependent variables.

### *Literature search*

The articles used for this meta-analysis study were searched through Google Scholar's online database with

access via ScienceDirect, SpringerLink, ProQuest, EBSCOhost, JSTOR, and Scopus. The keywords used are parental involvement and academic achievement. The search was limited to articles published from 2014 to 2019.

### *Inclusion criteria*

All articles obtained were then considered according to the inclusion criteria as a condition for meta-analysis. The inclusion criteria to qualify for a meta-analysis on this topic are:

- 1) Primary studies include parental involvement variables and various other terms with similar meanings, namely: parent educational involvement, parent-child communication, school-based involvement, and family involvement.
- 2) The study places parental involvement as an independent variable associated with academic achievement in its various forms as the dependent variable.
- 3) Research reports in primary studies have the necessary statistical information such as mean values, standard deviations, r-values, and F-values.

From the search conducted, 18 articles met the inclusion criteria. Of the 18 articles, there were 40 studies and a total sample of 303,146 participants. The studies consisted of 38 were correlational studies and two comparative studies with analysis of variance (F). the F value is then transformed into t, d, and r.

### *Overview of the meta-analysis procedure*

Data analysis using meta-analysis techniques (Hunter & Schmidt, 2015) was carried out with the following analytical steps:

- 1) Transform the algebraic equation from the value of F to the value of t, d, and r.

- 2) Using Bare Bone Meta-Analysis to correct sample errors by:
  - a) Calculating the mean population correlation
  - b) Calculating the variance  $r_{xy}$  ( $\sigma^2r$ )
  - c) Calculating the variance of sampling error ( $\sigma^2e$ )
  - d) Impact of sampling

studies that produce r values. The value of F needs to be transformed into the values of t, d, and r. The equations of algebraic formulas are presented as follows:

$$t = \sqrt{F}$$

$$d = \frac{2t}{\sqrt{N}}$$

$$d = \frac{2r}{\sqrt{(1-r^2)}} \quad r = \frac{d}{\sqrt{(4+d^2)}} \quad (1)$$

### Findings

a. Transform the value of F into the value of t, d, and r

There are two studies which are comparative studies that produce F values, and 38 studies which are correlational

The  $r_{xy}$  values obtained from the correlational study and the transformation of the F values from the comparative study are listed in Table 1 as follows:

**Table 1.**  
*Summary of the studies and the  $r_{xy}$  values*

Study number	Study	N	School-level	F	t	d	$r_{xy}$
1	Benner, et al. (2016) Study 1	12,370	10 <sup>th</sup> graders				0.14
2	Benner, et al. (2016) Study 2	12,370	12 <sup>th</sup> graders				0.16
3	Daniel, et al. (2016) Study 1	2,877	1 <sup>st</sup> & 3 <sup>rd</sup> graders				0.13
4	Daniel, et al. (2016) Study 2	2,877	1 <sup>st</sup> & 3 <sup>rd</sup> graders				0.1
5	Dotterer & Wehrspann (2016)	108	6-8 <sup>th</sup> graders				0.31
6	Fernandez-Alonzo, et al. (2017) Study 1	26,543	8 <sup>th</sup> graders				0.7
7	Fernandez-Alonzo, et al. (2017) Study 2	26,543	8 <sup>th</sup> graders				0.11
8	Fernandez-Alonzo, et al. (2017) Study 3	26,543	8 <sup>th</sup> graders				0.1
9	Fernandez-Alonzo, et al. (2017) Study 4	26,543	8 <sup>th</sup> graders				0.12
10	Guo, et al. (2018) Study 1	624	4-6 <sup>th</sup> graders				0.27
11	Guo, et al. (2018) Study 2	624	4-6 <sup>th</sup> graders				0.18
12	Lv, et al. (2019)	1,890	4-6 <sup>th</sup> graders				0.1
13	McDowall, et al. (2017) Study 1	83	1 <sup>st</sup> graders				0.68
14	McDowall, et al. (2017) Study 2	83	1 <sup>st</sup> graders				0.71
15	McDowall, et al. (2017) Study 3	97	1 <sup>st</sup> graders				0.32
16	McNeal Jr. (2014) Study 1	12,101	8 <sup>th</sup> graders				0.123

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17	McNeal Jr. (2014) Study 2	12,101	10 <sup>th</sup> graders				0.121
18	McNeal Jr. (2014) Study 3	12,101	8 <sup>th</sup> graders				0.127
19	McNeal Jr. (2014) Study 4	12,101	10 <sup>th</sup> graders				0.131
20	McNeal Jr. (2014) Study 5	12,101	8 <sup>th</sup> graders				0.118
21	McNeal Jr. (2014) Study 6	12,101	10 <sup>th</sup> graders				0.112
22	McNeal Jr. (2015) Study 1	10,737	8 <sup>th</sup> graders				0.245
23	McNeal Jr. (2015) Study 2	10,657	8 <sup>th</sup> graders				0.31
24	McNeal Jr. (2015) Study 3	10,777	8 <sup>th</sup> graders				0.137
25	O'Donnell & Kirkner (2014)	208	3 <sup>rd</sup> -5 <sup>th</sup> graders	28.81	5.37	0.74	0.35
26	Park & Holloway (2017) Study 1	17,385	5 <sup>th</sup> graders				0.73
27	Park & Holloway (2017) Study 2	17,385	5 <sup>th</sup> graders				0.43
28	Tazouti & Jarlegan (2016)	203	1 <sup>st</sup> & 2 <sup>nd</sup> graders				0.19
29	Veas, et al. (2016)	1,398	10-12 <sup>th</sup> graders	166.77	12.91	0.69	0.33
30	Veas, et al. (2018)	1,400	10-12 <sup>th</sup> graders				0.24
31	Wang & Sheikh-Khalil (2014) Study 1	1,056	10 & 11 <sup>th</sup> graders				0.2
32	Wang & Sheikh-Khalil (2014) Study 2	1,056	10 & 11 <sup>th</sup> graders				0.23
33	Wong, et al. (2018) Study 1	507	3 <sup>rd</sup> graders				0.16
34	Wong, et al. (2018) Study 2	507	3 <sup>rd</sup> graders				0.15
35	You, et al. (2015)	6,334	7-9 <sup>th</sup> graders				0.15
36	Yulianti, et al. (2018) Study 1	2,151	2 <sup>nd</sup> -6 <sup>th</sup> graders				0.49
37	Yulianti, et al. (2018) Study 2	2,151	2 <sup>nd</sup> -6 <sup>th</sup> graders				0.51
38	Yulianti, et al. (2018) Study 3	2,151	2 <sup>nd</sup> -6 <sup>th</sup> graders				0.33
39	Yulianti, et al. (2018) Study 4	2,151	2 <sup>nd</sup> -6 <sup>th</sup> graders				0.29
40	Yulianti, et al. (2018) Study 5	2,151	2 <sup>nd</sup> -6 <sup>th</sup> graders				0.59

b. Sampling error correction (Barebone meta-analysis)

A barebone meta-analysis was used to correct sampling errors. If population correlations are assumed to be constant between studies, the best estimate of correlation is not a simple mean of correlations between studies but a weighted mean for each correlation divided by the number of samples in the study (Hunter & Schmidt, 2015). The best

estimate for population correlation is to follow the following equation:

1) Average population correlation

The first step is to change the value of  $r_i$  or  $r_{xy}$  in each study to get the mean population correlation using this equation:

$$\check{r} = \frac{\sum (N_i r_i)}{\sum N_i} \quad (2)$$

$r_i$  is the result of xy correlation in study i, and  $N_i$  is the number of samples in study i. Using equation (2), calculations are made for each study, and then the average population correlation is obtained after being corrected by the number of samples ( $\bar{r}$ ) is 0.251.

2) Variance  $r_{xy}(\sigma^2r)$

The  $r_{xy}$  or  $\sigma^2r$  variance is calculated using the following equation:

$$\sigma^2r = \frac{\sum [N_i (r_i - \bar{r})^2]}{\sum N_i} \quad (3)$$

The  $\sigma^2r$  variance is 0.04597, which is a mixture of two things, namely the variation in the population correlation and the variation in the sample correlation resulting from sampling error. Estimates of variance in population correlations can be obtained only by correcting the observed  $\sigma^2r$  variance for sampling error (Hunter & Schmidt, 2015).

3) Sampling error variance ( $\sigma^2e$ )

The sampling error variance can be calculated using the following equation:

$$\sigma^2e = \frac{(1 - \bar{r}^2)^2}{(\bar{N} - 1)} \quad (4)$$

Based on the value of obtained and the average number of samples ( $\bar{N}$ ), the variance of sampling error in this meta-analysis study is:

$$\begin{aligned} \sigma^2e &= \frac{(1 - 0.251^2)^2}{(7,578 - 1)} \\ &= \frac{0.878}{7,577} \\ &= 0.00011588 \end{aligned}$$

The variance of sampling error  $\sigma^2e$  is 0.00011588.

4) Estimated population correlation variance

The population correlation variance, or the true variance, is the corrected variance, ie the  $r_{xy}$  variance minus the sampling variance. The population correlation variance can be calculated using the following equation:

$$\sigma^2\rho = \sigma^2r - \sigma^2e \quad (5)$$

So in this meta-analysis study can be calculated:

$$\begin{aligned} \sigma^2\rho &= 0.04597 - 0.00011588 \\ &= 0.04585 \end{aligned}$$

Thus the variance of the population correlation is 0.04585.

5) Confidence interval

If the population correlation after being corrected by the number of samples (F) has a normal distribution value, then the confidence interval can be calculated by the following equation:

$$\bar{r} \pm 1.96 \frac{SD}{\sqrt{\sigma^2\rho}} \quad (6)$$

$$\begin{aligned} &\bar{r} \pm 1.96 \times (\sqrt{0,04597}) \\ &\bar{r} \pm 1.96 \times 0.2144 \\ &0.25 \pm 0.420224 \end{aligned}$$

$$-0.170 \leq \rho \leq 0.670$$

Thus the 95% confidence level is -  
 $0.170 \leq \rho \leq 0.670$

6) Impact of sampling error

The impact of sampling error can be known by using the following equation:

$$\frac{\sigma^2e}{\sigma^2\rho} \times 100\% \quad (7)$$

$$= \frac{0.00011588}{0.04585} \times 100\%$$
$$= 0.25\%$$

## Discussion

The purpose of this meta-analysis is to find out the true relationship between academic achievement and parental involvement. In this study, 303,146 samples from 40 studies were included in the analysis. From the results of data analysis based on barebones meta-analysis regarding parental involvement with academic achievement, the average value of population correlation ( $\bar{r}$ ) after being corrected by sample error was 0.251. The mean correlation value explains the relationship between the two correlated variables in each sample used in each study. The value of 0.251 indicates that the relationship between parental involvement and academic achievement belongs to the medium effect size category (Cohen in Ellis, 2010). This means that it is proven that parental involvement is related to academic achievement, but the relationship is not quite large.

Hunter and Schmidt (2015) explain that the variance in the meta-analysis study shows a bias or error in the correlation results in each research sample. In this study, the calculation of the correlation variance shows the result of 0.04597, which indicates that the error that occurs is very small. In other words, the correlation between the two variables is high. Next is the estimated variance in the population correlation obtained by making corrections based on sampling error. The results of this calculation will provide an overview of the research bias caused by errors in sampling in each study. The sampling error variance in this study is 0.00011588, meaning that the bias that occurs is very small because the value obtained is far from the value of one.

The calculation of the population correlation variance is used to see

deviations from the correlation results of each study with the overall average of the study. The correlation variance score in this study was 0.04585, which was relatively small. These results indicate that the variation in the correlation value of each sample studied is small. In other words, the correlation score for each study in the sample studied is very diverse. The result of the confidence interval calculation shows the result  $-0.170 < < 0.670$ . In the previous calculation, it can be seen that the average correlation ( $\bar{r}$ ) is 0.251, meaning that the correlation value is between the confidence interval limits to be accepted, so it can be said that the hypothesis that there is a relationship between parental involvement and academic achievement is acceptable. In the meta-analysis study, other aspects need to be considered, namely errors in sampling and measurement. The value of the error variance in sampling in this study shows that the percentage of error variance caused by sampling is 0.25%. This indicates that the impact of sampling calculated in this study is small. In other words, the sampling carried out has been specified according to the inclusion criteria.

The meta-analysis results above further strengthen the results of previous studies (Domina, 2005; Harris & Robinson, 2016; Jeynes, 2003; Muller, 1995, 1998; Sui-Chu & Willms, 1996), which state that there is a positive relationship between parental involvement with academic achievements. This means that the more parents are involved, the higher the child's academic achievement. As previously explained, non-school factors, such as family and environmental characteristics, have more impact on children's outcomes when compared to school factors (Coleman, 1966; Harris & Robinson, 2016).

The results of this study reinforce the importance of awareness of the role of parents in the success of children's

education. As explained in many studies (e.g., Comer, 1992; Epstein, 1985; Harris & Robinson, 2016), parental involvement is one of the main parts of school reform efforts and education policy in many countries. Parental involvement as a collaboration between parents and teachers in the child's learning process (Uludag in Hakyemez-Paul et al., 2018) is in line with Bronfenbrenner's opinion (in Papalia et al., 2008) that parental involvement is part of the mesosystem where interactions occur between micro-systems. Children, namely the family and the school. The role of parents can be realized in the form of completing homework or children's homework (Benner et al., 2016; McNeal Jr, 2015; Silinkas & Kikas, 2019), providing stimulation and learning enrichment activities (Benner et al., 2016), and involvement in the parent-teacher organization (Benner et al., 2016; McNeal Jr., 2015).

In addition to the findings and implications above, this study also has weaknesses. One of them relates to other artifacts that have not been corrected so that it may also influence the results of this meta-analysis. In addition, this meta-analysis study does not include studies that show a less significant relationship between parental involvement and academic achievement, considering that these studies (Catsambis, 2001; Desimone, 2001; Izzo et al., 1999; Pomerantz et al., 2007) information needed to be included in the analysis.

### **Conclusion**

This meta-analysis study strengthens previous studies regarding the relationship between parental involvement and academic achievement with the category of correlation value which is classified as moderate ( $r=0.251$ ). This has implications for the importance of parental involvement in learning to increase children's academic achievement.

### **Suggestion**

To sharpen research on this topic, there are still other things that need to be considered and can be done by further researchers. The sample in this study consisted of students in grades 1 to 12, so the scope was very broad and unspecified. In the future, it is necessary to make groupings according to the characteristics of the child's developmental level. With this grouping, it is hoped to further clarify the meaning in understanding the relationship between parental investment and academic achievement. Another thing that can be improved is that this meta-analysis study only uses barebones meta-analysis due to the limited number of studies that include the reliability of measuring instruments in their reporting. It is highly recommended to increase the number of studies that include information on the reliability of measuring instruments so that measurement error correction can be carried out.

### **References**

- Alasuutari, M. (2010). Striving at partnership: parent-practitioner relationships in Finnish early educators' talk. *European Early Childhood Education Research Journal*, 18(2).  
<https://doi.org/10.1080/13502931003784545>
- Benner, A. D., Boyle, A. E., & Sadler, S. (2016). Parental Involvement and Adolescents' Educational Success: The Roles of Prior Achievement and Socioeconomic Status. *Journal of Youth and Adolescence*, 45(6), 1053–1064.  
<https://doi.org/10.1007/s10964-016-0431-4>
- Daniel, G. R., Wang, C., & Berthelsen, D. (2016). Early school-based parent involvement, children's self-regulated learning and academic



- achievement: An Australian longitudinal study. *Early Childhood Research Quarterly*, 36, 168–177. <https://doi.org/10.1016/j.ecresq.2015.12.016>
- Dotterer, A. M., & Wehrspann, E. (2016). Parent involvement and academic outcomes among urban adolescents: examining the role of school engagement. *Educational Psychology*, 36(4), 812–830. <https://doi.org/10.1080/01443410.2015.1099617>
- Ellis, P.D. (2010). *The essential guide to effect sizes: Statistical power, meta-analysis, and the interpretation of research results*. Cambridge: Cambridge University Press.
- Fernández-Alonso, R., Álvarez-Díaz, M., Woitschach, P., Suárez-Álvarez, J., & Cuesta, M. (2017). Implicación familiar y rendimiento académico: Menos control y más comunicación. *Psicothema*, 29(4), 453–461. <https://doi.org/10.7334/psicothema2017.181>
- Guo, X., Lv, B., Zhou, H., Liu, C., Liu, J., Jiang, K., & Luo, L. (2018). *Gender Differences in How Family Income and Parental Education Relate to Reading Achievement in China: The Mediating Role of Parental Expectation and Parental Involvement*. 9(May), 1–12. <https://doi.org/10.3389/fpsyg.2018.00783>
- Hakyemez-Paul, S., Pihlaja, P., & Silvennoinen, H. (2018). Factors Affecting Early Childhood Educators' Views and Practices of Parental Involvement. *Varhaiskasvatuksen Tiedelehti Journal of Early Childhood Education Research*, 7(1), 76–99. Retrieved from <http://jecer.org>
- Hujala, E., Turja, L., Gaspar, M. F., Veisson, M., & Waniganayake, M. (2009). Perspectives of early childhood teachers on parent-teacher partnerships in five European countries. *European Early Childhood Education Research Journal*, 17(1), 57–76. <https://doi.org/10.1080/13502930802689046>
- Hunter, J.E. & Schmidt, F.L. (2015). *Methods of meta-analysis: Correcting error and bias in research findings. Third edition*. Thousand Oaks, CA: Sage Publications, Inc.
- Lara, L., & Saracostti, M. (2019). Effect of parental involvement on children's academic achievement in Chile. *Frontiers in Psychology*, 10(JUN), 1–5. <https://doi.org/10.3389/fpsyg.2019.01464>
- Lv, B., Lv, L., Yan, Z., & Luo, L. (2019). The relationship between parental involvement in education and children's academic/emotion profiles: A person-centered approach. *Children and Youth Services Review*, 100(March), 175–182. <https://doi.org/10.1016/j.childyouth.2019.03.003>
- McDowall, P. S., Taumoepeau, M., & Schaughency, E. (2017). Parent involvement in beginning primary school: Correlates and changes in involvement across the first two years of school in a New Zealand sample. *Journal of School Psychology*, 62, 11–31. <https://doi.org/10.1016/j.jsp.2017.03.001>
- McNeal Jr, R. B. (2014). Parent Involvement, Academic Achievement and the Role of Student Attitudes and Behaviors as Mediators. *Universal Journal of Educational Research*, 2(8), 564–576. <https://doi.org/10.13189/ujer.2014.020805>
- McNeal Jr, R. B. (2015). Parent involvement and student

- performance: the influence of school context. *Educational Research for Policy and Practice*, 153–167. <https://doi.org/10.1007/s10671-014-9167-7>
- O'Donnell, J. & Kirkner, S. L. (2014). The Impact of a Collaborative Family Involvement Program on Latino Families and Children's Educational Performance. *School Community Journal*, 24(1), 211–234. Retrieved from <https://lopes.idm.oclc.org/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1032271&site=eds-live&scope=site>
- Papalia, D. E., Olds, S. W. & Feldman, R. D. (2008). *Human Development: Psikologi Perkembangan. Edisi Kesembilan*. Alih bahasa: Anwar, A. K. Jakarta: Kencana Prenada Media Group.
- Park, S., & Holloway, S. D. (2017). The effects of school-based parental involvement on academic achievement at the child and elementary school level: A longitudinal study. *The Journal of Educational Research*, 110(1), 1–16. <https://doi.org/10.1080/00220671.2015.1016600>
- Pirchio, S., Passiatore, Y., Tritrini, C., & Taeschner, T. (2013). The Role of the Relationship between Parents and Educators for Child Behaviour and Well-being. *International Journal about Parents in Education*, 7(2), 145–155.
- Rogers, M. A., Theule, J., Ryan, B. A., Adams, G. R., & Keating, L. (2009). Parental involvement and children's school achievement: Evidence for mediating processes. *Canadian Journal of School Psychology*, 24(1), 34–57. <https://doi.org/10.1177/0829573508328445>
- Silinskas, G., & Kikas, E. (2019). Parental involvement in math homework: Links to children's performance and motivation. *Scandinavian Journal of Educational Research*, 63(1), 17–37. <https://doi.org/10.1080/00313831.2017.1324901>
- Tazouti, Y., & Jarlégan, A. (2016). The mediating effects of parental self-efficacy and parental involvement on the link between family socioeconomic status and children's academic achievement. *Journal of Family Studies*, 0(0), 1–17. <https://doi.org/10.1080/13229400.2016.1241185>
- Veas, A., Gilar, R., & Miñano, P. (2016). The Influence of Gender, Intellectual Ability, Academic Self-Concept, Self-Regulation, Learning Strategies, Popularity and Parent Involvement in Early Adolescence. *International Journal of Information and Education Technology*, 6(8), 591–597. <https://doi.org/10.7763/ijiet.2016.v6.757>
- Veas, A., Castejón, J. L., Miñano, P., & Gilar-Corbí, R. (2019). Relationship between parent involvement and academic achievement through meta cognitive strategies: A multiple multilevel mediation analysis. *British Journal of Educational Psychology*, 89(2), 393–411. <https://doi.org/10.1111/bjep.12245>
- Wang, M. Te, & Sheikh-Khalil, S. (2014). Does Parental Involvement Matter for Student Achievement and Mental Health in High School? *Child Development*, 85(2), 610–625. <https://doi.org/10.1111/cdev.12153>
- Wong, R. S. M., Ho, F. K. W., Wong, W. H. S., Tung, K. T. S., Chow, C. B.,

- Rao, N., ... Ip, P. (2018). Parental Involvement in Primary School Education: its Relationship with Children's Academic Performance and Psychosocial Competence through Engaging Children with School. *Journal of Child and Family Studies*, 27(5), 1544–1555. <https://doi.org/10.1007/s10826-017-1011-2>
- You, S., Lim, S. A., No, U., & Dang, M. (2016). Multidimensional aspects of parental involvement in Korean adolescents' schooling: a mediating role of general and domain-specific self-efficacy. *Educational Psychology*, 36(5), 916–934. <https://doi.org/10.1080/01443410.2015.1025705>
- Yulianti, K., & Denessen, E. (2018). The effects of parental involvement on children's education: a study in elementary schools in Indonesia. *International Journal about Parents in Education*, 10(1), 14-32.