

# Role of Parental Involvement in EFL Learners' Academic Outcomes: A Meta-Analytic Review

田 中 晶 子

## Abstract

This study explores the role of parental involvement in enhancing the academic outcomes of English as a Foreign Language (EFL) learners. Through a meta-analysis, the study estimates the average effect size of this relationship. A comprehensive literature review identified fourteen relevant studies, from which 65 effect sizes (i.e., correlation coefficients) were extracted, resulting in a mean effect size (ES) of  $r = .27$  (95% CI: 0.24, 0.31). This suggests that parental involvement has a small but notable effect on children's second language (L2) learning at home. This study also highlights various types of parental involvement in children's L2 learning at home. Additionally, moderator analyses revealed significant differences in effect sizes across age groups. In particular, the effect of parental involvement was more pronounced in first graders in elementary school than in other age groups. These findings provide robust evidence of the positive influence of parental involvement on children's L2 learning outcomes.

Keywords: parental involvement, L2 learning, meta-analysis

## Introduction

The learning histories and processes of individual language learners vary considerably. In the context of English as a Foreign Language (EFL), learners generally have restricted exposure to the target language. They may endeavor to employ available learning resources while persevering and striving for success in their learning. Some individuals study English for intrinsic reasons, such as enjoyment and interest, whereas others pursue English language learning primarily for extrinsic motivations, such as the desire to pass entrance examinations or achieve future recognition (Deci & Ryan, 1985; Ryan & Deci, 2017). Classroom environment, teachers, and peers exert a dynamic influence on the learning process (Dörnyei & Ryan, 2015). For EFL learners embarking on the lengthy process of language acquisition, family members can also exert a considerable influence due to the extensive amount of time spent together, particularly during the preschool and elementary school years. The influence of parents' beliefs, behaviors, and attitudes toward their children's academic outcomes has been investigated in several research areas, such as second language (L2) learning and motivation (Csizér & Kormos, 2009), L2 learning-specific activities involving the use of picture books at home (Forey et al., 2015), homework activities (Grolnick et al., 2002), general academic grading (Keith et al., 1993; Wang & Cai, 2017), and self-efficacy for academic achievement and goals (Zimmerman et al., 1992).

Ryan and Deci (1985) proposed the *self-determination theory* (SDT), which represents “an approach to human motivation and personality” (p. 68), highlighting the influence of significant others on children. From the perspective of SDT, parental autonomy support is considered a critical dimension, while controlling and pressuring behaviors are on the opposite

end of parental autonomy support (Grolnick, 2012; Ryan & Deci, 2017). Previous studies in developmental psychology have validated the positive effect of parental autonomy support on learners' autonomous motivation and academic outcomes (e.g., Grolnick et al., 2002; Grolnick & Ryan, 1989; Grolnick et al., 1991).

In SDT, along with parental autonomy support, the impact of parental involvement on children's psychological development has been considered to enhance children's motivation (Ryan & Deci, 2017). Parental involvement has been identified as a significant factor influencing children's outcomes in behavioral regulation and emotional adjustment (Ryan & Deci, 2017), including academic achievement (Keith et al., 1993; Lara & Saracostti, 2019; Otani, 2020), academic self-efficacy (Fan & Williams, 2009), and learning motivation (Grolnick & Slowiaczek, 1994). Within the SDT framework, parental involvement refers to "the parents' dedication of resources to the children, including attention and engaged caring, provisions that allow the children to feel both relationally connected and emotionally supported as they face the challenges of development" (Ryan & Deci, 2017, p. 320). Based on this notion, Grolnick and Slowiaczek (1994) developed a triple-faceted conception of parental involvement in children's schooling, encompassing *school involvement* (e.g., participating in school events and communicating with teachers), *cognitive/intellectual involvement* (e.g., taking children to libraries and discussing current issues together), and *personal involvement* (e.g., showing interest in and understanding children's school experiences). Increased parental involvement in these aspects is associated with higher levels of children's perceived competence, autonomous regulation, and grades (Grolnick & Lerner, 2023).

The *social cognitive theory* (SCT)—another theory concerning learners’ affection and cognition represented by their self-efficacy beliefs—was developed by Bandura (1977). Within the SCT framework, learners’ agency in learning behaviors changes within triadic reciprocal causation, involving personal, behavioral, and environmental facets. Parental influences, such as involvement and attitudes, are included in the environmental element and can affect children’s internal affection and behavior during learning (Bandura, 1997). According to Bandura, when parents provide mastery experiences, they promote their children’s cognitive development.

In research on second language acquisition (SLA), the concept of “parental encouragement,” as derived from Gardner’s (1985) Attitude Motivation Test Battery, has emerged as one of the influential factors toward learners’ learning motivation alongside other factors in existing L2 motivation studies (e.g., Carreira, 2006; Csizér & Kormos, 2009; Sugita-McEown et al., 2017; Sugita-McEown & McEown, 2019). Gardner’s (1985) *socio-educational model* of second language learning represents one of the earliest models of language motivation, encompassing integrative and instrumental motivation. He notes the following:

The children’s perception of their parents’ support is not directly related to their performance in class, though it is related to their willingness to continue language study and in their assessments of how hard they work to learn the second language. (p. 122)

Thus, if children perceive their parents as supportive of their language learning or have a positive attitude toward it, their motivation to learn will be enhanced.

Regarding research on learners’ motivation in the language learning

context, studies on college students have focused on social influences, including those of parents, teachers, and peers (McEown & Sugita-McEown, 2019; Sugita-McEown & McEown, 2019; Ueki & Takeuchi, 2012). Nevertheless, identifying studies that directly examine the causal relationships between parents and their young children, including elementary school students or younger, remains challenging. In the Japanese EFL context, new curricula for early English education were implemented in 2020, lowering the starting age for learning English from the fifth grade to the third grade in elementary school (Ikeda et al., 2019). This innovation has led to an increase in parental attention and concern regarding their children's English education (Benesse Educational Research & Development Institute, 2021). Parents' attitudes toward their children's L2 learning may affect their children's learning outcomes, particularly when parents are actively involved in their children's English education at home. However, empirical studies on this topic are scarce. Additionally, parents of elementary school-aged children tend to be more involved in their children's learning than parents of adolescents (Cooper, et al., 2000; Grolnick et al., 1991). Despite this tendency, research on the direct influence of parents on their children's L2 learning remains limited. Previous studies on the effect of parental involvement in the EFL context have been inconsistent because researchers have adopted different definitions and types of parental attention. Few studies have systematically examined the relationship between parental involvement and children's L2 learning outcomes. Therefore, this study explores the influential factors of parental behaviors and attitudes toward their children's L2 learning by analyzing existing related articles using a meta-analytic approach. This study presents a review of the evidence on the

impact of parental involvement on children's L2 learning outcomes, including affection, cognition, and academic scores. Furthermore, it assesses the effects of parental involvement across different age groups.

### Research Questions

This study was designed to gain a deeper understanding of the role of parental influence in children's L2 learning.

The following research questions were formulated for this study:

RQ1. What aspects of parental involvement impact children's L2 learning?

RQ2. What are the mean effect sizes of parental involvement on children's L2 learning for different age groups of participants?

### Methods

This study utilizes the method of meta-analysis—an analytical approach that aims to gather the necessary data from previous studies, including sample size, means, standard deviations, and correlation coefficients, and aggregate their statistical findings. Subsequently, the synthesized data are analyzed collectively to provide a comprehensive overview of the combined information (In'nami, 2017; Takeuchi & Mizumoto, 2023). This study employs the procedure outlined by Takeuchi and Mizumoto (2023): (1) formulating specific research questions to establish clear research objectives; (2) systematically and comprehensively collecting previous studies relevant to the research questions; (3) setting criteria for keywords to include in the analysis, followed by coding the information from each study (e.g., author names, publication year, title, journal names, pages, sample size, means, standard deviation, correlation coefficients,

and participant details); (4) analysis and interpretation of findings; (5) presenting the results.

### **Data Sources and Search Strategies**

The following databases were searched for eligible studies: ERIC (EBSCO), Google Scholar, Scopus, Taylor & Francis Online, and Wiley Online. The keywords included (i) parental involvement and language learning and (ii) parental influence and language learning. Using these keywords, a database search was conducted from June to July 2024. Journals and articles written in either Japanese or English were considered. Additionally, studies demonstrating correlation coefficients were selected for examination. Database searches resulted in 22 studies, all written in English. No Japanese articles were found in the search. To maintain a consistent research context, studies that focus on English as an EFL learning context were prioritized. Studies related to English as a Second Language learning or bilingualism were eliminated when adopting an equivalent study setting. The titles and abstracts of the resulting articles were examined, and 14 articles were selected based on this study's selection criteria. The publication period of the target articles ranged from 2013 to 2024, covering 10 years. Although a comprehensive search was conducted for all the available articles in the dataset, only studies from the past decade were identified. To date, no studies have been published before 2013. Furthermore, studies investigating various types of parental involvement (e.g., maternal/paternal involvement, child-perceived/parent-perceived involvement, encouragement, and behavioral/emotional investment) and different child outcomes, such as English proficiency, exam scores, vocabulary, motivation, and strategy use, were

identified. Each instance of parental involvement and child outcomes was treated as a separate data point for analysis, resulting in 65 correlation outcomes examined through a meta-analysis. Table 1 presents the details of each study, which also includes information on whether the study was conducted after COVID-19.



Table 1 *Summary of characteristics of studies*

Study ID	Author	N	r	Country	Age group	Parent type	Correlation relations	After COVID-19
1	Butler (2015)	191	0.16	China	6th graders (ages 11–12)	parents	Parent-perceived parental study/school involvement and parent-oriented motivation	No
2	Butler (2015)	183	0.18	China	middle school students (8th graders)	parents	Parent-perceived parental study/school involvement and English test (Cambridge)	No
3	Butler (2015)	183	0.29	China	middle school students (8th graders)	parents	Parent-perceived parental study/school involvement and intrinsic motivation	No
4	Butler (2015)	183	0.16	China	middle school students (8th graders)	parents	Parent-perceived parental study/school involvement and parent-oriented motivation	No
5	Butler (2015)	183	0.22	China	middle school students (8th graders)	parents	Parent-perceived parental study/school involvement and perceived competence	No
6	Choi et al. (2019)	414	0.37	Korea	3-to 5 years old	mothers	Maternal involvement and children's interest in learning English	N/A
7	Choi et al. (2020)	320	0.36	Korea	3-to 5 years old	mothers	Maternal involvement during English book reading and children's interest in learning English	N/A
8	Chow et al. (2017)	48	0.49	China	1st graders	fathers	Parent-perceived paternal home literacy activities in English and child's English receptive vocabulary	N/A
9	Chow et al. (2017)	48	0.60	China	1st graders	fathers	Parent-perceived paternal home literacy activities in English and child's English expressive vocabulary	N/A
10	Chow et al. (2017)	48	0.54	China	1st graders	mothers	Parent-perceived maternal home literacy activities in English and child's English receptive vocabulary	N/A
11	Chow et al. (2017)	48	0.62	China	1st graders	mothers	Parent-perceived maternal home literacy activities in English and child's English expressive vocabulary	N/A
12	Geng et al. (2023)	21270	0.34	China	middle school students (7th to 12th graders)	parents	Child-perceived parent-child communication and English academic engagement	N/A
13	Geng et al. (2023)	21270	0.36	China	middle school students (7th to 12th graders)	parents	Child-perceived parent-child communication and English self-learning efficacy	N/A
14	Gil-Galván & Martín-Espínosa (2023)	689	0.23	Spain	college students	parents	Child-perceived parental encouragement and English learning goals	Yes
15	Gil-Galván & Martín-Espínosa (2023)	689	0.32	Spain	college students	parents	Child-perceived parental encouragement and English achievement goals	Yes
16	Gil-Galván & Martín-Espínosa (2023)	689	0.09	Spain	college students	parents	Child-perceived parental encouragement and social esteem goals	Yes
17	Khodadady & Hadizadeh (2016)	313	0.42	Iran	high school students	fathers	Father: Authoritative parenting (autonomy-supportive parenting) and final English exam	No
18	Khodadady & Hadizadeh (2016)	316	0.44	Iran	high school students	mothers	Mother: Authoritative parenting (autonomy-supportive parenting) and final English exam's score	No
19	Kim & Barret (2019)	254	0.28	Korea	6th graders	parents	Child-perceived parental encouragement and child's English proficiency	No
20	Kim & Barret (2019)	254	0.28	Korea	6th graders	parents	Child-perceived parental direct assistance and child's English proficiency	No
21	Kim & Barret (2019)	254	0.26	Korea	6th graders	parents	Child-perceived parental managing and monitoring, and child's English proficiency	No
22	Kim & Barret (2019)	254	0.30	Korea	6th graders	parents	Child-perceived parental information provision and child's English proficiency	No
23	Kim & Barret (2019)	254	0.31	Korea	6th graders	parents	Child-perceived parental study environment promotion and child's English proficiency	No
24	Kim & Barret (2019)	254	0.30	Korea	6th graders	parents	Child-perceived parental private education support and child's English proficiency	No
25	Kim & Barret (2019)	254	0.29	Korea	6th graders	parents	Child-perceived the frequency of parents' asking questions and child's English proficiency	No
26	Lai et al. (2024)	86	0.33	China	Kindergarten children (ages 4–6)	parents	Parent-perceived formal literacy activity with child and English phonological awareness	Yes
27	Lai et al. (2024)	86	0.43	China	Kindergarten children (ages 4–6)	parents	Parent-perceived formal literacy activity with child and English receptive vocabulary	Yes
28	Lai et al. (2024)	86	0.42	China	Kindergarten children (ages 4–6)	parents	Parent-perceived formal literacy activity with child and English expressive vocabulary	Yes
29	Lai et al. (2024)	86	0.59	China	Kindergarten children (ages 4–6)	parents	Parent-perceived informal language exposure and English receptive vocabulary	Yes
30	Lai et al. (2024)	86	0.50	China	Kindergarten children (ages 4–6)	parents	Parent-perceived informal language exposure and English expressive vocabulary	Yes

Table 1 (Continued)

Study ID	Author	N	r	Country	Age group	Parent type	Correlation relations	After COVID-19
31	Lai et al. (2024)	86	0.27	China	Kindergarten children (ages 4–6)	parents	Parent-perceived passive literacy exposure and English receptive vocabulary	Yes
32	Liu (2024)	1424	0.13	China	high school students	parents	Child-perceived knowledge parental investment and L2 learning experience	N/A
33	Liu (2024)	1424	0.09	China	high school students	parents	Child-perceived knowledge parental investment behavior and ideal L2 self	N/A
34	Liu (2024)	1424	0.14	China	high school students	parents	Child-perceived knowledge parental investment behavior and ought-to L2 self	N/A
35	Liu (2024)	1424	0.15	China	high school students	parents	Child-perceived knowledge parental investment behavior and L2 motivational self system	N/A
36	Liu (2024)	1424	0.08	China	high school students	parents	Child-perceived relationship parental investment behavior and L2 learning experience	N/A
37	Liu (2024)	1424	0.10	China	high school students	parents	Child-perceived relationship parental investment behavior and ideal L2 self	N/A
38	Liu (2024)	1424	0.15	China	high school students	parents	Child-perceived relationship parental investment behavior and ought-to L2 self	N/A
39	Liu (2024)	1424	0.14	China	high school students	parents	Child-perceived relationship parental investment behavior and L2 motivational self system	N/A
40	Liu (2024)	1424	0.17	China	high school students	parents	Child-perceived emotional parental investment behavior and L2 learning experience	N/A
41	Liu (2024)	1424	0.20	China	high school students	parents	Child-perceived emotional parental investment behavior and ideal L2 self	N/A
42	Liu (2024)	1424	0.23	China	high school students	parents	Child-perceived emotional parental investment behavior and ought-to L2 self	N/A
43	Liu (2024)	1424	0.25	China	high school students	parents	Child-perceived emotional parental investment behavior and L2 motivational self system	N/A
44	Liu (2024)	1424	0.09	China	high school students	parents	Child-perceived economic parental investment behavior and ought-to L2 self	N/A
45	Liu (2024)	1424	0.15	China	high school students	parents	Child-perceived parental investment behavior and L2 learning experience	N/A
46	Liu (2024)	1424	0.16	China	high school students	parents	Child-perceived parental investment behavior and ideal L2 self	N/A
47	Liu (2024)	1424	0.24	China	high school students	parents	Child-perceived parental investment behavior and ought-to L2 self	N/A
48	Liu (2024)	1424	0.23	China	high school students	parents	Child-perceived parental investment behavior and L2 motivational self system	N/A
49	Liu & Chung (2024)	354	0.16	China	Kindergarten children	mothers	Parent-perceived parent-directed formal home literacy activities in English and child's English letter knowledge	N/A
50	Liu & Chung (2024)	354	0.15	China	Kindergarten children	mothers	Parent-perceived parent-directed informal home literacy activities in English and child's English word reading	N/A
51	Liu & Chung (2024)	354	0.26	China	Kindergarten children	mothers	Parent-perceived child-initiated home literacy activities in English and child's English phonological awareness	N/A
52	Liu & Chung (2024)	354	0.25	China	Kindergarten children	mothers	Parent-perceived parent-directed formal home literacy activities in English and child's English letter knowledge	N/A
53	Liu & Chung (2024)	354	0.16	China	Kindergarten children	mothers	Parent-perceived parent-directed formal home literacy activities in English and child's English word reading	N/A
54	McEown & Sugita-McEown (2019)	212	0.65	Japan	college students	parents	Student-perceived parental autonomy support and intrinsic value (intrinsic motivation) in an English classroom	No
55	McEown & Sugita-McEown (2019)	212	0.57	Japan	college students	parents	Student-perceived parental autonomy support and self-efficacy in an English classroom	No
56	McEown & Sugita-McEown (2019)	212	0.44	Japan	college students	parents	Student-perceived parental autonomy support and metacognitive strategy use in an English classroom	No
57	McEown & Sugita-McEown (2019)	212	0.62	Japan	college students	parents	Child-perceived parental autonomy support and cognitive strategy use in an English classroom	No
58	Morris et al. (2013)	190	0.27	Korea	high school students (ages 16–18)	parents	Child-perceived parental involvement and (intrinsic) motivation	No
59	Morris et al. (2013)	190	0.21	Korea	high school students (ages 16–18)	parents	Child-perceived parental involvement and English exam's score	No
60	Wang et al. (2023)	249	0.17	China	3rd to 5th graders	parents	Parent-perceived parental involvement and English test (wave 1)	Yes
61	Wang et al. (2023)	250	0.17	China	3rd to 5th graders	parents	Parent-perceived parental involvement and English test (wave 3)	Yes

Table 1 (Continued)

Study ID	Author	<i>N</i>	<i>r</i>	Country	Age group	Parent type	Correlation relations	After COVID-19
62	Wang et al. (2023)	249	0.13	China	3rd to 5th graders	parents	Child-perceived parental involvement and English test (wave 1)	Yes
63	Wang et al. (2023)	250	0.14	China	3rd to 5th graders	parents	Child-perceived parental involvement and English test (wave 3)	Yes
64	Wang et al. (2023)	253	0.36	China	3rd to 5th graders	parents	Parent-perceived parental involvement and learning engagement (wave 2)	Yes
65	Wang et al. (2023)	253	0.36	China	3rd to 5th graders	parents	Child-perceived parental involvement and learning engagement (wave 2)	Yes

Data Analysis and Results

The analyses in this study were conducted using R version 4.2.0. Prior to meta-analysis, heterogeneity was assessed employing I-squared index to determine whether the effect sizes of the target studies were similar. Depending on the variance of the effect sizes, an appropriate model for analysis—a fixed effects or a random effects model—was selected (Takeuchi & Mizumoto, 2023). For data with high heterogeneity, a random effects model should be used for the meta-analysis (Harrer et al., 2022; Takeuchi & Mizumoto, 2023). In this study, the I-squared indices were 95.06% with a random effects model and 93.14% with a fixed effects model—the effect sizes of the target studies differed, and there was a significant variance between effect sizes. According to the criteria of Takeuchi and Mizumoto (2023), values in the range of 25–50% indicate similar effect sizes in the target studies, 50–75% suggest slightly different effect sizes across studies, and 75–100% indicate highly different effect sizes. Moreover, the test for heterogeneity also yielded significant results, with  $Q (df = 64) = 933.2504, p < .0001$ , indicating substantial heterogeneity among the effect sizes in the 65 target results. Consequently, we decided to use a random effects model in the subsequent meta-analysis.

The results of the meta-analysis revealed that the mean effect size of parental involvement on children's English learning outcomes—

encompassing language proficiency, exam scores, vocabulary, motivation, and strategy use—was calculated as  $ES = r = .27$  (95% CI: 0.24, 0.31), as shown in Figure 1, indicating a small effect size in L2 research, as defined by Plonsky and Oswald (2014). According to Plonsky and Oswald (2014), the interpretation of correlation  $r$  values in L2 research is as follows: a value approaching 0.25 indicates a small effect, 0.40 represents a medium effect, and a value exceeding 0.60 implies a large effect. However, the preliminary test for heterogeneity indicated variability in effect sizes across the studies, prompting further moderator analysis based on the different age groups of research participants. The results highlight the differences among age groups (Table 2). The forest plot for the moderator analysis is shown in Figure 2. Studies on parental involvement with first graders showed the highest mean effect size ( $ES = r = .64$ ), followed by studies on college students, which had the second highest effect size ( $ES = r = .45$ ). These findings represent medium effect sizes in L2 research (Plonsky & Oswald, 2014). Conversely, the mean effect size of studies with high school students was 0.19, reflecting a relatively small effect size.

Figure 1 *Forest plot of the random effects meta-analysis*

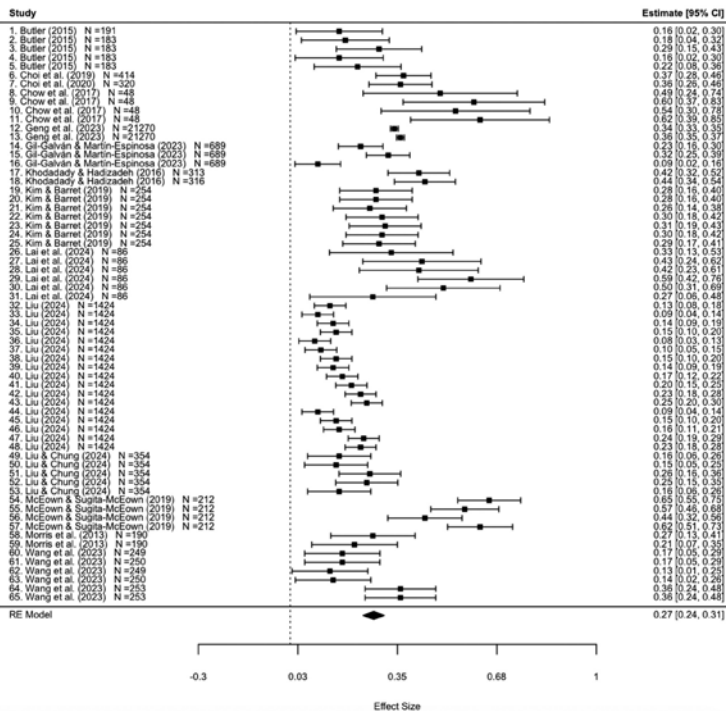


Table 2 *Mean effect sizes for different age groups*

Age groups	Mean effect size
Young children (kindergarten ages)	0.33
1st graders	0.64
3rd to 5th graders	0.23
6th graders	0.28
Middle school students	0.28
High school students	0.19
College students	0.45

*Note.* I-squared index shows 92.98%.

Figure 2 *Forest plot of the random effects meta-analysis*

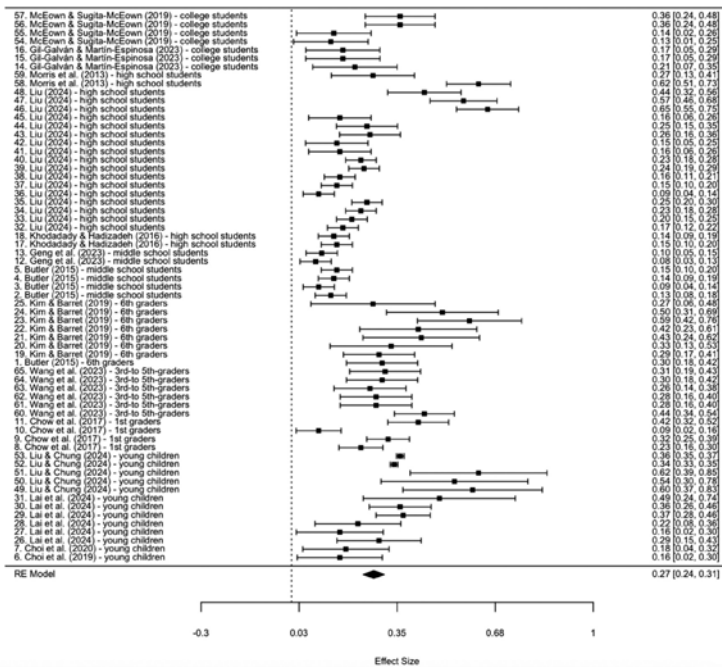


Figure 3 shows the funnel plot of effect sizes across the 65 studies, calculated using a random effects model. The observed asymmetry in the funnel plot suggests potential publication bias, which may be attributed to the imbalance between sample and effect sizes among these studies (Harrer et al., 2022). According to Harrer et al. (2022), studies with small samples tend to have only large effects that become significant and are more likely to be published. Conversely, small studies with lower effects often do not reach statistical significance and are less likely to be published. To detect the imbalance between them, a power analysis was conducted using the internet-free soft G\*Power 3.1, with the power set at  $(1 - \beta) = 0.8$

and the alpha error probability at 0.05 (Harrer et al., 2022; Mizumoto & Takeuchi, 2011). For instance, the minimum correlation coefficient in the target studies was 0.08, found in study number 36 by Liu (2024)—more than 1221 participants would be necessary according to power analysis using G\*Power. Liu’s (2024) study involved 1424 participants, which was sufficient for the required sample size. Nevertheless, the findings revealed nine instances in which the actual sample sizes were insufficient compared with the ideal sample sizes (Table 3), which could contribute to publication bias.

Figure 3 *Funnel plot of the standard error and the effect sizes*

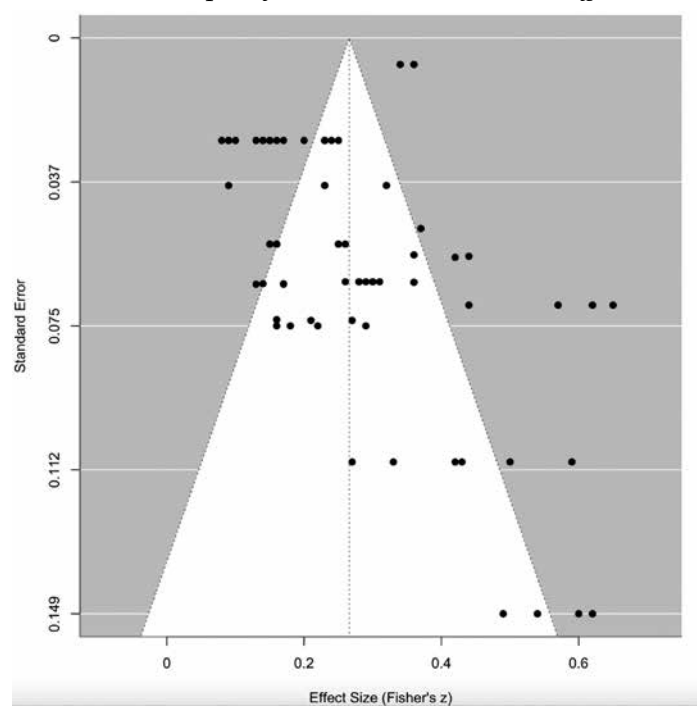


Table 3 *Correlation coefficients and thresholds of the total sample size calculated using G\*Power*

Study ID	Author	<i>N</i>	<i>r</i>	G*power sample size	Results
1	Butler (2015)	191	0.16	301	Not enough
2	Butler (2015)	183	0.18	237	Not enough
3	Butler (2015)	183	0.29	88	OK
4	Butler (2015)	183	0.16	301	Not enough
5	Butler (2015)	183	0.22	157	OK
6	Choi et al. (2019)	414	0.37	52	OK
7	Choi et al. (2020)	320	0.36	55	OK
8	Chow et al. (2017)	48	0.49	27	OK
9	Chow et al. (2017)	48	0.60	17	OK
10	Chow et al. (2017)	48	0.54	22	OK
11	Chow et al. (2017)	48	0.62	15	OK
12	Geng et al. (2023)	21270	0.34	63	OK
13	Geng et al. (2023)	21270	0.36	55	OK
14	Gil-Galván & Martín-Espinosa (2023)	689	0.23	143	OK
15	Gil-Galván & Martín-Espinosa (2023)	689	0.32	71	OK
16	Gil-Galván & Martín-Espinosa (2023)	689	0.09	964	Not enough
17	Khodadady & Hadizadeh (2016)	313	0.42	39	OK
18	Khodadady & Hadizadeh (2016)	316	0.44	35	OK
19	Kim & Barret (2019)	254	0.28	95	OK
20	Kim & Barret (2019)	254	0.28	95	OK
21	Kim & Barret (2019)	254	0.26	111	OK
22	Kim & Barret (2019)	254	0.30	82	OK
23	Kim & Barret (2019)	254	0.31	76	OK
24	Kim & Barret (2019)	254	0.30	82	OK
25	Kim & Barret (2019)	254	0.29	88	OK
26	Lai et al. (2024)	86	0.33	67	OK
27	Lai et al. (2024)	86	0.43	37	OK
28	Lai et al. (2024)	86	0.42	39	OK
29	Lai et al. (2024)	86	0.59	17	OK
30	Lai et al. (2024)	86	0.50	26	OK
31	Lai et al. (2024)	86	0.27	102	Not enough
32	Liu (2024)	1424	0.13	459	OK
33	Liu (2024)	1424	0.09	964	OK
34	Liu (2024)	1424	0.14	395	OK
35	Liu (2024)	1424	0.15	343	OK
36	Liu (2024)	1424	0.08	1221	OK
37	Liu (2024)	1424	0.10	779	OK
38	Liu (2024)	1424	0.15	343	OK
39	Liu (2024)	1424	0.14	395	OK
40	Liu (2024)	1424	0.17	266	OK



Table 3 (Continued)

Study ID	Author	<i>N</i>	<i>r</i>	G*power sample size	Results
41	Liu (2024)	1424	0.20	191	OK
42	Liu (2024)	1424	0.23	143	OK
43	Liu (2024)	1424	0.25	120	OK
44	Liu (2024)	1424	0.09	964	OK
45	Liu (2024)	1424	0.15	343	OK
46	Liu (2024)	1424	0.16	301	OK
47	Liu (2024)	1424	0.24	131	OK
48	Liu (2024)	1424	0.23	143	OK
49	Liu & Chung (2024)	354	0.16	301	OK
50	Liu & Chung (2024)	354	0.15	343	OK
51	Liu & Chung (2024)	354	0.26	111	OK
52	Liu & Chung (2024)	354	0.25	120	OK
53	Liu & Chung (2024)	354	0.16	301	OK
54	McEown & Sugita-McEown (2019)	212	0.65	13	OK
55	McEown & Sugita-McEown (2019)	212	0.57	19	OK
56	McEown & Sugita-McEown (2019)	212	0.44	35	OK
57	McEown & Sugita-McEown (2019)	212	0.62	15	OK
58	Morris et al. (2013)	190	0.27	102	OK
59	Morris et al. (2013)	190	0.21	173	OK
60	Wang et al. (2023)	249	0.17	266	Not enough
61	Wang et al. (2023)	250	0.17	266	Not enough
62	Wang et al. (2023)	249	0.13	459	Not enough
63	Wang et al. (2023)	250	0.14	395	Not enough
64	Wang et al. (2023)	253	0.36	55	OK
65	Wang et al. (2023)	253	0.36	55	OK

Discussion

This study investigated and explored the influential factors of parental involvement in children's L2 learning outcomes using a meta-analysis. Regarding RQ1, this study found that parental involvement in children's L2 learning at home, as explored by researchers, encompasses numerous parental behaviors and attitudes. For example, direct parental involvement includes helping children with English studies or homework (Butler, 2015; Chow et al., 2015; Kim & Barret, 2019; Lai et al., 2024; Liu & Chung, 2024; Morris et al., 2013). Indirect parental involvement varies from providing tutoring, purchasing English materials for learning, and finding or

attending after-school English lessons together (Choi et al., 2019; Kim & Barret, 2019; Liu et al., 2024; Morris et al., 2013; Wang et al., 2023). Informal home activities with children include reading English books, singing English songs together, engaging in finger play or chanting together, and communicating in English (Choi et al., 2019; Chow et al., 2015; Lai et al., 2024; Liu & Chung, 2024). Positive parental attitudes include encouraging children's English learning, showing care for their English learning, and providing autonomy support (Gil-Galván & Martin-Espinosa, 2023; Khodadady & Hadizadeh, 2016; Kim & Barret, 2019; Liu et al., 2024; McEown & Sugita-McEown, 2019; Morris et al., 2013; Wang et al., 2023). The findings revealed that integrated parental involvement, encompassing various parental behaviors and attitudes in children's L2 learning at home, had a small effect on children's L2 learning outcomes (mean ES =  $r = 0.27$ ). Although the mean effect size calculated by the meta-analysis was not large, these results support the theoretical frameworks of SDT (Deci & Ryan, 1985; Ryan & Deci, 2017) and SCT (Bandura, 1977). Moreover, 60 out of the 65 studies collected were conducted in Asian countries. This suggests that parental involvement in children's learning might be a more significant topic in these regions compared to other EFL countries, likely owing to socio-cultural factors. Additionally, given the overall limited number of target studies, the information on whether the study was conducted after COVID-19 is unlikely to have influenced the meta-analysis results, as only four studies provided 15 correlation results. Exposure to English is constrained in the EFL context, and parents may try to assist their children in learning as much as possible for various reasons. Children may internalize their parents' beliefs through interactions with their parents. EFL students primarily learn English in classrooms and are

influenced by teachers and peers within these limited learning settings. This meta-analysis highlights the potential impact of parental behavior on children's L2 learning outcomes outside classrooms, although the effect size was not large.

Regarding RQ2, this study found differences among age groups. The mean effect size on the first graders and college students was larger than that of other age groups (mean ES =  $r = .64$ ; mean ES =  $r = .45$  separately) (Table 2). One possible explanation for the larger effect size observed for first graders could be that the meta-analysis with first graders was limited to the study by Chow et al. (2017), which reported slightly higher correlation coefficients than other studies ( $r = .49$  with paternal involvement and children's receptive vocabulary;  $r = .60$  with paternal involvement and children's expressive vocabulary;  $r = .54$  with maternal involvement and children's receptive vocabulary;  $r = .62$  with maternal involvement and children's expressive vocabulary). The results for first graders in elementary school were integrated from a single study by the same authors, which may have affected the present meta-analysis. The possible impact of the results of one study cannot be completely ruled out. Another interpretation of the findings related to first graders is that the children in the study by Chow et al. (2015) began receiving formal English education in school upon entering the first grade. At this stage, parents may view the start of formal English education as a critical period and increase their involvement in their children's English learning at home. Enhancing the frequency and quality of home interactions between children and parents may positively affect their L2 learning outcomes.

Regarding the results for college students, this finding can be attributed to their cognitive and psychological development. College students are sufficiently mature to understand the intentions and feelings behind

their parents' behaviors and attitudes. From the SDT perspective (Deci & Ryan, 1985), children may also experience satisfaction with the need for autonomy through their parents' behaviors and attitudes. In other words, if children perceive their parents' behaviors and attitudes as positive, they internalize these beliefs, which can enhance their motivation and lead to better learning development outcomes. College students may be more independent and can accept their parents' emotional support through parental involvement than younger age groups. Conversely, the mean effect size of parental involvement in L2 learning outcomes was the lowest among high school students (mean  $ES = r = .19$ ) (Table 2). This result can be explained by the psychological development of adolescents, who navigate a challenging period before reaching adulthood. Contrary to college students, high school students may find it difficult to accept their parents' emotional support through parental involvement.

For young ages ranging from 3rd grade in elementary school to middle school, the mean effect sizes showed moderate values, with mean effect sizes ranging from  $r = .23$  to  $r = .28$  (Table 2). Additionally, the kindergarten age group showed a slightly larger effect size, with a mean  $ES = r = .33$ . These findings may also reflect the differences in cognitive and psychological development across age groups. Young children, such as those in kindergarten, may not yet fully comprehend parents' intentions behind their involvement, whereas children in elementary to middle school may be more influenced by their learning peers than by their parents.

## Conclusion

This meta-analysis explored the impact of parental involvement

on children's L2 outcomes within the EFL context to gain a better understanding of how these effects vary among different age groups. The results indicate that parental involvement in sharing English learning activities at home and their positive attitudes toward supporting their children's learning have a small effect on children's L2 outcomes. Moreover, the effects of parental involvement on L2 learning were more pronounced in first graders and college students than in other age groups. Through this meta-analysis, parental involvement has emerged as an influential factor in EFL learners' academic success. However, the specific facets of parental involvement in L2 learning at home vary widely across studies. Practical and feasible behaviors and attitudes of parents at home toward children's L2 learning have not been fully established and remain uncertain. A greater focus on these facets of parental involvement could yield interesting findings that account for variability in children's L2 learning outcomes.

Despite these potential insights, this study has a few limitations. In general, in a meta-analysis, related studies should be collected comprehensively, and most previous research on the meta-analysis in language learning has investigated numerous study samples and participants (Bureau et al., 2022; Goetze & Driver, 2022; Teimouri et al., 2019; Wang & Sun, 2020). Nevertheless, the research target in this study was parental influence on children's L2 learning, a topic that intersects developmental psychology and SLA. Consequently, finding relevant articles can be challenging because the research is interdisciplinary, and relatively few articles address this specific topic. In addition, publication bias was identified by assessing a funnel plot that included 65 studies. The power analysis revealed that nine results with correlation relations

lacked a sufficient sample size. These findings suggest that the results may be biased toward statistically significant positive outcomes of parental involvement rather than negative ones. Furthermore, to better understand the impact of parental involvement, future research must consolidate measures of children's L2 academic outcomes, such as L2 proficiency test scores, grades, and exam scores.

### Acknowledgments

The author would like to express her sincere gratitude to Dr. Osamu Takeuchi, Professor of Kansai University, for his insightful comments on this study. She would also like to thank the anonymous reviewers for their constructive feedback. This study was supported by JSPS KAKENHI (Grant Number JP24K22484).

### References

An asterisk (\*) next to a study indicates its inclusion in this meta-analysis.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change.

*Psychological Review*, 84(2), 191-215. <https://doi.org/10.1037//0033-295x.84.2.191>.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. Worth Publishers.

Benesse Educational Research & Development Institute. (2021). *Kodomo no seikatsu to manabi ni kansuru oyako chosa 2020* [Parent-child survey on children's lives and learning 2020]. <https://berd.benesse.jp/shotouchutou/research/detail1.php?id=5579>

Bureau, J. S., Howard, J. L., Chong, J. X. Y., & Guay, F. (2022). Pathways to student motivation: A meta-analysis of antecedents of autonomous and controlled motivations. *Review of Educational Research*, 92(1), 46-72. <https://doi.org/10.3102/00346543211042426>

\*Butler, Y. G. (2015). Parental factors in children's motivation for learning English: A case in China. *Research Papers in Education*, 30(2), 164-191. <https://doi.org/10.1080/02671>

522.2014.891643

- Carreira, J. M. (2006). Motivation for learning English as a foreign language in Japanese elementary schools. *JALT Journal*, 28(2), 135–157. <https://doi.org/10.37546/JALTJJ28.2-2>
- \*Choi, N., Kang, S., Cho, H. J., & Sheo, J. (2019). Promoting young children's interest in learning English in EFL context: The role of mothers. *Education Sciences*, 9(46), 1–12. <https://doi.org/10.3390/educsci9010046>
- \*Choi, N., Kang, S., & Sheo, J. (2020). Children's interest in learning English through picture books in an EFL context: The effects of parent-child interaction and digital pen use. *Education Sciences*, 10(40), 1–11. <https://doi.org/10.3390/educsci9010046>
- \*Chow, B. W.-Y., Chui, B. H.-T., Lai, M. W.-C., & Kwok, S. Y.C.L. (2017). Differential influences of parental home literacy practices and anxiety in English as a foreign language on Chinese children's English development. *International Journal of Bilingual Education and Bilingualism*, 20(6), 625–637. <https://doi.org/10.1080/13670050.2015.1062468>
- Cooper, H., Lindsay, J. J., & Nye, B. (2000). Homework in the home: How student, family, and parenting-style differences relate to the homework process. *Contemporary Educational Psychology*, 25(4), 464–487. <https://doi.org/10.1006/ceps.1999.1036>
- Csizér, K., & Kormos, J. (2009). Learning experiences, selves and motivated learning behaviour: A comparative analysis of structural models for Hungarian secondary and university learners of English. In Z. Dörnyei & E. Ushioda (Eds.), *Motivation, language identity and the L2 self* (pp. 98–119). <https://doi.org/10.21832/9781847691293-006>
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. Plenum.
- Dörnyei, Z., & Ryan, S. (2015). *The psychology of the language learner revisited*. Routledge.
- Fan, W., & Williams, C. M. (2009). The effects of parental involvement on students' academic self-efficacy, engagement and intrinsic motivation. *Educational Psychology*, 30(1), 53–74. <https://doi.org/10.1080/01443410903353302>

- Forey, G., Besser, S., & Sampson, N. (2015). Parental involvement in foreign language learning: The case of Hong Kong. *Journal of Early Childhood Literacy*, 16(3), 1-31. <https://doi.org/10.1177/1468798415597469>
- Gardner, R. C. (1985). *Social psychology and second language learning: The role of attitudes and motivation*. Edward Arnold.
- \*Geng, Y., Ying, B., Wang, X., Lin, J., Zhang, M., & Liu, Y. (2023). The relationship between parent-child communication and English academic engagement among middle school students: a moderated mediation model. *European Journal of Psychology of Education*, 38, 1443-1460. <https://doi.org/10.1007/s10212-023-006767>
- \*Gil-Galván, R., & Martín-Espínosa, I. (2023). The influence of the parents' socio educational level and parental encouragement on university students' motivational profile for learning English. *Journal of Social Studies Education Research*, 14(1), 17-46. <https://jsser.org/index.php/jsser/article/view/4515>
- Goetze, J., & Driver, M. (2022). Is learning really just believing? A meta-analysis of self-efficacy and achievement in SLA. *Studies in Second Language Learning and Teaching*, 12(2), 233-259. <https://doi.org/10.14746/ssllt.2022.12.2.4>
- Grolnick, W. S. (2012). The relations among parental power assertion, control, and structure. *Human Development*, 55(2), 57-64. <https://doi.org/10.1159/000338533>
- Grolnick, W. S., Gurland, S. T., DeCoursey, W., & Jacob, K. (2002). Antecedents and consequences of mothers' autonomy support: An experimental investigation. *Developmental Psychology*, 38(1), 143-155. <https://doi.org/10.1037/0012-1649.38.1.143>
- Grolnick, W. S., & Lerner, R. E. (2023). How parental autonomy support, structure, and involvement help children flourish: Considering interactions, context, and diversity. In R. M. Ryan (Ed.), *The Oxford handbook of self-determination theory* (pp. 491-508). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780197600047.013.26>
- Grolnick, W. S., & Ryan, R. M. (1989). Parent styles associated with children's self regulation and competence in school. *Journal of Educational Psychology*, 81(2), 143-154.



<https://doi.org/10.1037/0022-0663.81.2.143>

- Grolnick, W. S., Ryan, R. M., & Deci, E. L. (1991). Inner resources for school achievement: Motivational mediators of children's perceptions of their parents. *Journal of Educational Psychology*, 83(4), 508-517. <https://doi.org/10.1037/00220663.83.4.508>
- Grolnick, W. S., & Slowiaczek, M. L. (1994). Parents' involvement in children's schooling: A multidimensional conceptualization and motivational model. *Child Development*, 65(1), 237-252. <https://doi.org/10.1111/j.1467-8624.1994.tb00747.x>
- Harrer, M., Cuijpers, P., Furukawa, T. A., & Ebert, D. D. (2021). *Doing meta-analysis with R: A hands-on guide*. CRC Press.
- Ikeda, M., Imai, H., & Takeuchi, O. (2019). An innovative approach to in-service teacher training for teaching English at Japanese public elementary schools. In H. Reinders, S. Ryan & S. Nakamura (Eds.), *Innovation in language teaching and learning: The case of Japan* (pp. 257-282). Palgrave Macmillan.
- In'nami, Y. (2017). Meta bunseki-Fukusu no kenkyu wo togo suru [A meta-analysis: Integrating multiple studies]. In A. Hirai (Ed.), *Kyoiku sinri kei kenkyu no tame no data bunseki nyumon: Riron to jissen kara manabu SPSS katuyou hou [Introduction to data analysis for educational and psychological research: Learning SPSS through theory and practice]* (2nd ed., pp. 224-248). Tokyo Tosho.
- Keith, T. Z., Troutman, G. C., Trivette, P. S., Keith, P. B., Bickley, P., & Singh, K. (1993). Does parental involvement affect eighth-grade student achievement? structural analysis of national data. *School Psychology Review*, 22(3), 474-496. <https://doi.org/10.1080/02796015.1993.12085668>
- \*Khodadady, E., & Hadizadeh, B. (2016). Parenting and English language learning at Iranian grade one senior high schools: A theoretical and empirical approach. *Journal of Language Teaching and Research*, 7(4), 700-708. <http://dx.doi.org/10.17507/jltr.0704.09>
- \*Kim, J.-T., & Barrett, R. (2019). The role of learners' attitudes toward parental involvement in L2 English learning. *English Language Teaching*, 12(1), 18-29. <https://doi.org/10.17507/jltr.0704.09>

doi.org/10.5539/elt.v12n1p18

- \*Lai, J., Ji, X. R., Joshi, R. M., & Zhao, J. (2024). Investigating parental beliefs and home literacy environment on Chinese kindergarteners' English literacy and language skills. *Early Childhood Education Journal*, 52 (1), 113-126. <https://doi.org/10.1007/s10643-022-01413-3>
- Lara, L., & Saracostti, M. (2019). Effect of parental involvement on children's academic achievement in Chile. *Frontiers in Psychology*, 10, 1-5. <https://doi.org/10.3389/fpsyg.2019.01464>
- \*Liu, H. (2024). Demystifying the relationship between parental investment in learners' English learning and learners' L2 motivational self system in the Chinese context: A Bourdieusian capital perspective. *International Journal of Educational Development*, 104, 1-10. <https://doi.org/10.1016/j.ijedudev.2023.102973>
- \*Liu, C. C., & Chung, K. K. H. (2024). Impacts of home literacy environment on children's English language learning as a second language. *European Journal of Psychology of Education*, 39, 1421-1439. <https://doi.org/10.1007/s10212-023-00745-x>
- \*McEown, K., & Sugita-McEown, M. (2019). Individual, parental and teacher support factors of self-regulation in Japanese students. *Innovation in Language Learning and Teaching*, 13(4), 389-401. <https://doi.org/10.1080/17501229.2018.1468761>
- Mizumoto, A., & Takeuchi, O. (2011). Koka ryo to kentei ryoku bunseki nyumon—Tokeiteki kentei wo tadashiku tsukau tameni [The introduction to effect size and power analysis: How to properly use statistical tests]. *LET Methodology SIG*, 44-73. <https://kansai-u.repo.nii.ac.jp/records/10020>
- \*Morris, A., Lafontaine, M., Pichette, F., & de Serres, L. (2013). Affective variables, parental involvement and competence among South Korean high school learners of English. *Studies in Second Language Learning and Teaching*, 3(1), 13-45. <https://doi.org/10.14746/ssllt.2013.3.1.2>
- Plonsky, L., & Oswald, F. L. (2024). How big Is “big”? Interpreting effect sizes in L2

- research. *Language Learning*, 64(4), 878–912. <https://doi.org/10.1111/lang.12079>
- Otani, M. (2020). Parental involvement and academic achievement among elementary and middle school students. *Asia Pacific Education Review*, 21(1), 1-25. <https://doi.org/10.1007/s12564-019-09614-z>
- Ryan, R. M., & Deci, E. L. (2000). Self-Determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78. <https://doi.org/10.1037/0003-066X.55.1.68>
- Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. The Guilford Press.
- Sugita-McEon, M., Sawaki, Y., & Harada, T. (2017). Foreign language learning motivation in the Japanese context: Social and political influences on self. *The Modern Language Journal*, 101(3), 533–547. <https://doi.org/10.1111/modl.12411>
- Sugita-McEown, M., & McEown, K. (2019). The role of parental factors and the self in predicting positive L2 outcomes among Japanese learners of English. *Journal of Multilingual and Multicultural Development*, 40(10), 934-949. <https://doi.org/10.1080/01434632.2019.1597874>
- Takeuchi, O., & Mizumoto, A. (2023). *Gaikokugo kyouiku kenkyu handbook [The handbook of research in foreign language learning and teaching]* (3rd ed.). Shohakusha.
- Teimouri, Y., Goetze, J., & Plonsky, L. (2019). Second language anxiety and achievement. *Studies in Second Language Acquisition*, 41(2), 363–387. <https://doi.org/10.1017/S0272263118000311>
- Ueki, M., & Takeuchi, O. (2012). Validating the L2 motivational self system in a Japanese EFL context: The interplay of L2 motivation, L2 anxiety, self-efficacy, and the perceived amount of information. *Language Education & Technology*, 49, 1-22. [https://doi.org/10.24539/let.49.0\\_1](https://doi.org/10.24539/let.49.0_1)
- Wang, H., & Cai, T. (2017). Parental involvement, adolescents' self-determined learning and academic achievement in urban China. *International Journal of Psychology*, 52(1),

58-66. <https://doi.org/10.1002/ijop.12188>

- \*Wang, H., Chen, Y., Yang, X., Yu, X., Zheng, K., Lin, Q., Cheng, X., & He, T. (2023). Different associations of parental involvement with children's learning of Chinese, English, and math: a three-wave longitudinal study. *European Journal of Psychology of Education*, 38, 269-285. <https://doi.org/10.1007/s10212-022-00605-0>
- Wang, C., & Sun, T. (2020). Relationship between self-efficacy and language proficiency: A meta-analysis. *System*, 95, 1-11. <https://doi.org/10.1016/j.system.2020.102366>
- Zimmerman, B. J., Bandura, A., & Martinez-Pons, M. (1992). Self-motivation for academic attainment: The role of self-efficacy beliefs and personal goal setting. *American Educational Research Journal*, 29(3), 663-676. <https://doi.org/10.2307/1163261>