



A Systematic Review of Literature on Parental Involvement and Its Impact on Children Learning Outcomes

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Abstract

It has long been thought that parents and their involvement in their children's academics impact both the learning outcomes and cognitive development of their children. The objective of this comprehensive review of literature is to explore influence parental involvement in children's studies has on performance academically. This review included empirical studies that matched the study's objectives and were published between 2018 and 2022 in English in scholarly journals (Web of Science and Scopus databases) that met the inclusion criteria. Initial stage of search resulted into a total of 621 research articles which were identified through searching with different keywords of parental involvement, parental practices, learning outcomes, academic achievement and performance. After careful assessment and analysis of each record based on objective of the study, 24 scholarly articles were retained for this review by following the 2020 PRISMA (Preferred Reporting Items for Systematic Review and Meta-analysis Protocols Statement). The first presentation of the results was a synthesis of studies that reported how parental involvement's dimensions are associated with and has impact on students' learning success. This review defined parental involvement based on Epstein's parental involvement model which includes 3 dimensions: home, school, and community-based involvement. Through the lens of existing literature, we further reviewed and critically analyse study findings on how individual student level characteristics play a role to moderate parental involvement's effect on children academic success. As per results, parental involvement dimensions like: learning at home, homework assistance, and school-family communication is found to positively impact children's academics, whereas other dimensions such as strict parenting and high expectation for children's performance might negatively influence children's studies. This review was restricted to limited databases, time frame, and language which may be the direction for other research studies in the future.

Subject Areas

Social Sciences, Education

Keywords

Parental Involvement, Practices, Learning Success, Academic Performance, Systematic Literature Review

1. Introduction

The importance of parents' involvement in the education of their children and the role they play in it have long been hot issues in educational research (Agustinho, 2012) [1]. Many researchers and educational policy makers have indeed been interested in this topic of parental involvement (Singh *et al.*, 1995) [2]. There are different studies that attempted to examine parental involvement and its impact on children learning outcome/academic performance (e.g., Epstein, 1995 [3]; Fan & Chen, 2001 [4]).

Researchers and educators are becoming increasingly concerned about the extent parents are committed or participate in different academic activities of their children and the potential effects this participation may incur on the academic growth and success of the children. The involvement of parents in their children's learning is thought to bear some effects on children's school performance, and this has been validated by various researchers. Fan and Chen (2001) [4] research on the relationship between parental involvement and their children academic attainments noted that expectations of parents for their children learning outcomes has a positive relation to their actual cognitive outcome.

Both theoretical and empirical evidence showed that parental involvement improves students learning and cognitive development (e.g., Seginer, 1993 [5]; Walberg, 1984 [6]; Epstein, 1995 [3]). Kamal *et al.* (2022) [7] noted that children whose parents were highly involved achieved high scores by all subjects compared to those children whose parents reported to not or less involved in their schooling. The various studies (e.g., Sofie, *et al.*, 2017 [8]; Boonk *et al.*, 2018 [9]) found that some of parental practices such as: parents and children communication about children various academic activities, checking and assisting children in doing home assignment, expectations of parents for their kid's learning outcomes, and participation of parents or guardians in school-based activities to be the most influential parental involvement typologies.

However, parental involvement in children academics is a very complex and critical concept that includes many factors and indicators, and they all can influence students' cognitive development and learning outcomes differently in terms of levels and ways. The complexity and confusion about parental involvement and its correlation to the student's academic success were possibly brought about by 1) the inconsistency of different research findings on this topic, exam-

ples of Fan & Chen (2001) [4], study results indicated that there are both positive & negative relations and at some extent there is an absence of direct correlation between some of types of parental involvement and students' learning achievements. 2) absence of broadly accepted theoretical framework and clear operational definition to explain what parental involvement is and its different dimensions.

Additional explanation for inconsistency in research findings can be attributed to variations of research questions, research methodology, research participants and research context. Singh *et al.* (1995) [2] reported that some parental involvement indicators have bigger impact on students' academic achievements than others. This indicates that different parent's practices can also differently affect student's academic success. In a similar sense, the measurements of the students' academic achievement result into different effects of parental involvement (positive or negative) on academic achievement/success (Fan, 1997) [10].

This study employed systematic review method to synthesis and critically review the existing empirical studies on the effects of parents and their involvement on students' learning outcomes and academic success. This review will analyze the moderation and mediation role of parental involvement among various demographic variables to affect students' learning outcome and cognitive development. This study attempt to address the following research questions:

- 1) How the prevailing studies articulated parent's involvement in children's academics and its impact on student's success in learning?
- 2) What are the main dimensions of parental involvement and how it differently affects children's academic performance?
- 3) Does individual student characteristics mediate or moderate effects of parental involvement on their children's learning outcomes?

1.1. What Is Parental Involvement?

Parental involvement is a term stands for the amount of participation a parent hold in their kids' academics. In educational perspectives, it is very essential that parents have to actively participate and regularly involve in their children's schooling, and it is traditionally believed that the more parents are committed to play a role in their children's studies, the more successful their children can ultimately be (Oranga *et al.*, 2023) [11]. Research based evidences has defined this concept of parental involvement with different definitions and dimensions. Harris and Goodall (2007) [12] differentiated parental involvement from parental engagement, where parental involvement incorporates the participation or being involved by children's parents or other guardians in the range of activities with or within school whereas parental engagement is regarded as the provision of support and help to students by parents. Other studies explained parental involvement as the dedication of resources or educational investment made by parents into their children (e.g., Grolnick & Slowiaczek (1994) [13]; LaRocque *et al.* (2011) [14] as cited by Boonk *et al.* (2018) [9]). There are other scholars avoided general definitions of parental involvement and define it in a specific

context according to where it takes place: either at school or at home (e.g., Jaynes, 2003) [15]. Both parental home/school-based involvement is defined as parental practices that are related to their children's learning. Helping kids with their homework, talking to them about school, setting high standards, supporting their academic success, and providing a structured environment that promotes learning are all examples of home-based involvement. While school-based involvement includes things like helping out at schools where kids go, taking part in school activities and groups, and interacting with teachers and staff at the school (Sapungan *et al.*, 2014) [16].

1.2. Students' Learning Outcome

Learning outcome simply means the results of learning. It is a measurable, observable and specific statement that clearly indicates what students should capture and be able to do after involving in learning process. Students' learning outcomes can also be defined as the descriptions of abilities, skills, and knowledge a student hold or own which are usually detected after passing through a certain assessment and evaluation.

Some studies have defined this outcome as a success which is broad term that can be used to mean both achievements and attitudes or performance and attitudes (e.g., Steve, 2000) [17]. This is to mean that outcome indicators are general statements which incorporate both academic performance/ achievement and attitude. Learning outcomes are also stand for specific activities that are designed to meet learning objectives in the future.

According to Steve (2000) [17] academic achievement can be one of the indicators of learning outcome. Learning outcomes should be also determined by mission and goals of educational system. In educational research, learning outcomes lie between students' academic achievements and students' attitudes, where its results play a big role in evaluation of how well teaching and learning is, and propose for future improvements.

Benjamin Bloom's taxonomy of educational objectives (1956) divided learning outcomes into 3 main categories: cognitive learning outcome, affective learning outcome, and psycho-motor learning outcome (Anderson *et al.*, 2001) [18].

The methods of measuring students' outcome vary from direct to indirect measures. Direct measurement includes class quizzes, examinations, tests, and other graded courses activities that are used to measure students' performance, this method is called summative assessment, another method is a formative method, which involve any means by which students get inputs and feedback related to their performance and suggestions for improvement from their teachers (Fan and Chen, 2001) [4].

1.3. Parental Involvement and Students' Learning Outcome

Families involvement in children academics and their effects on children's education have become a hot topic in the field of educational research, and it is

widely accepted that parental involvement and participation in academics of their children can have a good impact on their academic achievement “Parent involvement is considered a critically important component in children’s educational and cognitive development.” (Reynolds, 1992, p. 441) [19]. For years, educators and researchers had been trying to figure out whether parental involvement in their children’s academics and their academic success were related (Boonk *et al.*, 2018) [9]. Steinberg *et al.* (1996) [20] noted that parents can affect their children’s academic achievement by getting them involved in a variety of activities. Parents who want their kids to do well in school will undoubtedly involve them in learning-related activities

In the existing literature, there different studies showed that there are some parental practices that are negatively affect the child’s learning success, such as stressful monitoring of homework. Some studies also proved that there is no association of involvement of parents in their kids’ studies and their academic outcomes, especially the involvement at schools (Singh *et al.*, 1995) [2] cited by Boonk *et al.* (2018) [9]. Fan and Chen (2001) [4] research findings showed that parental involvement is strongly connected to children academic achievements when used standardized assessment than specific grade subject scores. And parents expectations for children success is positively related to their actual cognitive outcome.

Reynolds (1992) [19] discovered that younger children (grades 1 - 3) benefit more from parental involvement in their education than older children. While Jeynes (2003) [15] carried out a meta-analysis on parental involvement and how it affects minority students’ academic performance, their meta-analysis results revealed a significant considerable impact of parental involvement on children’s performance in school. These studies provide a clear example of the variability and inconsistency that are connected to the research findings on parental participation and its influence on children’s learning outcomes/success.

1.4. Objective of the Study

As discussed previously many different studies have been conducted by different researchers, in different places and different contexts that might resulted into unnecessary inconsistency in research findings on the impacts parental involvement may have on students’ academic outcomes. Therefore, it would be hard to reach this conclusion by analyzing and examining the results of one research alone. It becomes a necessity to conduct a systematic review to generally combine various individual research studies and put their findings together to draw a conclusion on how and in what ways parental involvement impact children success academically.

This paper is intend to contribute to the body of knowledge by reviewing the previous empirical research studies that aimed to determine the effects that parental involvement and participation have on students’ learning outcomes. We aim to explore parents and their involvement in children’s studies and its effect

on their academic success through the lens of the various relevant literature. We will also analyse the moderation and mediation role of parental involvement considering the individual students characteristics particularly students demographic variables in impacting students' learning outcome and cognitive development. The results of this review will be generalized accordingly.

2. Methods

To explicitly and systematically analyze published research articles on the impact of parental involvement on children's learning outcome, a systematic literature review was conducted. A systematic review of the literature is a transparent and replicable method of literature review that answers research questions based on accountable methods with explicit criteria that include or exclude previous studies on a certain topic (Gough *et al.*, 2012) [21]. Data of systematic review are extracted from the results and findings of existing research studies, and it aims at systematically synthesizing the existing knowledge on a particular research topic and discovering gaps in the literature (Moller and Myles, 2016) [22].

To ensure credibility, consistency, and transparency, this systematic review was conducted under the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). The review methods were organized according to 4 phases 1) Literature search, 2) Literature source, 3) Selection criteria, and 4) Data extraction and analysis. In particular, the PRISMA consists of a detailed checklist addressing all the major sections of a systematic review, providing an evidence-based foundation for transparency in identifying, selecting, appraising, and synthesizing the studies being reviewed (Moher *et al.*, 2009) [23].

2.1. Literature Search

For this systematic search, the authors developed a search strategy to identify the existing empirical studies that attempted to explore the current status of parents and their involvement in their children's education, particularly the impact of parental involvement on children's studies—in terms of academic performance. The search keywords included predefined search terms related to “parental involvement”, “parents participation”, “family involvement”, “students learning outcome”, “academic success”, “academic achievement and performance”, and variations of these terms. The search was conducted in the months of March and April 2023, and the search results were strictly limited to peer-reviewed scholarly articles written in English and published in the last 5years (from 2018 to 2022).

2.2. Literature Source

For this systematic search, the researcher developed a search strategy to identify the studies that aimed to investigate the parental involvement and its impact on students' learning outcome/performance. Southwest University/China's library

website was used to access the necessary information for this search. A comprehensive literature search was tailored to 2 major established electronic databases: Web of Science and Scopus considering how they are recognized for their rigor and importance in research, particularly in the educational sphere. The initial search of this study resulted in 621 studies, with more than 63% sourced from the Web of Science, and the remaining studies were extracted from the Scopus database.

2.3. Selection Criteria

This systematic review employed the 2020 PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols) statement (Page *et al.*, 2021) [24] as a framework for the inclusion and exclusion of research articles. The articles retrieved from the literature search were screened based on the relevance of their titles and abstracts to the research topic and research questions, in the absence of an abstract, the full text was taken and examined.

The selected articles have had to undergo full-text review to ensure their appropriateness for inclusion, the aforementioned steps were conducted by 2 researchers. Since this search was mainly focused on extracting the existing empirical studies that explore the impact of parental involvement on children's learning success, the relevant studies that present empirical data, and/or employ qualitative or quantitative methodologies were considered eligible for inclusion. The search span was limited to the last 5 years, all studies before the year 2018 were excluded from this search. We used the database's filters to apply some eligibility criteria such as language, publication period, type of document, and country of focus. Next, data were exported from the 2 databases and gathered into an Excel file. Then, we excluded repeated studies by comparing articles' titles or Author (s) names and other identifications. Following, we read abstracts and full texts, where at this stage we removed all studies that did not match the eligibility criteria of this systematic review. After applying all inclusion and exclusion criteria, and careful consideration of the studies a total of 24 studies were retained for this systematic review. **Figure 1** shows the inclusion and exclusion of studies at every stage of screening (PRISMA).

2.4. Data Extraction and Analysis

Relevant information, such as the author(s) of the study, publication year, country of focus, research methods and design, participants and sample size the study employed, the purpose of the study, and major findings were extracted from the retained studies, and were coded based on a coding scheme adopted from Brown *et al.* (2003) [25] recommendations.

Studies in this review were reported according to: Author (s) of the study, when and where the study had been conducted, type of research design, types of parental involvement, measurement of students' learning outcome (student GPA, class subject grades, standardized tests scores, etc...), impact of parental

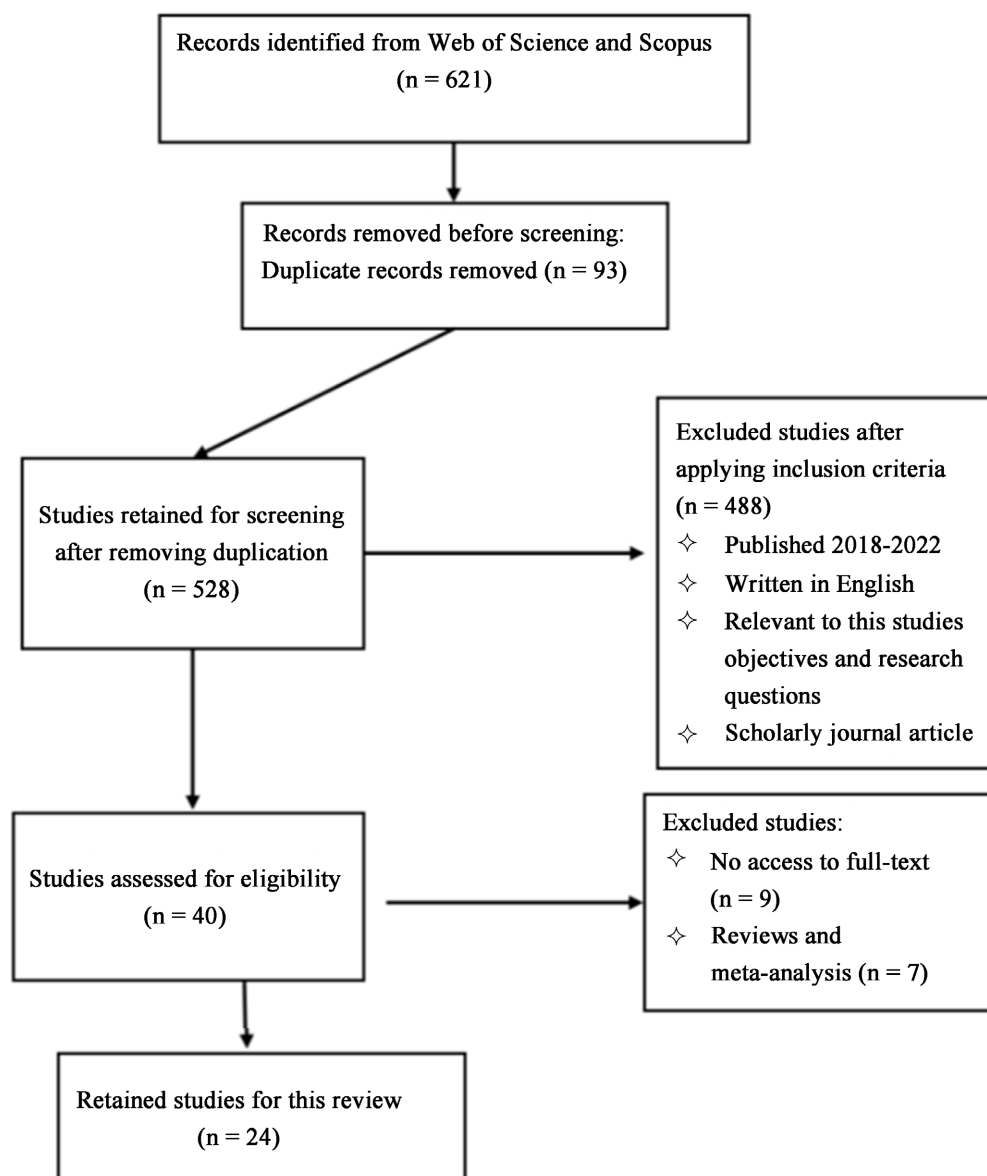


Figure 1. PRISMA flowchart of studies screening process.

involvement on students' learning outcome (no impact, positive or negative impact), participants demographic variables (age, gender, grade level, race/ethnicity, students' family SES, etc...), and sample size. Appendix shows the list of all studies retained for this systematic review.

3. Results

The results and findings of this systematic review will be presented in this section. The first part is the descriptive analysis of all 24 studies that included in this review. In the second part, we will discuss how different parental involvement dimensions and practices affect their children performance academically. The last part will include various individual students' characteristics, and look at their moderation and mediation role together with parental involvement and

their impact on students' academic achievements.

3.1. Articles Included in Systematic Review

After applying our inclusion and exclusion criteria, 24 studies in total that met criteria were extracted and retained for the review. These are the articles published between 2018 and 2022, but a large number of them found to be published in the year 2020 and 2021. About the region, most the studies were conducted from China ($n = 10.5$) and United States ($n = 4.5$). Different studies used different dimensions of parental involvement as their independent variables, with different learning achievement indicators (dependent variables), see Appendix.

3.2. Defining Parental Involvement

Although parental involvement in general terms may refer to the parents participation in their children's learning or parents practices with the target to improve and enhance learning outcomes of children. Parental involvement had been defined differently by many studies (e.g., Cross *et al.*, 2018 [26]; Oranga *et al.*, 2023 [11]).

Boonk *et al.* (2018) [9] mentioned that parental participation may be separated into 2 categories: school-based & home-based. Main activities of parental home-based involvement include: discussions about school-related matters with children at home, keeping an eye on and assisting with homework, and supervising children's learning activities. Whereas parental school-based involvement is referring to the parental practices at their children's schools such as their attendance in teacher-parent conference, volunteering in schools activities and so on. Such kind of differences in definitions of types of parental involvement make it hard to access the existing knowledge in this field, and it can results into contradiction in the study's findings (Boonk *et al.*, 2018) [9].

In this study parental involvement is defined basing on the framework of Epstein (2009) [27] demonstrating six typologies of parental involvement. It's a partnership framework of parental school, family, and community-based involvement created by Epstein and her colleagues, it is considered to be recent and comprehensive framework which contains different parental practices in schools, at homes, and within the community to promote and enhance their children's academics (Oranga *et al.*, 2023) [11], and this framework has been adopted by many studies up to the time.

The following (Table 1) are Epstein's six typology of what activities parents can do or involve in to help in learning development of their children in schools: Parenting involves activities like fulfill children's basic need by parents, offer children home environment and conditions that facilitate children's studies, parental skills of raising children at each stage. Communicating defines a well established communication ways between schools and families about both school activities and students' learning progress (family-school/school-family communication). Volunteering includes involving children families as volunteers or

Table 1. Epstein's (2009) six parental involvement typologies.

Types of PI (parental involvement)	Descriptions
1. Parenting	Supporting families with parenting advice and knowledge of children's development including youth and adolescents, advice on how to create an environment at home that will foster learning of children of different ages and grade levels.
2. Communicating	Informing families about the curriculum and academic success is important. Establish a two-way channel of communication between the family and the school, and devise efficient means of communicating about academic and learning development from the home to the school (communication between family, school, and home).
3. Volunteering	To involve families as volunteers and audience members various school activities.
4. Learning at home	Parent-kid engagement in different learning activities took place at home.
5. Decision making	Through school councils or upgraded teams, committees, and parent groups welcoming students' parents in decision making processes and discussions.
6. Collaborating with communities	Find community services and resources that can benefit and aid in the growth and learning of pupils, and include them.

audiences in students or schools programs. Learning at home simply refers to the engagement of parents together with their children in different learning activities took place at home, such as guiding and monitoring children's homework, setting academic goals, and so on. Decision making: this is the including of students' parents in school processes of making decisions.-based decisions. Community collaboration: helps parents in identification and integration of community resources and services that can facilitate and support students learning and development (Epstein, 2019) [27].

3.3. Parental Involvement and Students' Learning Achievements

In the following section, we discussed the results of various studies that reported the different parental involvement indicators to be related and impacted the students' achievements in schools. This study defined parental involvement on the basis of Epstein's (2009) [27] family-school-community parental involvement framework, and we categorized previously discussed six types into 3 dimensions: family, school, and community-based involvement, and through the lens of different studies literature we looked at their relation with and impact on students' learning achievement.

Family-based involvement: there are only 2 typologies under this dimension, parenting and learning at home. Parenting involves activities of raising kids with full support and care, providing them home environment that support their stu-

dies, and also help them understanding the role and the goals of their studies. Whereas learning at home involves all academic activities that can be done at home or in community such as parent-children discussions about the studies, parental assistance with homework, children academic goal setting, reading at home, and so on. Various studies have found both parenting and learning at home to be a determinant factor that enhance children's skills and academic performance (e.g., Hou *et al.*, 2020 [28]; Sabrina and Adam, 2022 [29]). For instance, a study of Sabrina and Adam (2022) [29] have found that parental-child numeracy activities engagement can enhance children's mathematical skills, especially for the children in pre-schools. Yiran *et al.* (2021) [30] done a study exploring the parental involvement' impact on early children education, they discovered that both parents' participation in educational activities and attitudes toward their kids' education have a beneficial impact on how well the kids perform in math. Purnomo *et al.* (2022) [31] research about mathematics home learning during the COVID-19 pandemic period, their findings showed that home-based parental support and control helped children to attain mathematical self-concept which ultimately had an influence on mathematics class achievements. However, on the other side the factors related to strict parenting tutoring and strict discipline at home were thought to be negatively influence children learning and cognitive development (Ying *et al.*, 2019) [32].

School-based involvement: this dimension involves activities that require parents to involve in schools that their children attend. 1) volunteering: this is the inclusion/involvement of parents either as volunteers or audiences in some school activities, 2) decision making: this is referring to welcome students families in some important school discussions on school plans and policies, 3) communicating: a two way system of communication between school and families (family-school/ school-family communication) which easy the communication about children learning progress for both parties, and the communication for other school programs. The study done by Brajša Žganec *et al.*, (2019) [33] used Sheldon & Epstein 2007 [34] parental survey of family and community involvement to determine the linkage between school-base parental involvement and academic achievements of 1024 Croatian students from 20 primary schools. The results showed that parental school-based involvement (parental-teacher communication, volunteering in school and classroom activities, attend parental meetings and other school events) is positively associated with school academic performance. Their study revealed that students whose parents frequently involve in their school activities achieve greater school performance than those who had less parental school involvement. Xiong *et al.*, (2021) [35] conducted a study on different parental academic involvement including parental-teacher discussions about the children academic progress, and their results found that parental academic involvement positively affect students scores in Chinese, English, and mathematics.

Community-based involvement: this is the collaboration of children's parents with community groups in different learning-related activities, which all aiming

at improving children academic performance. It is also related to the well use of community resources by families in the way that can enhance children learning and cognitive development. The stated community resources included local gyms, museums and libraries, sports grounds and parks, drama and creative art groups and so forth. For instance, Ying *et al.*, (2019) [32] conducted a survey examining the parents' involvement and its influence on middle school students' academic achievements in mainland China. One of their findings revealed that parents spending their time with children in parent-children sports exercising, museum visits, going to different science and technology exhibitions and so on all positively impact children performance in school.

3.4. Parental Involvement, Students' Demographics and Learning Outcomes

In the previous section we have discussed the various parental involvement dimensions and their effect on students' learning outcomes and cognitive development. However, it has been discovered by various studies that different parental practices in their children academics do not directly affect the performance in schools. There is a presence of mediation role between parental involvement and various demographics of children to affect the academic achievements. This effect has been also thought to differ from child to child, where children's demographic variables play a big role in determining the influence parents' involvement has on children's learning outcomes. In this section, we will look at the mediation role between parental involvement dimensions as discussed in previous section and students' different demographic variables to influence/impact students' learning achievement. And how its impact varies from student to student considering their demographic variables, as it has been reported by various studies.

The study of Ying *et al.*, (2019) [32] found that there is a vice-versa mediation role between student's cognitive abilities and his or her parental involvement in influencing the same student's class performance. Their findings indicated that this mediation role is stronger for parental strict discipline and cognitive abilities to enhance children performance in Chinese and English, while for mathematics the strong connection is between parent-child discussions and cognitive abilities. Similar findings were presented in the study of Phillipson & Phillipson (2012) [36] as cited by Boonk *et al.*, (2018) [9]. This research found evidence that family involvement indirectly influences adolescents' academic success through the mediation function of perceived cognitive ability. They put out an achievement cognitive-affect model that indicates how a kid's subjective cognitive capacity, also known as cognitive ability self-evaluation affects academic outcomes. Additionally, feedback from parent-child discussions on what parents expect their children to achieve academically has an impact on their subjective cognitive ability. Another relevant factors to mediate the effects of parental involvement on children academic performance were found to be age and level of study. According to the findings of various studies, different parental involvement dimen-

sions evidenced to influence differently the children of different ages. For instance, the research of Wei *et al.* (2022) [37] evidenced that the dimension of parental homework assistance with their children positively influence children's performance in elementary schools (early ages) but it is not the similar case when children are in the middle and higher schools. Parental high expectations for children's performance claimed to convey a negative or stressful message to adolescent students which may result in lower academic self-efficacy for youth and adolescent students (Cross *et al.*, 2018) [26]. Family background is also a mediating factor for parental involvement to impact their children's academic outcomes. It includes parent's educational levels, home financial abilities, and family size. Parental involvement (parent-child communication about learning, parent-child homework assistance) is found to benefit and improve academic achievements of children from small size than big size families (Cabus and Aries, 2017) [8]. Their findings also revealed that first born of the families are exposed to more preferential parental treatment than younger siblings which is likely to bring a difference in academic achievement between these children. According to Hou *et al.* (2020) [28] family background-related factors which incorporates parental schooling levels and socioeconomic status is likely to play minor role in determining students learning outcomes and it is not constant.

4. Discussion

In this review, we categorized parental involvement from the recommendations of Epstein model (2009) into 3 dimensions which are home/family level involvement, school level involvement, and community level involvement. Insight from various research studies reported that to different extent parental involvement dimensions influence children learning and cognitive development. This conclusion is not far from what is traditionally believed that parents hand in their children's academics have a direct influence on the performance. However from this review, it is learn that different parental practices have different effects on academic outcomes of different group of students. Parental home-based involvement which is described by different parental practices that takes place a home such as learning at home, parent-child discussions about learning, homework assistance, parenting tutoring, strict discipline and so on found by various studies to have both positive and negative association with students learning outcomes. For example, learning at home is thought to improve students performance (e.g., Hou *et al.*, 2020 [28]). However on the other side, strict parenting and high expectations of parents on children academic performance lowers adolescent students' academic self-efficacy (Cross *et al.*, 2018) [26]. This is because strict instructions from parents and their high educational expectations communicate a pressuring message to their children, which is easy to influence school performance in negative way. It is up on the future research to come up with strong suggestions on how parents can engage in their children's academics especially for conveying a message of expectations for children's studies and performance, which can be a way of encouragement instead of source of stress and pressure.

Parental school-based involvement is also another determinant dimension to influence the student performance. Studies reported that children whose parents involve in different school activities either as volunteer or audience achieve high performance than children with less parental attendance (e.g., Brajša Žganec *et al.*, 2019) [33]. The family-school communication also found to be positively connected with students performance. However, what many studies did not revealed is who supposed to take initiative to start this kind of communication children learning progress between families and schools, and if it can provide the same results in improving students' academic outcomes. Another important conclusion is that children's academic achievement is significantly impacted by the amount of time parents spend with them, whether at home or outdoors in the community. Parents who spend their spare time with their children visiting zoos, museums, libraries, and science and technology exhibitions, as well as exercising with them, are thought to foster a positive parent-child relationship. Parents are able to detect children's interests and passions, which can enhance their future academic success if they find to be well oriented by the parents, from which children feel relaxed with their parents, which ultimately increases their self-confidence. Further to that, numerous latest studies investigated whether mediating different factors (students' different demographics and characteristics) accurately provide explanation on presence of an association between involvement of parents and academic achievements of the children. Surprisingly, the findings raise doubts about the generally belief that parental involvement has direct association with students' performance in schools. These research noted that children's demographics and characteristics have a mediation function to parental participation indicators, in impacting children's performance in schools (e.g., Cross *et al.*, 2018 [26]; Wei *et al.*, 2022 [37]).

Considering students' ages, parental involvement in schools that their children attend is believed to benefit young children than older children in terms of improving academic performance. This indicates that as children grows, the effects of parents on their academic outcomes decrease or change in nature. When children are in their first grades parents can intervene in their studies by guiding and control, whereas as the children grow older parents should provide them a good and suitable learning environment, educate them on the role of being serious with their studies, and encourage them for better performance in learning.

However, the various parental practices with their children's academics and their effects on students' learning outcomes across gender groups remain unknown. The lack of clarity is attributed to the fact that previous studies that attempted to investigate the correlation of parental involvement to students' academic achievements or learning outcomes had treated students' gender as a controllable variable. This means that different dimensions may present different effects on boys and girls in different ways. Future research may aim to clarify whether there is a gender differences effect in determining the impact of parental involvement on students' academic achievement. Several studies included family background, which includes factors such as parental educational levels, home

resources, parents' occupational status, and other financial-related factors, to determine its influences on students' overall performance in schools (e.g., Hou, 2014 [38]; Donia, 2014 [39]). Home resources, such as basic learning resources, a computer at home, enough books, and a good learning environment, are positively associated with good performance, and children from such families are expected to perform well in school (Donia, 2014) [39]. Hou (2014) [38] reported similar findings, demonstrating that in Chinese context students from good family backgrounds are exposed to good schools with adequate resources, giving them great opportunities to be successful in both school and after school life. The base for future research is education for low and average family background how to raise their involvement in children's studies.

5. Conclusion

From the review of 24 studies published from the past five years that looked at how parental participation affects students' academic results. It is clear that parents and their involvement in children's schooling bear both positive and negative effects on the students' success in school. Home learning; homework assistance; parent-child discussions and family-school/school-family communication about children learning progress all found to support and improve students' learning performance. The contrary results were found for some parental practices like strict parenting and high expectations for children's performance which were believed to negatively affect the performance of students. Another important conclusion is that parental involvements do indirectly through mediation of students' demographics influence the student performance in different ways. There is a mediation role between parental involvement indicators and students demographics (ages, gender, personal characteristics, grade of study, family background, etc...) which bear different effects on academic performance of different groups students.

6. Limitations and Further Research Direction

Although this systematic review was undertaken rigorously and we have focused on quality scholarly journal articles, it is important to mention that each systematic literature review is limited by its search procedures and scope. Particularly to this study, we have tailored our search to two prominent databases. Therefore future studies should improve their search to different databases for thoroughly searching and comprehensive findings. Another notable limitation of this systematic review of literature on parental involvement and its impact on children's learning outcomes is language and time span of the literature. This study only reviewed papers that were published in English; papers published in other languages were not included. This could limit the generalizability of the findings as non-English language studies may have different cultural and contextual factors that influence parental involvement and its effects on children's learning outcomes, and excluding them may not provide a comprehensive understanding of

the topic. We challenge further studies to tackle this angle while rigorously researching this field. For time frame, this study has been restricted to the publications made from 2018 to the end of 2022. In this systematic review mainly focused on peer-reviewed journal articles in field of education. Future research should explore diversified disciplines and extend the research data to other types of literature to obtain more diverse perspectives on parental involvement and its effect in children's education. Lastly, it is still a necessity for future studies to delve deeper into the contextual factors that mediate or moderate the relationship between parental involvement and learning outcomes, as parental involvement occurs in variety of cultural contexts and socioeconomic backgrounds, which may influence its impact on children's learning outcomes. This is essential for informing more targeted interventions and policies that can benefit a diverse range of families and communities.

Conflicts of Interest

The author declares no conflicts of interest.

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Appendix. Summary of Studies Included in the Systematic Review

Author(s)	Location	Types of PI (parental involvement)	Learning achievement indicators	Impact	Sample size
Alreshidi <i>et al.</i> , (2022)	Saudi Arabia	Support children with homework, Home learning, parental expectations on children performance	Mathematics achievement	Positive	
Anthony <i>et al.</i> , (2019)	U.S.	School based involvement(SBI) and Home based involvement (HBI)	Grade point average (GPA)	Positive	23503
Cross <i>et al.</i> , (2018)	U.S.	Parental educational expectations, parental pressure and control	Academic self-efficacy	Positive/ Negative	148
Cui <i>et al.</i> , (2021)	Singapore & Hong Kong, China	Parental involvement (learning activities), parental attitude (toward children education)	Mathematical performance-TIMSS 2015	Positive	6237 Singapore 3316 Hong Kong
Donald <i>et al.</i> , (2018).	U.S.	School-based activities parental participation, home-based learning activities, community learning and parental involvement in homework		Positive	
Emel and Engin, (2018)	Turkey	Family-school related parental involvement practices	High school transition exams	Positive/ Negative	667 (parents & students) 211 (teachers & school leaders)
Ferraces Otero <i>et al.</i> , (2021)	Spain	Parental support and control	Mathematics and language performance		1316
Grijalva-Quiñonez <i>et al.</i> , (2020)	Mexico	Parental involvement (parenting style, parental support in learning at home)	Self-efficacy, self-regulated learning	Positive	823
Harju-Luukkainen <i>et al.</i> , (2020)	Finland	Parental expectations of children learning outcome, home learning, learning environment	Trends in International Mathematics and Science Study (TIMSS)-Finland	Positive, negative, and no impact	5251
Hou <i>et al.</i> , (2020)	China & U.S.	Parental instructions and commanding (parenting)		Positive/ Negative	36 China 36 U.S.
Huang <i>et al.</i> , (2021)	China	Parental involvement (cognitive, behavioral, and personal involvement)	Mathematics achievement	Positive, negative, and no impact	2866
Jun <i>et al.</i> , (2022)	China	Homework assistance, academic socialization	Academic competencies, educational value, engagement		1863

Continued

Lauren and Lauver, (2021)	U.S.	Family-school, school-family communication		Positive	3200
Ouyang <i>et al.</i> , (2022)	Hong Kong, China	Parental involvement (learning at home)	Mathematical skills	Positive/ Negative	105
Purnomo <i>et al.</i> , (2022)		School based involvement. Family-school/school-family communication	Mathematics performance	Positive/ Negative	56
Sheri-Lynn <i>et al.</i> , (2022)	Canada	Parental involvement (parenting, learning at home, home learning environment, support with homework)	Mathematics and literacy skills	Positive/ No impact	81
Simweleba and Serpell, (2020)	Zambia	Parent-child interaction about homework, parent-school communication, home learning environment	Chitonga (local language) and mathematics performance	Positive	168
Tan <i>et al.</i> , (2020)	China	Parental involvement (learning at home, home learning environment)	Language, literacy, and mathematics performance	Positive	313
Velić <i>et al.</i> , (2019)	Croatia	Parental involvement (parenting, supervision), school based parental involvement		Positive	1024
Wang <i>et al.</i> , (2022)	China	Parental involvement (personal involvement, cognitive or intellectual involvement and behavioral involvement)	Chinese, English and mathematics performance	Positive/ Negative	253
Wong <i>et al.</i> , (2018)	Hong Kong, China	Parental educational involvement both at home and in schools	Chinese language and mathematics performance	Positive/ Negative	507
Xiong <i>et al.</i> , (2021)	China	Parental involvement	Chinese English Mathematics	Positive	2381
Ying <i>et al.</i> , (2019)	China	Homework supervision, child-parent discussions, parenting tutoring, strict discipline, time spent with child, educational expectation	Chinese English Mathematics	Positive/ Negative	15481
Zhang <i>et al.</i> , (2021)	China	School-based parental involvement, academic socialization, and home-based involvement	Chinese and mathematics performance	Positive/ Negative	842