European Journal of Education Studies
ISSN: 2501 - 1111
ISSN-L: 2501 - 1111
Available on-line at: www.oapub.org/edu

doi: 10.5281/zenodo.2634601 Volume 6 | Issue 1 | 2019

HOME LEARNING ACTIVITIES AND CHILDREN'S LEARNING OUTCOMES: A REVIEW OF RECENT EVIDENCE

Aslanidou, Eftychia[i]
M.Sc., General & Special Educator,
Co-founder & Head of Studies at
"The Hellenic American Academy",
Greece

Abstract:
This literature review studies the recent research conducted in many countries and demonstrates the connection between the home learning activities and young children's literacy and numeracy skills. Can parents improve their young children's performance in literacy and mathematics? This question is at the heart of research on the home learning environment. Parents are the primary architects of a child's experiences through their childcare indoor and outdoor activities. This search strategy resulted in a total of 102 articles and our criteria were again applied to the full-text versions of these articles, which resulted in a total of 66 articles that were selected for the final quality check. The conclusion is that the more the parents interact with their children learning activities in their early childhood years, the better the children get in literacy and mathematics.

Keywords: home learning environment, home learning activities, parental involvement, home literacy, home numeracy

Περίληψη:
Αυτή η βιβλιογραφική επισκόπηση μελετά την πρόσφατη έρευνα που διεξάγεται σε πολλές χώρες και καταδεικνύει τη σχέση μεταξύ των δραστηριοτήτων εκμάθησης στο σπίτι και των δεξιοτήτων γραφής και αριθμητικής των μικρών παιδιών. Μπορούν οι γονείς να βελτιώσουν τις επιδόσεις των μικρών παιδιών τους στον τομέα της γλώσσας (γραφή, ανάγνωση) και των μαθηματικών; Αυτή η ερώτηση βρίσκεται στο επίκεντρο της έρευνας για το περιβάλλον εκμάθησης στο σπίτι. Οι γονείς είναι οι κύριοι αρχιτέκτονες των εμπειριών ενός παιδιού μέσα από τις εσωτερικές και εξωτερικές δραστηριότητες παιδικής φροντίδας. Η στρατηγική αναζήτησης οδήγησε σε ένα σύνολο 102 άρθρων και τα κριτήρια που εφαρμόστηκαν στις εκδόσεις πλήρους κειμένου αυτών των άρθρων είχαν ως αποτέλεσμα την επιλογή συνολικά 66 άρθρων για τον τελικό ποιοτικό έλεγχο. Το

[i] Correspondence: email eftychia.aslanidou15@myhunter.cuny.edu

συμπέρασμα είναι ότι όσο περισσότερο αλληλεπιδρούν οι γονείς με τις μαθησιακές δραστηριότητες των παιδιών τους, στα πρώτα τους παιδικά χρόνια, τόσο καλύτερη είναι η σχολική επίδοση των παιδιών αργότερα στη γλώσσα και στα μαθηματικά.

Λέξεις κλειδιά:
Περιβάλλον εκπαίδευσης στο σπίτι, δραστηριότητες εκμάθησης στο σπίτι, συμμετοχή γονέων στη μάθηση των παιδιών, δραστηριότητες βελτίωσης γλώσσας στο σπίτι, δραστηριότητες βελτίωσης μαθηματικών στο σπίτι.

1. Introduction

The interest of the educational community and of academic researchers for the quality of home learning environments is rapidly increasing the last years. In several occasions, research has shown that parental engagement in children's activities at home can positively impact children's academic performance (e.g. Hill & Craft, 2003). More specifically, home-learning environment has been found to be a significant predictor of reading and math achievement (Anders, Rossbach, Weinert, Ebert, Kuger, Lehrl, &Von Maurice, 2012).

When it comes to children's literacy, home literacy environment has been conceptualized as a concept that covers all the experiences with written speech that children engage in with their parents interactively (Sénéchal, LeFevre,Thomas, & Daley, 1998;). Home literacy environment includes a combination of home literacy activities and contextual variables (e.g., demographic characteristics), child characteristics (e.g., temperament), mother–child interactions (e.g., maternal responsiveness), and parent–child joint activities (e.g., watching TV) (Manolitsis, Georgiou, Tzirakis, 2013). Sénéchal et al. (1998) grouped the activities taking place at home into two broad categories: formal and informal literacy activities. Formal literacy activities are those that directly engage children in print concepts through the teaching of letters or teaching of reading and writing of words. Informal literacy activities are those that expose children to print incidentally through activities such as shared book reading and visits to the library. Previous studies have suggested an indirect relationship between formal/informal literacy activities and reading ability, but they have not incorporated both types of home literacy activities in a single statistical model (Manolitsis, et al., 2013).

When it comes to children's numeracy, home numeracy environment is a critical factor in children's academic achievement. Research studies indicate that children's early numeracy skills before and during preschool or kindergarten are significant predictors of mathematics achievement in primary school and beyond (Jordan and Levine, 2009). The early numeracy skills such as concepts of counting, number competence (the ability to recognize changes in magnitude), quantity discrimination, numerical relationships (recognizing which of two numbers is smaller), and number naming have consistently been found to be strong predictors of mathematics achievement These numeracy domains may be important contributors to the development of formal mathematics skills such as addition, subtraction, ordinal

sequencing, and mathematical word problems. Prior to starting school, children may use many mathematics concepts and skills in their play and to meet the general demands of daily lives at home. A group of studies has also demonstrated that broader aspects of the home-learning experiences are associated with early math skills (Melhuish, Phan, Sylva, Sammons, Siraj-Blatchford, & Taggart, 2008).

Insofar, it can be safely argued that parents' involvement has a great impact on children's literacy and numeracy. But how is parental involvement or engagement defined? According to Macmillan Dictionary (2009-2012), involvement may be defined as "*the act of taking part in an activity or event, or situation*". On the other side, engagement is defined as "*the feeling of being involved in a particular activity"* or "*a formal arrangement to meet someone or to do something, especially as part of your public duties*". Thus, "engagement" would seem to encompass more than just an activity and it is greater than simple involvement. This means that parental engagement will involve a greater commitment, a greater ownership of action, than will parental involvement with schools (Goodall & Montgomery, 2014; Papadopoulou & Gregoriadis, 2017). Furthermore, Goodall and Montgomery (2014) describe that "*we do not wish to present parental involvement with schools as wrong, or as a starting point to be left behind. Rather, we wish to present the process as a continuous one, with parental engagement with children's learning as a goal, which is constantly supported by the other points along the way. The continuum charts the movement in relationships between parents and schools*" (p.400).

Another important issue for discussion has to do with what constitutes a qualitative home learning environment (Zachopoulou, Grammatikopoulos, & Gregoriadis, 2013). An in depth understanding of the dimensions that are pillar for a good home learning environment, can help educators guide effectively parents to increase their involvement in their children's learning activities. Kluszniok, Lehrl, Kuger and Rossbach (2013) has shown that the quality of the home literacy environment can be differentiated into three major components which are:

a) *Structural characteristics*: These include stable, long-lasting characteristics of the family background, such as family composition, living conditions and cultural, educational and socio-economic background.
b) *Educational beliefs and orientations*: This includes the parents' general educational values as well as their opinions regarding a specific child or domain of child development. Also, parental educational beliefs or belief systems regarding their aspirations, hopes and plans for a child's educational career or their opinions about the relevance of stressing early childhood cognitive development in single domains.
c) *Educational processes*: These include the nature of interactions between the child and his or her parents and between the child and other children, as well as the child's orientation to his or her spatial-material surroundings. Educational processes are therefore divided into general and domain-specific aspects (Grammatikopoulos, Linardakis, Gregoriadis, & Oikonomidis, 2015). General processes are not intended to stimulate any single domain of child development but rather aim at broader environmental factors (e.g. everyday activities in the

family, social support and family climate). Domain-specific processes promote single curriculum-related domains of child development, such as language, early literacy and early numeracy (e.g. reading or counting activities) (Kluszniok, et al., 2013).

In sum, in order to understand how children develop and what factors influence their development, we should not only examine the children's abilities, but also the environment in which they are growing. Indeed, there are a lot of studies that consider the home learning environment as a predictor of reading and mathematics ability (Ciping, Silinskas, Wei, & Georgiou, 2015). Researchers have reported that parent-child interactions, specifically stimulating and responsive parenting practices, are important influences on a child's academic development (Committee on Early Childhood Pedagogy, 2000). Literacy and numeracy in the family setting are strong predictors of later school success (Duncan et al. 2007) Home literacy environment can boost children's self-esteem, increase motivation and engagement with learning and can lead to increased learning outcomes (Fan, Williams, and Wolters, 2011). Especially, studies have shown that higher levels of maternal education are positively associated with many different academic outcomes for children throughout development (Harding, Morris, & Hughes, 2015). Also, a sizable body of research documenting the importance of children's early experiences for later cognitive, academic, and social development (Shonkoff & Phillips, 2000).

The main purpose of this study is to conduct a systematic literature review for the effectiveness of parents' engagement in their child's literacy and numeracy outcomes. Furthermore, this study examines the following research questions:

1) Is there any positive impact of parents' engagement in their child literacy?
2) Is there any positive impact of parents' engagement in their child numeracy?
3) What are the lasting effects of their engagement?

2. Method

2.1 Search Procedures

This systematic literacy review is examining all relevant articles about parental involvement and children learning outcomes from the year 2000 till today. The methodology of this study is based on Petticrew and Roberts's method (2006) for executing systematic reviews which is based on the following steps:

1) Formulate research questions.
2) Define the search terms and select relevant databases.
3) Identify inclusion and exclusion criteria the literature research.
4) Only studies that meet these quality criteria are included in this review, which makes it legitimate.
5) Data answering the research criteria and questions are extracted.

A systematic review was conducted using the Hellenic Academic Libraries Link (HEAL LINK), which includes the scientific database "Scopus". Also, another database which was used is "Google Scholar". These databases and search engines were chosen,

because they provide access to the most prominent scientific journals regarding educational research. The search was conducted with the application of several keywords. At the beginning, we used several combinations of search terms, like "paternal", "engagement", "child" and "home learning". Unfortunately, the term "paternal" was not commonly used in the type of articles we were looking for in our review. Thus, we added one more term which was "parental". But still, there weren't many articles with these terms. Next, we used the combinations "mother", "maternal" and "father". After this, we also included the word "involvement". Finally, we thought that it would be crucial we add the words "home numeracy", "home schooling", "home literacy" and "home numeracy". Last but not least, our review included the terms "preschool" and "kindergarten", so we expand our research and gain a comprehensive overview of the articles on family engagement in home learning activities. Our search strategy resulted in a total of 102 publications.

2.2 Inclusion and Exclusion Criteria

We read all the abstracts of the publications which were obtained with the search terms described above. However, we only took under consideration the articles which were published in scientific peer-reviewed journals. Hence, scientific publications in books or book chapters were excluded. Also, publications from 2000 to present (as of 21 June 2017) were only included, because we wanted to see the current and the newest studies in this field. These articles had to be published in English, even though the empirical studies concerned bilingual kids. However, our focus wasn't on a special population (e.g., children with special needs) and we didn't include articles like them.

After applying all these inclusion and exclusion criteria to all the publications, our search strategy resulted in a total of 102 articles. Our criteria were again applied to the full-text versions of these articles, which resulted in a total of 66 articles that were selected for the final quality check. The data of these studies were drawn from studies such as the Early Childhood Longitudinal Study, Head Start Family and Child Experiences Survey (FACES), Welfare Children & Families Study. Only four studies were based on secondary data analysis of a smaller scale datasets; and the rest of these studies used primary data collection and analysis. Nineteen of them were regression analysis. Three of them used a sequential analysis, three used structural equation model & one the family strengths model. Thirteen of all these studies used ANOVA, one was a cluster analysis & ten used interviews, home visits and observations. Also, eleven were paths analysis, one was a discourse analysis. Last but not least, one was a pilot study, one was a longitudinal study and two were case studies. Twenty-seven of the studies (n = 28) were based on samples from North America, 6 from South America. A further 6 studies were based on samples from Canada, 13 from Europe, 13 from Asia, 1 from South Africa, and 1 study used Australian samples. The large majority of studies (n = 49) examined the home learning experiences of kindergarten and preschool-aged children. A further 18 studies examined home learning involvement during their school age.11 studies spanned from infancy through kindergarten and preschool.

2.3 Initial Data Extraction and Quality Check

A study quality for a systematic review means "internal validity", the extent to which a study is free from the main methodological biases, such as observer bias (Petticrew & Roberts's, 2006, p. 127). To evaluate the scientific quality of the studies, the data extraction that was used included the following sections:

1) General information: Study title, author, year of publication (2000 and after), country, research context, and journal
2) Topic: family engagement in home learning activities.
3) Research design: Research question, description of the study, research design, research method, length of the intervention in home learning activities, and data analysis method
4) Research population: Number of parents and their children, gender, and age of the children.
5) Results: Findings that are related to the research question.

All 66 articles were checked using 10 quality criteria for choosing the appropriate studies for our literature review drawn from Petticrew and Roberts (2006, 42-143) (see Table 1).

Table 1: Quality criteria for choosing the appropriate studies about HLE

Category	**Quality criteria for choosing the appropriate studies about HLE**
General orientation questions	1. What question is the study aiming to answer? 2. Is the research done using the chosen method capable of finding a clear answer to the research question?
Selection of the sample	3. Are the study participants adequately described (age, sex, country etc)? 4. Is the sample surveyed representative?
Method	5. Do the researchers state the research methods used? 6. Are the measures used in the study the most relevant ones for answering the research question? 7. Are they objective and reliable?
Data analysis	8. Are the results clear presented? 9. Did formal test for change in trend (such as ANOVA) use an appropriate method?
Conclusion	10. Is the research question answered using empirical evidence from the research that was done?

2.4 Home Learning Environment & Child Outcomes: A Young Field of Study

According at the publication dates of the 66 articles reviewed in this study (see Figure 1), it becomes apparent that all the articles published 2000 and after. Also, these articles are not many and this field of the study is really young in the scientific society. In Table 2, there is an overview of these studies. Although the 66 eligible studies were found, it is obvious that studies on home learning environment and the engagement of the parents to their children academic achievement have been conducted all over the Earth. In addition, most of the studies reviewed made use of qualitative methods such as interviews, and observations at reading behavior and comprehension, verbal ability,

etc. If someone looks at Figure 1, the will understand that after 2013, there is an interesting on this field which grows up, but not radically. Thus, the outcome of parental engagement at their children academic achievement is fairly young and further research should be done.

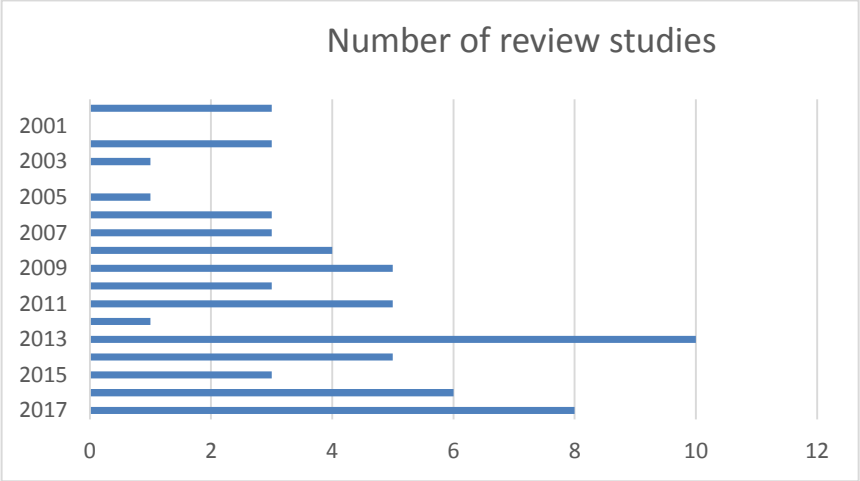

Figure 1: Frequency distribution for year of publication for reviewed articles

3. Results

This section discusses the ways home learning activities have been researched in the empirical literature. First, there is a review of how home learning activities and parent-child participation in these activities has been measured. This participation is typically measured through maternal self-report questionnaires that assess how often parents and children engage in the various learning activities. Secondly, we propose underlying dimensions that represent family engagement in measures home learning activities. In the research literature there have been several different ways in which home learning activities have been categorized. These are analyzed in our literature review. Parents can engage with their children's performance by practicing literacy and numeracy related activities. We have subdivided the results into two themes. An overview of these two themes and the supporting studies can be found in Table 3.

The term 'home learning activities' is used to represent a range of learning and educational based activities that parents and children engage in together, providing opportunities for communicative exchange and interpersonal interaction between adults and children that facilitate learning (Melhuish, Phan, Sylva, Sammons, Siraj-Blatchford & Taggart, 2008). Most of the time, these activities include in-home parent-child activities, such as shared reading, teaching letters and numbers, and arts and crafts, as well as family activities outside of the home such as visiting the library and going on outings to the museum. All these activities and the parental engagement on them improve children's literacy and numeracy.

A number of studies have begun to distinguish between home literacy activities and home numeracy activities (etg, Anders et al., 2012; Manolitsis, Georgiou, & Tziraki,

2013). Home literacy activities typically include activities such as identifying names and sounds of letters, printing letters, and teaching to read. On the other side, home numeracy activities include activities such as learning shapes and colors, identifying the names of written numbers, and playing counting games. This means that research should explore the underlying pattern of relationships among all these various activities in order to determine, for the given dataset, the dimensions of engagement in home learning activities that the items propose to measure.

The majority of the articles recognized the importance of the early learning experiences that young children received in their homes, most notably shared book reading between a parent and child (e. g. Van Bergen, 2017; Boerma et al., 2017; Barnes et al. 2017). However, home learning activities have been broadened to recognize not only shared book reading activities, but other learning and educational based experiences and opportunities in which parents and children engage (Manolitsis, Georgiou & Tziraki, 2013; Anders, Rossbach, Wenert, Ebert, Kuger, Lehrl & Von Maurice, 2012 etc). These learning experiences and opportunities typically include in-home parent-child activities, such as verbal counting, playing games, teaching letters and numbers, and doing arts and crafts, as well as family activities outside the home such as trips to the park, library, zoo, or museum (Vandermas-Peeler, Nelson & Bumpass, 2007 etc).

Much of the research that has measured these broader home learning activities has come from secondary data analysis of large scale population representative studies. These studies include the Early Childhood Longitudinal Study-Birth Cohort (Caesar & Nelson, 2014; Baker, 2013a; Durand, 2011). These studies typically measure home learning activities via maternal (or primary caregiver; Deniz Can & Ginsburg-Blosck, 2016)) self-report scales that assess how often an adult in the family has participated in various learning activities with the [study] child. A number of smaller scale studies, which have utilised primary data collection methods, also measure home learning activities in a similar style (Xu, Farver & Krieg, 2017; Caspe, 2009).

Furthermore, a number of studies have used the Home Observation for Measurement of the Environment (HOME, Caldwell & Bradley, 1984). The HOME is a well validated scale that evaluates the overall quality and quantity of age-appropriate stimulation and support available to a child in the home environment (Bradley, 1999). Information is obtained through direct observations of the home and a semi-structured interview with the primary caregiver (Mascarenhas, Moorakonda, Agarwal, Lim, Sensaki & Chong, 2017; Al-Mahrooqi, Denman & Al-Maamari, 2016; Shah-Wundenberg, Wyse & Chaplain, 2013; Huang, 2013; Blanch, Duran, Valdebenito & Flores, 2013 etc). Measures of the extent of parental involvement in learning-related activities are covered in the interview and include measures of in-home activities (shared reading, teaching numbers, colours, the alphabet, and shapes and sizes), as well as family activities outside the home (family outingsvisits the museum). These activities are considered alongside other observational and self-report items that measure availability of toys and learning materials in the home and the quality of parent-child

interactions such as maternal warmth (Baker, 2013b), motivation Vandermaas-Peeler, Nelson, Bumpass & Sassine, 2009), and book sharing style (Caspe, 2009).

One of the most common early home learning activities which has received a great deal of research attention is that of shared book reading. Manolitsis et al. (2013) showed that storybook exposure predicted reading fluency through the effects of vocabulary phonological awareness. Not only that, but Sad et al. (2016) showed that parents who supervise their children can help them obtain technology literacy. According to Barnes & Puccioni (2017), the quality of book reading is associated with children's mathematics outcomes, and the quantity with reading outcome. In addition, Sad, Konca, Ozer & Azar (2016) observed that parents who supervised their children in terms of academic, personal or social well-being helped their children to increase their technology literacy, to enable easy and quick access to information sources, and enhance their children's autonomy and academic achievement (Al-Mahrooqi et al., 2016; Dove et al, 2015; Di Santo et al., 2015). Shared reading activities also provide opportunities for parents to use questions, expansions, and definitions that focus on the language used in the story, further facilitating learning (Sénéchal & LeFevre, 2002; Baker, 2014a; Manolitsis et al., 2013).

Importantly, parents and children engage in conversations that extend beyond the story content, which can help children learn and practice new vocabulary (Farver et al., 2006). Shared reading activities provide a context for encouraging children's emergent literacy and numeracy (Manolitsis et al., 2013). On the other side, a closer look to other studies reveals no direct link between exposure to shared book reading in the home and emergent literacy skills, such as phonological awareness and letter knowledge, after accounting for a range of child and family variables (Foy & Mann, 2003; Manolitsis et al., 2013; Sénéchal & LeFevre, 2002). This means that these studies have reported an indirect relationship mediated by oral language; like, more frequent exposure to books enhanced oral language, which in turn was associated with emergent literacy skills. Furthermore, studies have indicated that frequency of parent-child involvement in formal teaching activities (i.e., parents directly teaching their child the letters of the alphabet) is a predictor of children's emergent literacy skills as compared to frequency of shared book reading (Foy & Mann, 2003; Sénéchal & LeFevre, 2002).

While shared book reading has typically been viewed as an activity that promotes language and literacy, there is also some limited research to suggest that shared book reading facilitates the development of skills in other academic-related areas. For example, Baker (2013a) showed that parents' home literacy involvement positively contributed to children's cognitive, but also their social emotional development. Senechl et al. (2009) cited positive links between parent-child shared storybook reading and children's vocabulary and listening comprehension skills. These findings point to a possible link between shared book reading and children's emerging numeracy skills. Additionally, Yeo et al. (2014) have shown that shared book reading practices in the home plays an important role in promoting children's motivation to read, both early on and to continue to want to read for leisure later on, which plays a role in contributing to children's ongoing language and literacy development.

In addition to shared book reading, the extent to which parents engage with their children in other learning-related activities, both in the family home and in the community, represents another important component of the early home learning experiences that contribute to children's development. Typical shared home and community activities include telling and discussing stories, reciting nursery rhymes and playing rhyming games, doing art and craft activities, and going on outings like trips to the library, museum, and zoo. A large body of research has shown that the frequency with which parents engage with their children in these various shared learning activities plays an important role in contributing to children's early language and academic-related skills. (e.g., Anders et al., 2012; Farver et al., 2006; Weigel et al., 2006).

All these links were consistent across European American, African American, and Hispanic American children, and children from both poor and non-poor families. Engaging in teaching-related activities (i.e., teaching letters, numbers) provides children with direct instruction for learning language, literacy, and numeracy skills. Rodriguez et al. (2009) noticed that family outings provide young children with a variety of opportunities to experience and explore other objects, events, and people that are different to those encountered in the home. his helps to enrich children's lives and permits them to learn about the world around them. Also, it is important to consider that the quality of interactions between a parent and child during home learning activities matters. This research showed that mothers who are more sensitive and responsive in their engagements with their children tend to have children who are more advanced in their language and cognitive development. In their study, Rodriguez et al. (2009) reported that the quality of maternal engagement during mother-child play sessions (i.e., maternal sensitivity and stimulation) uniquely predicted children's language and cognitive skills, over and above significant demographic predictors (i.e., child gender, maternal education, race/ethnicity) at 14, 24, and 36 months of age. When considered alongside frequency of children's participation in literacy-related activities and the availability of age-appropriate learning materials in the home, these three aspects of children's home learning experiences accounted for up to 10% of variance in children's outcomes at 14 months, 17% of variance at 24 months, and 20% of variance at 36 months .

3.1 Dimensions of home learning activities

The results of all articles that met our quality criteria were analyzed in more detail to ensure the validity. Thus, the analysis that was used is a thematic synthesis (Thomas, Harden & Newman, 2012). Some studies have used one overall dimension to capture information about the level of family engagement in home learning activities (e.g., Van Berger et al., 2017; Boerma et al., 2017; Foy & Mann, 2003), while others have used multiple dimensions (e.g., Li & Rao, 2000; Peterson & Ladky, 2007).

In their study, Cabus & Aries (2017) used as instruments measures the family' s size & parental involvement in a child's academic performance. In this way, if family size increases, the child will get less parental involvement than another's child smaller

family. Another research measured the parent education, parenting stress, and parental home-based educational activities (Deniz Can & Ginsburg-Block, 2016).

All these examples of the studies reported described above highlight the diversity in the ways in which home learning activities have been researched, even when the same dataset was used. Foy & Mann (2003) found that the exposure to reading- related media and parents' active involvement in children's literature were directly and indirectly linked with rhyme awareness skills through their association with letter ad vocabulary knowledge. That is, parents who read storybooks frequently did not necessarily report teaching their child about reading and writing.

Also, Senechal & LeFevre (2002), using data from a longitudinal study, showed children's exposure to books was related to the development of vocabulary and listening comprehension skills. In this way, reading together and looking at letters and numbers rather than explicit teaching of reading and writing. Nevertheless, this study suggests a need to distinguish between various in-home activities.

Table 2: Summary/Overview of Papers found in the Systematized Literature Search

	Author, date	**Study Population Number Ages at data collection Sample information**	**Measure of family engagement in home learning activities Dimensions Measure/Items**	**Measure of socio-demographic predictors and/or child outcome** (if applicable)	**Type of analyses**	**Results**
1	Cabus & Aries, 2017	N=9126 students. Age: 12 years old. Netherladish.	Two dimensions: family's size & parental involvement. Measure: academic achievement.	Child outcome: if family size increases, the child with the highest rank will get less parental involvement in education than the child with the lowest rank. The oldest child benefits the most in terms of better educational outcomes than the younger child (ren).	Factor analysis, stages-reduced form regression & robustness analysis.	The academic achievement is rooted in a school-supportive home climate, and often created by the mother. When it comes to math performance and grade retention, it is better that both parents unduly interfere with school. Also, parents with low socio-economic status and from immigrant families are as much involved in the education of their children as the average Dutch family, but their involvement is less effective in terms of children's learning outcomes.
2	Bojczyk et al., 2017	N=112 mother-child dyads Preschool children American	Three dimensions: mothers' self-efficacy beliefs, home learning environment, and literacy skills.	Child outcome: Literacy skills Vocabulary skills	Modeling path analyses.	Higher maternal self-efficacy is related to creating a more positive home learning environment. No direct effect of maternal self-efficacy on home learning environment. There is a link between home learning environment and children's

						receptive vocabulary skills.
3	Van Bergen et al., 2017	N= 101 mother/father/child triads. The children were at least in grade 2 and had completed at least 14 months of formal reading instruction. Dutch.	One dimension: home environment. Measures: parental level of education, parental reading frequency, magazines and newspapers in the home, and access to books.	Child outcome: Reading fluency	Regression analyses.	Parental education and parental reading frequency did not predict children's fluency over and above parental reading fluency. Good reading parents tend to have good reading children. High educational attainment and highly literate homes, and vice versa for poor reading parents.
4	Boerma et al., 2017	N=117 children. Ages 8-11 (79 third graders and 38th fourth graders). Dutch.	One dimension: home literacy environment. Measures: reading behavior, reading comprehension, expressive verbal ability, print exposure and mentalizing.	Child outcome: Positive relation between children's home literacy environment and reading comprehension.	Path analyses using AMOS.	This study showed that variance in primary school children's reading comprehension can be explained by differences in children's current home literacy environment, print exposure, and mentalizing ability. Positive relations have been shown with children's reading comprehension, reading behavior, mentalizing abilities, and expressive verbal ability. Mentalizing and expressive verbal ability were not significantly correlated. No direct relation was found between children's own print exposure and expressive verbal ability.
5	Tompkins et	N= 49 mother-child	Two dimensions: the quality	Child outcome:	Sequential analysis.	Mothers' inferential yes/no

	al., 2017	dyads. Mean child age= 4.47 years. American.	of early parent-child book-reading interactions and children's language skill. Measures: level of abstraction, utterance function.	How parents' talk during shared reading predicts children's vocabulary growth and elicits children's participation in book reading.		questions and statements predicted children's receptive vocabulary growth over six months, controlling for children's age, mothers' education, and frequency of reading, and that mothers' inferential wh- questions and literal utterances of all types were not predictive of children's vocabulary growth. Also, found significant contingencies between mothers' utterances and children's responses during shared reading that were within the same level of abstraction across all utterance functions.
6	Barnes & Puccioni, 2017	N=700 children. Early Childhood Longitudinal Study-Birth cohort. American.	Two dimensions: Relationship among the quality and quantity of parent-child shared book reading engagements. Measures: reading and mathematics outcomes in preschool.	Child Outcome: Reading and mathematics outcomes in preschool.	Structural equation model.	The quality of book reading was associated with children's mathematics outcomes, and the quantity was associated with reading outcomes controlling for contextual variables. The frequent exposure to high-quality book reading may positively impact children's mathematics and reading development.
7	Mascarenhas, Moorakonda, Agarwal, Lim, Sensaki &	N= 1152 parents. Age of child: 12 months of age. Singaporean.	Three dimensions: home literacy environment (HLE), demographic, and variables. Measure: literacy skills.	Child outcome: literacy achievement.	Logistic regression analyses.	Parents of 525 children completed a questionnaire. Mothers were the main caregivers in half the

	Chong, 2017					households. Mandarin was the main language (34%). Majority of the respondents had a library card that was used less than weekly, and had fewer than 10 children's books. 18% of parents read to the child daily, of whom one-quarter read at bedtime. Amongst half of the families who had a child-centered orientation (CCLO) score of 0, two-thirds had the lowest home literacy environment (HLE) scores (0–2). Correlational analyses indicated significant association between HLE with CCLO at 12 months ($p < 0.001$). Non-English speaking caregivers and mothers who had only completed primary education were at high risk of a poor 12-month CCLO. A literacy-rich home environment is associated with 12-month child-centered literacy orientation.
8	Xu, Farver & Krieg, 2017	N=139 Asian immigrant families and their children (69 girls), from seven public schools in Honolulu, Hawaii.	One dimension: aspects of the home literacy environment. Measure: literacy skills.	Child outcome: literacy achievement ability.	Preliminary analyses, descriptive statistics-regression analyses, ANOVA.	Parents' literacy activities in English at T1 were positively related to children's English literacy skills at T1. Also, parents' literacy activities in English and in their native

		Mean age=62.93 months; standard deviation=3.82 (kindergarten). Asian immigrants.				language at T1 were both related to children's interest in literacy at T2, which in turn was associated with children's English oral language skills at T2.
9	Deniz Can & Ginsburg-Block, 2016	N= primary caregivers of 78 preschoolers (ages 3-5). American.	Three dimensions: Parent education, parenting stress, and parental home-based educational activities. Measures: home literacy environment and parent-child interactions among low-income preschool families.	Child outcome: Reading skill.	Separate hierarchical regression models.	Parenting stress significantly predicted general home-based involvement, parent-child interactive reading, and parent-child modeling/monitoring in reading. Parental education or stress didn't predict parent-child literacy skill building activities.
10	Brown, Mahatmya & Vesely, 2016	N=544 low-income African American (56%) and Latino/a (44%) elementary school aged children. Mean child age=7.88 years. American.	Two dimensions: how home and school operate together.	Child outcome: externalizing behavior and applied problem scores.	Contextual systems model. Data from Welfare, Children, & Families Study: A Three City Study and multiple group path analysis.	Kindergarten-3nd graders: the adequacy of the home recourses was positively related to applied problem scores (e.g. math literacy) and negatively associated with externalizing behavior. 4th-6th graders: the adequancy of classroom resources was negatively associated with applied problem scores. For both age groups positive teacher–child relational quality was a positive predictor of externalizing behavior. Results revealed that barriers to parental involvement in school

						were a negative predictor of applied problem scores for low-income children in early and later elementary school.
11	Compton-Lilly, Caloia, Quast & McCann, 2016	N= 20 lowest-performing reading students (13 English learners, 5 African Amercan children, 1 white child, 1 biracial child). Also, seven families of these children participated in the research component of the project. Age= 6-and-7-year-old children. American.	Two dimensions: the effectiveness of summer reading program when books were sent home to culturally diverse low-income families. Measures: phonemic awareness, phonics, vocabulary, fluency, and comprehension skills.	Child outcome: literacy, reading accuracy and reading achievement ability.	Questionnaires, interviews home visits and observations.	The associations parents made between reading accuracy and their child's reading achievement ability were understandable considering how reading is practiced in schools. In particular, the researchers described how both children and their parents often understood reading as a process of sounding out words. This research has revealed rich insights about literacy in one low-income community and suggested possibilities.
12	Sad, Konca, Ozer& Acar, 2016	N=23 volunteering parents. Turkish.	Dimension: parental e-nvolvement. Measures: academic well-being and technology literacy.	Child outcome: academic, personal or social well-being, and increasing children's technology literacy.	Semi-structures interviews.	Parents supervised their children in terms of academic, personal or social well-being; increasing technology literacy; enabling easy and quick access to information sources; enhancing learner autonomy and academic achievement. On the other hand, there was the risk of exposure to inconvenient websites; technology addiction; and making the children antisocial.

13	Jung, 2016	N=3309 children. Age: Kindergartners. American.	Two dimensions: parental beliefs about school readiness, family engagement in home learning activities. Measure: the influence of family and reading achievement in the kindergarten.	Child outcome: reading achievement in the kindergarten year.	Structural equation modeling.	Parents' readiness beliefs and family activities were significantly related to children's reading skills. Family activities were related to children's attitudes about school, but these attitudes were not related to the development of reading skills. The higher engagement in shared parent-child activities may be an important focus in intentional efforts aimed at enhancing early reading achievement.
14	Al-Mahrooqi, Denman & Al-Maamari, 2016	N=391 parents of students in the Omani public school system. Arab.	Four dimensions: potential benefits of parental involvement in their children's English language education, activities that parents believe they should be involved in, obstacles that parents believe exist to their involvement, and how often Omani parents involved in their children's English language education. Measure: Omani parental involvement in their children's English language education.	Child outcome: development of learners English language skills.	Questionnaire in a Likert-type response scale.	Results indicated that Omani parents are generally aware of the importance of their involvement on their children's academic, social, and even psychological development. Moreover, they believe that parents should be involved in a number of home- and school-based activities, such as visiting their children's schools even when their children are not in trouble and being actively involved in other school activities, even though their actual level of involvement in their children's English

						language studies was somewhat limited. Participants tended to be neutral about the nature of any personal, teacher, school, or administration obstacles to their involvement in their children's education, although the implication exists that schools could do more to create and staff systems that actively seek to encourage their participation, at least as far as English language classes are concerned.
15	Ciping, Silinskas, Wei & Georgiou, 2015	N=177 children. Age: 1st-2nd grade. Chinese.	Three dimensions: home learning environment, parents' socioeconomic status (SES) & child's gender. Measure: academic achievement.	Child outcome: academic achievement (reading and mathematics).	Descriptive statistics-ANOVA.	Results showed that reading ability in Grade 1 negatively predicted informal home literacy activities in Grade 2. Mathematics ability in Grade 1 negatively predicted formal home numeracy activities in Grade 2. Neither parents' SES nor child's gender moderated any of the observed cross-lagged relationships. So, different facets of the home learning environment may relate to reading and mathematics in Chinese. Also, once children go to Grade 1, the relationship between home learning environment and academic achievement becomes

						unidirectional: early reading/mathematics ability predicts future home literacy/numeracy activities and the effect is negative. This suggests that parents engage more frequently in home activities when they notice that their children experience difficulties in reading or mathematics. However, it is also possible that parents change their teaching in order to be in accord with the expectations of the school system.
16	Bojczyk, Rogers-Haverback, Pae, Davis & Mason, 2015	N=112 children (59 rural and 53 urban) Men age= 56.78 months. American.	Two dimensions: family background and home literacy experiences. Measures: formal and informal home-learning activities, home-learning environment profile, and literacy skills.	Child outcome: literacy abilities in rural and urban preschoolers enrolled in Head Start programmes.	A multivariate analysis of variance (MANOVA), an exploratory factor analysis & hierarchical multiple regression analyses.	Although, rural and urban preschoolers may have similar literacy abilities. When maternal education was controlled for, family background variables and components of the home literacy environment predicted emergent literacy skills differently for the two groups. Also, mother's active involvement and the child's own engagement in literacy seemed to play a salient role in early literacy improvement.
17	Dove, Neuharth-	N= 3.808. Former Head Start	Dimension: parental involvement routines.	Child outcome: literacy skills.	Secondary analyses.	Parental involvement outines at home and school are beneficial

	Pritchett, Wright & Wallinga, 2015	Kindergarten children. American.	Measure: children's literacy outcomes.			to literacy outcomes in kindergarten.
18	Di Santo, Timmons, Pelletier, 2015	N= 12 mothers of preschool children. Canadian.	Two dimensions: mothers' use of the environment, materials and activity ideas in the home. Measure: literacy teaching.	Child outcome: literacy development.	Family Strengths Model.	The families participating in this study increased their involvement in their children's literacy learning.
19	Skwarchuk, Sowinski, LeFevre, 2014	N= parentsof 183 children. Median child age= 58. Months. Canadian.	Four dimensions: parents' attitudes, academic expectations for their children, reports of formal and informal numeracy, and literacy home practices on children's test scores. Measure: numeracy and literacy achievement.	Child outcome: numeracy and literacy improvement.	Confirmatory factor analyses & hierarchical regression analyses.	Parental reports of formal home numeracy practices predicted children's symbolic number system knowledge, whereas reports of informal exposure to games with numerical content (measured indirectly through parents' knowledge of children's games) predicted children's non-symbolic arithmetic, as did numeracy attitudes. The home literacy results replicated past findings; parental reports of formal literacy practices predicted children's word reading, whereas reports of informal experiences predicted children's vocabulary.
20	Baker, 2014a	N= 826 children. Age= preschool. Mexican-American.	Dimension: mother-reported home literacy involvement and English proficiency. Measure: children's reading achievement.	Child outcome: reading achievement.	Derived path analysis.	Mexican American children's early education and development may be enriched by family literacy programs that enhance their mothers' English proficiency and increase the

						frequency of home literacy activities.
21	Lukie, Skwarchuk, LeFevre, Sowinski, 2014	N= parents of 170 children. Children age: four-to-five year old. Canadian.	Two dimensions: children's interests and collaborative parent-child interactions. Measure: home literacy and numeracy activities.	Child outcome: literacy and numeracy achievement.	Interviews & factor analyses.	Parents whose children preferred exploratory, active or crafts activities reported frequent engagement in literacy and numeracy activities. Moreover, parents seeking a collaborative approach during activities reported increased exposure to home literacy and numeracy activities than families with less collaborative involvement. Last but not least, parents of children with high numeracy scores were exposing their children to rich numeracy activities during play. The findings suggest that children's interests and collaborative parent-child involvement impact literacy and numeracy exposure in the home.
22	Yeo, Ong, &Ng, 2014	N= 193 children & their parents. Age: 6 years old. Singaporean.	Two dimensions: parents' reading beliefs and home literacy practices. Measure: reading skills and interest.	Child outcome: reading skills.	Hierarchical multiple regression analyses.	The study found a moderate relationship between the home literacy environment (HLE) and children's reading competencies and a strong relationship between the HLE and children's reading interest. When parents' education level and children's age were controlled, found that

						family literacy activities contributed more unique variance to children's reading outcomes and reading interest than did parents' reading beliefs. Active parental involvement was the strongest component of the HLE, with parent-child engagement in reading and writing emerging as the best predictor of both the child's emerging reading skills and reading interest. With respect to reading beliefs, parents' efficacy in supporting literacy development before their child attended school positively predicted reading competence, as did parents' affect and verbal participation in fostering reading interest. However, verbal participation negatively predicted Singapore children's reading competence.
23	Baker, 2014b	N=750 of 2-parent families from the Early Childhood Longitudinal Study-Birth Cohort. Age: preschool children. African American.	Three dimensions:African American fathers' home literacy involvement, play activities, and caregiving at 24 months. Measure: reading and math achievement in preschool.	Child outcome: reading and math achievement.	Hierarchical regression analyses.	Mother and father characteristics predicted child achievement. Mother age predicted math achievement but not reading. Also, fathers' education and home literacy involvement significantly predicted achievement. African

						American fathers who engaged in more frequent shared book reading, telling stories, singing songs, and provided more children's books in their homes at 24 months had children with better reading and math scores in preschool.
24	Caesar & Nelson, 2014	N= 19 children. Age: 2.6-5.2 (pre-school children). Spanish-American.	Dimension: the feasibility of a home-school partnership. Measure: literacy skills.	Child outcome: improving bilingualism and literacy instruction.	Pretest-posttest measures in Spanish and English were obtained using the Early Literacy Skills Assessment (ELSA).	Results indicated significant increases in pre- to posttest English and Spanish scores for the experimental group, but not for the control group in alphabetic and print knowledge. Parental participation rates (as measured by weekly drawing submissions) exceeded 90%. These results suggest that integrating parent-generated content into classroom language intervention activities may be feasible both in terms of parental involvement as well as children's emergent literacy skills development.
25	Manolitsis, Georgiou & Tziraki, 2013	N= 82 children. Age: kindergarten-1st grade. Greek.	Two dimensions: home literacy and numeracy environment. Measures: nonverbal intelligence, emergent literacy skills, early math concepts, verbal counting, reading and	Child outcome: reading and math achievement.	Path analyses.	Parents' teaching of literacy skills predicted reading fluency through the effects of letter knowledge and phonological awareness. Storybook exposure predicted reading fluency through the effects of

			math fluency in grade 1.			vocabulary on phonological awareness. Finally, parents' teaching of numeracy skills predicted math fluency through the effects of verbal counting. These findings suggest that both the home literacy and the home numeracy environments are important for early reading and math acquisition, but their effects are mediated by emergent literacy and numeracy skills.
26	Pinto, Pessanha & Aguiar, 2013	N= 95 children and their families. Age: toddlers, Mean age: 26,33 months & preschoolers Mean age: 68.71 months. Portuguese.	Two dimensions: home environment and center-based child quality. Measures: children's language, communication, and early literacy development.	Child outcome: early literacy achievement.	Hierarchical linear models.	Home environment and preschool quality, but not center-based toddler child care quality, were associated with children's language and literacy outcomes. Moreover, the quality of preschool classrooms moderated the association between home environment quality and children's language and early literacy skills – but not communication skills, suggesting the positive cumulative effects of home environment and preschool quality. Also, positive associations among home environment quality and children's developmental

						outcomes were found to reduce substantially when children attended low-quality preschool classrooms.
27	Shah-Wundenberg, Wyse & Chaplain, 2013	N & Age= 241 pre-school children. Indian-English.	Dimension: parental support for children's reading of English (paired reading and hearing reading). Measure: reading development.	Child outcome: enhancing children's beginning English reading skills, reading accuracy and comprehension.	Mixes-methods research design (quasi-experimental trial, interviews and observations of the trial data)	Paired Reading and Hearing Reading were found to be equally effective in enhancing children's beginning English reading skills, reading accuracy and comprehension, relative to controls. Parents engaged in a variety of mediation behaviours to enhance their children's English reading development. Parents felt that participating in their children's reading was both enriching and empowering. In view of the evidence that Hearing Reading can be, and was, implemented by parents with little or no English language proficiency, it is concluded that implementing Hearing Reading on a wider scale across the city could impact beneficially on children's English reading development.
28	Baker, 2013a	N= 5190 families from the Early Childhood Longitudinal Study-Birth Cohort (ECLS-	Dimension: home literacy involvement at 24 months. Measure: children's cognitive and social emotional development.	Child outcome: children get better in reading, math. Also, they have positive	Hierarchical regression analyses.	Fathers' and mothers' home literacy involvement (HLI) positively contributed to children's cognitive and social emotional development.

		B). Age: preschool children. African American and Caucasian.		social emotional outcomes.		Specifically, fathers and mothers who participated in more frequent HLI (e.g., shared book reading) had children with better reading, math, and social emotional outcomes (i.e., sustained attention and fewer negative behaviors) in preschool. Findings suggest that increasing family literacy involvement can have positive benefits for children's cognitive and social emotional skills during the developmentally important early childhood years.
29	Huang, 2013	N= 18 students and their parents. Age: first-grade students. Chinese.	Dimension: the use of 'literacy bags' (LBs) to promote Chinese parental involvement. Measure: English literacy learning	Child outcome: English literacy development.	Ethnographic methodology (teaching questionnaires, classroom observation, home visits, and parental interviews.	LBs encouraged, supported, and enriched book reading and literacy learning in families. Parents expanded their understanding of how a child develops a new language, and they were able to apply effective literacy strategies to engage and discuss books with their children. Reading activities promoted social interactions between parents and children, parents and teachers, and peer interactions. The project also influenced parental attitudes and perceptions of their

						children's English literacy development, viewing themselves as teachers of their own children. In addition, this study expanded the scope of the findings of Western scholars to include understandings of the cultures, languages, and families of East Asia.
30	Froyen, Skibbe, Bowles, Blow & Gerde, 2013	N= 385 mothers and their children. Age: preschool children. Midwestern-American.	Three dimensions: marital satisfaction, family emotional expressiveness and home learning environment. Measure: preschool-aged children's emergent literacy skills.	Child outcome: improve children's literacy skills.	Path analyses.	Higher maternal satisfaction was associated with higher levels of positive and lower levels of negative family emotional expressiveness. Moreover, family emotional environments characterized by mothers with higher positive expression were related to better home learning environments, which in turn were associated with higher literacy skills in children. Study findings underscore the importance of marital and family processes when considering young children's academic development.
31	Froiland, Peterson & Davison, 2013	N=Nationally representative sample. Age: kindergarten students and their	Dimension: family environment. Measure: educational outcomes on 8th grade.	Child outcome: early parent expectations for children's post-secondary	Structural Equation Modeling.	Home literacy in kindergarten predicts achievement in 8th grade indirectly via kindergarten achievement. Parents can have a positive

		parents. American.		educational attainment have a stronger effect on 8th-grade achievement than home based parental involvement.		impact on academic achievement through early home literacy and maintaining a strong hope that their children will succeed in college. Because early parent expectations have long lasting effects on children, parent involvement interventions for young children need to be developed that also target elevating parental expectations.
32	Kluszniok, Lehrl, Kuger & Rossbach, 2013	N= 547 children. Age: preschool children. Dutch.	Three dimensions: home learning environment; structural characteristics and educational beliefs of the family. Measure: educational processes.	Child outcome: Family background promotes early childhood learning at home and child's independence. Also, it promotes literacy & numeracy.	Descriptive data, regressions analyses & multivariate analyses.	Results show that general educational processes of the home learning environment operate independently of structural characteristics and parental educational beliefs, whereas the domain-specific educational processes of the home learning environment are more strongly related to the structural characteristics and parental educational beliefs. A model of the home learning environment should thus always include different domains of stimulation (general and domain-specific) presented as

						parallel cases.
33	Baker, 2013b	N=21,000 children. Age: kindergarten children. African American.	Five dimensions: maternal depression, parenting stress, maternal warmth, home learning stimulation and cultural socialization. Measure: reading and math skills.	Child outcome: home literacy involvement has the potential to narrow school readiness gaps. Reading and math achievement.	Path analyses.	This study revealed a direct negative effect of maternal depression and parenting stress on maternal warmth, home learning stimulation, and cultural socialization. Home learning stimulation emerged as an important mediator between maternal parenting stress and math achievement. Further, maternal warmth mediated the relation between maternal depression and reading achievement.
34	Blanch, Duran, Valdebenito& Flores, 2013	N=303 students and 223 family tutors. Age: primary school students (8-11 years old). Spanish.	Dimension: the impact of an educational programme involving peer tutoring at school and family tutoring at home. Measure: reading comprehension achievement.	Child outcome: reading comprehension improvement.	Standardized tests in pre and post- test bases (parent questionnaires, teacher and family interviewsandanalysis of the family tutoring interactions).	The main results showed positive effects for all the students, but especially for the 223 students who received family support. Overall, the study reveals the effectiveness of peer learning to improve reading comprehension skills and the potential of family involvement for the development of academic skills when the school provides trust and support for it.
35	Anders, Rossbach, Weinert, Ebert,	N= 532 children. Age: preschoolers. German.	Dimensions: family background factors (gender, maternal education,	Child outcome: literacy and numeracy	Statistical analyses.	The analyses identified child and family background factors that predicted numeracy skills

	Kuger, Lehrl & Von Maurice, 2012		socioeconomic status). Measures: home learning environment (literacy and numeracy related activities).	achievement.		in the first year of preschool and their development over the three points of measurement—particularly gender, parental native language status (German/other), socioeconomic status, and mother's educational level. The quality of the home learning environment was strongly associated with numeracy skills in the first year of preschool, and this advantage was maintained at later ages. In contrast, the process quality of the preschool was not related to numeracy skills at the first measurement, but was significantly related to development over the period observed. The results underline the differential impact of the two learning environments on the development of numeracy skills.
36	Durand, 2011	N=2,051 children and their parents (Early Childhood Longitudinal Study) Age:kindergarten	Two dimensions:Latino parents' home and school involvement activities. Also, the rle of social capital in promoting parents'	Child outcome: parental involvement in children's schooling is an	Regression analyses.	Parental involvement was a significant predictor of children's literacy skills above controls. Also, stronger communication with other

		children. Latino.	involvement practices. Measure: literacy skills	important component of children's early school success.		parents may be instrumental in increasing both home and school involvement among Latino families, creating a possible avenue through which Latino parents might develop a collective voice within the school sector. Teachers may be well-positioned to facilitate opportunities for Latino parents to engage in authentic dialogue about their children's growth, learning, and school success.
37	Parkes & Ruth, 2011	N=724 families of students at eight dual language schools. Latino-American.	Six Dimensions: parental language, educational level, program model type, grade level of the child, years the child has been in the program, and parents' involvement with specific skills at home. Measure:	Child outcome: language and literacy development, math skills, home-school communication, and academic challenge.	Analyses of variance.	Parents surveyed were highly and uniformly satisfied with their child's skills and with the program. Parents' involvement with specific skills (literacy, math and communication) at home related to their satisfaction with those skills.
38	Ngorosho, 2011	N=300 children and their mothers/female guardians. Age: 3nd graders. Kiswahili-Tanzanian.	Dimension: home environment. Measure: reading and writing ability.	Child outcome: reading and writing achievement.	Correlation analysis & multiple regression analysis.	Performance in reading and writing measures was at level slightly above 50% of the maximum score. There was no significant gender difference in performance, although the boys performed slightly higher than the girls. Also, there was a high relationship between reading and writing measures and home

						environment variables. Thee are four predictors of a summary score of reading and writing ability: fathers' education, the quality of house wall material, number of books for school subjects found in home, and parental involvement in the child's school learning. In terms of children's ability to write, parental involvement was the only significant predictor.
39	Rodriguez & Tamis-Lemonda, 2011	N=1852 children and families. Age: 15, 25, 37 and 63 months. American.	Four dimensions: children's participation in literacy activities, the quality of mothers' engagements with their children, and the availability of learning materials. Measure: vocabulary and literacy skills at 63 months.	Child outcome: literacy achievement.	Confirmatory factor analyses, parametric, variable-centered analyses& latent curve analyses.	Six learning environment trajectories were identified, including environments that were consistently low, environments that were consistently high, and environments characterized by varying patterns of change. The skills of children at the extremes of learning environment trajectories differed by more than 1 SD and the timing of learning experiences related to specific emerging skills.
40	Lau, Li & Rao, 2011	N= 431kindergarten students from five kindergartens in Hong Kong and five kindergartens in Shenzhen and their	Two dimensions: parents involvement in their children's learning and how this involvement is related with their children's readiness for school.	Child outcome: parental involvement provokes children's readiness for	Correlational and regression analyses.	Chinese parents had a higher level of home- based involvement than school-based involvement during the early years. Parental involvement was highly correlated with overall

		parents. Mean Age: 72,24 months. Chinese.	Measure: Chinese literacy and cognitive readiness.	school.		readiness for school. Parent Instruction, Language and Cognitive Activities and Homework Involvement were the significant predictors of overall readiness for school, whereas home-based involvement predicted more variance of readiness for school than did school-based involvement. Only Language and Cognitive Activities and Home-school Conferencing were associated with children's Chinese literacy and cognitive readiness.
41	Durand, 2010	N= 56 children and their mothers. Age: kindergarten children. Latinos.	Dimension: Latina mothers' home practices regarding school preparation. Measure: children's literacy skills.	Child outcome: literacy achievement.	Hierarchical regression analyses.	This study showed that mothers' practices in the social rather than academic domain were positively associated with children's literacy skills in the spring of kindergarten and that children's classroom engagement partially mediated these relations.
42	Aram, 2010	N=51mother and fathers and their children. Age: kindergarten children. Israeli.	Dimension: parents' writing guidance for their children. Measure: children's early literacy,	Child outcome: literacy achievement.	Video analysis.	Children's early literacy was assessed. A family style of guidance emerged, where a parent's guidance resembled the spouse's. Moreover, both parents' guidance correlated significantly with children's

						early literacy. Still, mothers scored higher than fathers on both the writing and the more general guidance measures. Last but not least, the study suggests that encouraging both parents to write with their children, while supplying them with productive methods for guidance, can enhance children's literacy competencies.
43	Topor, Keane, Shelton & Calkins, 2010	N= 158 children, their mothers & their teachers. Age: 7 years old. American.	Two dimensions: the child's perception of cognitive competence and the quality of the student-teacher relationship. Measure: academic performance.	Child outcome: academic achievement.	Multiple mediational analysis.	Results indicated a statistically significant association between parent involvement and a child's academic performance, over and above the impact of the child's intelligence. Also, the child's perception of cognitive competence fully mediated the relation between parent involvement and the child's performance on a standardized achievement test. The quality of the student-teacher relationship fully mediated the relation between parent involvement and teacher ratings of the child's classroom academic performance.

44	Vandermaas-Peeler, Nelson, Bumpass & Sassine, 2009	N= 37 families (13 of them were considered low income). Mean age: 60 months. American.	Two dimensions: parent-child engagement and parental guidance of children's participation in literacy-related activities at home. Measure: enjoyment, motivation and success in subsequent school-based literacy experiences.	Child outcome: literacy achievement and enjoyment.	Analyses of variance (ANOVA).	The overall amount of guidance provided did not differ due to income level of the families. Also, middle income parents provided greater support for early literacy learning, in that they engaged in more teaching during reading, made more connections between the book and the play episode, and reported reading to their children daily. However, regardless of income or education, parents provided high levels of support to sustain the children's interest and engagement in both activities, using social connections such as humor and personal references. The extent to which both teaching-oriented guidance and socio-emotional involvement in early home-based literacy activities may be linked to enjoyment, motivation and success in subsequent school-based literacy experiences warrants further investigation among economically diverse families.
45	Rodriguez, Tamis-	N= 1046 children and their mothers from	Three dimensions: the frequency of children's	Child outcome: multiple aspects	Descriptive data, hierarchical multiple	Children with consistently enriched literacy environments

	LeMonda, Spellmann, Pan, Raikes, Lugo-Gil &Luze, 2009	low-income families. Age: first three years of children's life. American.	participation in literacy activities, the quality of mothers' engagements with their children, and the provision of age-appropriate learning materials. Measure: children's language and cognitive development.	of children's literacy environments may have particular significance during the early, formative years when cognitive growth and language acquisition are rapidly developing.	regression analyses, separate regression analyses, concurrent analyses, predictive analysis & confirmatory factor analyses.	performed at levels that were on par with norms established in the general population, whereas those with consistently low literacy experiences scored at levels that place them at risk for subsequent learning difficulties. In short, not only do multiple aspects of the literacy environment relate to children's early development, but they do so over and above one another; at distinct time periods in the first three years of life; and they continue to relate to children's language and cognitive development beyond demographic characteristics of children and families. The finding that each of the three aspects of the literacy environment uniquely predicted children's language and cognitive outcomes has both theoretical and practical implications. This study also documents the impressive variation that exists in children's early language and cognitive achievements, and how experiences in the home account for increasingly greater portions

						of variance as children move from infancy through preschool. Each aspect of the literacy environment uniquely contributed to the prediction of children's language and cognitive skills at each age, beyond child and family characteristics. Similarly, literacy experiences at each of the three ages explained unique variance in children's 36-month language and cognitive skills. These findings point to the importance of targeting multiple aspects of the literacy environment, already by the first year of life, as a means to supporting the development of young children from low-income families.
46	Caspe, 2009	N= 8 Latino Head Start low-income Latino children and their mothers. Age: four-year-old children. Latin-American.	Dimension: maternal booksharing styles. Measure: language and literacy development.	Child outcome: emergent literacy ability.	Cluster analyses.	The results of this study identified three types of maternal booksharing styles which had differential predictive power over children's literacy longitudinally. Results are discussed in terms of improving culturally appropriate research, practice and policy for early childhood and family literacy

						programming designed to meet the needs of young Latino children and their parents.
47	Morgan, Nutbrown & Hannon, 2009	N= 85 fathers. Age: young chidren. British.	Two dimensions: the fathers' involvement in a family literacy programme and their home literacy practices with their young children. Measure: literacy achievement.	Child outcome: literacy achievement.	Quantitative and qualitative analysis.	The data indicate that, while fathers' participation in the family literacy programme was not easily *visible*, almost all fathers were involved to some extent in home literacy events with their children. During the programme, teachers shared information about literacy activities and the importance of children having opportunities to share literacy activities with their parents. Data indicate that fathers who were not mentioned by mothers as having been involved in their children's literacy were significantly more likely to be on a low income than those who were reported as being engaged with their children in home literacy activities. Fathers in the study were involved in providing literacy *opportunities*, showing *recognition* of their children's achievements, *interacting* with their children around literacy and being a *model* of a literacy

						user. Although involved in all four of these key roles, fathers tended to be less involved in providing literacy *opportunities* than mothers. While fathers and sons engaged in what might be described as traditionally 'masculine' literacy activities, fathers were more often reported to be involved with their children in less obviously gendered home literacy activities. The article concludes with discussion of implications for involving fathers in future family literacy programmes.
48	Willson & Hughes, 2009	N= 784 children. Age: kindergarten or at the beginning of the 1st grade. American.	Five dimensions: academic competence, sociodemographic characteristics, social/emotional/behavioral characteristics, school context, and home environment. Measure: reading and mathematics skills.	Child outcome: reading and mathematics achievement.	Hierarchical logistic regression.	The 165 students retained in first grade were found to differ from promoted students on reading and mathematics achievement test scores, teacher-rated engagement and achievement, and intelligence as individual predictors of academic competence, but with direct effects only for reading and teacher-rated achievement when entered as a set of predictors. Nine additional variables had zero-order significant correlations with

						retention status. Beyond the effects of academic competence variables the results showed that only being underage for grade and the home environmental variables of positive parental perceptions of their child's school, sense of shared responsibility for education with the school, and parent communication with the school contributed significantly to retention.
49	Li, Corrie & Wong, 2008	N= 88 children. Age: five years old and then administered at eight years old. Chinese.	Three dimensions: parents and teachers involvement in literacy teaching, home/ classroom literacy environment and their beliefs about language learning. Measure: literacy skills.	Child outcome: literacy achievement.	A multivariate analyses of variance (MANOVA) and an analyses of variance (ANOVA)	After controlling for age, site, maternal education and teacher qualification, formal literacy activities in early childhood significantly contributed to literacy attainment at primary school, whereas informal literacy experiences did not. Results suggest that the complicated nature of Chinese orthography may make early instruction particularly valuable in Chinese literacy acquisition. The psycholinguistic, pedagogical and sociocontextual accounts and implications of these findings are discussed.
50	Mistry,	N= 257 and 1202	Three dimensions:	Child outcome:	Path analyses.	Results indicated that among

	Biesanz, Chien, Howes & Benner, 2008	immigrant and native families, respectively. Age: birth-3 years old. Immigrants in Canada.	socioeconomic status (SES), quality of children's home environment and family nativity status. Measures: children's cognitive and behavioral outcomes.	literacy achievement.		both immigrant and native households, maternal education, as compared to household income or welfare receipt, was the strongest predictor of a composite of SES. Path analyses estimated direct and indirect effects of SES and revealed greater similarity than difference in the processes by which SES influences immigrant and native children's preschool outcomes. Language/literacy stimulation and maternal supportiveness mediated the relations of SES to children's cognitive outcomes among both immigrant and native families. In contrast, parenting stress mediated the effects of SES on children's aggressive behavior among native, but not immigrant, households.
51	Sneddon, 2008	N=2 Turkish kids, 2 Albanian kids, 1 Pakistan kid & 1 kid from Congo. Age: 6-9 years old. Bilingual (British and Albanian or Turkish or French or Urdu).	Four dimensions: the involvement of their parents in their schools; how the mothers and their children used both texts to transfer skills from one language to another, to negotiate meaning in both languages, to compare	Child outcome: academic achievement.	Pilot study.	The study highlights the positive impact on children's confidence, on their personal identity as bilinguals in a multicultural British society, on their achievement in English literacy as well as the involvement of their parents in

			reading strategies and how these vary depending on the language learnt. Measure: children's confidence on their personal identitu in a multicultural British society, on their achievement in English literacy.			their schools. The study identifies the crucial role of the teacher and the school in providing a positive ethos in the classroom, and support and resources for parents.
52	Aikens & Barbarin, 2008	N=21,260 children. Age: kindergarten-5th grade. American.	Four dimensions: socioeconomic status of children's family (SES), literacy environment, parental involvement in school, and parental role strain. Measure: reading outcome.	Child outcome: reading achievement.	Hierarchical linear modeling analyses.	The association between school characteristics and reading outcomes suggests that makeup of the student population, as indexed by poverty concentration and number of children with reading deficits in the school, is related to reading outcomes. The findings imply that multiple contexts combine and are associated with young children's reading achievement and growth and help account for the robust relation of SES to reading outcomes.
53	Peterson & Ladky, 2007	N=teachers and principals from 32 schools. Age: 6 years old. Canadian (immigrants).	Two dimensions: practices and challenges of educators & parents. Measure: children's literacy skills.	Child outcome: English literacy.	Questionnaire and interview data.	The results showed that the teachers learnt about the language and culture of their students, modified homework assigned to their bilingual students, and encouraged parents to read to their children in their mother tongue.

						Teachers need to increase their awareness of parents' perceptions of authority and the role of their first language for success in their children's English literacy. Teachers also need to understand parents' role as co-teachers at home.
54	Feiler & Logan, 2007	N= 1 child and his family. Age: pre-kindergarten child. British.	Two dimensions: the flexibility and the sensitivity to the child's family culture from the assistant's playful approach, and the parental involvement. Measure: literacy skills.	Child outcome: literacy achievement.	Case Study.	The child made strong progress with literacy during his first year at school. However, teaching assistants in the UK might be given more scope to develop support strategies for early childhood education that involve collaborative work with parents.
55	Vandermas-Peeler, Nelson, Bumpass, 2007	N= 26 children and their mothers. Age: 4 year-olds children. American.	Two dimensions: the frequency and type of numeracy exchanges during parent-child play. Measure: cultural, procedural, and mathematical exchanges.	Child outcome: numeracy improvement.	ANOVA-SPSS	Results indicated that approximately one-half of the numeracy interactions related to mathematical concepts, one-third to cultural exchanges, and one-sixth to procedural information. The majority of parents provided conceptual information through implicit teaching rather than direct, didactic teaching of number skills during play. Parents initiated significantly more numeracy interactions than children, but the 4-year-olds

						initiated about one-fifth of the exchanges. The present study has implications for preschool and kindergarten programs, parent education, and home-school partnerships. Parents and children in this study demonstrated that numeracy-related interactions occur naturally in discourse during play, and that play is an important social context for guidance of numeracy development.
56	Yamamoto, Holloway & Suzuki, 2006	N= 108 mothers. Age of child: kindergarten age. Japanese.	Three dimensions: preschool selection strategies, engagement in reading at home, and involvement in activities at the preschool. Measure: home reading.	Child outcome: reading achievement.	Chi-square analyses and logistic regression analyses.	Consistent with theory and findings in the US, parenting self-efficacy and family role construction were associated with Japanese mothers' strategies for selecting preschools and frequency of engaging in home reading. Findings regarding family socioeconomic status (SES) demonstrated a culturally specific pattern; mothers of higher SES background were more likely to access formal sources of information and to engage in daily home reading but less likely to participate at the school site.

57	Farver, Xu, Eppe & Lonigan, 2006	N= low socioeconomic status (SES) Latino mothers of 122 (65 girls & 57 boys). Age of child: preschoolers (39-49 months, 5.40). Latino-American.	Two dimension: children's home environments and readiness skills (oral language and social functioning). Measure: literacy skill.	Child outcome: literacy achievement.	Path analysis.	The results showed that when controlling for children's age and factors that potentially influence children's opportunities for learning, the relation between parents' literacy involvement and children's PPVT-R/TVIP scores and social functioning was mediated by children's interest in literacy. In addition, mothers' perceived parenting stress was directly associated with children's PPVT-R/TVIP scores and social functioning. The findings highlight within-group variations in the home literacy environments of low SES Latino families.
58	Raikes, Green, Atwater, Kisker, Constantine& Chazan-Cohen, 2006	N= 372-579 parents, depending on measure. Age of child: 12 months old or younger and then when children were 14, 24, and 36 months of age.	Dimension: home visit involvement. Measure: literacy outcome.	Child outcome: cognitive and language achievement.	Descriptive analyses.	Results showed that the proportion of time during the visit devoted to child-focused activities predicted children's cognitive and language development scores, parent home scores, and parental support for language and learning when children were 36 months of age. Implications for home visiting programs and policies are discussed.

59	Pahl & Kelly, 2005	N= N.S. family literacy classrooms in Croydon and Derbyshire. Age: nursery age. British.	Two dimensions: literacy practices and spatiality in the context of family literacy. Measure: literacy and language skills.	Child outcome: literacy achievement.	Case studies.	This research revealed how family literacy classrooms could be understood as 'third spaces', between home and school, offering parents and children discursive opportunities drawing on both domains.
60	Foy & Mann, 2003	N= 40 monoligual children (17 boys & 23 girls). Age: 4-6 year old-children. American-Caucasian.	One dimension: home literacy environment associated with phonological awareness. Measure: children's awareness of rhymes and phonemes, vocabulary, letter knowledge, and performance on measures of phonological strength.	Child outcome: letter-sound and vocabulary knowledge.	Descriptive statistics, regression analyses & path analysis.	The results showed that a teaching focus in the home literacy environment and exposure to reading-related media are directly associated with phoneme awareness and indirectly associated via letter knowledge and vocabulary. Exposure to reading-related media and parents' active involvement in children's literature were also directly and indirectly linked with rhyme awareness skills via their association with letter and vocabulary knowledge.
61	Pretorius & Naude, 2002	N=30 children (five from each daycare facilities). Age: five and a half-seven years old. South African.	Dimension: determine the presence of early childhood developmental factors that might play a role in the subsequent poor performance of these children. Measure: literacy and numeracy development.	Child outcome: reading and writing readiness.	Interviews and checklists (ANOVA)	Results revealed inadequate literacy skill, poor sentence construction, poor sense of syntax, and inadequate sound development, and knowledge of the alphabet. They also reveal poor knowledge of sounds especially pertaining to prefixes and suffixes, transposition of

						sounds within words, and replacement of a sound within a word by another. Additionally, they have also been inadequately exposured to mediated reading and writing experiences due to parental non-involvement.
62	Cairney & Ashton, 2002	N= three diverse families. Age: elementary. Australian.	Two dimension: the discourse practices of school and of members of three families as they engage in shared reading activities. Measure: literacy skill.	Child outcome: literacy achievement.	Discourse analysis & data analysis software GSR NUD*IST.	What this analysis demonstrates is that the sociolinguistic complexity of literacy support that adults offer, makes it difficult (indeed unwise) to make simplistic statements concerning differences across literacy contexts, or even repeated occurrences of the same type of literacy event within a single context. Hence, one could assume that where there is congruence between the pedagogical practices found at home and at school, this must also reflect a degree of intersubjectivity, developed through the parents' own experience of school, parent education programs and involvement in children's education. However, this work shows that without greater attention to the discourse

						practices, the picture is at best incomplete.
63	Senechal & LeFevre, 2002	N= 168 children. Age: middle-and upper middle- class children. Canadian.	Two dimensions: home literacy experiences and subsequent receptive language. Measure: literacy skills and reading achievement.	Child outcome: literacy achievement.	Longitudinal study.	Results showed that children's exposure to books was related to the development of vocabulary and listening comprehension skills, and that these language skills were directly related to children's reading in grade 3. In contrast, parent involvement in teaching children about reading and writing words was related to the development of early literacy skills. Early literacy skills directly predicted word reading at the end of grade 1 and indirectly predicted reading in grade 3. Word reading at the end of grade 1 predicted reading comprehension in grade 3. Thus, the various pathways that lead to fluent reading have their roots in different aspects of children's early experiences.
64	Li & Rao, 2000	N= 480 children. Age:2-6 years old. Chinese (from Beijing, Hong Kong, and Singapore).	Three dimensions: their involvement in literacy teaching, the home literacy environment, and their beliefs about language learning. Measure: literacy skills.	Child outcome: literacy achievement.	Preschool and Primary Literacy Scale (PPCLS).	In all three societies, older children outperformed younger children on the subscales. Preschoolers from Hong Kong and Singapore did significantly better than those from Beijing.

						Despite sociocultural variations, which contributed to societal differences, home literacy education significantly contributed to the prediction of Chinese literacy attainment in Beijing, Hong Kong, and Singapore.
65	Justice & Ezell, 2000	N= 28 parents and their 4-year-old children (each dyad was assigned to a control or experimental group). American.	Dimension: parents' book-reading behaviors. Measure: children's early literacy skills.	Child outcome: literacy achievement.	Pretest and posttest measures.	Parents in the experimental group were instructed to use nonverbal and verbal printreferencing behaviors in their reading sessions. Control group parents did not receive this instruction. Posttest measures found that parents in the experimental group showed a significant increase in their use of verbal and nonverbal references to print. Results also indicated that parental use of these printreferencing behaviors significantly enhanced their children's early literacy skills in several areas of print and word awareness. Clinical implications of this intervention are discussed.
66	Faires, Nichols & Rickelman, 2000	N= 8 children and their parents (4 were assignes to the experimental group	One dimension: parental training and involvement in the teaching of selected reading lessons.	Child outcome: increasing first-grade children's reading levels.	t- test (pretest and posttest) -ANOVA analysis)	The students involved in the study made significant gains when compared to the gains of the control group.

		and 4 served as a control group). Age: first- grade students. American.	Measure: reading skills.			

4. Discussion

All things considered, parents' engagement in their child academic performance is crucial. Not only can parents help and support their child's literacy skills, but they can also boost their children for numeracy achievement. The key is to get involved with their kids' activities and support them by doing extra projects. It is not only school that can give the opportunity to a child to create his one bright future, but the confidence that a parent gives to their child (Gregoriadis, Grammatikopoulos, & Zachopoulou, 2013).

This literature review has shown that children's early home learning experiences are significant predictors of their later reading and mathematics achievement at school. If a child receives the attention that it needs in this tender age (early childhood), then they become strong adults with self-esteem, ready to conquer life and cope with all the difficulties that will appear.

The research has indicated that the more frequently parents and children engage in home learning activities like shared book reading, doing art and craft activities, and going on family outings like trips to the library, during the early years, the more advanced are children's oral language and academic-related skills, including emergent literacy and numeracy (Caesar et al, 2014; Pinto et al., 2013; Sneddon, 2008; Barned & Puccioni, 2017; Jung, 2016; Ciping, Silinkas, Wei & Georgiou, 2015; Skwarchuk, Sowinski, LeFevre, 2014; Lukie, Skwarchuk, LeFevre, Sowinski, 2014; Baker, 2013a; Huang, 2013; Anders, Rossbach, Weinert, Ebert, Kuger, Lehrl & Von Maurice, 2012; Parkes & Ruth, 2011; Rodriguez et al., etc). Not only do good reading parents tend to have good reading children (Van Bergen et al., 2017), but scientists can also predict children's receptive vocabulary growth over six months (Tompkins et al., 2017, Deniz Can et al., 2016).

Also, the research has shown that children's early home learning experiences are significant predictors of their later reading and mathematics achievement at school (Manolitsis, Georgiou & Tziraki, 2013; Froiland, Peterson & Davison, 2013). Precisely, 63 out of 66 of the research articles have shown that parental engagement in the children's home learning activities positively affect their literacy achievement and vocabulary skills (e.g. Shah-Wundenberg et al., 2013; Bojczyk et al., 2017; Mascarenhas et al., 2017, Xu et al., 2017; Jung, 2016; Bojczyk et al., 2015; Baker, 2014a). Also, 16 articles proved that numeracy and mathematical skills are boosted when parents get involved with their children home learning mathematical activities (Brown et al., 2016; Ciping et al., 2015).

Studies show that the most important dimension is the home learning environment and parenting. Should the home learning environment involve many activities about literacy and numeracy it will positively affect a child's academic outcome. Our database (all the 66 articles) shows that home learning environment is crucial for academic achievement. Family environment is also vital for a child's early literacy and numeracy. This article has been written to show that this research exists.

Our purpose was to do a literature review about parental engagement and how it influences a child's outcome.

About the author

Eftychia Aslanidou, M. Sc. completed her first studies at the School of Primary Education at the University of Crete. She was distinguished by the State Scholarship Foundation for her ethos and her academic performance for each and every year of study 2008-2012 as the "top of the graduate student in Greece". She was also awarded the "Triantafyllia Kriezi" scholarship as the top Macedonian student.

Eftychia left her homeland to see what more she could learn and consequently bring back to offer to the children of Greece. She continued her studies of bilingualism abroad, in New York. There she attended the prominent universities City University of New York, Long Island University, and Westchester College while also teaching at the Greek-American school Plato. When she returned to Greece she continued her studies at both the European University for Special Inclusive Education and at the Aristotle University for Preschool Education. As a member of the Greek Special Education Teachers she presented her findings on inclusive education to several national conferences. She taught in public schools in Zakynthos until cofounding "THE HELLENIC AMERICAN ACADEMY" with Steve Krause. She designed the model learning center as a means to offer the most effective excellent education, tailored to the individual needs of children in Zakynthos.

Eftychia, along with THE HELLENIC AMERICAN ACADEMY, and its partners envision a bright future for the next generation. In the demanding environment of modern education, she promises to support children and their parents' educational needs with cutting-edge methods, child-centered teaching practices and the development of parental relationships.

References

Aikens, N. L. & Barbarin, O. (2008). Socioeconomic Differences in Reading Trajectories: The Contribution of Family, Neighborhood, and School Contexts. *Journal of Educational Psychology, 100 (2)*, 235-251.

Al-Mahrooqi, R., Denman, C. & Al-Maamari, F. (2016). Omani Parents' Involvement in Their Children's English Education, Sage Journals, 6 (1). Doi: https://doi.org/10.1177/2158244016629190.

Anders, Y., Rossbach, H-G., Weinert, S., Ebert, S., Kuger, S., Lehrl, S. & Von Maurice, J. (2012). Home and preschool learning environments and their relations to the development of early numeracy skills. *Early Childhood Research Quarterly, 27*, 231-244.

Aram, D. (2010). Writing with young children: A comparison of paternal and maternal guidance. *Journal of Research in Reading. 33 (1)*, 4-19.

Baker, C. E. (2014a). Mexican Mothers' English Proficiency and Children's School Readiness: Mediation Through Home Literacy Involvement. *Early Education and Development, 25 (3),* 338-355.

Baker, C. E. (2014b). African American Fathers' Contributions to Children's Early Academic Achievement: Evidence From Two-Parent Families From the Early Childhood Longitudinal Study-Birth Cohort. *Early Education and Development, 25 (1)*, 19-35.

Baker, C. E. (2013a). Fathers' and Mothers' Home Literacy Involvement and Children's Cognitive and Social Emotional Development: Implications for Family Literacy Programs. *Applied Developmental Science, 17 (4)*, 184-197.

Baker, C. E. (2013b). Maternal psychological functioning and children's school readiness: The mediating role of home environments for African children. *Early Childhood Research Quarterly, 28 (3)*, 509-519.

Barnes, E. & Puccioni, J. (2017). Shared book reading and preschool children's academic achievement: Evidence from the Early Childhood Longitudinal Study-Birth cohort. *Infant and Child Development. Doi*: 10.1002/icd.2035

Blanch, S., Duran, D., Valdebenito, V. & Flores, M. (2013). The effects and characteristics of family involvement on a peer tutoring programme to improve the reading comprehension competence. *European Journal of Psychology of Education, 28 (1)*, 101-119.

Boerma, I. E., Mol, S. E. & Jolles, J. (2017). The Role of Home Literacy Environment, Mentlizing, Expressive Verbal Ability, and Print Exposure in Third and Fourth Graders' Reading Comprehension. *Scientific Studies of Reading*, 1-15.

Bojczyk, K. E., Haverback, H. R. & Pae, H. K. (2017). Investigation Maternal Self-Efficacy and Home Learning Environment of Families Enrolled in Head Start. *Early Childhood Education Journal*, 1-10.

Bojczyk, K. E., Rogers-Haverback, H., Pae. H., Davis, A. E. & Mason, R. S. (2015). Cultural capital theory: a study of children enrolled in rural and urban Head Start rogrammes, *Early Child Development and Care, 185 (9),* 1390-1408.

Brown, E. L., Mahatmya, D. & Vesely, C. K. (2016). Home and school influences on the behavioral and academic outcomes of low-income children of color. *Journal of Children and Poverty, 22 (2)*, 93-112.

Cabus, S. J. & Aries, R. J. (2017). What do parents teach their children?-The effects of parental involvement on student performance in Dutch compulsory education. *Educational review, 69 (3)*, 285-302.

Caesar, L. G. & Nelson, N. W. (2014). Parental involvement in language and literacy acquisition: A bilingual journaling approach. *Child Language Teaching and Therapy, 30 (3)*, 317-336.

Cairney, T. & Ashton, J. (2002). Three families, multiple discourses: Parental roles, constructions of literacy and diversity of pedagogic practice. *Linguistics and Education, 13 (3)*, 303-345.

Caspe, M. (2009). Low-income Latino mothers' booksharing styles and children's emergent literacy development. *Early Childhood Research Quarterly, 24 (3)*, 306-324.

Chicola, N. A. & Ceprano, M. (2009). Preservice teachers collaborating with families to foster global literacy. *International Journal of Learning, 16 (8)*, 221-234.

Ciping, D., Silinskas, G., Wei, W. & Georgiou, G.(2015). Cross-lagged relationships between home learning environment and academic achievement in Chinese. *Early Childhood Research Quarterly, 33*, 12-20.

Committee on Early Childhood Pedagogy. (2000) *Eager to learn: Educating our preschoolers*. The National Academies Press; Washington, DC.

Compton-Lilly, C., Caloia, R., Quast, E. & McCann, K. (2016). A Closer Look at a Summer Reading Program: Listening to Students and Parents. *The Reading Teacher, 70 (1)*, 59,67.

Deniz, C. D. & Ginsburg-Block, M. (2016). Parenting stress nd home-based literacy interactions in low-income preschool families. *Journal of Applied Developmental Psychology, 46*, 51-62.

Di Santo, A., Timmons, K. & Pelletier, J. (2015). 'Mommy that's the exit.': Empowering homeless mothers to support their children's daily literacy experiences. *Journal of Early Childhood Literacy, 16 (2)*, 145-170.

Dove, M. K., Neuharth-Pritchett, S., Wright, D. W. &Wallinga, C. (2015). Parental involvement routines and former head start children's literacy outcomes, *Journal of Research in Childhood Education, 29 (2)*, 173-186.

Duncan, G. J., Dowsett, C. J., Claessens, A., Magnuson, K., Huston, A. C., Klebanov, P., Pagani, L. S., Feinstein, L., Engel, M., Brooks-Gunn, J., Sexton, H., Duckworth, K., & Japel, C. (2007) School Readiness and Later Achievement. *Developmental Psychology 43 (6),* 1428–1446.

Durand, T. M. (2011). Latino parental involvement in kindergarten: Findings from the early childhood longitudinal study. *Hispanic Journal of Behavioral Sciences, 33 (4)*, 469-489.

Durand, T. M. (2010). Latina mothers' school preparation activities and their relation to children's literacy skills. *Journal of Latinos and Education, 9 (3)*, 207-222.

Faires, J., Nichols, W. D. & Rickelman, R. J. (2000). Effects of parental involvement in developing competent readers in first grade. *Parental Psychology, 21 (3)*, 195-215.

Fan, W., Williams, C. M. & Wolters, C. A. (2011). Parental Involvement in Predicting School Motivation: Similar and Differential effects across Ethnic Groups. *The Journal of Educational Research 105 (1)*, 21–35.

Farver, J. A. M., Xu, Y., Eppe, S. & Lonigan, C. J. (2006). Home environments and young Latino children's school readiness. *Early Childhood Research Quarterly, 21 (2)*, 196-212.

Feiler, A. & Logan, E. (2007). The Literacy Early Action Project (LEAP): Exploring factors underpinning progress with literacy for a child in his first year of school. *British Journal of Special Education, 34(3)*, 162-169.

Foy, J. G. & Mann, V. (2003). Home literacy environment and phonological awareness in preschool children: Differential effects for rhyme and phoneme awareness. *Applied Psycholinguistics, 24(1)*, 59-88.

Froiland, J. M., Peterson, A. & Davison, M. L. (2013). The long-term effects of early parent involvement and parent expectation in the USA. *School Psychology International, 34(1)*, 33-50.

Froyen, L. C., Skibbe, L. E., Bowles, R. P., Blow, A. J. & Gerde, H. K. (2013). Marital Satisfaction, Family Emotional Expressiveness, Home Learning Environments, and Children's Emergent Literacy. *Journal of Marriage and Family, 75(1)*, 42-55.

Goodall, J. & Montgomery, C. (2014). Parental involvement to parental engagement: a continuum. *Educational Review, 66(4)*, 399-410.

Grammatikopoulos, V., Linardakis, M., Gregoriadis, A., & Oikonomidis, V. (2015). Assessing the Students' Evaluations of Educational Quality (SEEQ) questionnaire in Greek higher education. *Higher Education*, *70*(3), 395-408. https://doi.org/10.1007/s10734-014-9837-7 10.1007/s10734-014-9837-7

Gregoriadis, A., Grammatikopoulos, V., Zachopoulou, E. (2013). Evaluating preschoolers' social skills: The impact of a physical education program from the parents' perspectives. *International Journal of Humanities and Social Science, 3* (10), 40-51.

Harding, J. F., Morris, P. A., & Hughes, D. (2015). The Relationship between Maternal Education and Children's Academic Outcomes: A Theoretical Framework. *Journal of Marriage and Family, 77*, 60-76.

Hill, N. E. & Craft, S. A. (2003). Parent-school involvement and school performance: Mediated pathways among socioeconomically comparable African American and Euro-American families. *Journal of Educational Psychology, 96*, 74–83.

Huang, S. H. (2013). The use of literacy bags promotes parental involvement in Chinese children's literacy learning in the English language. *Language Teaching Research, 17(2)*, 251-268.

Jordan, N. C. & Levine, S.C. (2009). Socioeconomic variation, number competence, and mathematics learning difficulties in young children. Special Issue: *Pathways to Mathematical Learning Difficulties and Disabilities, 15 (1),* 60-68.

Jung, E. (2016). The development of reading skills in kindergarten influence of parental beliefs about school readiness, family activities, and children's attitudes to School, *International Journal of Early Childhood, 48(1)*, 61-78.

Justice, L. M. & Ezell, H. K. (2000). Enhancing Children's Print and Word Awareness Through Home-Based Parent Intervention. *American Journal of Speech-Language Pathology, 9 (3)*, 257-269.

Kluczniok, K., Lehrl, S., Kuger S. & Rossbach, H-G. (2013). Quality of the home learning environment- Domains and contextual conditions. *European Early Childhood Education Research Journal, 21(3)*, 420-438.

Lau, E. Y. H., Li, H. & Rao, N. (2011). Parental involvement and children's readiness for school in China. *Educational Research, 53 (1)*, 95-113.

Li, H., Corrie, L. F. & Wong, B. K. M. (2008). Early teaching of Chinese literacy skills and later literacy outcomes. *Early Child Development and Care, 178 (5)*, 441-459.

Li, H. & Rao, N. (2000). Parental influences on Chinese literacy development: A comparison of preschoolers in Beijing, Hong Kong, and Singapore. *International Journal of Behavioral Development, 24(1)*, 82-90.

Lukie, I. K., Skwarchuk, S. L., LeFevre, J. A. & Sowinski, C. (2014). The Role of Child Interests and Collaborative Parent-Child Interactions in Fostering Numeracy and Litercy Development in Canadian Homes. *Early Childhood Education Journal, 42(4)*, 251-259.

Manolitsis, G., Georgiou, G. & Tziraki, N. (2013). Examining the effects of home literacy and numeracy environment on early reading and math acquisition. *Early Childhood Research Quarterly, 28*, 692-703.

Mascarenhas, S. S., Moorakonda, R., Agarwal, P., Lim, S. B., Sensaki, S. & Chong, Y. S. (2017). Characteristics and influence of home literacy environment in early childhood-centered literacy orientation. *Proceedings in Singapore Healthcare, 26 (2)*, 81-97.

Melhuish, E., Phan, M. B., Sylva, K., Sammons, P., Siraj-Blatchford, I., & Taggart, B. (2008). Effects of the home learning environment and preschool center experience upon literacy and numeracy development in early primary school. *Journal of Social Issues, 64(1)*, 95-114.

Mistry, R. S., Biesanz, J. C., Chien, N., Howes, C. & Benner, A. D. (2008). Socioeconomic status, parental investments, and the cognitive and behavioral outcomes of low-income children from immigrant and native households. *Early Childhood Research Quarterly, 23*, 193-212.

Morgan, A., Nutbrown, C. & Hannon, P. (2009). Fathers' involvement in young children's literacy development: Implications for family literacy programmes. *British Educational Research Journal, 35 (2)*, 167-185.

Ngorosho, D. (2011). Reading and writing ability in relation to home environment: A study in primary education in rural Tanzania. *Child Indicators Research, 4 (3)*, 369-388.

Pahl, K. & Kelly, S. (2005). Family literacy as a third space between home and school: Some case studies of practice. *Literacy, 39 (2)*, 91-96.

Papadopoulou, E., & Gregoriadis, A. (2017). Young children's perceptions of the quality of teacher-child interactions and school engagement in Greek kindergartens. *Journal of Early Childhood Research, 15*(3), 323-335. 10.1177/1476718XI6656212

Parkes, J. & Ruth, T. (2011). How satisfied are parents of students in dual language education programs: 'Me parece maravillosa la gran oportunidad que le estan dando a estos ninos'. *International Journal of Bilingual Education and Bilingualism, 14(6)*, 701-718.

Peterson, S. S. & Ladky, M. (2007). A survey of teachers' and principals' practices and challenges in fostering new immigrant parent involvement. *Canadian Journal of Education, 30(3)*, 881-910.

Petticrew, M., & Roberts, H. (2006). *Systematic reviews in the social sciences: A practical guide*. Oxford, England: Blackwell.

Pinto, A. I., Pessanha, M. & Aguiar, C. (2013). Effects of home environment and center-based child care quality on children's language, communication, and literacy outcomes. *Early Childhood Research Quarterly, 28*, 94-101.

Pretorius, E. & Naude, H. (2002). A Culture in Transition: Poor Reading and Writing Ability Among Children in South African Townships. *Early Child Development and Care, 172 (5)*, 439-449.

Prins, E. & Toso, B. W. (2008). Defining and measuring parenting for educational success: A critical discourse analysis of the parent education profile. *American Educational Research Journal, 45 (3)*, 555-596.

Raikes, H., Green, B. L., Atwater, J., Kisker, E., Constantine, J. & Chazan-Cohen, R. (2006). Involvement in Early Head Start visiting services: Demographic predictors and relations to child and parent outcomes. *Early Childhood Research Quarterly, 21 (1)*, 2-24.

Rodriguez, E. T. & Tamis-Lemonda, C. S. (2011). Trajectories of the home learning environment across the first 5 years: Associations with children's vocabulary and literacy skills at prekindergarten. *Child Development, 82 (4)*, 1058-1075.

Rodrigues, E. T., Tamis-LeMonda, C. S., Spellmann, M. E., Pan, B. A., Raikes, H., Lugo-Gil, J. & Luze, G. (2009). The formative role of home literacy experiences across the first three years of life in children from low-income families. *Journal of Applied Developmental Psychology, 30 (6)*, 677-694.

Sad, S. N., Konca, A. S., Ozer, N. & Acar, F. (2016). Parental e-nvolvement: a phenomenological research on electronic parental involvement. *International Journal of Pedagogies and Learning, 11(2)*, 163-186.

Senechal, M. & LeFevre, J. A. (2002). Parental involvement in the development of children's reading skill: A five-year longitudinal study. *Child Development, 73(2)*, 445-460.

Shah-Wundenberg, M., Wyse, D. & Chaplain, R. (2013). Parents helping their children learn to read: The effectiveness of paired reading and hearing reading in a developing country context. *Journal of Early Childhood Literacy, 13 (4)*, 471-500.

Shonkoff, J. P., & Phillips, D. A. (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington, DC: National Academy Press.

Skwarchuk, S. L., Sowinski, C. & LeFevre, J. A. (2014). Formal and informal home learning activities in relation to children's early numeracy and literacy skills: The development of a home numeracy model. *Journal of Experimental Child Psychology, 121(1)*, 63-84.

Sneddon, R. (2008). Young bilingual learning to read with dual language books. *English Teaching, 7 (2)*, 71-84.

Thomas, J., Harden, A., & Newman, M. (2012). Synthesis: Combining results systematically and appropriately. In D. Gough, S. Oliver, & J. Thomas (Eds.), *Systematic reviews, 179-226.* London, England: Sage.

Tompkins, V. Bngochea, A., Nicol, S. & Justice, L. M. (2017). Maternal Inferential Input and Children's Language Skills. *Reading Research Quarterly*, 1936-2722.

Topor, D. V., Keane, S. P., Shelton, T. L. & Calkins, S. D. (2010). Parent involvement and student academic performance: A multiple meditational analysis. *J Prev Interv Community, 38 (3)*,183-197

Van Bergen, E., Van Zuijen, T., Bishop, D. & De Jong, P. F. (2017). Why Are Home Literacy Environment and Children's Reading Skills Associated? What Parental Skills Reveal. *Reading Research Quarterly, 52(2)*, 147-160.

Vandermaas-Peeler, M., Nelson, J., Bumpass, C. & Sassine, B. (2009). Social contexts of development: Parent- child interactions during reading and play. *Journal of Early Childhood Literacy, 9(3)*, 295-317.

Vandermaas-Peeler, M., Nelson, J.& Bumpass, C. (2007). "Quarters are what you put into the Bubble Gum machine": Numeracy interactions during parent-child play. *Early Childhood Research and Practice, 9(1).* Doi: http://ecrp.uiuc.edu/v9n1/vandermaas.html

Willson, V. L. & Hughes, J. N. (2009). Who is retained in first grade? A psychosocial perspective. *Elementary School Journal, 109 (3)*, 251-266.

Xu, Y., Farver, J. A. M. & Krieg, A. (2017). The Home Environment and Asian Immigrant Children's Early Literacy Skills, *Parenting Science and Practice, 17(2)*, 104-123.

Yamamoto, Y., Holloway, S. D. & Suzuki, S. (2006). Maternal involvement in preschool children's education in Japan: Relation to parenting beliefs and socioeconomic status. *Early Childhood Research Quarterly, 21(3),* 332-346.

Yeo, L. S., Ong, W. W. & Ng, C. M. (2014). The Home Literacy Environment and Preschool Children's Reading Skills and Interest. *Early Education and Development, 25(6)*, 791-814.

Zachopoulou, V., Grammatikopoulos, V., Gregoriadis A. (2013). Comparing aspects of the process quality in six European early childhood educational settings. In *ICERI 6TH International Conference of Education Research and Innovation Conference Proceedings* (pp. 4218-4224). 18-20 November 2013, Seville, Spain.