



**THE EFFECT OF FAMILY ENVIRONMENT CONDITIONS ON THE  
EMERGENCE AND / OR THE CULTIVATION OF LEARNING  
DIFFICULTIES IN PRE-SCHOOL AND PRIMARY-SCHOOL AGED  
CHILDREN: GREEK KINDERGARTEN TEACHERS VIEWS**

**Athina Ntziavida<sup>1i</sup>,**

**Evanthia Tsaliki<sup>2</sup>**

<sup>1</sup>MA in Special (Inclusive) Education,  
European University, Cyprus

<sup>2</sup>PhD in Intercultural Education,  
Scientific Collaborator, European University, Cyprus

**Abstract:**

The study investigates the empirical aspects of Greek kindergarten teachers regarding the topic of the existence of the effect that the family has on the emergence and / or the cultivation of Learning Difficulties in pre – school and primary – school aged children. The research involved 23 teachers (22 women and 1 man) who, citing the possibility of early detection of Learning Difficulties (LDs) offered to them due to the daily contact with the children as part of the classroom, reported on whether the relationship between the two parents, but also between them and the child itself, may affect the appearance and / or the cultivation of Learning Difficulties in it. Furthermore, this work investigates the relevance of the provided parental stimuli and the educational level of the parents with the LDs of these children. The survey was conducted through semi-structured interviews the results of which were analyzed using qualitative content analysis. According to the findings, effective identification of children LDs is achieved by the kindergarten teachers through observation of the children's response to free and organized activities. In addition, the relations between the couple of mother and father, as well as the relationship between the parents and their child were considered by teachers worthy predictors of the effect that the institution of family has on the learning process and career of pre – school and primary school children. Finally, the stimuli that parents provide with their children were associated with the LDs that the offspring have or might develop in the future, as opposed to the educational level of both parents which teachers did not associate with the good or poor academic performance of students.

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<sup>i</sup> Correspondence: email [athina.ntz@hotmail.com](mailto:athina.ntz@hotmail.com)

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## 1. Introduction

Learning Difficulties (LDs) is a developmental disorder, which is associated with a wide range of difficulties in learning, performance and the overall child's adaptability in the school, society and life (Fletcher, 2012). LD is assigned to a pupil when he has difficulty and / or she / he is unable to follow the curriculum followed by the general class and specified by the Greek Ministry of Education, Research and Religious Affairs. The percentage of children with LD seems to grow increasingly over the years. According to the National Center for Learning Disabilities of the United States (National Center for Learning Disabilities), between 1975 and 2000, students with LD in the country increased by 300%, which is a substantial percentage if someone considers the 2.5 million American public schools throughout the continent (Cortiella, 2011). It has been argued that the rates of diagnosis and referral of students with LDs to respective centers in Greece are lower than other European and international countries and this is due to inadequate awareness of the teachers and parents involved into LDs and not because this is really the case (Agaliotis, 2016· Al-Yagon et al., 2013). For this reason, this study is an important contribution to the exploration and understanding family's role in the influence or not to the appearance and / or cultivation of the infant's LD, since it becomes a genuine effort to approach the reality of modern Greek education practices.

## 2. Literature Review

The conducted studies demonstrate various approaches regarding the influence of the family environment on the emergence and / or the cultivation of LDs. By adopting the medical model of disability, some studies ascribe a genetic basis to LDs by giving emphasis to the history of disabilities of the child's parents (Conlon et al., 2006· Hindman et al., 2010). At the same time, research related to dyslexia use a combined approach by not ignoring the genetic basis of dyslexia and in parallel by demonstrating that children with LDs come from family environments with problems (Snowling et al., 2007· Friend et al., 2008· Van Bergen et al., 2014· Van Bergen et al., 2015). Lastly, a case is noted where none of the aforementioned influences is adopted but the environmental influence is rejected, as it is found that the latter is capable of influencing only the social skills of children and in no case their educational progress (Dyson, 2003).

Nevertheless, the largest part of the abovementioned studies refer to the positive influence that family has to the emergence or / and on the cultivation of LDs in children. More specifically, children are presented as human beings that grow and are developed, at the same time maintaining their own personal features in the family environment, whilst affecting the structure of the family and simultaneously being affected by it (Gross et al., 2001· Marchant et al., 2001). In parallel, the socio-emotional

state of both parents, but most prominently the mother's and the interaction of the parents with their children have been found to influence positively or negatively children's educational progress (Heiman, 2002· Davis – Kean, 2005· Al – Yagon, 2007· Idan & Margalit, 2014). Written text stimuli, verbal practice opportunities and the possibility of attending various extra-curricular activities constitute, for many researchers, a factor of great significance of the prediction of children's LDs (Petrill et al., 2006· Elder & Lubotsky, 2008· Sarsour et al., 2011· Niklas & Schneider, 2013). Finally, for many researchers the emergence or / and cultivations of children' s LDs are encouraged by their parental profile related to full democracy, negligence and / or over-protection towards children (Casanova et al., 2005· Lindstrom et al., 2007· Heiman & Berger, 2008).

In this way, this qualitative research becomes important for the educational community as it highlights the attitudes, perceptions and human behaviors of kindergarten teachers regarding the issue of LDs in pre – school and primary – school aged children. More specifically, it contributes to the presentation of the contemporary Greek educational reality and attempts one the one hand to provide educational experiences to colleagues experiencing the same and / or similar situations at the school; on the other hand to evaluate the family background and the offered parental benefits to their children.

### **3. Research aims**

The main research aim of this study is to investigate the relationship between the family environment and the emergence and / or the cultivation of LDs in pre – school and primary – school aged children. The issue's approach is based on recent updated literature reviews, particularly dated from 2000 to 2016, and pursued through the following research sub-questions:

1. How do Greek kindergarten teachers identify the LDs that their infant pupils show or tend to develop in the future?
2. Does the relationship between the two parents affect the appearance and / or the cultivation of LDs in their children?
3. Does the relationship between the two parents and the child itself affect the appearance and / or the cultivation of LDs?

### **4. Material and Methods**

#### **4.1 The rationale of the study**

Qualitative research is an essentially exploratory method. According to Ritchie and her colleagues (2014), qualitative studies depend on various factors, such as the researcher's beliefs about the social environment, her / his personal knowledge of the world and phenomena, the aims and targets set for the conduct of the study, the characteristics of the participants, the scientific audience, physical resources that facilitate the conduct of

the research, but also her / his personal attitude toward the issue under study (Ritchie et al., 2014). In this way, the present qualitative study becomes important for the educational community by highlighting kindergarten teachers' attitudes, beliefs and behaviors regarding the issue of LDs in preschool and primary school children. In particular, it contributes to the presentation of a contemporary Greek educational reality. On the one hand attempts to provide educational experiences to colleagues who have experienced the same and / or similar situations within the classroom, on the other hand to value family background and parental benefits offered to their infants children.

This study aims at identifying the views of contemporary Greek kindergarten teachers on the issue of the influence or not of the family environment in the appearance and / or the cultivation of the LDs at their infants children. The general purpose of the survey is specified by the set of individual research sub-questions, which relate to teachers' views on the relationship between mother and father, the relationship of parents with their child, to the stimuli that parents provide to the infants and ultimately with their level of education. This piece of research belongs to the qualitative paradigm as a semi-structured interview is used as the main research instrument of data collection, while the use of numeric percentages presents the results quantitatively.

#### Discussion of research questions

The research questions of the study are identical to the questions of the semi-structured interview used to collect data. More specifically, the researcher analyzes in each interviewee the purpose of the investigation and therefore she requested to contribute to it in order, to achieve the creation of an environment of trust between them and eliminate the potential reluctance of the second one. At the same time, the teachers were asked to indicate their years of service, thus declaring their professional experience, and then refer to their qualification on special education and training. Moving on to the main part of the interview questions, the teachers originally referred to the way in which they detect the LDs during the educational process, and then expressed the empirical views firstly about the relationships between the parents, and secondly the relationships between the parents and their children. In this way, the teachers were able to draw conclusions about the nature of families whose children show or tend to show LDs in the future. At the final stage of the interview schedule, teachers responded to whether they consider that both parents' stimuli, and their educational level, are notable predictive factors to occur and / or culture LDs in toddlers. In conclusion, one could say that these research questions form the basis on which the researcher's interpretations and documented allegations and analysis were built (Mason, 2002).

#### **4.2 The sample of the study**

The sample consisted of 23 in-service kindergarten teachers (22 women and 1 man) who teach at schools in Athens, a region covering the areas of Kamatero, Peristeri, Agioi Anargyroi, Ilion, Aegaleo, Petroupoli, Agia Varvara and Haidari. The professional experience of the kindergarten teachers range from 5 to 34 years of service (Mean 17,08)

and the age of the pupils who the interviewers teach is from 4 to 6 years old (Mean 5), that it kindergarten pupils. The research, both theoretically and practically, lasted 9 calendar months, from October 2015 to June 2016. This period started with the drafting and submission of the research proposal and was completed with the writing up of this paper. All kindergarten teachers took part in an individual interview. The data of the survey were analyzed qualitatively and a significant impact on the appearance and / or cultivation of LDs in children of the family environment was observed.

#### **4.3 Analysis of the interview data**

All the collected data were archived and codified in a board. Due to the small number of the participants and also of the character of the research, in order to record and to codify the data a “double-entry” board with 24 lines and 12 columns was used for the retrieval of information regarding the investigated issue. In each cell of the board the most important answers were noted, so as to gather, to interpret, to quantify and finally to measure the findings of the interviews.

### **5. Results and Discussion**

In this section, the results of the investigation are presented and discussed. Both the presentation and the discussion are based on a comparison of teachers’ answers in each question, so as to see whether there is agreement or disagreement between the answers on the same question and to make relations between them, while the comparison of data is also made in relation to the relevant literature. According to Thorne (2000), the qualitative methodology, is suitable for the study of the phenomena that relate to human behavior and are based on empirical data, like in this study. The 23 kindergarten teachers of the sample, which show diversity in terms of years/age, of professional service and knowledge of special education and training, describe different experiences and beliefs on the issue of the family’s effect or no to the appearance and / or cultivation of LDs in preschool and primary school age children (4 to 6 years). They also describe different experiences and beliefs in the shared environmental stimuli effects, as well as the educational level of the parents in the aforementioned effect or not.

#### **Research question 1: How kindergarten teachers detect LDs that their toddler students who appear or tend to appear in the future?**

The detection of LDs in preschool and primary school children is achieved through indicators that infants provide to the teachers during their performance in organised and / or free activities carried out daily. At the kindergarten, infants, using playful activities, discover, develop and expand their skills. As a result, kindergarten teachers may identify any difficulties without causing their students stressful situations and inferior feelings. The majority of teachers in the sample (22 to 23 kindergarten), reported that through the observation of their students in various activities carried out in the

classroom, may detect signs of weakness or not. In particular, they reported on activities related to proscription, pre-reading, phonological awareness, early mathematical thinking and strategy, the respond to free game, adaption or not of their behavioral and their concentration level at the time of various activities, areas which are listed in table 1 below.

**Table 1:** Teachers' Observation Areas for LDs' detection in infants

Observation	Number of kindergarten teachers	Quota
Proscription activities	10	43,47%
Pre-reading	11	47,82%
Phonological awareness	8	34,78%
Early mathematical thinking and strategy	9	39,13%
Free game	6	26,08%
Behavioral adaption	11	47,82%
Concentration level	7	30,43%
Student's personal folder (portfolio)	1	4,34%

However, a kindergarten teacher of the sample in the question of the LDs' detection, mentioned that the study of each student's personal folder (portfolio), provides information on personal data of parental history, as well as the skills and competence of an infant. In this case, LDs are considered either an innate characteristic of the child itself, or a result of medical cases or circumstances that afflicted and / or continue to afflict her/his parents. LDs as a result of the individual characteristics of a pupil, was also a finding in Hindman's and associates' investigation (2010), according to which both the difficulties and the school features that the children have, are directly affected by gender, level of disability, age level and city of residence. Meanwhile, Snowling and colleagues (2007), studying, however, only dyslexia from the wider domain of LDs supported its inherent nature, as a result of medical heritage of representative characteristics between ancestors and descendants.

### **Research question 2: Does the relationship between the two parents affect the appearance and / or the cultivation of LDs in their children?**

Parents constitute a reference point for a child, making the communication, or lack of, in the family of utter importance for their psycho-emotional development and cultivation. The infant is considered to grow in an environment of balance and harmony, with healthy emotional bonds and clear boundaries of activities, with an agreement of parents regarding her/his upbringing, in order not to receive double messages and, lastly, with profound communication, that provides the opportunity of support between family members (Marchant et al., 2001· Heiman, 2002· Davis - Kean, 2005· Sarsour et al., 2011). Seventy four percent (74%) of kindergarten teachers in the sample of this survey (ie 17 teachers), argued that the relationship between the parents become worthy predictors for the appearance and / or cultivation of LDs in their children. As in the investigation of Marchant and colleagues (2001), Heiman (2002), and Al - Yagon

(2007), the 17 kindergarten teachers believe that good relations between parents can increase the rate of school performance of an infant. The family environment firstly lactates the child, thus promoting the formation of such a personality, which will enable the child to live adulthood with a solid foundation that will lead to the ability of taking initiatives and self-realization.

Conversely, the remaining 26% of the teachers in this study (6 from 23 kindergarten), expressed a different view on the influence of parental relationships in appearance and / or cultivation of LDs. Agreeing with the survey conducted by Dyson (2003), they considered that the LDs shown or experienced by toddlers are not a result of parental interaction. Given that marital relations have the same impact on all children of the same family, some of them are likely to have LDs, others behavioral problems and others none of the aforementioned. More specifically, two of them reported significant cases of students, who had LDs while their brothers had showed in the future, excellent academic performance and / or successful performance in extracurricular activities. N18, indeed, observed that: *"... in a family, one (child) may display LDs and the other not."* Therefore, this contradiction in investigations and experiences on this issue may be the subject of future research.

### **Research question 3: Does the relationship between the two parents and the child itself affect the appearance and / or the cultivation of LDs in it?**

The relationship of a parent with his child is very important for the development of a healthy body and soul, as the ancestor creates role models and suggests behaviors that will make the child an active member of society. The role of parents extends to the child's equipment with all the necessary provisions for the cultivation of its moral and social education. To achieve these, the parents are required to set from the preschool early age, rules and principles to help their offspring to a better integration of the social context; in this way, parents render the development and upbringing of their infant an outcome of a joint effort of parents and their child. The interaction that parents and their children have is characterized both by calmness and happy situations, disagreements and conflicts, as a result of the normal function of human relationships.

Parents, therefore, bear the heavy burden of coping with such difficult situations in order to restore the family calmness and normalize relations between them and their children. The way in which parents behave to their children, according to the remarkable percentage of 87% of the sample (20 to 23), may affect the appearance and / or cultivation of LDs, as it plays an important role in children's development, the creation of their self-image, the way which they evaluate the learning process and finally their personal expectations. The remaining 13% of teachers (ie 3 kindergarten teachers), keeping a neutral stance, supported the importance of individual characteristics of infants in the appearance and / or cultivation of LDs, without at the same time rejecting the influence of environmental factors. Typical is the view of N18 according to which: *"... I think (the LDs) are a conjunction of characteristics of the child itself, but a lot of times the environment plays an important role, too"*. The same opinion was

followed on two surveys carried out by Van Bergen and colleagues, both in 2014 and 2015, which adopted a combined model of interaction of genetic and environmental factors during the progress of the learning process of students of the surveys.

**Research question 4: Do the provided parental stimuli received by the infants affect the appearance and / or the cultivation of LDs?**

The parental environment is responsible for the linguistic, physical and mental development of infants, which is achieved through the stimuli provided by the parents. Supplied stimuli could be found in activities such as written and / or spoken word games, maths, art, music, with which children and their parents are engaged even in the house, as well as in extracurricular activities, such as dealing with a sport or visiting a museum. In this survey, 83% of kindergarten teachers (19 to 23 interviewees), argue that the stimuli of the environment in which children are raised, affect the appearance and / or cultivation of LDs.

So, if the pupils come from rich environments as far as stimuli is concerned, with multiple opportunities of live action, have got an advantage over their academic performance compared with those who were born and raised in environments with insufficient and / or no stimulation. Thus, in the investigations of Elder and Lubotsky (2008), as well as that of Sarsour and his associates (2011), the stimuli that parents provided to the students of their two samples of both investigations, were well enough to contribute to their children's learning process and school career. In summary, a family environment that does not provide infants with rich stimuli and opportunities, for example, to talk, write, count, sing, wash their hands or kneading, does not also favour the development of language, prewriting, premathematical, art and fine motor skills, respectively.

According to the sample teachers, the activities which do require neither monetary compensation, nor a lot of time from the parents' side are worthwhile, while they cultivate and develop those creeping skills, that all children have regardless the problems they may face. Such targeted activities can be the renarration of a fairytale that has been read at school, the reasons for preference in a particular nursery rhyme, counting the glasses on the table and other similar activities, which promote the cultivation and use of infant's language as a medium of communication with the social environment. Indicatively, the N23 denotes: "... *They can, for example, go to the supermarket and make a shopping list, or see together signs and recognize some words, some letters ... Even these games with their parents are considered stimuli*". This finding is consistent with Petrill and his associates' research (2006), who said that the family environment plays a crucial role in promoting or not the recognition of letters from children, in pupils' proficiency of phonological awareness and, finally, in their ability or not to decipher successfully letters and / or words. In conclusion, parents may involve infants, even on a daily basis, in such activities both with a playful character, and with educational orientation.

In contradiction, a very rich environment stimuli may have a negative impact on school performance of the pupils. Less than 2/5 of the kindergarten sample of this



research (4 to 23), argued that parental provided stimuli do not always correlate with the appearance and / or cultivation of LDs in preschool and primary school children. A teacher characteristically claims that in her career has met children who, were aiming at maximum overall school attainment and corresponding reading, writing and mathematical skills just because they were members of families with inadequate or absent stimuli. The N23, notes that: "... *I have met children who had not experienced stimuli and had not faced LDs, because they were good receivers of what we did here at school. They were completely concentrated, thirsty for learning, perhaps because the stimuli offered in the family environment were limited...*". In parallel, another kindergarten teacher says that sometimes the pupils, despite coming from deprived or even neglective family environment, showed excellent performance in painting, a skill which had been identified and practiced within school. The report of the N13 to her student is representative: "... *When he came at school, he could not do anything, could not even hold the pen. But he liked painting. I remember it. And he did beautiful paintings. He was a victim of domestic violence at home...*".

The empirical aspects of the last two kindergarten teachers are worthwhile mentioning. They reported two interesting cases of children coming from rich in stimuli environments. More specifically, the first one, during her professional career as kindergarten teacher, noted that the large amount of incoming stimuli suppressed students to demonstrate acceptable attainment regarding their school activities. They also caused confusion, by not focusing on their domain of interest, so as to achieve maximum performance. As N8 reports: "... *(Pupil) obtains a false opinion about knowledge, so that suppression may possibly lead her/him not to do it.*" In these two aforementioned cases, the pupils showed LDs. In conclusion, the second teacher found that the abundance of parental stimuli which was provided to the children, resulted in children's thinking that classroom facilities and activities seem insufficient. The N23 said: "... *children with many stimuli, perhaps get bored here at school, as they have it all already...*". The study of Lindstrom and associates (2007) reached the same result, while their sample which appeared LDs, came from parental environments which provided a variety of activities to the children. In conclusion, according to the findings of this research, it is important for parents to spend quality and creative time with their children, through carefully selected and targeted activities which should be adapted to their age and interests.

#### **Research question 5: Does the educational level of the parents affect the appearance and / or the cultivation of their children's' LDs?**

The cultural characteristics of parents, including their occupation and level of education, play a key role in the infants' school success, and form their positive or negative receptive attitude and behavior towards the educational process. In the present study, whether the education of parents affects the appearance and / or cultivation of LDs in their offspring has been investigated. 39% of teachers (9 kindergarteners) notice a link between the educational level of parents and the LDs of

infants, a finding consistent with the Elder and Lubotsky (2008), who investigating the education of mothers of a number of children, noted that the high educational level of the former influenced positively the latter and their attainment in school contests .

However, the remaining 14 teachers of the sample argued that the education of parents is not related to the appearance and / or cultivation of LDs to their children as well. They supported the view that during their professional career, have met pupils whose parents have received medium and / or low education level. Nevertheless these pupils showed excellent performance with regard to the learning careers, while others of their pupils had well-educated parents, showed LDs. The N6's view is characteristic: *"Parents of children who have met, with LDs, were higher educated. And that impresses me much. I believe that those children's' parents are selfish and self-centered and have in their minds their careers, their image in the society and as a result they neglect their children"*. Davis – Kean' s research (2005) reached the same conclusion, arguing that the educational level of parents affected only the offered parental time to their children, while the interaction between parents and their child, promoted good school performance, when stability, encouragement and support was offered. Parallel to that, Conlon and colleagues (2006), emphasizing the innate nature of LDs, argued that antecedents education does not relate to children's weaknesses of attainment.

The views expressed by 11 kindergarten teachers of the sample, according to which, their pupils with LDs, were descendants mainly of highly educated parents and parents employed in prestigious professions, according to the recommendations and requirements of modern Greek society deserve further analysis. With characteristic references in infants with parents working as doctors, lawyers and / or teachers, kindergarten teachers have observed that infants who came from parents with high educational level, showed LDs for specific reasons and were grouped into two categories. On the one hand, 5 of the 23 teachers (22% of total sample) reported that these occupations require long hours of work even at home, resulting to parents' consuming a lot of time to work, thus neglecting their children' s upbringing. On the other hand, 26% of the interviewees (ie 6 teachers), put forward a view according to which parents who work as doctors, lawyers, and / or teachers, embrace and adopt an arrogant attitude towards the teachers of their children.

Noteworthy is the empirical position of N6, who refers to the selfish attitude of educated parents: *"I think the higher educated parents, want more work. I, as a kindergarten teacher, try to chase them all the time, more than others. Isn't this impressive?"*. At the same time, N11 supports: *"...Parents with very high educational level ... refuse to see that their child has a problem... they refuse to accept that... My own child? No way!"*. Therefore, this behavior of adults mentioned above, as well as their attitude towards the class teacher and the educational process can foster conditions that contribute to the appearance and / or cultivation of LDs in children. In conclusion, the contemptuous attitude and behavior of parents with a high level of education towards the suggestions of the educational system in the light of their personal vanity and supposed omnipotence, burden the

childhood personality and form a detachment from the learning process, a finding which has not been recorded in other research and requires further study.

## **6. Conclusion**

The 23 kindergarten teachers, who constituted the sample of the investigation, appeared to adopt a cautious attitude towards the inclusion of children with and without LDs. Early detection of LDs is of utmost importance, giving infants the necessary time to adapt themselves within the school (Catts et al., 2001).

The relationship between the parents is enough to affect positively or negatively the learning process of the infant. A child should grow up in an environment where there is love and respect between family members, patience and perseverance so as to nurture his / her personality and acquire a positive attitude towards school and the educational process. These qualities are cultivated in a harmoniously operational family and a healthy family environment (Gross et al., 2001· Marchant et al., 2001· Heiman, 2002· al - Yagon, 2007· Idan & Margalit, 2014). On the contrary, adverse relations between spouses do not have the same effect on the psychological and emotional development of all children in every family, resulting in the different expression of parental relationships by the latter (Dyson, 2003).

The parents of pupils with LDs outlined specific behaviors and attitudes. More specifically, they referred to indifferent (Casanova et al., 2005· Lindstrom et al., 2007· Friend et al., 2008), overprotective (Heiman & Berger, 2008), overdemocratic (Casanova et al., 2005), as well as overtolerated parenting styles as characteristic features of the parents whose children showed LDs. The number of stimuli parents themselves provide their children with, promote a good learning process, recognition of letters and / or words, and cultivate their phonological awareness (Petrill et al., 2006· Elder & Lubotsky, 2008· Sarsour et al., 2011). When the activities take place within the family, they reinforce its members' relationships and favour a promising pupil's attainment (Sarsour et al., 2011).

For some teachers of this study, the LDs of their pupils related to the low educational level of their parents. Therefore they have noticed that the more educated the parents of the children were, the more they had interacted with their children and they had effected them positively. As a result they carved out a positive attitude and behavior towards the learning process (Davis - Kean, 2005· Elder & Lubotsky, 2008). On the other hand, most of the research studies undertaken in this field, lack examples of pupils who, although their parents were of low educational level, had a brilliant school career (Conlon et al., 2006).

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### **About the Author(s)**

Athina Ntziavida graduated from the Department of Pre – school Education of the National and Kapodistrian University of Athens and holds a Master's Degree in Special Inclusive Education from the European University Cyprus. She has a two-year teaching experience as special education kindergarten teacher in Inclusive Units in state kindergartens in Greece.

Evanthia Tsaliki has graduated from the Department of Primary Education, University of Crete, Greece. She holds a Master's Degree in Educational Studies from the University of York, UK and a PhD Degree from the UCL Institute of Education, University of London. She has got a fifteen-year teaching experience in state primary schools in Greece and she acts as a visiting research associate in the International Centre for Intercultural Studies, UCL Institute of Education.

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Athina Ntziavida, Evanthia Tsaliki  
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GREEK KINDERGARTEN TEACHERS VIEWS

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