

‘What are the goals of kindergarten?’ Consistency of teachers’ and parents’ beliefs about kindergarten goals

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Abstract: The teachers’ perceptions of the curriculum or their beliefs about how children learn can influence the quality of the teaching activity and its final outcome. Furthermore, the importance of an extended cooperation and mutual understanding between the actors involved (kindergarten teachers – parents) seems to be a crucial issue in order to establish a supportive framework. The research is structured in two dimensions. We seek the beliefs of kindergarten teachers (K-teachers) and parents, as well as their mutual perceptions of each other’s beliefs, i.e., K-teachers for parents and parents for K-teachers, about the importance of kindergarten goals. The study was conducted in Greece, specifically in the region of Central Macedonia, in June 2021, after the re-opening of schools due to the Covid-19 pandemic. A sample of 330 K-teachers and 419 parents from public and private schools responded to closed-ended questionnaires, rating –on a 5-point Likert scale– the importance of 14 Kindergarten goals. We found that K-teachers generally underestimated parents’ beliefs about kindergarten goals relative to their own beliefs and overestimated parents’ beliefs about the ‘academic’ curriculum goals; a trend that was not confirmed by the parallel survey of parents’ beliefs. In contrast, parents appeared to express a more balanced perception between their own beliefs and those they perceived K-teachers to hold. We also found evidence of differentiation between private and public schools. According to the findings, a harmonized perception of kindergarten goals by K-teachers and parents in private versus public schools is apparent.

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Introduction

Despite the research interest in recording the beliefs, attitudes and perceptions of K-teachers, there is limited research on their perceptions of kindergarten goals in relation to the curriculum (Bautista et al., 2016; Sverdlov & Aram, 2016). Similarly, parents’ beliefs and assessments about the role and goals of kindergarten, although reflecting to some extent expectations, degree of involvement in the learning process, etc., have not been extensively researched. Therefore, exploring parents’ and teachers’ perceptions about Kindergarten goals will enhance our knowledge of their expectations and potentially provide patterns of beliefs related to demographic variables. A second research dimension, important for the study, refers to exploring mutual perceptions of each other’s beliefs regarding the importance of kindergarten goals. The identification of the factors that influence the coherence of parents’ and K-teachers’ perceptions about kindergarten goals opens up areas of research to determine the conditions that constitute convergence and its outcomes, focusing on the child’s all-round development.

The multidimensional field of early childhood education is often treated uniformly and undifferentiated in terms of the components that could enhance a more analytical understanding of the field, ignoring dimensions related to K-teachers and parents. This way, for example, despite the range of student attendance in private kindergartens in Greece, parallel to public ones, K-teachers and parents of

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private kindergartens, especially the latter as they have made a conscious educational choice, have not been included as an additional variable to assess the possible effects on attitudes, evaluations and beliefs about kindergarten goals. In the same direction, despite the fact that there exists the parallel operation of all-day and half-day programs, where the latter is distinguished for its extensive opportunities to exploit educational stimuli that seem to correlate with enhanced academic perspectives (Carbonaro, 2006; Cooper et al., 2010; Gullo, 2006), especially for families with limited cultural and social capital (Lau & Li, 2018), or the mixed age of attendance (4-5, 5-6), the most common research practice is their uniform and undifferentiated inclusion. The feasibility of our study is further fueled by the inclusion of variables that remained uncontrolled, namely, the correlations with partners' beliefs, which may have an impact on the quality of family-school interaction, shared attitudes and perceptions, mutual educational exchanges, etc.

In this context, we estimated the school year 2020/1 as to have been a challenging condition to conduct the survey: i) given the enforced and extended interruption of face-to-face teaching twice (November-December and March-May) for a total of 11 weeks due to the Covid-19 pandemic, and ii) the 'mandatory' daily contact of the key partners through synchronized distance learning platforms, to record their beliefs and assessments of each other regarding the kindergarten goals.

Pre-School Education and Curriculum

The integration and attraction of institutional and non-institutional interest in early childhood education, although it may start from different starting points of reflection, has prioritized its expansion as an education and political priority (Organisation for Economic Co-operation and Development [OECD], 2017; United Nations Educational, Scientific and Cultural Organization [UNESCO], 2019; Council of the European Union, 2019). From a primary framework of institutionalization and consolidation, often narrowly defined as the percentage of the respective age group attending early education schools, a more qualitative shift of concern is gradually emerging. New dimensions are introduced that broaden the debate with issues concerning: the quality of services provided, the scientific and professional development of teachers, the increase of public investment, the achievement of 'adequate child-to-staff ratios' (Council of the European Union, 2010), but also the shift of interest from the level of protection ('care'), to the level of education (Alexiadou & Altmann, 2020; OECD, 2015). The multifaceted reflection (Bassok et al., 2016; Miller & Almon, 2009), however, seems to exert selective and limited influences in Greece (Stellakis, 2018), while, a decisive shift in the kindergarten curriculum (socialization skills, play-oriented, etc.) towards a dominant academic orientation is recognized (Gallant, 2009; Kim et al., 2005).

This expanded framework of reflection in its final educational expression, as an educational policy, defines through institutional interventions the operational framework for pre-school education, formulating: broader and renewed curriculum goals, new knowledge areas and teaching approaches.

Greek Early Education Policy Context

The Greek educational system is characterized by its centralised structure. The formulation and institutionalization of educational policy follows a top-down process, with the central government, the Ministry of Education, and the bodies supervised by it, playing a decisive role (Fotopoulou & Ifanti, 2017; Ifanti, 1995). Thus, it is argued, that the interests of 'different stakeholders and broader societal needs' are not taken into account (Saiti & Eliophotou-Menon, 2009). The Institute of Educational Policy (I.E.P.) is the body responsible for the specialization of educational policy at the level of implementation. I.E.P. is an executive scientific body that supports the Ministry of Education on issues concerning all levels of education. The purpose of the institute is scientific research and 'technical support for the planning and implementation of educational policy'. Among its multiple responsibilities, it 'advices, at the request of the Minister of Education or makes ex officio recommendations to the Minister of Education' on matters relating to 'the curricula of primary and secondary education', and the 'initial and in-service training of teachers' (Law 3966, 2011).

A second level of interest concerns the organization of the studies of future K-teachers. University departments operate based on the constitutional principle of 'self-government'. Thus, departments

autonomously determine the structure and organization of their studies, both in terms of the 'content of the curriculum', and the time allocated to some of them (Stylianidou et al., 2004). Teacher training, however, and especially their practical training during their studies, seems to influence their experiences (Birbili & Tsitouridou, 2019).

The third level, which we call the 'Practice Level', refers to the implementation of the kindergarten curriculum as part of the wider educational policy. In Greece, the 'Cross-Thematic Integrated Framework for the Preschool Curriculum' of 2003 regulates the unified character of the kindergarten curriculum, defining the transition to a renewed pedagogical, didactic and methodological approach (Government Gazette, 2003). The programme is structured around five directions for the planning and development of activities in Language, Mathematics, Environmental Studies, Creation and Expression, and Information Technology. The key words of the programme are the flexibility of choices at all levels (subject matter, methodology, means, resources, etc.) (Doliopoulou, 2006) and the interdisciplinary approach to knowledge and teaching (Birbili & Myrovali, 2020) that integrates knowledge areas by developing appropriate practical and exploratory activities that are meaningful for children, so that they can develop their personality, socialize and learn about the world (Doliopoulou & Sousloglou, 2007).

The Greek kindergarten curriculum allows, given the multi-level hierarchy of goals, and the limited external recording and evaluation (Dimitropoulos & Kindi, 2017), differentiated and often individual levels of mediation of educational policy intentions (Birbili, 2017), thus, making, we would argue, each kindergarten classroom unique at the level of school teaching practice. The flexibility of the curriculum and teaching methodology allows for the selective use of individual goals, i.e. more emphasis on one area over others. This dimension, despite the uniform nature of the curriculum in all types of kindergartens (public – private), allows for potentially differentiated adaptations are influenced by K-teachers' beliefs and social preferences. Therefore, K-teachers' beliefs for the curriculum orientations (Cheung & Ng, 2000; Cheung & Wong, 2002), given the provided flexibility of the Greek curriculum, may influence their individual choices on teaching methodology, activation strategies, and perceived goals (Cheung, 2000; Ennis, 1992).

The fourth level, which we would define as the 'primary caregiver level', concerns the cooperation between parents and K-teachers. This level is determined by the reluctance of K-teachers to hand over part of their pedagogical work to parents, as they do not recognize them the required 'knowledge, skills and experience' (Sakellariou & Rentzou, 2007). Thus, given the absence of institutionalized norms of equal and extensive cooperation with parents, K-teachers seem to accept a basic, but limited, framework of communicative exchanges with parents. Therefore, joint planning and decision-making, parental involvement in the formulation of goals or in the design and implementation of the programme are not accepted by K-teachers (Doliopoulou & Kontogianni, 2003). According to Bæck (2010) teachers tend to emphasize the elements that constitute their professionalism, probably to protect their position as the only ones holding power in the social space of the school.

In Greece, the attendance in kindergarten became compulsory, despite the earliest widespread social acceptance of the institution. The widespread acceptance is evidenced on the high rates of attendance of students of the same age in kindergartens (Kamerman, 2006), although smaller compared to EU other countries mean attendance or availability (European Commission/EACEA/Eurydice/Eurostat, 2014; Petrogiannis, 2010), for one year of attendance in 2006 (Law 3518/2006), for all children aged five, and from 2018 (Law 4521, 2018) for two years of attendance, for all children aged four.

The Construction of Teachers' and Parents' Beliefs about Kindergartens Goals

K-Teachers

Extensive research has been conducted focusing on teachers' attitudes, perceptions and beliefs. The orientation of the research varies in terms of investigating beliefs, separating them into explicit or implicit, searching for factors that shape them, controlling their stability or variability, the role of the social context for their activation, etc. A thorough inventory and categorization of the extensive literature on teachers' beliefs has been carried out by Pajares (1992) and Fives & Buehl (2012) highlighting the multivalent

conceptualization and the absence of a coherent frame of reference. However, it seems that a common, explicit or implicit, dimension of the studies stimulates research interest in the function of beliefs as a factor related to educational attitudes and practices, but also as a variable influencing the quality of the educational output.

Pajares (1992) identified a 'messy construct', considered teachers' beliefs, provided a summary of theoretical approaches, urging the statement of a framework as 'fundamental assumptions' at the beginning of a study on teachers' beliefs. Under this conception we perceive beliefs as a system of relatively stable, subjectively constituted assertions that work both ways; influencing the understanding and interpretation of social reality and of the self in it, in a process of affirmative validation of initial beliefs. Beliefs are hierarchically interconnected with other cognitive and affective structures and are often held intact under conditions of rational challenge. Their dynamics lie in their selective activation processes for defining tasks, selecting appropriate cognitive tools, planning actions and making decisions.

Teachers' beliefs seem to be characterized by a homogeneity rooted in 'communities of practice', symbiotic exchanges of practices, values, meanings and a repertoire of communal resources (Lave & Wenger, 1991; Wenger, 1998). A perspective of high interest in our study is the exploration of beliefs in the broader context of teachers' positioning and the social context of their integration (Barkatsas & Malone, 2005; Kagan, 1995). Despite the support for a formation of teachers' beliefs before they enter the profession (Di Santo et al., 2017; Florio-Ruane & Lensmire, 1990; La Paro et al., 2009; Thompson, 1992) and their relative stability (Brousseau et al., 1988; Gooya, 2007; Kagan, 1995; Moseley et al., 2002; Thompson, 1992), we are more interested in a less pessimistic perspective that focuses on the extent of variation in teachers' beliefs and their variability in different contexts (Fives & Buehl, 2012). This perspective is consistent with Bandura's 'triadic reciprocal causation' theory that 'human adaptation and change are rooted in social systems. Therefore, personal agency operates within a broad network of socio-structural influences' (1997, p. 6), according to which two-way relationships between the individual's self-system, their actions and the environment are recognized. Therefore, teacher's individual beliefs about the social context of an action (school) mutually influence each other and are influenced by the social context and their own practices. We would argue that an interactive symbiotic framework between individual beliefs and social context can determine the prospect of developing practices as part of beliefs.

Parents

Parents of pre-school students do not seem to have a precise understanding 'of what a kindergarten-ready child should be like' (Hatcher et al., 2012), acknowledging, however, the demanding nature of kindergarten, which they value mainly at the level of literacy skills. It seems that this is a roughly structured belief of the role of kindergarten that can be confirmed, refuted, or revised during the transition to kindergarten. However, K-teachers express a broader conception of kindergarten readiness: in children's physical and social development and curiosity, over other discrete skills (Heaviside & Farris, 1993, s.21).

Research data seem to converge on different causal associations between parents' beliefs, assessment of educational goals and practices at home. Of vital interest is the development of literacy for preschool children, particularly the search for the degree and intensity of the influence of parents' demographic characteristics on their beliefs about literacy.

Among other factors, parents' educational and socio-economic level seems to correlate with their beliefs and to determine home practices and academic expectations (Alexander et al., 1994; Conger et al., 2010; Fung & Lam, 2012). These two factors, the educational and socio-economic level, are considered to determine the self-confidence and willingness, or ability to engage parents in literacy activities (Bandura et al., 1996; Lareau, 2003; Whitehurst & Lonigan, 1998). A common conclusion of the studies is the positive correlation between the higher social and educational capital of the family and positive literacy prospects. The early or parallel active involvement of parents in literacy processes seems to determine the convergent or divergent evaluation of the importance of kindergarten goals, the establishment of a common and mutually valued framework of communication and educational action for the benefit of students (Tsirmpa et al., 2021). In addition, since a positive relationship between literacy using digital tools (Neumann, 2014),

and the use of Information and Communication Technology in promoting pupils' learning (Braslauskiene et al., 2017), has been identified, the assessment of the usefulness of digital literacy by teachers and parents seems to be an important parameter, especially in the distance learning process, where parents assume a complex teacher-guide and parental role (Garbe et al., 2020; Lau & Lee, 2020).

The degree of parental satisfaction regarding the school is not a neutral, detached parameter from the goal, i.e. the all-round development of children. Satisfaction has been argued to be related to the degree of parental involvement in their children's education, a process that also seems to be associated with further development of children's skills (Fantuzzo et al., 2006), choice of school type (Goldring & Phillips, 2008) and the extent of information provided by the school (Friedman et al., 2006). Hausman and Goldring (2000) found that high levels of parental satisfaction correlates with the choice of educational environment, which is based on the level of the education provided and shared values, factors that further enhance participation. The choice of educational environment seems to offer greater satisfaction to parents (Goldring & Hausman, 1999). According to this, we further hypothesize that satisfaction is enhanced in the case of private education given the payment of tuition fees, which probably acts as a self-fulfilling prophecy of verification of initial expectations and beliefs, on the basis of a reciprocity of tuition fees and optimal educational services, compared to free state education.

The quality of the family-school relationships and the shared framework of understanding and goals seems to have an impact on supporting learning (Hamre & Pianta, 2001). Epstein (2001) introduced the theory of 'spheres of influence' that maximize the conditions for children's academic and social development when the two spheres overlap. In this context, teachers take on an important role in managing and setting complex and often contradictory goals: expectations, normative framework (Sofou, 2010) and socio-cultural values and beliefs. Widespread acceptance of the curriculum importance by teachers in establishing shared goals and visions that would facilitate increased communication with colleagues and parents has been recognized (Sofou & Tsafos, 2010). However, constraints and inhibitions seem to interfere by distorting ideal formulations of normative framework, interpretation, understanding and implementation.

Research Questions - Hypotheses

The main goals of our study are: i) to examine K-teachers' and parents' perceptions about kindergarten goals, ii) to document the mutual assessments of kindergarten goals between them, and iii) to identify factors shaping differentiation and are related to demographic, cultural, educational or professional characteristics.

The research questions of the study were: What are K-Teachers' and parents' beliefs regarding the goals of the kindergarten curriculum? What are K-teachers' perceptions about the beliefs of parents? What are parents' perceptions about the beliefs of K-teachers?

In relation to the research questions, we assume that:

- a) K-teachers share a common set of beliefs about kindergarten goals regardless of demographic, educational or professional characteristics. However, we expect variations due to the social context of their integration (for example: region of school, public or private school, etc.).
- b) K-teachers rate the 'socio-emotional' goals of kindergarten as more important than the 'academic' ones.
- c) K-teachers rate parents' beliefs about kindergarten goals significantly lower than what parents themselves ultimately attribute to them.
- d) Parents rate kindergarten goals relatively equally, but lower than K-teachers.
- e) Parents rate academic goals (literacy, math skills) higher than K-teachers. In particular, we expect parents of lower educational and socio-economic level to rate higher the academic goals than parents of higher educational and socio-economic level.
- f) Parents and K-teachers in private schools express a convergent perception of the importance of kindergarten goals compared to public schools.

Method

The Research Design

On the basis of previous research studies with a related orientation (Bautista et al., 2016; Sverdlov & Aram, 2016) we identified a common framework of kindergarten goals that seems to partially cover those of the Greek curriculum. For a more complete understanding of kindergarten goals included in the questionnaires, we additionally processed the linguistic rendering and we also considered it appropriate to segment the concepts of previous studies into more specific goals that are consistent with the Greek curriculum.

Pilot research - Questionnaire

We conducted a pilot study evaluating the initial consistency reliability of the questionnaires by opportunity sampling of 30 K-teachers and 50 parents. The questionnaire was structured in two directions, seeking to capture the beliefs of K-teachers and parents and an estimation of each other's beliefs about the kindergarten goals. K-teachers and parents were asked to state their estimation for a range of fourteen kindergarten's goals using a five-point Likert scale (1= 'not important at all' to 5= 'very important').

In the pilot phase we tested the validity of the questionnaire at the level of the K-teachers, i.e., checking whether 'an instrument measures what it was designed to measure' (Field, 2009, p. 11) and, in particular, its validity with regard to the presentation and relevance of the measurement instrument (clarity of items, appropriateness of difficulty, reasonableness of the items in relation to the perceived purpose, etc.) (Oluwatayo, 2012). We chose face validity and included an open-ended question asking K-teachers: i) to indicate an additional goal that they thought it could have been included, and ii) to evaluate on a five-point Likert scale the questionnaires' completeness in terms of the 14 kindergarten curriculum goals we set.

In the first part, the open-ended question, 12 of the 30 questionnaires in the pilot survey suggested another goal, but none collected more than two suggestions. In the second part, the evaluation of questionnaires' completeness, 86.7% rated it as having 'absolute completeness' (5 on the Likert scale), 9.9% rated it as having 'satisfactory completeness' (4 on the Likert scale) and only 3.33% rated it as having 'sufficient completeness' (3 on the Likert scale). Thus, the kindergarten goals in the two questionnaires were kept in their original form: 1) Positive attitude to learning, 2) Solving everyday problems, 3) Self-esteem, 4) Socialization, 5) Literacy, 6) Digital literacy, 7) Creativity – Imagination, 8) Inquiry-based learning - Curiosity, 9) Autonomy in learning, 10) Math skills, 11) Motor skills, 12) Taking initiatives, 13) Multicultural principles, and 14) Tradition - Religion.

Internal consistency was measured using the Cronbach's Alpha value. In the K-teachers' questionnaire, assessing the importance of kindergarten goals per se, the Cronbach's alpha was 0.848, whereas, in the second part, i.e., the K-teachers' assessment of parents' beliefs about kindergarten goals, the Cronbach's alpha was 0.906. The corresponding control of the parents' questionnaire in the first part, i.e. personal beliefs about the importance of kindergarten goals, the Cronbach's alpha was 0.797 and in the second part, i.e. parents' perception about the importance of the goals from the K-teachers' point of view, the Cronbach's alpha was 0.828.

Research Sample

The survey was conducted from the 1st to the 25th of June 2021 in two directions: to K-teachers of public and private schools and to parents of the same schools in the Region of Central Macedonia, Greece. Given the socio-economic characteristics of the region in relation to the national counterpart population, the representativeness of the sample and the possibility of generalizing the results through systematic random sampling is ensured (Jawale, 2012). The region is the largest one in terms of acreage compared to the other 13 regions and the second largest in terms of population (almost 20% of the country's population), comprising 7 of the 54 prefectures. Two lists of kindergartens (public and private) were generated by random placement. The sample schools were selected by randomly selecting the first member (school)

followed by selecting each subsequent member from the same list by applying a fixed interval of consecutive units (4 for private and 5 for public).

Sample Descriptive Statistics

As shown in Table 1, private sector K-teachers have less educational experience and lower educational level attainment than their public sector counterparts. A similar variation can be found in the relevant literature on educational qualifications (Tooley, 2005) and educational experience (Nsiah-Peprah, 2004). The majority of K-teachers are women confirming the dominance of female in the Greek kindergarten classrooms (Stamelos & Emvaliotis, 2001).

Table 1. Descriptive data sample of K-teachers

				Public	Private
		n	%	n	n
Gender	Male	8	2.4	8	0
	Female	322	97.6	278	44
Years of Service	1-10	78	24	53	25
	11-20	170	51	156	14
	21-30	66	20	62	4
	31 +	16	5	15	1
Employment Status	Permanent	195	59.1	195	0
	Substitute K-teachers	90	27.3	90	0
	Hourly	2	0.6	1	1
	Fixed-term contract	16	4.8	0	16
	Open-ended contract	27	8.2	0	27
Education Level	Bachelor	184	55.8	147	37
	Retraining Center (Didaskaleio)	31	9.4	29	2
	Master Degree	114	34.5	109	5
	PhD	1	0.3	1	0

According to Table 2, the parents' questionnaire was overwhelmingly answered by mothers (84%), with a mean age of 38.04 years, while 89.5% are native and the gender of the students is equally represented in the survey, in line with the general characteristics of our reference population. A comparison with the data of the Hellenic Statistical Authority confirms the reliability of the sampling of the survey, as in the general population attending kindergartens in Central Macedonia in a total of 27.470 students in the school year 2019/20 (last updated data), 16.278 (59.25%) attended in urban areas, 6.721 (24.46%) in semi-urban, and 4.471 (16.27%) in rural areas, with respective percentages in our sampling: urban 57.8%, semi-urban 25,3% and rural 16,9%.

We also identify: younger-aged parents who answered the questionnaire in public kindergartens ($M=37.5$, $SD=5.4$) compared to private ($M=38.9$, $SD=5.05$), different levels of education between public and private schools (Secondary: 30.2% - 6.9%, Post-secondary: 24.0% - 12.5%, Tertiary: 37.8% - 45.1%, Master: 6.2% - 29.2%, PhD: 1.8% - 6.3%) and reverse programme selection. Specifically, the attendance ratio in public schools is 181 (65.8%) in a half-day program and 94 (34.2%) in a full-day program, while, correspondingly, in private schools it is 42 (29.2%) and 102 (70.8%).

Table 2. Descriptive data sample of parents

		n	%
Gender	Male	67	16.0
	Female	352	84.0
Age	21-30	30	7.15
	31-40	268	63.96
	41-50	116	27.68
	50 +	5	1.19
School Area	Rural	71	16.9
	Semi-urban	106	25.3
	Urban	242	57.8
School Type	Public	275	65.6
	Private	144	34.4
Mother Tongue	Greek	375	89.5
	Albanian	29	6.9
	Other	15	3.5
Education Level	Secondary	93	22.2
	Post-secondary	84	20.0
	Tertiary	169	40.3
	Master	59	14.1
	PhD	14	3.3
Student Gender	Male	213	50.8
	Female	206	49.2
Student's Age Group	4-5	190	45.3
	5-6	229	54.7
Programme	Half-day	223	53.2
	All-day	196	46.8

Data Collection Process

Randomly selected schools were informed by e-mail about: the details of the survey, its purpose, the anonymity of the participants and the content of the questionnaire in digital format. Those that responded positively were sent paper questionnaires for K-teachers and parents. The parents' questionnaires were translated, by bilingual translators, into English, and Albanian, and then a back translation was conducted in Greek. Any discrepancies found between the original and the back translated versions were corrected. According to the data of the Hellenic Statistical Authority for 2019, about 5.5% of the students in kindergartens in Central Macedonia are foreigners. The majority of these pupils (92%) come from non-EU countries (mainly Albania) and only 8% come from EU countries or are of unknown origin.

A total of 183 public kindergartens and 24 private kindergartens were randomly selected. 91 public schools (rate 49.72%) and 15 private schools (rate 62.5%) responded positively. 1200 questionnaires were distributed to the parents of the children attending public kindergartens with a return rate of 23% and 320 questionnaires were distributed to the parents of the children attending private kindergartens with a return rate of 45%. We estimate that about 13% of K-teachers in the region of Central Macedonia from public kindergartens and about 20% from private kindergartens participated in the survey sample.

Data Analysis

In analyzing the data two kinds of nonparametric tests were conducted, while the assumptions of normality not met. We report the differences between groups as mean ranks, while the shape and the location of the distributions of the dependent variable were different (Karadimitriou et al., 2018). In order to determine whether or not there is a statistically significant difference between groups we performed the nonparametric Kruskal-Wallis, when having 3 independent groups. We use the mean rank in order to calculate the H-value, i.e. the test statistic for the Kruskal-Wallis test. We then run post-hoc tests for multiple comparisons to determine the differences between groups (Ostertagová et al., 2014). Respectively, when having to deal with an ordinal variable (Likert scale on Kindergarten goals) by a single dichotomous

categorical independent variable, we performed the Mann-Whitney U test.

Results

In analyzing the data, we found a common belief among K-teachers about the importance of kindergarten goals that did not seem to depend on demographic or professional characteristics. Table 3 reflects a high importance rating in almost all goals, particularly the 'socio-emotional' (self-esteem, socialization, creativity-imagination), compared to the 'academic' goals (literacy, math skills).

Table 3. K-teachers' ratings on the importance attributed to kindergarten's goals

Goals	K-teachers per se (n=330)	K-teachers per parents (n=330)
	Mean (SD)	Mean (SD)
Positive attitude to learning	4.71 (0.53)	4.24 (0.82)
Solving everyday problems	4.82 (0.46)	3.75 (0.96)
Self-esteem	4.88 (0.38)	3.90 (0.91)
Socialization	4.92 (0.30)	4.37 (0.80)
Literacy	4.35 (0.68)	4.52 (0.71)
Digital literacy	3.74 (0.86)	3.49 (1.06)
Creativity – Imagination	4.86 (0.41)	3.66 (0.96)
Inquiry-based learning – Curiosity	4.75 (0.51)	3.51 (0.94)
Autonomy in learning	4.66 (0.59)	3.76 (0.99)
Math skills	4.58 (0.62)	4.09 (0.90)
Motor skills	4.78 (0.48)	3.83 (0.92)
Taking initiatives	4.76 (0.52)	3.63 (0.97)
Multicultural principles	4.78 (0.51)	3.29 (1.03)
Tradition - Religion	3.92 (0.92)	3.53 (0.98)

We tested K-teachers' beliefs pertaining to the independent variables: school area (rural, semi-urban, urban), years of service (1-10, 11-20, 21+), educational level (Bachelor, Training Center, Post-graduate studies), employment status (Permanent, Substitute K-teachers), and school type (Public, Private). A Kruskal-Wallis test showed that there was no significant difference of the mean ranking of education level between the 3 groups. A Mann-Whitney U test also showed that there was no significant difference of the mean ranking of employment status and of school type.

The same procedure (Kruskal-Wallis test) showed that there was a significant difference of the mean ranking of school location on 'self-esteem' and 'inquiry-based learning - curiosity' between the 3 groups. Specifically, on 'self-esteem' there was a significant difference of mean ranking $\chi^2(2)=6,506$, $p<0.05$. The conducted post hoc test for pairwise comparisons found that the 'rural' group was significantly different to the 'urban' group ($p=0.011$). On 'inquiry-based learning - curiosity' goal there was a significant difference of mean ranking $\chi^2(2)=9,031$, $p<0.05$ and the post hoc test for pairwise comparisons found that the 'semi-rural' group was significantly different to the 'rural' group ($p=0.033$), and to the 'urban' group ($p=0.003$).

The independent groups concerning the 'years of work' variable seem to have a statistically significant difference of mean ranking (Kruskal-Wallis test) for the 'inquiry-based learning - curiosity' and 'math skills' goals. A Kruskal-Wallis H test showed that there was a statistically significant difference on 'inquiry-based learning - curiosity' goal [$\chi^2(2)=6,291$, $p<0.05$], and the conducted post-hoc test for pairwise comparisons found that the '1-10' years of service group was significantly different to the '11-20' years of service group ($p=0.024$). Concerning the 'math skills' goal there was a significant difference of mean ranking $\chi^2(2)=7,738$, $p<0.05$, and the conducted post hoc test for pairwise comparisons found that there was a significant difference between the same groups ($p<0.01$).

The highest importance rating of 'socialization' among the 14 goals is probably due to the need to restore social interaction, which was interrupted by the pandemic and the school closure. The 'literacy' goal, despite its particular importance in the curriculum, is rated low among the 14 goals, even compared

to parents' beliefs per se. 'Digital literacy' is rated as the least important goal by K-Teachers, a finding of particular interest.

As shown in Table 3, K-teachers appear to rate parents' beliefs about kindergarten goals lower than their own. We searched for possible factors that may influence their perception by utilizing variables related to demographic and professional characteristics. Specifically: school area (rural, semi-urban, urban), years of service (1-10, 11-20, 21+), educational level (bachelor, training center, post-graduate studies), and school type (private, public). A Kruskal-Wallis test showed that there was no significant difference of the mean ranking of education level between the 3 groups. Also, no statistically significant difference was found in relation to school area between the 3 groups.

The 3 groups of the independent 'years of service' variable seem to have a statistically significant difference of the mean ranking (Kruskal-Wallis test) in the following goals:

- Solving everyday problems: $\chi^2(2)=9,767$, $p=0.0008^{***}$. The post hoc analysis for pairwise comparisons found that the '11-20' group was significantly different to the '21+' one ($p=0.022$),
- Self-esteem: $\chi^2(2)=6,733$, $p=0.035^*$. The post hoc analysis for pairwise comparisons found that the '11-20' group was significantly different to the '21+' one ($p=0.044$),
- Creativity-imagination: $\chi^2(2)=6,003$, $p=0.049^*$. The post hoc analysis for pairwise comparisons found that the '11-20' group was significantly different to the '21+' one ($p=0.046$),
- Autonomy in learning: $\chi^2(2)=8,711$, $p=0.013^*$. The post hoc analysis for pairwise comparisons found that the '1-10' group was significantly different to the '11-21' one ($p=0.31$),
- Math skills: $\chi^2(2)=9,998$, $p=0.007^{**}$. The post hoc analysis for pairwise comparisons found that the '11-20' group was significantly different to the '21+' group ($p=0.034$), and to the '1-10' group ($p=0.027$),
- Taking initiatives: $\chi^2(2)=11,707$, $p=0.003^{**}$. The post hoc analysis for pairwise comparisons found that the '11-20' group was significantly different to the '1-10' ($p=0.028$), and to the '21+' ones ($p=0.010$).

In Table 4 we conducted a Mann-Whitney U test for the assessment of parents' beliefs by K-teachers according to the type of school they work in.

Table 4. Summary of differences between public and private K-Teachers' beliefs for parents on Mann-Whitney U Test

Kindergarten Goals	Public K-Teachers (n=286)	Private K- Teacher (n=44)	U	Z
	Mean rank	Mean rank		
Positive attitude to learning	162.09	187.69	5.315	-1,792
Solving everyday problems	161.35	192.44	5.106*	-2,112
Self-esteem	157.06	220.36	3.878***	-4,308
Socialization	161.41	192.06	5.123*	-2,218
Literacy	167.43	152.97	5.740	-1,106
Digital literacy	163.60	177.83	5.749	-0,957
Creativity – Imagination	162.01	188.19	5.293	-1,774
Inquiry-based learning – Curiosity	163.10	161.09	5.606	-1,226
Autonomy in learning	160.26	199.59	4.792**	-2,659
Math skills	164.04	175.00	5.874	-0,755
Motor skills	160.07	200.78	4.739**	-2,769
Taking initiatives	160.72	196.55	4.926*	-2,425
Multicultural principles	159.72	203.05	4.640**	-2,934
Tradition - Religion	167.04	155.50	5.852	-0,781

* $p < .05$, ** $p < .01$, *** $p < .001$

We observe that the statistical significance in the differences in the mean ranking of the groups is mainly found in kindergarten goals that concern the formation of the students' personality, with elements

that shape conditions that facilitate their autonomous development and their smooth social integration. The identification of these differences in kindergarten goals, as assessed by K-teachers' beliefs of parents, seems to go beyond demographic characteristics and is mainly found at the level of school type, comparing the mean ranking between public and private sector K-teachers. Having therefore controlled and reduced the possible influence of other variables, we found that K-teachers' perceptions of parents' beliefs about kindergarten goals differ depending on the type of school, which opens a perspective for further investigation and identification of the factors that shape it. Given that 'generational echoes are double-edged for both parents and teachers' (Lawrence-Lightfoot, 2003; p. 5), identifying divergent interests, expectations and hierarchies, the illustration of mutual perceptions between public and private schools, in Figure 1, seems to reflect multiple areas of differentiation. Thus, a convergent trend of parents' estimation of K-teachers' beliefs and a corresponding trend among K-teachers for parents is shown. Moreover, it is evident that the perceptions of K-teachers and parents in private schools about kindergarten goals are more consistent than in public schools.

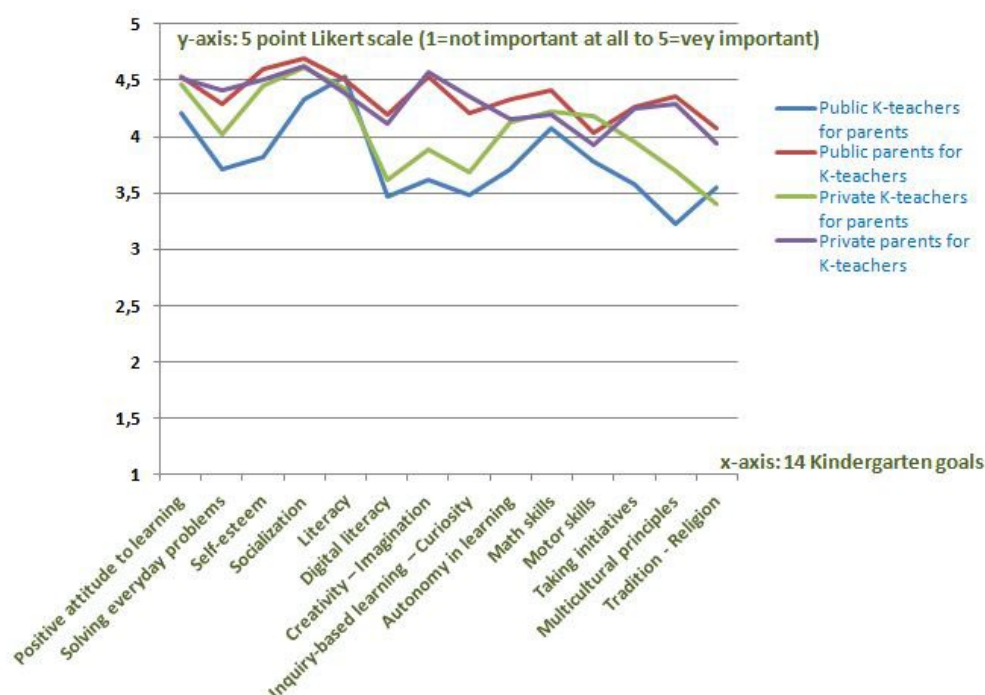


Figure 1. Mutual perceptions of K-teachers' and parents' beliefs about kindergarten goals in public and private schools

However, K-teachers' assessments of parents' beliefs do not seem to be consistent with parents' own perceptions of the importance of kindergarten goals (Table 5).

Table 5. K-teachers per Parents' Beliefs, Parents' Beliefs per se and for K-Teachers regarding the goals of kindergarten

Kindergarten Goals	K-teachers per parents (n=330)	Parents per se (n=419)	Parents per K-Teacher (n=419)
	Mean (SD)	Mean (SD)	Mean (SD)
Positive attitude to learning	4.24 (0.82)	4.54 (0.61)	4.53 (0.62)
Solving everyday problems	3.75 (0.96)	4.48 (0.68)	4.33 (0.71)
Self-esteem	3.90 (0.91)	4.72 (0.53)	4.57 (0.66)
Socialization	4.37 (0.80)	4.80 (0.46)	4.67 (0.61)
Literacy	4.52 (0.71)	4.45 (0.65)	4.46 (0.63)
Digital literacy	3.49 (1.06)	4.04 (0.78)	4.18 (0.76)
Creativity – Imagination	3.66 (0.96)	4.57 (0.62)	4.55 (0.62)
Inquiry-based learning – Curiosity	3.51 (0.94)	4.31 (0.68)	4.26 (0.71)
Autonomy in learning	3.76 (0.99)	4.38 (0.71)	4.27 (0.78)
Math skills	4.09 (0.90)	4.38 (0.71)	4.34 (1.72)

Motor skills	3.83 (0.92)	4.14 (0.85)	4.00 (0.90)
Taking initiatives	3.63 (0.97)	4.35 (0.72)	4.25 (0.76)
Multicultural principles	3.29 (1.03)	4.42 (0.74)	4.34 (0.72)
Tradition - Religion	3.53 (0.92)	4.00 (0.99)	4.03 (0.83)

Parents' beliefs are quite high (except for the 'digital literacy', 'motor skills' and 'tradition-religion' goals), but lower than K-teachers' self perceptions (Table 4). What is evident in Table 5 is the significant difference between K-teachers' belief about the importance of kindergarten goals for parents and that expressed by the parents themselves in the survey. Parents, like K-Teachers, also rate the importance of 'digital literacy' low.

A Kruskal-Wallis test showed that there was a significant difference of the mean ranking between parents according to the school district (Rural, Semi-urban, Urban) in the following kindergarten goals:

- Literacy: $\chi^2(2)=15,754$, $p<0.001^{***}$. The post hoc analysis for pairwise comparisons found that the 'urban' group was significantly different to the 'semi-urban' ($p=0.004$), and to the 'rural' ones ($p=0.005$),
- Creativity-Imagination: $\chi^2(2)=9,927$, $p<0.007^{**}$. The post hoc analysis for pairwise comparisons found that the 'rural' group was significantly different to the 'semi-urban' ($p=0.022$), and to the 'urban' ones ($p=0.007$),
- Inquiry-based Learning - curiosity: $\chi^2(2)=8,442$, $p<0.015^*$. The post hoc analysis for pairwise comparisons found that the 'rural' group was significantly different to the 'urban' one ($p=0.011$),
- Tradition-religion: $\chi^2(2)=21,656$, $p<0.001^{***}$. The post hoc analysis for pairwise comparisons found that the 'urban' group was significantly different to the 'semi-urban' ($p=0.009$), and to the 'rural' ones ($p<0.001$).

It appears that the 'school area' variable is a limited factor in differentiating parents' beliefs about kindergarten goals. Interestingly, parents from 'rural' areas seem to express different perceptions of the goals 'creativity-fantasy' and 'exploratory learning-curiosity' than parents from 'semi-urban' and 'urban' areas. Parents in 'rural' areas recognize higher the importance of 'literacy' compared to the groups 'semi-urban' and 'urban'.

Table 6 shows the differences in the mean ranking for parents according to their educational level, i.e. Lower (secondary and vocational) and Upper (tertiary and post-graduate).

Table 6. Summary of differences between Lower and Upper parents' educational level beliefs (Mann-Whitney U Test)

Kindergarten Goals	Lower (n=286)	Upper (n=44)	U	Z
	Mean ranking	Mean ranking		
Positive attitude to learning	200.13	217.22	19.669	-1.659
Solving everyday problems	196.18	220.11	18.970*	-2.284
Self-esteem	196.91	219.58	19.099**	-2.561
Socialization	197.63	219.05	19.227**	-2.732
Literacy	218.91	203.49	19.840	-1.451
Digital literacy	217.60	204.44	20.071	-1.191
Creativity – Imagination	193.23	222.27	18.448**	-2.885
Inquiry-based learning – Curiosity	185.71	227.77	17.117***	-3.869
Autonomy in learning	221.64	201.49	19.356	-1.865
Math skills	219.38	203.14	19.757	-1.505
Motor skills	227.85	196.95	18.258**	-2.770
Taking initiatives	195.95	220.28	18.930*	-2.243
Multicultural principles	203.78	241.55	20.316	-1.012
Tradition - Religion	231.29	194.43	17.649**	-3.249

* $p<.05$, ** $p<.01$, *** $p<.001$

Higher educated parents express the belief that they attach greater importance to goals that promote the formation of an autonomous and exploratory personality, taking initiative and enabling the child to manage situations, compared to lower educated parents who focus on goals that they themselves can manage and appreciate.

In the corresponding Mann-Whitney U test for parents' beliefs in relation to the students' attendance programme (half-day, all-Day) and age group (4-5, 5-6), we found no statistically significant differences in the mean ranking. We did, however, find that the mean ranking in the 'public' and 'private' school attendance groups differed significantly in the following goals: 'literacy', 'math skills', and 'tradition-religion', i.e. in the core of the curriculum. Regarding the 'literacy' goal, the mean rankings in the 'public' and 'private' groups was 220.43 and 190.09 respectively; the two groups differed significantly (Mann-Whitney U= 16.932, $p < 0.01$). Regarding the 'math skills' goal, the mean ranking in the above groups was 218.40 and 193.95; the two groups differed significantly (Mann-Whitney U= 17.489, $p < 0.05$). Finally, regarding the 'tradition-religion' goal, the mean ranking was 224.34 and 182.62; the two groups differed significantly (Mann-Whitney U= 15.857, $p < 0.001$).

Conclusion and Discussion

The study aimed to record the beliefs of the two key actors in the educational process about the kindergarten goals (first dimension of the study) and their respective perceptions of each other (second dimension of the study). The findings illustrate the individual convergences and divergences of beliefs that confirm previous research work, but also open new areas of reflection.

K-Teachers

By exploring K-teachers' perceptions about kindergarten goals, we identified a pattern of shared beliefs among them that did not appear to depend on demographic or professional characteristics, verifying the *hypothesis a*. Thus, the independent variables: school area, years of service, educational level, employment status and school type, had limited statistically significant effect on K-teachers' perception of kindergarten goals. As for *hypothesis b*, it indeed seems that our findings are in line with previous studies (Abry et al., 2015; Grace & Brandt, 2006; Hatcher et al., 2012; Hollingsworth & Winter, 2013), as K-teachers rated 'socio-emotional' goals as more important compared to 'academic' goals. In addition, given the context of the pandemic, the goal of 'socialization' becomes the overriding goal of kindergarten, a finding that needs to be re-examined with the restoration of normality.

In contrast, we found a low perception of K-teachers about the importance of 'literacy' and 'digital literacy' (rated as least important goal) regarding kindergarten goals. If the belief about the goal of 'literacy' is transferred to the level of everyday educational practice, it constitutes a potentially problematic situation, given the decline of 'literacy' due to distance learning (Bao et al., 2020). The effect of distance learning on literacy seems, however, to be confirmed and also applies to mathematical skills (United Nations Children's Fund, 2022), which also seem to be underestimated as a kindergarten goal by K-teachers. Similarly, the lower importance rating on 'digital literacy' contrasts with the importance of teachers in the implementation of innovation and the adoption of digital technology (Jimoyiannis & Komis, 2007; Pelegrum & Law, 2003). So, it becomes a potential inhibiting factor in the development and promotion of a goal that refers to the ability to apply information and communication technology for the rational and critical use of context with cognitive and technical skills (Techataweewan & Prasertsin, 2018), as well as critical thinking (Naresh, 2020). K-teachers' beliefs are likely to be influenced by the disruption of face-to-face teaching during the pandemic and the difficulties that arose because of that, creating a broader wave of negative perceptions of technology as a learning tool.

The findings of the survey, in its second dimension, seem to confirm *hypothesis c*, i.e., that K-teachers generally underestimate parents' beliefs about kindergarten goals relative to their own beliefs. In addition, K-teachers rate their own belief of the importance of kindergarten goals, except for 'literacy', higher than their perceptions of the importance they believe parents have, a finding that is also in line with previous research data (Sverdlov & Aram, 2016). We also found that K-teachers overestimate parents' beliefs about

the 'academic' goals of the curriculum, a trend, however, that was not verified by the parallel investigation of parents' beliefs. Searching for factors that might influence K-teachers' perceptions about parents' beliefs about the importance of kindergarten goals, we identified only the variable 'years of service'. The statistical significance, however, of the variable on K-teachers' perceptions does not appear to independently constitute an explanatory framework and is therefore subject to future investigation. In contrast, we found that teachers' perceptions of parents' beliefs differ depending on the type of school (private – public) they work in.

Parents

Corresponding to K-teachers, we investigated parents' perceptions about the importance of the kindergarten goals. We found out that parents' beliefs are quite high, although lower than K-teachers' perceptions of themselves, a finding that confirms *hypothesis d*. Parents, like K-teachers, also rate the importance of 'socialization' higher among the 14 goals. As regards *hypothesis e*, the findings of the study did not fully confirm that parents rate academic goals (literacy, math skills) higher than K-teachers. Specifically, parents did indeed rate 'literacy' goal quite higher ($M=4.45$) than K-teachers ($M=4.35$), but lower the 'math skills' goal compared to K-teachers. As revealed, K-teachers rate 'math skills' goal ($M=4.58$) higher compared to parents ($M=4.38$). Similarly, to K-teachers, parents rate 'digital literacy' to be one of the least important goals. This finding, about the 'digital literacy', may be due to a doubtful understanding of the goal and the additional burden and difficulties they had to face during the distance education process (Dong et al., 2020; Foti, 2020; Garbe et al., 2020; Lee et al., 2020). However, this overlooks the 'opportunity' for students to acquire enhanced digital skills during the pandemic (Pavlenko & Pavlenko, 2020). In this case, we expected a higher perception of the importance of the 'motor skills' goal (Guan et al., 2020; The World Organisation for Early Childhood Education [OMEP], 2020), which we did not find. Perhaps through the 'socialization' goal, which is rated as the most important by parents, the need for physical and social reactivation of children is expressed. Our findings seem to converge with other extant research findings where, while cognitive items are identified as important, goals related to children's development are also high or higher ranked (Grace & Brandt, 2006; Hatcher et al., 2012).

In *hypothesis e*, consistent with the literature, we expected parents with lower educational and socio-economic levels to rank academic goals higher than parents of higher levels. The results indeed identify elements of variation that should be investigated further in future work. Parents in 'rural' areas, given their significantly lower educational level compared to the survey population, seem to express a conventional orientation that recognizes the importance of 'literacy' and their own inherent inability to contribute in this direction (Lareau, 2003; Whitehurst & Lonigan, 1998). In the same pattern the 'tradition-religion' is overestimated as a kindergarten goal by parents in 'rural' areas, a finding that can be explained by the coherent identity dimension of tradition and religion in small local communities (Merry, 2005). According to the findings, parents of higher educational level are oriented towards mastery goals (Kaplan & Maehr, 2007), rating as more important goals the ones that emphasize higher level skills, rather than purely academic ones, a finding that is consistent with the existing literature (Tang et al., 2021).

The findings of the survey, in its second dimension, seem to identify interesting issues. Parents express a more balanced perception between their own beliefs and K-teachers' beliefs. The dimension of valuing kindergarten goals, which may determine K-teachers' and parents' expectations, perceptions and practices, seems to be maintained despite the extensive and enforced physical presence of K-teachers, parents and students, and their participation in the hybrid educational space (Munastiwi & Puryono, 2021) during distance education in the 2020/1 school year. Thus, although a condition of mutual communicative exchanges and augmented partner interaction was imposed, (Firmanto et al., 2020) which additionally constitutes a positive determinant of students' achievement (Xu & Gulosino, 2006) and overall experience (Epstein, 1986), a significant belief divergence was identified. As we stated in *hypothesis f*, there seems to be evidence of greater consistency in the beliefs of parents and K-teachers in private schools compared to public schools. We would therefore argue that there is a harmonisation of perceptions in private schools between parents and K-teachers. We attribute, given similar findings, which converge on limiting the

influence of demographic factors, the correlation of the harmonization of K-teachers' and parents' beliefs to reasons possibly related to the selection criteria of private educational services and to processes of continuous active involvement, communication and interaction in the evolving educational actions between them.

The results of the research can be used in two directions: for new research work and for updating the framework of communication and cooperation between key actors in early childhood education. On the basis of previous researches, we identified new parameters of reflection that seem to constitute new areas of influence on parents' and teachers' perception about kindergarten goals. Therefore, re-examining them in identical or different national and cultural contexts will enhance our understanding of the dynamic influences on belief formation, potentially highlighting new research parameters. The survey results also seem to adequately substantiate the need to renew the institutional framework for teacher-parent communication and interaction. This dimension feeds the reflection on the activation of strategies for creative exchanges between school and family that could constitute a balanced framework of cooperation and mutual understanding of motivations, expectations, and beliefs. This framework could contribute positively to the improvement of the overall educational context of students.

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