



CLASSROOM SPACE AND KINDERGARTEN CURRICULUM: A SOCIOLOGICAL APPROACH TO TEACHERS' DISCOURSE ON THE STATUS OF SPACE AND ITS USE IN TEACHING

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Abstract:

In this paper the concepts of normative discourse and classification from Foucault's and Bernstein's theories respectively are made use of and the objective is to identify kindergarten teachers' discourse on the status of classroom space and its relationship with the knowledge areas of a kindergarten curriculum that follows an academic logic. The research was conducted using the semi-structured interview with kindergarten teachers and the chief findings showed that: a) although the teachers' discourse is determined by the normative discourse on the means of implementing the kindergarten curriculum, it is differentiated from it at some points as a result of their lived work experience; b) the teachers separate the corners of the kindergarten classroom according to their status into primary (Library, Discussion, Arts, Building material, Doll's house, Computers) and secondary; and c) strong actual and symbolic borders are implemented in the shaping of the proposed teaching use of the classroom space since the space is linked to the teaching of specific knowledge areas of the curriculum (strong classification – visible pedagogy).

Keywords: space, corners, classroom, kindergarten school, discourse, curriculum

1. Introduction

School classrooms constitute the material space that is available to teachers and pupils for the realization of their daily educational work. The instructions provided to the teachers by the curricula of compulsory education are important for the shaping and organisation of the school space (Koustourakis, 2013; Pyle, 2013; Solomon, 1992).

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The arrangement of the kindergarten space into corners and their subsequent use in teaching are matters of interest amongst kindergarten teachers in the international level, and they give much thought to them. For that reason, and through the use of the internet, teachers are provided with guidelines for the shaping and teaching use of kindergarten classroom space (see: Logue, 2018; Townsend-Butterworth, 2015; Weiss & Weiss, 2015). In addition, the issue of kindergarten classroom space has been of interest to researchers and as a result there are studies of mainly a psycho-pedagogical nature that investigate its use in teaching and its contribution to the development of particular skills in the kindergarten pupils, such as linguistic and mathematical skills (see: Crosser, 2005; Eldar, Ayvazo, & Hirschmann, 2018; Hatch, 2005; Woolner, 2010). In contrast, there is a lack of sociological analyses of kindergarten space and this research paper attempts to address this (Koustourakis, 2013).

This paper aims to identify the kindergarten teachers' discourse regarding the significance of the arrangement of school classroom space into areas for educational activities or corners and their connection with the knowledge areas of the kindergarten curriculum. In addition, a comparative examination of the kindergarten teachers' discourse on space with the official discourse, which concerns the Greek kindergarten curriculum and its implementation, is attempted.

The paper begins with a section on the theoretical framework, followed by the section on the research questions and methodology, and then the research results are presented and analysed. The paper closes with the section containing the Discussion and Conclusions.

2. Theoretical framework

The approach to and analysis of the shaping of the material space of the school could take place in the light of the cultural values and ideological opinions that exist in society in a particular period of time. In this case, the approach to space should go beyond its narrow and technical-type geometric features (Germanos, 2005a, p. 17). This is because the prevailing social ideas and values influence the creation and pedagogical use of school space and can be detected in official institutional texts, such as the curricula and the provisions that regulate the means of implementation of the educational work, which always takes place in specific space-time frameworks within the schools and school classrooms.

The curriculum, according to Bernstein, is a regulative principle that determines that '*certain periods of time and their contents are brought into a special relationship with each other*' (Bernstein, 2003, p. 79). It is a normative discourse that constitutes a social construct since it is established by the socially and politically powerful (Apple, 2002; Bernstein, 2000; Foucault, 1990, 1991; Young, 2007). The curriculum and the guidelines for its implementation that accompany it are made up of norms, in other words regulative rules that determine the accepted ways for teachers to teach school knowledge (Foucault, 2008, 2010; Young, 2007). In Greece in 2003 the curricula of

compulsory education, including the kindergarten curriculum, were reformed. The aim of this particular reform was the Europeanization of the Greek educational system with the introduction of Information Communication Technologies (ICTs) into the educational process and their contribution to the shaping of the future European society of knowledge (Alahiotis & Karatzia-Stavlioti, 2006; Council of Europe, 2003; Koustourakis, 2007). It should be noted that the curricula of Greek compulsory education follow the type of curricula of the European countries that Bernstein (2000) calls 'collection type'. These are made up of various school subjects for the teaching of which a specific amount of time is made available each week. These reforms had a decisive impact on the shaping of the curriculum of the Greek Kindergarten since it was a shift from a developmental logic, which characterised the previous kindergarten curricula (Government Paper 1989; Ministry of Education 1992) to an academic logic (Koustourakis, 2014). In other words, it saw the shift from a logic where the pedagogical practices of the kindergarten teachers had to be adapted to the developmental peculiarities of the kindergarten pupils (UNESCO 2006; Pyle 2013) to an approach where teaching should focus on topics which are drawn from particular areas of school knowledge. So, in the new curriculum for the Greek kindergarten specific knowledge areas were identified for the first time, as is the case with the curricula for pre-school education in other economically developed countries (see: Oberhuemer, 2012; Ontario Ministry of Education, 2010; Queensland Government, 2006). So, knowledge areas of Language, Mathematics, Environmental Studies, Computer Science, and Creation and Expression were created (Government Paper, 2003).

The Greek kindergarten curriculum (Government Paper, 2003) is accompanied by the Kindergarten Teacher's Guide (Dafermou, Koulouri, & Mpasagianni, 2006), which provides the teachers with the essential guidelines for the means of implementation of the curriculum in the context of daily school life. Consequently, the curriculum and the Kindergarten Teacher's Guide shape a regime of truth, promoting the school normative discourse (Foucault, 1990, 1991, 2005), which sets out the rules that the kindergarten teachers need to know in order to organise the material space of their classroom and to use it for the teaching of school knowledge. Consequently, this normative discourse has an applied character and endeavours to influence the thinking of the teachers who are called on to act in the micro-level of their classroom (Foucault, 1990, 2008, 2010) and to shape its internal material space appropriately, dividing it into corners for educational activities (Germanos, 2005a, p. 26).

The concept of classification from Bernstein's theoretical framework (1990, 2000, 2003) helps us approach the issue of the shaping of the school space and its connection with school knowledge (Koustourakis, 2013). Classification is linked to the concept of power and reveals the degree of implementation and maintenance of borders during the realization of the educational work. These borders separate knowledge areas/subjects of the curriculum, agents (teachers – students) and spaces and may be real or symbolic. Real borders are observed when the space of the classroom is split up into corners. Symbolic borders are implemented when one teacher uses the Library

corner exclusively for the teaching of Language, on a daily basis, since she/he is of the belief that topics from other knowledge areas of the curriculum cannot be taught there. When the borders are strong (strong classification) then the '*space is regulated by strong rules of exclusion*' (Bernstein, 2003, p. 153). In this case, the corners of the kindergarten classroom have their own identity and each corner can be linked to the teaching of specific knowledge areas of the kindergarten curriculum. In this way, a visible pedagogy is implemented since a corner, such as for example the Natural Sciences corner, acquires specialised content and is used for the teaching of Environmental Studies. When the borders are blurred, a weak classification is being implemented and this is a component of an invisible pedagogy. Then, '*the space is regulated by weak rules of exclusion*' (Bernstein, 2003, p. 153) and can be used flexibly by the kindergarten teacher for the entertainment of the pupils or the application of child-centred models of teaching for the unhurried development of the pupils' potential (Bernstein, 2000, 2003). In this case, the corners can be used by the teachers for free activities.

Bernstein (2003) claims that an invisible pedagogy should be implemented in the kindergarten and the teaching actions of the kindergarten teachers should be adapted to the abilities and competences of the pupils, taking their age into consideration. In this case a reconsideration of the traditional logic is needed, which is related to the shaping of the kindergarten classroom into permanent and specialised corners (strong classification). For the implementation of an invisible pedagogy, it is necessary to arrange the space in a flexible way so that it allows for easy and continual shaping and reshaping according to how the kindergarten teachers plan their teaching (Germanos, 2005b).

In this paper, we are concerned with the analysis of the discourse of the kindergarten teachers on the importance of the division of the space of the kindergarten classroom into corners and their connection to knowledge areas of the modern kindergarten curriculum. Here we expect that the teachers' discourse will be influenced to some extent by the normative discourse and the network of truth that this promotes (Foucault, 1990, 2005). However, there is interest in the potential differentiation of the kindergarten teachers' discourse from the normative discourse on corners, a fact that reveals too the pedagogical approaches that they select for the implementation of their educational work in daily school life. Of course, in the case of the kindergartens, where corners are used in teaching, it seems that mixed pedagogical practices are implemented which draw elements as much from a visible pedagogy (strong classification) as from an invisible pedagogy (weak classification) (Bernstein, 1996, 2000; Koustourakis, 2013, 2014; Morais & Necs, 2011; Sanders-Smith, 2015; Zacharos, Koustourakis, & Papadimitriou, 2014).

The appraisal of the importance and the status of the subjects in the curricula of compulsory education, takes place in conjunction with a consideration of the factors (Bernstein, 2003; Koustourakis, 2012; Makrinioti & Solomon, 1999; Young, 1998): a) their hierarchical positioning in the list of subjects on the curriculum, b) from their compulsory or optional nature, c) from the time devoted to teaching them each week,

and d) from the implementation of a weak or strong classification as far as the clarity of their content is concerned in comparison with the content of other subjects. Similarly, we could suppose that the status of the corners that are created in the kindergarten classrooms could emerge from a study of the teachers' discourse regarding: a) the significance and importance of the corners that are considered vital, b) the determination of the corners that are characterised as permanent and are kept in the classroom for the entire duration of the school year, and c) from the hierarchical ranking of the corners that are considered essential and important in the kindergarten teachers' discourse in their answers to a related question.

3. Research questions - Methodology

In this paper, we will be concerned with the answer to the following research questions:

1. What is the status of the corners that are created in the Greek kindergarten classrooms according to the discourse of the kindergarten teachers and to what extent are their attitudes related to the school normative discourse?
2. How is the kindergarten teachers' discourse on the relationship between the corners and the knowledge areas of the kindergarten curriculum shaped and how far are these attitudes linked to the school normative discourse?

In order to define school normative discourse for the arrangement of the kindergarten space into corners (areas for educational activities) and its correlation with school knowledge, the content of the Greek kindergarten curriculum (Government Paper, 2003) and the Teacher's Guide (Dafermou et al., 2006) were studied.

The research took place during the school year 2017-2018 with the use of "convenient sampling", which reveals that the findings are not generalizable. However these findings are revealing of the kindergarten teachers' appraisal of the importance of the separation of the material space of the classrooms into corners and the correlation of the corners with knowledge areas of the curriculum (Cohen, Manion, & Morrison, 2008; Robson, 2007). The rules of scientific ethics were followed during the research and the kindergarten teachers were informed of the aim of the research, their participation in the research process was voluntary and their anonymity and respect for their personal data was ensured.

20 kindergarten teachers (19 females and 1 male) who worked in kindergartens that we had access to around Patras participated in the research. The average age of the members of the sample was 44.5 years old (the youngest was 31 years old and the oldest 55) and they had an average of 17.2 years' teaching experience (minimum 8 years and maximum 33 years). All the kindergarten teachers possessed university level degrees and 2 of them (10%) had a Master in Education.

The research was conducted using the tool of the semi-structured interview, which included questions that had been formed in advance and which were a springboard for deeper discussion with the teachers (Berg, 2001; Robson, 1993). The interview was recorded with the agreement of the teachers. Then qualitative content

analysis was applied to the texts of the transcribed interviews, taking the “sentence” as analysis unit. A sentence was determined by its semantic content and this included the part of the interview text from which a clear and complete meaning emerges (Koustourakis & Zacharos, 2011; Krippendorf, 2004; Morais & Neves, 2011).

The sentences that were located through study of the research material were ranked in one of the following analysis categories which emerged from the research aim, the research questions and the theoretical concepts that were used in this research:

A. The status of the corners in the kindergarten classrooms.

From a study of the transcribed interviews with the kindergarten teachers, the classroom corners, which were considered as primary and important, as well as the corners that were characterised as secondary and auxiliary to the teaching work, were highlighted. In addition, the evaluation, from a hierarchical point of view, of the corners that the teachers considered important, was appraised.

B. Interconnection of the corners with the knowledge areas of the kindergarten curriculum.

From the study of the research material, the following three cases regarding the connection of the classroom corners to the knowledge areas of the kindergarten curriculum emerged (Koustourakis, 2013):

- C++: In this case, exclusive use of the corner for the meeting of the educational needs of a specialised knowledge area of the kindergarten curriculum is recommended.
- C+: In this case, it is proposed that teaching activities from two or more knowledge areas of the kindergarten curriculum should be carried out in the particular corner.
- C-: In this case, the teaching of particular knowledge is not desired, but the corner is available for games, free activities and for the pupils to have fun.

We will then present and analyse the findings from this research.

4. Presentation and analysis of the results

The presentation of our findings will take place based on the above two analysis categories.

A. The status of the corners in the kindergarten classrooms

According to the normative discourse for the teaching of school knowledge in the Greek kindergarten (Government Paper, 2003; Dafermou et al., 2006), provision is made for the creation of corners in every kindergarten classroom. It is a regulation that follows international practice (Chen & Wang, 2018; Reed, 2018; Roopnarine, Johnson, Flannery Quinn, & Patte, 2018) and it continues the practice that had been introduced into Greek kindergartens with the older kindergarten curricula (Government Paper, 1989; Ministry of Education, 1992). In other words, this particular regulation maintains the regime of truth of previous Greek kindergarten curricula for the shaping of school space

(Foucault, 1990, 2005) and is reproduced in the teachers' discourse, as emerges from the representative excerpts below:

"For a start the kindergarten has corners. Without corners there is no kindergarten" (Interview 11 – I.11).

"Each kindergarten classroom must be divided into corners for the better interaction of the teacher with the pupils. In each corner, according to the curriculum the various subjects must be taught in a suitable way" (I.5).

Consequently, the kindergarten teachers consider the division of the classroom space into corners essential (strong classification: Bernstein, 2000). Their opinion is unshakable as they claim that without the existence of corners the operation of the kindergartens is not possible, nor the realization of their daily educational work.

Normative discourse promotes, in order of importance, the four corners Discussion, Building material, Library and Arts and considers them essential. These corners should be permanent and be maintained for all the duration of the school year (Dafermou et al., 2006, pp. 60-61; Koustourakis, 2013). However, if the classroom is small, then it is recommended that the kindergarten teachers create the first three corners as permanent (Government Paper, 2003, p. 595; Dafermou et al., 2006, pp. 34, 59).

From the analysis of the kindergarten teachers' discourse, it emerges that the corners in the kindergarten classroom are separated into primary and secondary. In Table 1 the status of the corners in the kindergarten classroom that are considered primary and more important is illustrated.

Table 1: Status of the important corners in Greek kindergarten classrooms

Classroom corners	Permanent corners	Essential corners	Hierarchical position in the teachers' discourse
	N (%)	N (%)	
Library and reading	18 (90)	20 (100)	1
Discussion	16 (80)	15 (75)	2
Arts	12 (60)	15 (75)	3
Building material and mathematics	11 (55)	15 (75)	4
Dolls' house	4 (20)	8 (40)	5
Computers	4 (20)	6 (30)	6

From the study of the data in Table 1 it emerges that the kindergarten teachers' discourse reproduces to a great extent the projected "truth" of school normative discourse (Foucault, 1990, 2005) regarding the essential and important corners. So, the corners that possess greater status, in the hierarchical order in which they are mentioned, which coincides with the evaluative order in the teachers' appraisal of their importance are: the Library (20 teachers, 100%), Discussion (15 teachers, 75%), Arts (15 teachers, 75%) and Building material (15 teachers, 75%). The teachers' evaluation of the

importance of the particular corners is linked to whether it is possible to teach topics that are drawn from the knowledge areas of the curriculum that are considered essential for the preparation for the infants' transition to the primary school (Koustourakis, 2013). The knowledge areas of Language and Mathematics are such, as appears in the following representative excerpts:

"A kindergarten without the Library and Discussion corner is unimaginable because it is the most important for the development of the spoken word. There the children come into contact as much with the spoken as with the first written word" (I.4).

"Essential too is the building material corner because there the children start mathematical thought, they use objects to make calculations" (I.3).

According to the kindergarten teachers in the sample the Doll's house should be added to the four 'primary' corners identified by the normative discourse (8 teachers, 40%) as well as the Computer corner (6 teachers, 30%):

"The Doll's house contributes more to the socialization and the development of relationships between the children" (I.14).

"It wouldn't be possible not to have a Computer corner since technology is a huge part of our lives, even of the infants'. Through the internet all the children come into contact with technology" (I.8).

From the above representative excerpts it emerges that the selection of the Dolls' house as an essential and important corner is justified because it facilitates communication amongst the infants and the development of their sociability through play. In addition, the Computer corner is considered essential for the infants to become familiar with new technology and acquire digital literacy.

Differentiation is noted in the kindergarten teachers' discourse in comparison with the normative discourse concerning the four corners that the latter recommends should have a permanent character (Discussion, Building material, Library, and Arts). This is because, as is apparent in Table 1, there is not complete agreement amongst the kindergarten teachers (expected percentage 100%) concerning whether the specific corners should be maintained throughout the school year. More particularly, the teachers believe that mainly the Library (18 individuals, 90%), and Discussion (16 individuals, 80%) corners should be permanent fixtures in their classrooms. In small classrooms, these corners could be used flexibly. So, three teachers (15%) stated that they used the Library as a Doctor's surgery corner for doing Mathematics (measuring) and for the approach to items that concern the human body and belong to the subject of Environmental Studies. In addition, four teachers (20%) stated that they used the Discussion corner for free activities, for the Doll's house and for play. What's more, the

majority of the kindergarten teachers in the sample agreed that the Arts corner (12 individuals, 60%) and the Building materials corner (11 individuals, 55%) should be permanent features. In the opinion of the teachers with a lot of lived experience who had implemented the previous 'developmental character' kindergarten curriculum (Ministry of Education, 1992), these two corners are suitable for the implementation of free activities.

B. Interconnection of the corners with the knowledge areas of the kindergarten curriculum

In Table 2 the ranking of the opinions of the kindergarten teachers in the sample regarding the specialized, or not, character of the corners that are identified by the kindergarten curriculum and the Teacher's Guide as being suitable for Greek kindergarten classrooms, is presented. In this case the degree of implementation of borders, in other words, divisions, in the daily teaching use of the corners is examined. In other words, what is examined is the interconnection or not of the corners with specific knowledge areas through the implementation of a form of power/knowledge (Solomon, 1994). This is because the kindergarten teachers, as agents who possess power in the context of the educational process, can make use of the corners either for the exclusive teaching of matters from a particular knowledge area (C++) or for the teaching of topics drawn from more knowledge areas (C+), or for play and free activities (C-).

Table 2: Corners in the kindergarten and how they can be used in teaching, according to the kindergarten teachers' discourse

Classroom corners	C++ N (%)	C+ N (%)	C- N (%)
Library and reading	17 (85)	3 (15)	
Discussion	6 (30)		14 (70)
Arts	8 (40)		12 (60)
Building materials and mathematics	15 (75)		5 (25)
Computers	8 (40)	12 (60)	
Dolls' house	11 (55)	5 (25)	4 (20)
Dramatization	17 (85)	3(15)	
Shop	6 (30)	11 (55)	3 (15)
Doctor's surgery	6 (30)	10 (50)	4 (20)
Games		6 (30)	14 (70)
Puppet show	15 (75)		5 (25)
Natural sciences	18 (90)	2 (10)	
Music	18 (90)		2 (10)

From the study of the data in Table 2 it emerged that the kindergarten teachers in the sample believe that the greater part of the corners that can be created in Greek kindergarten classrooms are of a specialised nature. In this case the existence of strong symbolic and real power/knowledge borders is revealed, and these lead the teachers to use 8 out of the 13 corners (61.5%) mainly for the teaching of themes drawn exclusively from one knowledge area (C++). These are the corners of the Natural Sciences (90%),

Music (90%), Library and reading (85%), Dramatization (85%), Building materials and mathematics (75%), Puppet show (75%) and Doll's house (55%). The existence of borders that are linked to the teaching of items that are drawn from two or more knowledge areas of the curriculum (C+) is noted in the corners for Computers (60%), the Shop (55%) and the Doctor's surgery (50%). A reduction in the strength of the borders is observed in the corners for Games (70%), Discussion (70%) and Arts (60%), which are chosen for the implementation of free activities (weak classification: C-).

In Table 3 the findings from the kindergarten teachers' discourse related to the utilization of the corners for the teaching of specific topics, drawn from the knowledge areas of the kindergarten curriculum, are presented. In addition, this Table also illustrates the choices that the normative discourse recommends to the teachers for the teaching use of the corners in their daily school life (Dafermou et al., 2006; Government Paper, 2003; Koustourakis, 2013).

Table 3: Normative discourse and teachers' choices for the teaching use of corners in a kindergarten classroom

Classroom corners	Corners and knowledge areas* (school normative discourse)	Kindergarten teachers' discourse: teaching choices		
		C++ (%)	C+ (%)	C- (%)
Library and reading	L	L (85%)	L, M, ES (15%)	
Discussion	L, ES, Free activities	L (30%)		Free activities (70%)
Arts	C&E	C&E (40%)		Free activities (60%)
Building materials and mathematics	M	M (75%)		Free activities (25%)
Computers	CS	CS (40%)	L, M, ES, C&E (60%)	
Dolls' house	Free activities	C&E (55%)	L, M, ES (25%)	Free activities (20%)
Dramatization	C&E	C&E (85%)	L, ES (15%)	
Shop	M, L, Free activities	M, ES (30%)	M, L, ES (55%)	Free activities (15%)
Doctor's surgery	L, M, Free activities	M, L, C&E (30%)	M, L, ES (50%)	Free activities (20%)
Games	Free activities		M, L, ES (30%)	Free activities (70%)
Puppet show	C&E	C&E (75%)		Free activities (25%)
Natural sciences	ES	ES (90%)	M, ES (10%)	
Music	C&E	C&E (90%)		Free activities (10%)

***Note:** The following abbreviations are used in the Table: Language (L), Mathematics (M), Environmental Studies (ES), Computer Science (CS), Creation and Expression (C&E).

From a study of Table 3 it emerges that the school normative discourse recommends that the kindergarten teachers shape a large number of corners which have a specific cognitive orientation. In other words, they are to be linked exclusively to specific knowledge areas of the curriculum (8 cases of corners, 61.5%). So, for the teaching of Language, the Library and reading corner is considered appropriate, for mathematics the Building materials corner, for Computer Science the Computer corner, for Environmental Studies the Natural Science corner and for Creation and Expression they should use the Arts, Dramatization, Puppet Show and Music corners. The analysis of the kindergarten teachers' discourse revealed the existence of agreement with the normative discourse for the implementation of very strong borders (C++) during the utilization of the Library, Building materials, Natural Sciences, Puppet Show, Dramatization, Music and Doll's house corners for the teaching of one specific subject from the curriculum:

"In the Library and Reading corner you can talk about letters, the form of the text, poems, storytelling. You can isolate words and separate them into syllables and sounds" (I. 12).

"The corner with the building material and bricks is for mathematics. Colours, shapes, numbering, matching" (I.14).

"The Natural Sciences corner is used when we want to do experiments, like sowing, recording the growth of plants and the children get to know certain materials from the natural world" (I. 3).

In the kindergarten teachers' discourse, the corners for Computers, the Shop and the Doctor's surgery (3 cases, 23.1%) are put forward as suitable for doing learning activities that link elements from more knowledge areas (C+):

"In the Shop we can do Mathematics because the children sell products, Language because the children talk and express themselves, Creation and Expression because the children play roles and learn to communicate" (I.11).

"In the Doctor's surgery corner we can do Environmental Studies, when we learn about germs and illnesses, Mathematics when we give instructions for the medicines and take measurements, Language through the prescriptions that are written and Creation and Expression through doctor and patient role play games" (I.4).

The findings from the analysis of the kindergarten teachers' discourse reveal that the promoted "truths" of the normative discourse for the teaching of Language, Mathematics, Environmental Studies and Creation and Expression through the teaching use of specific corners is reproduced to a great degree (Foucault, 1990, 1991). This fact,

in the cases where it is applied, reveals the kindergarten teachers' implementation of strong borders (strong classification: C++, C+), which divide the classroom space into corners which acquire a particular mission for the teaching of school knowledge and the implementation of the curriculum (Bernstein, 2000).

In addition, the findings of this research showed that the kindergarten teachers' discourse is differentiated from the normative discourse in the case of the Doll's house and Games corners, which, according to the kindergarten curriculum should be used for free activities (weak classification: C-). However, the teachers consider these corners suitable for the teaching of either exclusive or combined knowledge drawn from the subjects of Language, Mathematics and Environmental Studies. The following representative excerpts are characteristic:

"In the Games corner you can do activities and through play, teach Mathematics, Language and Environmental Studies" (I.10).

"In the Doll's house you can do Mathematics too (how many dolls are there) but you can do story-telling as well (what did that doll say to the other one)" (I.2).

Consequently, the activation of symbolic borders by many kindergarten teachers is apparent in the analysis of the research results, and this leads them to use the kindergarten classroom corners in a very traditional way (Germanos, 2005b). This is because it appears that the corners are used for teaching Language, Mathematics and Environmental Studies which possess higher status in the curriculum in the first grades of the primary school (Koustourakis, 2013, 2014; Zacharos, Koustourakis, & Papadimitriou, 2014).

5. Discussion and conclusions

In this paper, we attempted to approach kindergarten teachers' discourse on classroom space and to identify their opinions as much on the status of the corners as on their interrelation with the knowledge areas of the curriculum. In addition, we compared the findings that emerged from the teachers' discourse with the normative discourse, which emerges from the Greek kindergarten curriculum and the Teacher's Guide for its implementation. It is a discourse that is set out through norms, in other words through rules and proposals of a regulative nature for the accepted means for the kindergarten teachers to approach the teaching of school knowledge (Foucault, 1990, 2005, 2010). In fact, the rules that were found in the curriculum and the guide for its implementation determine the accepted means for the teaching of school knowledge through the suitable management of space and time (Germanos, 2005; Koutselini, 2006). In addition, the norms on which school normative discourse is based constitute regulative principles that attempt to shape the thinking of teachers and influence their actions for the shaping of the space of the classroom and its use during the implementation of their educational

work (Foucault, 1990, 2008). Consequently, when normative discourse is internalised by the teachers they obey its regulations which in the case of this paper concern the corners and their connection to the specific knowledge areas of the curriculum (Foucault, 1977, 2008, 2010). It is worth noting that the space of the kindergarten constitutes the material space that facilitates the pupils in their approach to school knowledge (Germanos, 2005b) and its separation into corners reveals the implementation of a strong classification (Bernstein, 2000). From the analysis of the research material, it emerged that the teachers' discourse on space has been influenced to a significant degree by the school normative discourse. However, there are cases where the opinions of the kindergarten teachers are differentiated from it as a result of their lived experience through the practice of their educational work (Foucault, 1990, 2005). In any case, discourse is not static but undergoes changes under the influence of the real social and educational conditions of the school practice (Foucault, 1990, 1991).

More specifically, in answer to the first research question, the kindergarten teachers' discourse is in line with the normative discourse to a great extent since the teachers accept the implementation of a strong classification for the division of the classroom into specific corners (Bernstein, 2000). This reveals the teachers' activation of the power which they possess as powerful agents in the kindergarten field, for the shaping of corners that are closely linked to the teaching of knowledge from specific subjects on the curriculum (Bernstein, 1990, 2000; Solomon, 1994). In addition, the kindergarten teachers' thinking has been influenced by the normative discourse as far as the qualitative evaluation of the corners as primary and secondary is concerned (Foucault, 1990, 1991). According to the normative discourse, the Library and reading, Discussion, Building materials and mathematics and Arts corners are primary corners and thus possess high status. For this reason, the teachers are called on to maintain them throughout the school year. The teachers add the Dolls' house and Computer corners to the high status corners. Consequently, the teachers characterize the Shop, the Doctor's surgery, Games, Dramatization, Puppet show, Natural sciences and Music corners as secondary corners and they are either alternated over the course of the year or in some cases, not created at all if the classroom is too small.

An important finding is that the kindergarten teachers in the sample include the Computer corner in the primary and important ones. This is linked to their belief that the appropriate use of this corner in teaching can help the pupils acquire digital literacy and adapt to the demands of contemporary society which is linked to the use of ICTs in their everyday life (Koustourakis, 2007). This also reveals the infiltration in the shaping of the teachers' thinking, of normative discourse (Foucault, 1990, 1991), which concerns the logic of the reform of the curricula of Greek compulsory education at the beginning of the 21st century, which is connected to the introduction of ICTs into the daily school act (Alahiotis & Karatzia-Stavlioti, 2006; Koustourakis, 2007).

Then, as far as the second research question is concerned, from the study as much of the normative discourse as of the kindergarten teachers' discourse the dominance of a tendency towards the implementation of strong classifications emerges,

which links the corners to the teaching of specific subjects on the curriculum (Bernstein, 1990, 2000). More specifically, as Figure 1 illustrates, the tendency that prevails for the greater number of corners that can be created in a Greek kindergarten, is that these can be made available either for the exclusive teaching of one knowledge area of the kindergarten curriculum (C++; Normative discourse 8 corners – Kindergarten teachers' discourse 7 corners) or for the combined approach to topics from more knowledge areas (C+: Normative discourse 3 corners – Kindergarten teachers' discourse 3 corners). In the last case it appears that what is being promoted is the cross-thematic approach to knowledge, in accordance with the new curriculum of Greek compulsory education (Alahiotis & Karatzia-Stavlioti, 2006; Government Paper, 2003; Koustourakis, 2007, 2013). Consequently, the dominant choices promoted by the normative discourse and which appear to be accepted to a large extent by the kindergarten teachers are linked to the specialised nature of the majority of corners (C++, C+). This is because they are used for the teaching of specific knowledge areas, something which promotes the implementation of a visible pedagogy as far as the teaching management of the classroom space of the Greek kindergarten is concerned (Bernstein, 1990, 2000). A characteristic example of the implementation of a visible pedagogy is the Library and reading corner, which is equipped with suitable material, like books, which contribute to the carrying out of the Language subject.

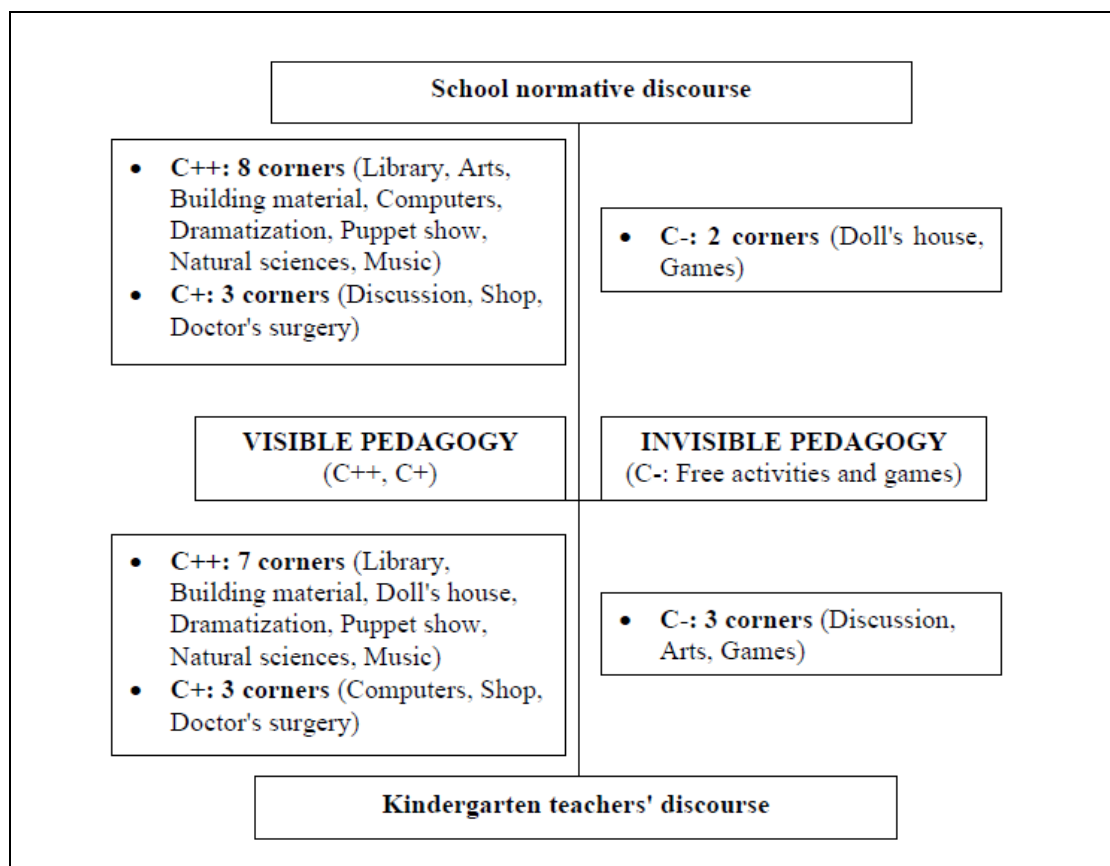


Figure 1: Dominant tendencies for the teaching use of the classroom corners according to the school normative discourse and kindergarten teachers' discourse

Differentiation in the discourse of the kindergarten teachers in comparison with the normative discourse as far as the teaching use of corners is concerned is noted in the following cases: a) the kindergarten teachers believe that the Doll's house offers more for the teaching of Creation and Expression (C++): 55%) or for the implementation of cross-thematic approaches that draw on topics from Language, Mathematics and Environmental Studies (C+: 25%). This is instead of making this corner available for free activities (C-) as proposed by the normative discourse; b) The normative discourse recommends that the Computer corner should be used for teaching Computer Science. However, the kindergarten teachers claim that it is more important that this corner is used for meeting the needs of the kindergarten curriculum's other knowledge areas (C+: 60%). This is because it familiarises the infants with the use of computers (C++: 40%). And c) the kindergarten teachers believe that the corners for Discussion (C-: 70%) and Arts (C-: 60%) are useful for free activities that are linked to the implementation of an invisible pedagogy (Bernstein, 2000). However, the normative discourse recommends the implementation of real and symbolic borders in these particular corners (strong classification: Bernstein, 1990) since the Discussion corner is considered useful for teaching Language and Environmental studies (C+) and the Arts corner for teaching Creation and Expression (C++). In other words, according to the normative discourse the recommended means of using these particular corners in teaching, is linked to the characteristics of a visible pedagogy (Bernstein, 2000).

The introduction of the new curriculum that follows an academic logic into the Greek kindergarten influenced the discourse of the kindergarten teachers for the teaching of specific subjects with the use of corners. Here it should be noted that the kindergarten curriculum is the backdrop for the new curricula of Greek compulsory education. This is because the building of knowledge for Language, Mathematics, and Environmental Studies, which are considered fundamental for primary school, begins in the kindergarten (Government Paper, 2003; Koustourakis, 2007). That is why kindergarten teachers believe that a large number of corners should be used in order to teach them. More specifically, from the teachers' discourse it emerges that for teaching Language, Mathematics and Environmental Studies eight of the 13 corners (61.5%) that can be created in the kindergarten classroom may be used. This finding is differentiated from the normative discourse which foresees the use of a smaller number of corners for the teaching of these subjects (Language: 4 corners, 30.8% - Mathematics: 3 corners, 23.1% - Environmental Studies: 2 corners, 15.4%). This fact reveals that the kindergarten teachers choose to apply teaching practices that are linked to the implementation of a visible pedagogy, and the use of the material space of the classroom for teaching is linked to those subjects that are considered important in the preparation for the infants' transition to the primary school (Koustourakis, 2013; Zacharos et al., 2014).

Concluding this research paper, a study of the implemented curriculum that concerns the investigation of the real conditions for the shaping, organization and use of the material space of the kindergarten classrooms would be of interest. In addition, it

would be interesting to investigate how the corners are used for teaching purposes in the daily and weekly kindergarten timetable.

Declaration of interest

The author certifies that he has no commercial associations (eg. consultancies, stock ownership, equity interest, patent/licensing arrangements, etc) that might pose a conflict of interest in connection with the submitted article.

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