

A Sociological Approach to the Determination and Implementation of Rules for the Pedagogical Use of Kindergarten Classroom Space

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Abstract

In this research paper, which makes use of Bernstein's sociological theory, we seek to detect the formation and implementation of rules for the use of kindergarten classroom space. The research was conducted with Greek kindergarten teachers and its main findings revealed that the teachers specified visible regulative and instructional rules for the pedagogical use of the corners in kindergarten classrooms. The kindergarten teachers place great weight on the regulative rules since the kindergarten pupils' understanding of them contributes to the implementation of the instructional rules, which concern the use of the classroom corners. For the application of these rules in the interactive framework of the kindergartens, the teachers mostly chose behaviorist theories of instruction (strong framing). However, the ultimate goal of the kindergarten teachers, provided that the infants understand the recognition rules, is for the pupils to be able to act independently for the implementation of the realization rules regarding the acceptable ways of working in the school space (weak framing).

Keywords: Classroom space, kindergartens, teachers, pupils, corners, instructional rules, regulative rules

1. Introduction

Space, in the case of the kindergartens, constitutes the essential material foundation upon which daily pedagogical practices are built (Germanos, 2005a; Nordtømme, 2012). For this reason pre-school teachers and scientists focus their interest on how to shape the corners in the kindergarten classrooms and on their use, as much for the psycho-emotional development of the infants, as for the teaching of school subjects, which are determined by the kindergarten curriculum (Germanos, 2005a; Jackman, Beaver, & Wyatt, 2014; Van Hoorn, Monighan-Nourot, Scales, & Alward, 2014).

Scientific research that focuses on school space in the case of the kindergartens, concentrates chiefly on how kindergarten teachers use the space for teaching and psycho-pedagogical purposes (Berger & Lahad, 2010; Børve & Børve, 2017; Germanos, 2005a, 2005b; Granly & Maagerø, 2012; Moser & Martinsen, 2010) However, there is a lack of research on the sociological approach to and analysis of the school space of the kindergartens, which constitutes the material element without which the realization of pedagogical work at this level of education is not possible (Koustourakis, 2013, 2018). This research study contributes to filling this gap. In this paper, we seek to approach the views of the kindergarten teachers on the rules that concern the pedagogical use of classroom space, as well as the contribution the teachers and the pupils make in the interactive framework of daily school life as much to the creation as to the implementation of these rules in the case of Greek pre-school education, given that the contemporary Greek kindergarten curriculum follows an academic logic and presupposes the use of space for the teaching of themes that are drawn from its knowledge areas (such as Language, Mathematics etc.) (Koustourakis, 2014). The paper begins with the section on theoretical notes and this is followed by the section with the research questions and the methodology. The research results are then presented and the paper closes with the section containing the Discussion and Conclusions.

2. Theoretical notes

The concept of framing from Basil Bernstein's theoretical frame work (Morais, 2002; Morais & Neves, 2011) is useful for the analysis of the shaping of the interactive relationships between the agents directly involved in the educational process (teachers – students).

In this study, framing reveals the extent of the control the teachers and students possess in the shaping and implementation of rules that concern the pedagogical use of the kindergarten classroom space (Bernstein, 1990, 2000). With the modalities that framing takes on, the pedagogical models that are chosen for the implementation of the teaching works that takes place in space-time are revealed (Bernstein, 1990, 1996, 2000). It should be noted that the pedagogical reality in the case of the kindergarten school is essentially shaped by the educational use of school space and in particular the corners that are created for this purpose in the classrooms (Germanos, 2005b; Koustourakis, 2013).

Bernstein (1990, 1996, and 2000) uses the terms visible and invisible pedagogies to label the pedagogical models that are implemented on the micro-level of the school classrooms and which reveal the teaching theories the teachers select. A visible pedagogy reveals the implementation of a strong framing and is linked to the application of behaviorist or other teaching theories that focus on the teacher (Bernstein, 1990, 2000, 2003; Koustourakis, 2013). In the case of an invisible pedagogy (weak framing), the implementation of teaching theories that are focused on the learner are selected, such as constructivist theories (Bernstein, 2000, 2003, 2004). In the latter case, the pupil is given the opportunity to contribute to the shaping of classroom space and to propose rules that concern its use or freely choose the corners in which he/she wishes to spend time, while autonomously applying the rules that regulate the acceptable means for the use of the space for teaching. The acceptable use of classroom space by the pupils reveals that realization rules are implemented in order to produce appropriate practice for using corners. It is worth noting that the realization rules “*regulate the creation and production of specialized relationships internal to the context*” (Bernstein, 1990, p. 15) of the kindergarten classroom. Consequently, it appears that the pupils, in implementing the realization rules, are applying in practice the commitments that concern the acceptable manner for the organization and use of classroom space (Bernstein, 2000, 2004; Koustourakis, 2013; Morais & Neves, 2006). In other words, in this case it appears they respond to the question: “*What must I do? How can I achieve what has been demanded of me?*” by displaying appropriate behaviors (Davies, 2004, p. 52). However, for this to be achieved the pupils must first have understood the recognition rules, that is to say, the means of organizing and the acceptable pedagogical use of the corners that are created in the kindergarten classrooms. This is because as Bernstein points out (1996, p. 32), if the children don’t learn the recognition rules, the implementation of “contextually legitimate communication” as much between teacher – pupils as amongst the pupils themselves as far as acceptable use of the classroom space is concerned, is not possible. In other words, the pupils’ understanding of the recognition rules makes it possible for them to answer the questions: “*What does this mean? What does it look like? How do we know it when we see it?*” (Moore, 2006, p. 36).

Framing, which refers to the interactional level of the realization of the educational work, reveals the “*inner logic*” of each pedagogical practice (Bernstein, 2004, p. 197) and is determined by the embedding of an instructional discourse (I.D.) in a regulative discourse (R.D.) (Bernstein, 1996, 2000). Here R.D. is dominant and influences the I.D.. Regarding the kindergarten classroom space, I.D. refers as much to the degree of control of the teaching management of the corners on the part of the teachers and pupils, as to the implementation of the rules of acceptable teaching use of classroom space by the pupils. R.D. refers as much to the acceptable means for the shaping of behavior during the expression of the pedagogical communication between teacher – pupils and amongst the pupils themselves, as it does to the degree of control and regulation of communication by the kindergarten teacher. In the latter case, the extent to which hierarchical relations become visible is revealed during the interaction between teacher – pupils in the daily school life of the kindergarten school (Koustourakis, 2013). When the kindergarten teachers allow the children to act autonomously and to choose the corners they wish to occupy, while applying the rules for the use of school space, then this is weak framing which is an element of an invisible pedagogy (F-). When the kindergarten teachers clearly control the implementation of the rules for the acceptable use of the classroom space by the children or determine the corners in which the pupils need to work, then a strong framing is being applied which constitutes an element of a visible pedagogy (Bernstein, 2000, 2004; Koustourakis, 2014). However, what usually happens in the daily life of the kindergartens is that mixed pedagogical practices are used, which draw elements from a visible as much as an invisible pedagogy (Bernstein, 1996; Koustourakis, 2013, 2014; Morais & Neves, 2011; Sanders-Smith, 2015).

3. Research Questions – Methodology

In this paper we will concern ourselves with the answer to the following research questions:

- 1) What rules are put in place for the use of kindergarten classroom space and what is the contribution of the teachers and the pupils to the shaping of these rules?
- 2) What interactive relationships develop between the teacher and the pupils for the daily use of the kindergarten classroom space and the application of the rules that concern the acceptable means for its use?

The research was carried out between December 2017 and April 2018 with the application of “convenient” sampling, as we were addressing the kindergarten teachers to whom we had access. Consequently, the results of this research are not generalizable although they are significant and interesting, revealing as they do the trends that exist for the shaping and implementation of the rules that concern the use of kindergarten classroom space (Cohen, Manion, & Morrison, 2008; Robson, 2007). 30 kindergarten teachers took part in the research, 29 women and 1 man, and they were employed in state kindergarten schools in the Patras area. It should be noted that the participation of men in the profession of the kindergarten teacher in Greece is very limited. More specifically, at the end of the school year 2015-2016, the percentage of men in relation to the overall number of individuals working in state kindergarten schools was 1.16% (Hellenic Statistical Authority, 2018). All the teachers in the sample held a university level degree and their average age was 46 years old (the youngest was 30 years old and the oldest 56) and they had an average of 18.2 years of teaching experience (minimum 8 years and maximum 35 years). The rules of scientific ethics were observed during the conduct of the research, and the teachers, having been informed of the objective of the research, participated in it voluntarily. In addition, their anonymity and respect for their personal information were ensured (Creswell, 2011; Creswell & Plano Clark, 2011).

The tool of the semi-structured interview was used to carry out the interviews as it allowed us to engage in in-depth discussion with the kindergarten teachers in the sample on issues regarding the rules of acceptable use of classroom space (Cohen et al., 2008; Robson, 2007). The interviews were tape recorded with the consent of the teachers (Robson, 2007). Then the technique of content analysis was applied to the research material that emerged from the transcription of the interviews (Cohen et al., 2008; Krippendorff, 2004; Robson, 2007), using the sentence as analysis unit. A “sentence” is determined by the semantic meaning of a section of text. So, the sentence is made up of a piece of text, which can include two or more grammatical type sentences, from which one particular, clear and semantically complete meaning emerges (Koustourakis & Zacharos, 2011; Krippendorff, 2004; Morais & Neves, 2011).

The sentences that were highlighted by the approach to the research material were placed in one of the following analysis categories, which emerged from the research aim, the theoretical framework and the content of the research material:

A. Visible rules for the use of kindergarten classroom space:

From the study of the research material the following cases of explicit rules for classroom space (strong framing: F+) emerged:

- A.1. Instructional rules.
- A.2. Regulative rules.

B. Determination of the rules for the pedagogical use of classroom space:

F++: Sentences that show that the role of the teacher is dominant in the shaping of the rules for the use of classroom space are placed here. A teaching theory that focuses on the transmitter is chosen.

F+: Sentences that reveal that the teacher attempts in various ways to make the pupils participants in the shaping of the rules for the use of classroom space are placed here.

C. Interactive relationships for the use of classroom space and the implementation of rules that concern its operation:

F++: sentences that reveal that the teacher determines the corners, in which the children will spend their time and intervenes reminding them of the rules for the use of classroom space, asking them to apply them, are included here.

F+: Sentences from which it emerges that the teacher is activated when necessary in order to guide the infants to work in an appropriate way in the corners and apply the acceptable rules for the use of classroom space are included here.

F-: Sentences from which it emerges that the infants act independently to choose the corners in which they will work and apply rules of use for classroom space without the teacher’s intervention, are placed here.

4. Presentation and analysis of Research Findings

396 sentences emerged from the approach to the research material, of which 159 (40.1%) refer to the type of visible rules that concern the pedagogical use of kindergarten classroom space, 51 sentences (12.9%) focus on how these rules are shaped and 186 sentences (47%) refer to the means of implementing the rules in the interactive framework of the school classrooms. Consequently, the interest of the kindergarten teachers in the sample appears to focus more on highlighting visible rules that regulate the acceptable ways of approaching school space, and the implementation of these rules in the context of daily school life.

4.1. Visible rules for the use of kindergarten classroom space

The sentences that refer to the type of visible rules concerning classroom space (strong framing) and constitute an element of the implementation of a visible pedagogy (Bernstein, 1996, 2000) are allocated in Table 1. This is because through these rules, which the pupils are notified of, what is allowed and what is forbidden regarding the use of the space of the corners is made clear to them. They are the recognition rules, the acquisition of which by the infants is essential for the daily realization of the pedagogical work (Bernstein, 1990, 1996; Moore, 2006). It is worth noting that the corners make up the important and essential material element that permits the realization of school work in the case of the kindergartens (Germanos, 2005b; Koustourakis, 2013).

Table1. Visible rules (F+) for the use of classroom space

Cases of rules	Sentences (%)
Instructional rules	72 (45.3)
Regulative rules	87 (54.7)
Total number of units of analysis	159 (100)

Studying the data in Table 1, it emerges that in the discourse of the kindergarten teachers in the sample, greater weight is given to the determination of the regulative rules (87 sentences, 54.7%), which determine and regulate the acceptable means of communication between the infants. With the implementation of these rules during the daily interaction of the pupils, acceptable social cooperative relations are created between them, which make possible the utilization of the space for teaching purposes and relaxation. Consequently, the results of this research show that the instructional rules (72 sentences, 45.3%), which are an element of I.D., are embedded in the R.D. (Bernstein, 1996, 2000). In fact, the regulative rules that are set in the Greek kindergartens for the pedagogical use of the space concern:

- Rules of good behavior towards the pupils through which, as is apparent in the representative excerpts below, respect for the other is ensured, something which cultivates sociability in the infants and permits group-type work.

" We speak politely to our classmate and work with him in the corner " (Interview 17 - I.17).

" The children are not allowed to fight when they are working in the corners, but they must behave correctly and be cooperative " (I.19).

- Rules of good behavior towards the teacher, who wields his power controlling the movements and actions of the pupils in the space of the school classroom: *"The children must raise their hand to be given permission to get up, to move to another corner or to take an object or toy from somewhere else in the classroom"* (I.10).
- Rules of acceptable behavior for how to work in and use classroom space. In this category fall rules such as working quietly in the corner and taking care of the materials and toys in the corners and keeping them in a good condition: *" We don't tear the books in the library corner, I am quiet so my friend can read and I swap the book I am looking at with him as soon as I have finished"* (I.26). *" One rule we always establish is how quietly or loudly each child can speak, depending on the corner he is in"* (I.5).
- Finally, one of the main visible rules that the kindergarten teachers establish is the tidying up of materials and the space after the end of the children's time in the corners: *"The first and foremost rule in all kindergartens is that the children have to tidy up the toys and materials that they have spread around the corner they are playing in and then they are allowed to move to another corner"* (I.18). *" They must tidy up the space. This is one of the most basic rules. For this reason we leave the children to tidy up the toys, we never tidy up anything "* (I.4).

The instructional rules that determine the way in which the classroom space can be used for teaching focus on:

The determination of the number of pupils who are allowed to work in the corners, as well as the length of time they are allowed to stay in each corner: *"One of the main rules concerns the number of individuals that are allowed to play in each corner, for their safety. Depending on the space we have, we take care to establish rules regarding how many children can work in each corner and the length of time they are permitted to stay there"* (I.20). *" A restriction on the number of children in each corner, usually 4 children. They are not allowed to stay in the same corner all the time, usually 10 to 15 minutes is enough "* (I.9).

- The children are forbidden from moving around the space when they are working on the computer or doing Language, Mathematics or Arts teaching activities. *" The children are forbidden from moving during discussion time or when we are doing crafts on the arts tables"* (I.24). *"We don't allow the children to move around the classroom and classroom corners when we are doing important activities such as when the teacher is reading a story or when we are doing an activity on the computer"* (I.7).
- The appropriate teaching use of the materials in each corner and the exchange of roles when the pupils are in the toy and games corners: *" An important teaching rule is how the children should handle the equipment and materials in each corner"* (I.15).

"Teaching rules for art are that when the children draw they mustn't leave the pens without a top on, they mustn't use a lot of pressure on the pens for a long time in just one place on the paper because the pen might break and the paper might tear" (I.8).

" In the grocer's where four children can play, firstly two sell and two buy. Then they have to change places and the two that were shopping become sellers while the other two become customers " (I.22).

4.2. Interactive relationships and rules for the use of classroom space for teaching

In Table 2 the research findings regarding the interactive relationships between teacher – pupils as much for the determination of rules for the use of classroom space as for their implementation in daily school life, are presented.

Table2. Interactive relationships and rules for the use of classroom space

Framing	Cases	Sentences (%)
Shaping of the rules for the use of classroom space	F++	36 (70.6)
	F+	15 (29.4)
Application of the rules for the use of classroom space in daily school life	F++	75 (40.3)
	F+	44 (23.7)
	F-	67 (36.0)

From the study of the data in Table 2 it emerges that the implementation of visible pedagogies, according to which the role of the teacher is dominant as much in an effort to shape the rules that concern the acceptable way to use the classroom space (F++: 70.6%, F+: 29.4%), as in their application in the daily life of the Greek kindergartens (F++, F+: 64%), is chosen.

4.2.1. Determination of the rules for the pedagogical use of classroom space

The role of the kindergarten teachers is dominant for the determination of the rules that concern the operation and use of the corners in the school classroom. The fact, which emerges from the excerpts below, that the total number of kindergarten teachers in the sample stated that at the outset of the school year the kindergarten teacher should act independently and determine these rules (F++: 70.6%), is characteristic:

"The rules are essential and we always establish them at the beginning of the school year so that the children can get to know the classroom corners and how they work" (I.1).

"At the beginning of the year we establish the rules but it is difficult for the children who haven't had any contact with the space of the kindergarten to understand how this system with rules and corners works. That's why we absolutely have to guide them so that they can get to know it because otherwise, there would be chaos" (I.23).

From the excerpts above, it becomes clear that for the kindergarten to operate well, timely determination of the visual rules that concern the school space and the corners is required. Then, the kindergarten teachers have to explain the recognition rules to the pupils and help them to understand them:

"We explain to them how we play in the dolls' house, how we play with the building materials, how we play in each corner" (I.30).

In fact, the kindergarten teachers use visualization techniques in order to make the recognition rules that concern the school space more comprehensible to the infants:

"We make a board out of cardboard with how many children can play in each corner. We place photographs of the children on the board so they understand where they have to go each time" (I.17).

"In each corner I use a board with names with Velcro on and when a child goes to play in the corner he puts, he has to put the card with his name on, on it. It is very practical because in this way the other children can see which corners are available" (I.22).

Although in the framework of their pedagogical interactive relationship with the infants the kindergarten teachers are powerful agents, who determine the rules for the use of the classroom space, a significant number of teachers (10 individuals, 33.3%) claimed that they try in various ways to include the pupils in the process of shaping these rules (F+: 15 sentences, 29.4%):

"We look at the space and discuss with the children the number of infants that will play in each corner" (I.21).

"At the beginning of the year we propose the rules to the pupils, we have a discussion with them and we explain how the corners should be used. In this way we help the children understand the rules and remember them so as to be able to apply them" (I.3).

Consequently, some of the kindergarten teachers in the sample try to make the pupils participants in the process for the creation of the rules for school space. This is because they hope that in this way it will be easier for them to achieve the implementation of the realization rules, which concern the acceptable means of using classroom space.

4.2.2. Interactive relationships for the use of classroom space and the implementation of the rules that concern its operation

The kindergarten teacher is the powerful shaping and guiding factor in the educational process since he activates his power in the interactive framework of the school classroom in a way that is manifest to the pupils. In this way he determines the daily timetable of educational activities thus determining which children will be allocated to the existing classroom corners (F++: 40.3%):

"In most kindergartens there is a timetable that says for example that every Monday, these pupils will work in the dolls' house, on Tuesday those children will play" (I.11).

"We place all the infants in the classroom corners for them to learn to work together. We make sure that there are no cliques and that there are frequent changes so that the children are not permanently in the same corner" (I.10).

"We separate the pupils into groups and put them to work in the corners. We make sure that the lively pupils are not together and especially the boys" (I.14).

What's more, the teacher takes care to remind the pupils of the realization rules which concern the acceptable use of the space, and for this they use appropriate visual prompts:

"This year, at the beginning of the year, we took photographs of how tidy the dolls' house should be when the dolls are in it, and photographs of the shop with where the plates should be placed. We put these photographs in the corners for the children to see how the space should be tidied up and to leave it in that way when they have finished their games" (I.13).

For the use of the corners, as emerges from the following representative excerpts, the kindergarten teachers mainly choose the use of behaviorist theories of instruction, which are an element of a visible pedagogy (Bernstein, 1996, 2000):

"We had informed the infants at the beginning of the year. When you learn to tidy up the corners I'll bring you an aquarium with fish. They learnt it, they tidied up the corners properly and the aquarium came. A reward is needed, in other words they always need to be looking forward to something" (I.2).

"I put on some particular music, which is familiar to the children. As soon as they hear it, they know that they have to finish what they are doing there and then, to tidy up the space they are in and to gather in the group of friends corner" (I.5).

From the last interview excerpt the attempt, after a fashion, to create automatic reflexes in the infants appears. So, when the infants hear a particular piece of music they are activated and apply the rules for the tidying up of the space of the corners.

The ultimate goal of the kindergarten teachers in the sample is for the pupils to use their own initiative for the accomplishment of the realization rules for the space. This may be possible when the pupils acquire the ability to use the kindergarten corners in an acceptable way without the teachers' intervention being necessary for the implementation of the rules that concern the school space (F-: 36%):

"The infants are free to choose which corner they want to go to. If lots of children want to go to the same corner, since there is the rule that doesn't allow more than 4 infants at any one time, they talk about it and decide alone and tell the kindergarten teacher who will go first and who later" (I.6).

"I let the children choose to go wherever they want to play and when they finish their game they know that it's their responsibility to tidy up the corner and to leave it as they found it" (I.9).

Consequently, the aim of the interaction of the teachers with the infants is to help them at the beginning of the school year to get to know and understand the recognition rules for the use of the space (F++). Indeed, when this aim is achieved, the pupils are expected to be able to act autonomously selecting the corners in which they wish to spend their time, at the same time implementing the realization rules (F-). In other words the rules for the correct and acceptable use of the space. However, since during the infants' interaction deviations from this aim are often created, the teachers may need to intervene in order to remind the pupils of the realization rules and to guide them to apply them (F+:23.7%), as emerges from the representative excerpts below:

"If one of the children has created a problem in his group with his behavior, I will ask him to change corners" (I.12).

"If we see that some children are stuck in the same corner we intervene and we encourage them to go and work in another corner" (I.4).

In addition, the teacher often needs to guide the infants on how to apply the rules for the use of the space in order for the daily school timetable to be implemented (F+):

"We should call the infants to come to the classroom space we want to work in or we should set them to tidy up the space they were working in because otherwise the functionality and usefulness of the space is lost" (I.16).

"There are cases where one or two children do not want to participate. Then you intervene and take them to the little tables or the building material and you tell them to play quietly" (I.8).

From the above excerpts it emerges that the kindergarten teachers' interventions (F++, F+) are necessary for the pupils themselves to use their own initiative for the application of the realization rules for the school space. So, it appears that the teachers feel that at the beginning of the school year they should shape and announce to the pupils the rules for the use of the classroom corners. Then, it is necessary for them to continue to intervene in the educational process either to remind the infants of the realization rules or to guide them to apply them.

5. Discussion and Conclusions

In this paper we attempted to identify and analyze sociologically as much the rules that are put in place for the pedagogical use of the space of the kindergarten classroom, as the interactive relationships that develop between teachers and pupils regarding the shaping and implementation of these rules.

The results of this research showed that in the Greek kindergartens the implementation of visible pedagogies is chosen regarding the rules that regulate the pedagogical use of the space of the school. In this case the teacher's role is mainly as much for the determination of the particular rules as for their implementation in the daily interactive framework of the school classroom in which they work. More precisely these are visible recognition rules which the teacher, through his daily interaction with the infants, attempts to help them get to know, and to understand the strength of the boundaries concerning what is allowed and what is forbidden as far as pedagogical work in the classroom corners is concerned (Bernstein, 1990, 2000; Morais, 2002; Singh, 2002). In addition, they are instructional rules that constitute an element of I.D., and in order for them to be applied, the infants need to consolidate the rules for the shaping of acceptable behaviours and positive cooperative interactive relationships with their classmates.

In this case it is evident how necessary the determination of the regulative rules, which constitute an important element of R.D., is, and which when applied make possible the implementation of instructional discourse, which concerns the realization of the pedagogical work on the micro-level of the classes in the Greek kindergartens. Consequently, the research findings for the rules regarding the school space in the interactive framework of the school classrooms confirm the application of the equation for framing (F), which Basil Bernstein set out in his theory: F=I.D./R.D. (Bernstein, 2000).

The choice by the teachers in the sample to implement visible pedagogies concerning the determination and pedagogical utilization of rules that concern the school space, is linked to the implementation of teaching theories that are focused on the teacher. These are behaviorist theories which often include collective rewards for the infants in cases where they faithfully apply these particular rules. In addition, it appears that there are teachers who, through the application of behaviorist theories of instruction, desire the creation of automatic reflexes in the infants. This is because they believe that in this way their work is facilitated since the necessary automatic responses are created which guide the pupils' behavior. So, with the use of an auditory stimulus the infants are activated to apply the rules for the acceptable use of classroom space.

In any case the teachers, through their decision to apply visible pedagogies are transformed into the leading players on the stage of the educational process. So, from the moment the kindergartens begin to operate, they aim at the projection and comprehension by the infants of the recognition rules, which determine the acceptable means for the organization and use of school space (Bernstein, 1990, 1996, 2000). In addition, it appears that the goal of the teachers is to help the infants to implement the realization rules for the use of school space with the production of acceptable behaviors during their interaction with their classmates and their teacher (Bernstein, 2000; Singh, 2002).

In answer to the research questions that were posed for the realization of this research, we note that:

- The kindergarten teachers are activated at the beginning of the year for the determination of visible rules for the organization and pedagogical utilization of classroom space. These are regulative rules (54.7% of the total of relevant sentences) and instructional rules (45.3%). The regulative rules determine the acceptable behaviors on the part of the infants, as well as the acceptable interactive relationships that they are called on to shape with their classmates during the time they spend each day in the classroom corners. Acquisition of these rules by the infants appears to constitute a prerequisite for the implementation of the instructional rules that concern the teaching use of classroom space. The kindergarten teachers take the initiative for the determination of these rules (F++: 70.6%) although there are some teachers who attempt to make the pupils participants in the process for the shaping of the rules for the use of school space (F+: 29.4%).
- For the application of the rules for the pedagogical use of school space, in the daily interactive framework of the school classrooms mainly behaviorist theories of instruction are applied, which are focused on the teacher. Hence, the kindergarten teacher is activated either to teach the pupils the rules and guide them to apply them (F++: 40.3%), or to remind the pupils of the realization rules in the cases where they deviate from the acceptable means for the use of the school space (F+ 23.7%). However, the aim of the teachers is that the pupils themselves implement the realization rules for the school space by applying the rules autonomously after about the first two months (F-:36%).

Completing this study we should point out that the sociological analysis of the implemented curriculum which concerns the observation of the shaping, organization and acceptable use of the school space of the kindergarten would be of interest. In addition, the sociological analysis of the utilization of school space for the teaching of specific subjects, such as Language, Mathematics and Arts, which constitute fundamental knowledge areas of a kindergarten curriculum, such as the Greek one, that follows the academic logic, would be significant.

References

- Berger, R., & Lahad, M. (2010). A safe place: Ways in which nature, play and creativity can help children cope with stress and crisis—establishing the kindergarten as a safe haven where children can develop resiliency. *Early child development and care*, 180(7), 889-900.
- Bernstein, B. (1990). *The Structuring of Pedagogic Discourse: Vol. IV Class, codes & Control*. London: Routledge.
- Bernstein, B. (1996). *Pedagogy, Symbolic Control and Identity. Theory, Research, Critique*. London: Taylor & Francis Ltd.

- Bernstein, B. (2000). *Pedagogy, Symbolic control and identity. Theory, Research, Critique. (Revised edition)*. N.Y.: Rowman & Littlefield.
- Bernstein, B. (2003). *Class, Codes and Control. Volume III. Towards a Theory of Educational Transmission*. London: Routledge.
- Bernstein, B. (2004). Social class and pedagogic practice. In S.J. Ball (Ed.), *The RoutledgeFalmer reader in sociology of education* (pp. 196-217). London: RoutledgeFalmer.
- Børve, H. E., & Børve, E. (2017). Rooms with gender: physical environment and play culture in kindergarten. *Early Child Development and Care*, 187(5-6), 1069-1081.
- Davies, Z. (2004). The debt to pleasure. The subject and knowledge in pedagogic discourse. In J. Muller, B. Davies & A. Morais (Eds), *Reading Bernstein, Researching Bernstein* (44-57). London and N.Y.: RoutledgeFalmer.
- Cohen, L., Manion, L., & Morrison, K. (2008). *Educational research methodology*. Athens: Metaixmio.
- Creswell, J. W. (2011). *Educational research: planning, conducting and evaluating quantitative and qualitative research*. Athens: Ion.
- Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oaks, CA: Sage.
- Germanos, D., Δ. (2005a). *Space and educational procedures. The pedagogical quality of the space*. Athens: Gutenberg.
- Germanos, D. (2005b). Pedagogic redesign of the space and improvement of the educational environment in the kindergarten school. *Contemporary Kindergarten*, 45, 74-80.
- Granly, A., & Maagerø, E. (2012). Multimodal texts in kindergarten rooms. *Education Inquiry*, 3(3), 371-386.
- Hellenic Statistical Authority (2018). *Primary Education. Public Kindergartens Schools. Teaching Staff by gender, region and prefecture*. <http://www.statistics.gr/en/statistics/-/publication/SED11/2015>
- Jackman, H., Beaver, N., & Wyatt, S. (2014). *Early education curriculum: A child's connection to the world*. Stamford, CT: Cengage Learning.
- Koustourakis, G. (2013). A Sociological Approach to the Official Discourse on Space in the case of Greek Kindergarten Classrooms. *The International Journal of Early Childhood Learning*, 19(3), 1-13.
- Koustourakis, G. (2014). A Sociological Approach to Painting Teaching according to the Contemporary Greek Kindergarten Curriculum. *The International Journal of Early Childhood Learning*, 20(1), 23-37.
- Koustourakis, G. (2018). Classroom space and kindergarten curriculum: a sociological approach to teachers' discourse on the status of space and its use in teaching. *European Journal of Alternative Education Studies*, 3(2), 47-65.
- Koustourakis, G., & Zacharos, K. (2011). Changes in School Mathematics Knowledge in Greece: a Bernsteinian Analysis. *British Journal of Sociology of Education*, 32 (3), 369-387.
- Krippendorff, K. (2004). *Content Analysis. An Introduction to its Methodology*. Thousand Oaks, California: Sage.
- Moore, R. (2006). Knowledge structures and intellectual fields. Basil Bernstein and the sociology of knowledge. In R. Moore, M. Arnot, J. Beck & H. Daniels (Eds), *Knowledge, Power and Educational Reform. Applying the sociology of Basil Bernstein* (pp. 28-59). N.Y. and London: Routledge.
- Morais, A.M. (2002). Basil Bernstein at the Micro Level of the Classroom. *British Journal of Sociology of Education*, 23(4), 559-569.
- Morais, A. M., & Neves, I. P. (2006). Teachers as creators of social contexts for scientific learning. In R. Moore, M. Arnot, J. Beck & H. Daniels (Eds), *Knowledge, Power and Educational Reform. Applying the sociology of Basil Bernstein* (pp. 146-162). London: Routledge.
- Morais, A. M., & Neves, I. P. (2011). Educational texts and contexts that work: Discussing the optimization of a model of pedagogic practice. In D. Frandji & P. Vitale (Eds), *Knowledge, pedagogy & society: International perspectives on Basil Bernstein's sociology of education* (pp. 191-207). London: Routledge.
- Moser, T., & Martinsen, M. T. (2010). The outdoor environment in Norwegian kindergartens as pedagogical space for toddlers' play, learning and development. *European Early Childhood Education Research Journal*, 18(4), 457-471.
- Nordtømme, S. (2012). Place, space and materiality for pedagogy in a kindergarten. *Education Inquiry*, 3(3), 317-333.
- Robson, C. (2007). *Research of the real world: a means for social scientists and professional researchers*. Athens: Gutenberg.
- Sanders-Smith, S. C. (2015). Class and pedagogy: a case study of two Chicago preschools. *International Studies in Sociology of Education*, 25(4), 314-332.
- Singh, P. (2002). Pedagogising Knowledge: Bernstein's Theory of the Pedagogic Device. *British Journal of Sociology of Education*, 23(4), 571-582.
- Van Hoorn, J. L., Monighan-Nourot, P., Scales, B., & Alward, K. R. (2014). *Play at the center of the curriculum*. Boston, MA: Pearson Publishing Company.