The Construction of the Pedagogical Space from the Narratives of the Early Childhood Education Teachers
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Abstract

Environments or learning spaces in school classrooms contribute to the improvement of educational processes. Specifically, in the Early Childhood Education, teachers can design learning spaces, which fosters an environment of safety and autonomy for the students of the Early Childhood Education. This study explores the teachers' narratives concerning the meanings they assign to the school space, the criteria by which they design and transform it, and its connection to model of educational. We have collected 34 stories of pre-primary education teachers through a semi-structured interview in which they had to reflect on this pedagogical design. As most relevant result we identify a model sustained under constructivist or cognitive criteria, rather than a dialogical one. We conclude that this epistemological perspective of the construction of the school environment should be oriented towards a more participatory and co-constructed model of the educational space.

Keywords

Classroom space, early childhood, learning communities, narrative inquiry


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La Construcción del Espacio Pedagógico desde las Narrativas de los Docentes de Educación Infantil
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Resumen

Los espacios de aprendizaje en las aulas escolares contribuyen a la mejora de los procesos educativos. Concretamente en la etapa de la Educación Infantil los docentes tienen la oportunidad de diseñar espacios de aprendizaje, lo cual propicia un ambiente de seguridad y autonomía para el alumnado de la etapa de Educación Infantil. Este estudio explora las narrativas de los docentes acerca de los significados que asignan al espacio escolar, los criterios por los cuales lo diseñan y transforman, y su conexión con el modelo educativo. Hemos recogido 34 relatos de docentes de Educación Infantil a través de una entrevista semiestructurada en la que reflexionan sobre cómo diseñan los ambientes de aprendizaje en sus aulas escolares. Como resultado más relevante identificamos un modelo sustentado bajo criterios constructivistas o cognitivos, más que dialógicos. Concluimos que esta perspectiva epistemológica de la construcción del ambiente escolar debe orientarse hacia un modelo más participativo y co-construido del espacio educativo.

Palabras clave

Espacio escolar, educación infantil, comunidad de aprendizaje, investigación narrativa


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The design of the usual learning spaces in early childhood education by the teachers who work in them, i.e. school classrooms, constitutes the focus of attention of this research. Particularly because they are constituted as generating matrices of symbolic life, protective environments and promoters of individual and mental autonomy. This paper seeks to explore through the narratives of a group of teachers of this educational stage what meaning they attribute to the design of this space, to the criteria with which they develop potential transformations of it and to the connection with the underlying educational model. Different studies within the field of institutionalized childhood evince, in the last decade, this narrative potential (Connelly & Clandinin, 2000; Goodson, 2017), which allows exploring ways for the paradigmatic change. In this sense, we have observed at least three types of research interests on the school space and its design addressed by the teaching narratives. Over the past several decades, research consistently shows that the quality of the educational process in early childhood schools varies substantially, but averages mediocre (Eckhardt, & Egert, 2020). In a meta-synthesis (Brown & Lan, 2015) that examined findings on how early childhood educators engaged in good practice with young children the need for materials and resources for these educators to deploy more developmentally appropriate practices for children emerged. But stubbornly reality insists on reducing or ignoring these substantial aspects in this first educational stage (Guizelim et al., 2020). In our national context, the case of Spain, the challenges faced by early childhood teachers continue to be the increase in class size and the lack of staff and resources (Sandstrom, 2012).

A first group is related to those works that have put particular emphasis on understanding the development of teaching thinking, related to the spatial scope of the pre-primary education classroom, and in relation to various topics: from the link of the teachers of Early Childhood Education thinking, to a more solid comprehension of their didactic task in relation to relevant contents (Flynn & Schachter, 2017), the implementation of an ethic professionalism by the infant education teacher (Harwood et al., 2013), the more careful use of the professional language that enables the knowledge in the students (Swart et al., 2017), or the design of an architecture of practice where these same conceptions of childhood educators allow or restrict certain learning in the classroom (Salamon & Harrison, 2015).

A second group of studies have emphasized, in this very space of the Infant Education classroom, the construction of dialogical relations, by means of the construction of competences of autonomy in the students (Chapman et al., 2014), revealing the heterotopy inscribed in them (Barden, 2016), proposing dysfunctional free spaces (Bentsen et al., 2013), and also emphasizing the constitution of these spaces as participated (O’Donoghue, 2010) or orchestrated (Mäkitalo-Siegl et al., 2010), where the child’s identity is co-constructed dialogically with the adult and other significant figures in their development (Huber et al., 2013).

Finally, in a third grouping, we gather those who have projected their conceptions about the organizational, physical or classroom design, trying to substantiate them. These researches on the teaching conceptions of pre-primary education teachers regarding the school space have provided interesting observations confirming that not always the theoretical assumptions or underlying practical designs are congruent in the participants (Ezquerra & Argos, 2008).

Therefore, our interest has been to approach the conceptions and beliefs of Early Childhood Education teachers, and to analyze how these narratives carry out the design process of their
classrooms that enables them to encourage an environment rich in symbolic learning, and to what extent these beliefs may be privileging more hegemonic spaces of character or, on the contrary, more participatory and dialogical ones.

**Models of Pedagogical Space in Early Childhood Education**

The models that have directed or influenced the design of pedagogical spaces in Spanish Early Childhood Education have been three. The first model corresponds to the cognitive perspective, a paradigmatic research framework of the 70s of the last century, rooted in the basic references of Piaget, Flavell, Bruner, Kholberg, etc., not only poses an interesting achievement in the explanation of the psychological activity as a system of representations and mental processes. However, although constructivism enjoys a broad epistemological consensus regarding the construction and learning of knowledge, it is also true that, on occasions, and from the same educational approach, intense debates have arisen about the "constructivist" legitimacy of certain educational practices.

The second model is the sociocultural perspective and the socioconstructivist model. The sociocultural perspective, rooted within the emerging Russian psychology of the first half of the twentieth century, emphasized the personal development always embedded in a social and cultural context, where a permanent relational and dialectical dynamic constituted a fertile area of upcoming and potential learning, and whose recurrent axiom identified inter-subjectivity as precedent to subjectivity. As a result of these particular interactive and socially mediated dynamics in different developing contexts (Bronfenbrenner, 2005), one of the key tools is language, from which cultural meanings and superior psychological functions emerge transacted (reasoning, logic, attention, memory, etc.) to help us understand the world (Vigotsky, 1978). This model is equally sensitive to a functional use of culturally contextualized and proximal contents, to the emancipatory use of language (narrative, argumentative, dramatic, symbolic, metaphorical, etc.), and ultimately, to the creation of learning spaces that promote not only mental and physical activity, but also experiences in which dialogue, reflection, cooperation and criticism contribute to becoming aware of how to interpret and transform the world.

The third model is dialogical perspective and the Learning Communities model. The school, as a mediating institution between the developing subject and the comprehension and reconstruction of new meanings that allow the individual a full, creative and critical understanding of reality, can constitute an authentic Community of Practice and, therefore, is guarantor of the creation of "identity and participation" to guide and orientate this construction of the individual (Wenger, 1998). This experience is facilitated by an organizational model in which the school can certainly play an authentic role in the construction of the individual identity of the citizen co-constructor of a more sustainable, democratic and peaceful world by allowing and privileging particular participatory structures.

In an attempt to detect those conceptions and beliefs in the teachers of Early Childhood Education about the construction of the spatial design of the classroom, and its possible connection to any of the three perspectives of reference previously described, we specify the following research questions:
1. What does it mean for the participants to design the school educational space?
2. What image or metaphor would they identify this educational school space with?
3. How do they construct, from the practice, the design of their classrooms?
4. What difficulties, in this designing process, do they face, and how do they try to solve them?
5. Through what ideas and criteria do they usually modify, change or transform the pedagogical spaces of the classroom?

**Methodology**

Consistent with the nature of the problem addressed, the qualitative approach has been the one adopted (Corbin & Strauss, 2008). From this approach, we make use of the biographical narrative tradition that makes possible the interpretation of these stories to understand the subjective experience and the underlying theories that give meaning to their lives, embodied in time (Horsdal, 2017), and to their feelings, objectives and desires (Dwyer & Emerald, 2017) as a set of dimensions of experience that have been routinely ignored in the research framed in a positivist model (Bolivar, 2017). Simultaneously, it also makes it possible to produce and communicate alternative knowledge to the traditional power structure, trying to collaborate in the creation of a more democratic and free society (Denzin & Lincoln, 2011). The subsequent design has aimed to focus on the study of both conceptual and practical representations (Huber et al., 2013; Mitton & Murray, 2016) that have been projected by the group of participants. Narrative inquiry has increasingly and richly and comprehensively expanded the exploration of human experience phenomena since the 1990s (Connelly & Clandinin, 1990). Narrative serves as a representation of the meaning we make of that experience and inquiry into these narratives ground both a research approach and a research product in teacher education (Barkhuizen et al., 2013). However, narratives are not mere personal constructions of meaning. The narrative researcher has a legitimate opportunity to capture the social worlds of participants, taking into account three key aspects of the narrative nature: temporality, cultural location, and geographic location. These three dimensions underlie this research study focusing on the series of events, relationships, and contexts of teachers’ narratives.

**Context and Participants**

A total of 34 Spanish teachers of Early Childhood Education participated in the present study. In this group, 74% of the participants work in public schools and the remaining 26% in private schools. The age of the teachers in the range of 31 to 40 years old is 45%, whereas the range of 41 to 50 years old corresponds to a 24%, the range between 20 and 30 years old is correlated with 17% and, that over 50 years of age is 14%. As for the professional experience of the group, 61% treasure between 11 and 20 years, 24% project an experience of less than 8 years and the remaining 15% have an experience of more than 21 years. The sample is intentional, not probabilistic.

The group of participants were active teachers, recruited through the students who, in their initial training phase, have to do internships in schools in the province. The geographical areas
covered are mostly urban in nature. All the interviewees decided to participate since they were in charge of a faculty student in their own classroom and agreed to answer in order to willingly provide their own narrated experience. This group of participants is not representative as it is qualitative research. Therefore, we define it as non-probabilistic and intentional. The interviews were mostly conducted in the same school context where the teachers interviewed work. These are usually teachers' rooms where, in the form of a leisurely conversation, the interviews took place. In a minority of cases, some of these interviews were conducted by the teachers in their own homes and subsequently handed over to the trainees.

**Instrument**

The semi-structured interview was selected as an instrument congruent to the questions to be investigated. The semi-structured interview (Maxwell, 2019) has allowed us to gain access to visualize and interpret the perceptions and beliefs of the teaching staff, assuming the inevitable crisis of representation and legitimacy that the narrative corpus always suggests (Patton, 2015). This interview consisted of six questions that were validated by a group of three experts in qualitative research. It was also validated by a prior trial with a group of 12 participants to check whether the information flow was relevant to the research questions.

**Procedure and Data Analysis**

The interview designed by the research team was provided to the participants to reflect on the process of construction of the school setting where the learning is generated. The interviews allowed ensuring anonymity and confidentiality. For the reduction of these dense stories, we used a mixed process of inductive-deductive coding forming a map of codes, or categorizations that helped to substantiate, organize and communicate the findings, trying at all times not to lose the narrative nature of the observed, through this categorical process (Saldaña, 2016). The computer application AQUAD (Huber & Gürler, 2012) additionally permitted managing the coding. The process tried, at all times, and through iterative readings of the narratives, to look for common categories or conceptual groupings that allowed generating the codes, structure the data, and later draw conclusions. In this way, the five research questions, as the linking axis of the analysis, have projected seven themes.

**Results**

**Thematic 1. The meaning of School Space Design**

This theme 1 collects narratives on the meaning of the design of school space. With this theme we have tried to make visible what meanings they attribute to the spatial design of their classrooms.

The teacher's reflection on this first topic has made visible a thought that attributes different meanings and different enhancements to this task. Even so, and in a generalized way, their considerations have implied both an important emotional intensity, manifested to this task, and the intimate conviction that this design is indisputably inherent in the generation of school
learning: “Designing the classroom space is one of my favorite moments when the course begins. (part030)”.

The importance of the design of the school space is usually related to the organization of a physical dimension of discrete elements (furniture, adequate provision of materials and educational resources, etc.): “In my opinion, the organization and disposition of the materials within the classroom is an educational agent of the first order. (part005)”.

And also, related to another functional dimension that we identify as the need to conduct zoning procedures, or fragment the space in the corners or diverse learning spaces that are usually identified by the function performed in them: “Designing and organizing the educational space is a very important aspect in Early Childhood Education. In each designed space in the classroom, a different and specific learning is stimulated (symbolic, logical-mathematical game, language, among others). (part013)”.

Inserted in this functional dimension, therefore, there are fewer and more difficult to find accounts that refer to, or emphasize, playful learning environments, experimental or developmental, of an observational child thought:

When I design and organize the educational space where my students learn, what I seek is to facilitate their learning and, also that in these spaces students can experiment to assimilate knowledge in a more playful, experiential and meaningful way. (part009)

Concerning a relational dimension, which they link to the possibility of generating socializing and inclusive environments, we have perceived a lower projection of meanings in their narratives: “The classroom must be organized in a way that encourages collaborative learning and interaction among students. Therefore, it is a welcoming and inclusive space, where everyone has a place. (part006)”.

Finally, they link the task of spatial and school design to another essential professional competence, which is the inevitable flexibility of the teacher to adapt the space they encounter when they arrive at a school, aligning the children's needs with the architectural conditions of the center:

You propose the space based on your own ideas, according to what you want to work on, but when the children arrive they are the ones who tell you whether it works or not, so when they are there you say: "Oh! Here they get stuck, here I need more space, I need more tables because I need to work better, so you change things". (part016)

**Thematic 2. Metaphor Identifying the Design of the School Space**

Theme 2 refers to the metaphors with which they identify the design of the school space. Metaphorical thinking, as a transgressor of rational and logical thinking, has been useful for us to deepen the vision of the learning space.

Concerning the second thematic, almost every participant has chosen to select images we would define as static-structural: “Mmm ... if I had to identify the classroom with a graphic
image, I would categorize it with a library in which every object has its place and is within our reach for us to take. (part005)”.

Defining in them, at the same time, an interest in highlighting the inclusion of different spaces that make it possible to address different thought processes: “I can describe it to you graphically. I has 4 corners of: - Constructions – Kitchen and symbolic game - Library – City and cars. (part029)”.

Or, sometimes nuanced by contexts of nature. Note that they are gardens and, therefore, it is an image that refers to a careful and previous design, and not to forests whose archetypal image leads us to a disordered and chaotic nature:

A large place, with soft colors, relaxed atmosphere ... (Like a garden with some trees, flowers and lots of free space). Because I think that young children need space to move and experiment to learn and to achieve enrichment. (part012)

On occasions, the metaphor of a mechanical but also dynamic device, as a structure that collects and transports the infants in one direction, replaces the major static metaphor: “[I]ke a train that is pulling, etc. I do not see it as a physical space and that’s it, but the group as a whole. (part001)”.

In any case, we perceive that both metaphors are shown to us congruent with the meanings we have begun to glimpse in our first question; that is, the classroom as a place where spaces are projected, planned, arranged, prepared in advance, and not at all excluding to provide cozy, friendly and calm moods as another of the recurring metaphors in the group of participants: “As an image of calmness that transmits serenity, since it is the best way to create a learning climate. (part007)”.

Thematic 3. Criteria of Construction of the Designs of these Pedagogical Spaces

In this third theme we have grouped the narratives that justify the criteria selected for the construction of the pedagogical spaces.

For practically the whole group of participants, the construction of this pedagogical environmental design has to do, at first, with structuring the classroom in different spaces (zones, corners, etc.) that allow different cognitive and learning processes to be appealed to: “Different environments, areas or corners are created in the classroom. They are the following: assembly area, library area, quiet corner, corner of symbolic game, work zone and corner of buildings and cars. (part002)”.

This structure allows the students, according to the participants, to know what to do and when to do each task: “We also find the corners that give quite a meaning to the classroom, since each child knows that the activity he/she does, she/he has to do it in that place. (part030)”.

Again, this zoning or spatial fragmentation is always thought and materialized in the classroom by the teacher: “For all this I prepared an area with a large carpet for all of us to sit on, near the windows and well lit, and near the digital board. (part005)”.
The participants highlighted a second aspect: this sort of zoning allows the formation of diverse groups of students that will be directed in most cases by the teacher. In the narratives, these groupings are free and decided by the students. As in, for example, Gardner's theory of multiple intelligences, which fosters an environment of freedom necessary for each student to develop their particular and diverse intelligence:

They have free access to every corner; I do not say where they have to go. For instance, a child who gets lost with mathematics and detects that her/his strong point is art, she or he can work numbers through Joan Miró’s paintings since they work geometric shapes...that's the idea. (part027)

A third concern in the design of the classroom has been to take care of the nature of the materials, the arrangement of the furniture, etc. in order to create a relaxed, pleasant, motivating, orderly and spacious classroom environment with easy to reach materials:

I do my best for them to be in a comfortable environment: where everything is at their reach, and has an order, so that they know how to use things properly, with limits, and requiring appropriate behaviours to enable us all to work comfortably in the different corners of the classroom. (part012)

Nonetheless, it seems a paradoxical situation when we read, as a fairly common cliché, in the expression of the participants in some of their narratives, their interest in vindicating the student as protagonist of their own learning whereas, at the same time, we find that children’s ideas, interests and opinions are not paid attention to by the teachers interviewed: “And I always encourage the child to be the protagonist of their learning and I as a teacher, the guide, the one that accompanies them in their learning. (part026)”.

**Thematic 4. Difficulties and Solutions when Designing the School Space of the Classroom**

The difficulties encountered by the participants, as well as the possible solutions they have established for the design of the school space in the Early Childhood Education classroom, have been grouped under theme number 4.

The difficulties in the creation or construction of the design of the learning environment of the classroom lie, for a broad generality of the group, both in the lack of space and in an excessive number of students:

The lack of space influences enormously when organizing the corners, since sometimes it is not as you would have liked to do it, and if you had had more space you would have organized it in a totally different way. (part023)

A second categorization, lower in its presence, is the one referred to the problematic elements described as furniture or didactic materials. Sometimes they constitute a problem due to the absence of them, generally justified by an austere economy, but compensated by the creative and recompensing professional attitude of the participants, which they refer to emphatically:
Another difficulty we come across quite often is the lack of resources. I mean old materials, lack of furniture, etc. Here the creativity within all teachers comes into play, and it is very important to see the possibilities of the resources available, and not the limitations. (part020)

And, according to other stories, by an overabundance that hinders and does not facilitate a pedagogical environment:

To make room I have reduced the classroom tables, taking some to the center's library and placing the teacher's desk, which we do not use, in a corner, thus gaining a more open and free space for children to play. (part005)

Finally, one of the situations categorized, interestingly enough, is the absence of time that limits the building of that didactic spatial design: “And the lack of time to arrange with them the classroom space so that they choose what they want. (part021)”.

Within the same fifth topic, we also inquired about the approach or the way in which they try to solve these difficulties. It stands among them, logically, the classroom space that they "receive by default" when they arrive at the center and will have to adapt to:

I find barriers such as the space because I would like it to be wider. Each promotion has to change the classroom and you have to accommodate what you have according to it. So many innovative things, as well, that cannot be done for the classroom space are already given to you. (part023)

But, they will also try to avoid filling the class with excessive resources so as not to saturate with stimuli: “I also try not to fill up the class with resources and adapt to what I have, or create on the go what I consider useful or interesting. (part006)”.  

Or, provide and facilitate the pupils with warmth in the classroom and accessibility to materials and teaching resources:

We always try to make the environment warm and pleasant, so that when they enter they feel comfortable, we also like to have plants, different points of light, not only a single light coming from above, and we also try to make sure that everything is at a reachable height for the children. (part016)

And, when the matter refers to the economic issue, they try to get the parents' association or the Management Team to help them:

I try to solve it by leaving in the classroom the most essential and eliminating objects and furniture that take up space and do not help, and by asking the school, the secretariat, or the regional authorities each year for collaboration to renew or expand the classroom with new material.  (part012)

Thematic 5. Criteria with Which the Spatial Design of the Classroom is Modified During the School Year

Finally, theme 5 identifies the ideas or criteria that have been followed to modify or transform the pedagogical spaces in the classroom.
Trying to confirm with the group what possible criteria or procedures they put into practice to transform the learning design throughout the school year, we have observed that, for these participants, a design prior to the beginning of the school is of paramount importance, then, as secondary adjustments, the space structure will be modified in the course of the school year: “The biggest changes, before starting the course, and on the go I’m modifying. (part026)”.

The changes, from this previously organized basic designed by the teacher, will arise for various reasons. One of the most frequent one has to do with the realization of projects, didactic units or planned centers of interest that require new curricular contents:

I arrange the space according to the project that they are carrying out in that month or quarter ... I take out the new letters they have learned to stick them on the board, they make and stick a mural on the board with the letter they learn each week and some words that contain it, etc. (part015)

It is a criterion of recurring importance in these teachers to meet certain needs of the group in order to build a calm, comfortable, motivating environment where materials are accessible and enable the autonomy of students:

This year we have already changed things from their places, the computer, the bookshelf. For example, when I arrived 2 years ago, the computer was up, the bookshelf was below the step, when I saw the children going up and down the stairs, I said “this cannot be”, I placed the shelf up and took the computer down, and it seemed good to my partner from last year so there it is now. (part025)

But also, the avoidance of spaces that hinder the fluidity of intra-classroom movements:

... And also, if something is dangerous, obstructs the passage or is next to an incompatible area (for example, the area of the markers was changed because they painted the fabric of the house). Also, I take into account that there are no obstacles for the one student with functional diversity. (part031)

It is very clear at all times in their narratives this constant attention towards the students, observing if any zone or space does not work properly for the curricular educational intentions:

Now a more cozy and ample space for reading is going to be created, consequently it is necessary to swap corners in the classroom, since the library cannot continue being next to the classmates’ lockers, as sometimes several students coincide reading and others leaving their jobs in the trays and therefore interrupting each other’s activities. (part019)

A small number of teachers consider it important to justify these changes in the design of the classroom space for their students:

I have been changing places and moving the tables a little, and placing mine although we do not sit much on it, but it has its use, thus making a space for the assembly, the computer corner, allowing us to move the least as possible from the place, because if they have to change constantly, it’s a big mess. Of course, you always explain it to them, even if they are small. (part025)
In very few cases in their narratives, they also propose their students to think what materials or objects could be placed in that space designed by the teacher:

But, in previous years what they did every quarter was to vote what they wanted to have in the corner of the symbolic game, because they had the teddy shop, the Indian camp... they voted and it was created. Because when they are smaller you have to promote the symbolic game more. (part027)

However, by no means is the thin red line trespassed which would imply consulting the students about the existence of that same space or others that they could propose themselves. In this sense, the space is invariably transformed by the teachers if it causes some kind of dysfunction with the intentions or educational purposes they have in mind. The changes in the design of the space proposed by the students are non-existent, because the teachers evade any query on these matters: “All the ideas that come to me when I want to modify something I carry them out and test them, giving them an opportunity. Over the years you know which is the most effective classroom organization and design. (part033)”.

The voice of the students is systematically displaced by other sources that prevail over them in the decision-making process, such as that of other professionals, books that the teacher consults, or Internet searches: “First you gauge things a bit, you try to get ideas from your head and if you cannot come up with something, you ask your partners, or check in the internet or in books. (part034)”.

Discussion and Conclusions

Regarding the first issue, it is striking that the participants signify the school classroom as the primary educational and natural place of learning, and that within this space they focus their attention on the physical dimensions (furniture, resources and materials, etc.). Perhaps this type of answers suggests a reductionist teaching thought inasmuch as we can also consider all the spaces of a school center (quads, halls, kitchen, library, management office, teaching room, etc.) as potentially educational to open other possibilities and learning horizons. Within the physical dimension to which they allude, the functional dimension acquires a special importance for these participants, that is, the variation of environments or corners (Riera et al., 2014) that fulfill a diversifying function of intellectual developments. The strong presence in their narratives of a cognitive conception, when relating this design with spaces that contribute to various processes of mental reasoning, seems to displace a significance of the classroom as a social and relational space (Medina, 2014), reorganizer of learning schemes.

This conceptualization of the school space could be reinforcing the project of a culturally hegemonic school by intensively shaping a professional teacher identity that promotes a psychological-cognitive learning culture, rather than a social and emancipatory learning culture that helps both teachers and students to wonder about the construction of their own identity (Ponce & Rico, 2022).

The design of the classroom in their narratives does not relate at any time to the tacit knowledge of teachers, concerning the meaning of "productive school work" or that of the
game as a learning methodology, thus contributing to the hegemonization and dichotomization of such space (Vogt et al., 2018).

In short, the space is always a place of great importance for these participants to generate learning, but not so much a place of self-questioning of the teaching model itself, which is projected in the school setting and in its purposes to promote equality or empowerment of those who shape these community schools.

The second of the questions deals with the metaphorical projection that the participants make of their classrooms, since the images, as Banks (2008) suggests, allow us a sociological understanding (of the professional task by visually embodying their latent and hidden theories) not accessible by other means (Ezquerra & Argos, 2008), considering this modality a kind of visual anthropology that maps, liberates and stimulates, both emotional (Mannay, 2017) and conceptual (Price, 2013) affirmations or teaching identities (Hamilton, 2016). It is likewise highly illustrative that the metaphor with which they visualize their workspaces has a strong structural and static component, whether they are of an artificial nature such as a house or, to a lesser extent, a garden; thus promoting, from our point of view, the idea of hegemonic spaces of power (Foucault, 1980) by not reflecting in them possibilities of change, through scaffolding structures, and of co-creation and design, by the users of these very spaces. The source of decision and control is always in the same hands, the ones that guide the group of students in the direction of the intentions and expectations of a decision-maker. In this sense, there are no images in this group of narrators that may connote a sense of shared choreography (Mäkitalo-Siegl et al., 2010) between the students and the teacher for the design of a classroom without borders, and an active and communitarian Learning Community. Rather, what exists is a sense of orchestration in which its conductor imposes the order, control and time of entry of the subject's voice, adjusting it to the teachers' own expectations. We conclude that, the reflected metaphors continue showing a pedagogical thought incarnated in a cognitive-constructivist model which emphasizes the reconstruction of the mental schemas or representations, promoting in the subject the activity with the object or didactic, and values associated with aspects of individual development rather than with the deployment of community cooperatives.

The third of the research questions focuses on identifying the criteria or procedures with which they construct, from the practice, the design of their classrooms. The persistent congruence of the organizational principles of the classroom anchored in a genetic rather than a sociocultural constructivism stands out. The absence of procedural principles of dialogical or documentary learning of their own practice (Rintakorpi, 2016) are evident, and in this sense, consistent criteria with approaches of community character of learning (Wenger, 1998) are excluded from those that the teacher recreates under her or his permanent perspective and control. We identify a persistent concern for the regular programme schedule that zonifies, differentiates intra-classroom spaces, incorporates materials and resources, and provides adequate furniture as central interests that displace socio-constructivist criteria that seek: the promotion of understanding as a result of social interaction and its interpretation (Adams, 2006); the interrelations with various educational agents; the annulment of borders in interior and exterior spaces and dialogical or co-participated dynamics (Sharan, 2015). Playful learning as a methodological criterion turns out to be particularly the dynamics for vehicular excellence of children’s learning (Adamson et al., 2020; Sherwood & Reifel, 2013). However, it is not projected in these stories as the criterion to configure a coherent learning environment. In short,
we would highlight, in the first place, the absence of principles of dialogical learning procedure beyond those that the teacher recreates under her or his permanent perspective and control and, secondly, it has also been extremely interesting to note that the principle of playful learning, since the game is the conveying dynamics of learning, is not projected in most of these stories (Nilsen, 2021). The values that continue to be detected here once again refer us to a pragmatic rather than humanistic nature, to a subjugation rather than a normative rather than an emancipatory empowerment.

The fourth of the issues focused on the difficulties when designing the classroom space and how to solve them. The focusing of the difficulties as the resolution of the different and diverse problems circumscribed to the dimensions of the genetic constructivist model, where the problems referred to the amplitude of the space, furniture and materials, are the uncomfortable exogenous issues with which educators have to deal with to guarantee a good spatial design of the classroom and constitute a sort of procedure of professional performance of a rational and immediate instrumental kind (Tonucci, 2012). The set of solutions proposed by the participants will refer to the inevitable adjustment to their needs of the space, the organization of materials and furnishings, and to provide warm, cozy and quiet classroom climates, but not requesting the voice of the students in the configuration of these climates. The genetic-constructivist educational intentions evade a teaching orientation that prioritizes knowledge and learnings located in social interaction and cooperative commitment and continues generating criteria shielded under a reductionist perspective of constructivism, such as the acquisition of knowledge rather than the construction of meanings embedded in the social interdependence of educational agents. The narratives have projected the matter as a personal and individual educational issue; although in some cases colleagues have been consulted. Consequently, they do not describe procedures which try to solve them in a co-participative way between families and teachers, other educational agents, or between students and teachers. However, this demand for space, which we are not going to inquire about, or pretend to supply by a constant imaginative proposal of the teacher, could perfectly well be an alibi limiting possibilities and solutions not yet discovered for the design. In this sense we have been able to verify, in situ, in some truly very small children's classrooms, an exceptional creative use that does not correspond with this generalized belief of the group of participants which inexorably links a greater space to an improvement of the design of the pedagogical space.

Finally, the fifth question addressed those criteria, observations, etc. the participants typically use to modify or transform the design of the classroom during the school year. Under this framework, the observed results suggest again that there is a strong generalized assumption in them that it is a must to have designed, even prior to the beginning of the school year, a well-defined, structured and main learning environment upon which, during the development of the course, secondary and minor transformations will be made. These changes will be justified from external observations of the classroom. Then, the teacher, as the principal agent of the process, will adjust and modify as needed, attending to the inevitable progression of curricular contents through the teaching units or work projects, and will generally try to create didactic environments which do not suppose obstacles, but which promote states of tranquility and facilitate mobility to students with some disability. In any case, it is shown repeatedly a thought that is more concerned with the external, physical or functional conditions of the classroom, rather than the relational or co-participated ones, in such a way that the teachers’ own beliefs
continue remaining intact, since they are not discussed or questioned in any moment. The recurrent insistence to ask colleagues, search in books or internet ideas about the design systematically discards hides and obscures the students. Again, the underlying values are aimed at maintaining a space where the pre-established order limits a co-construction between teachers and students, minimizing a legitimate empowerment that excludes the student.

The present work has led us to reflect on the need to provide possibilities in our habitual and daily educational relationships, such as scaffolding contexts that empower the voice of students, families and other educational agents as volunteers are, in a way that some processes are managed to decide and recover co-participated learning environments.

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References


