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Virtuality and Digital Culture in Children's School Experiences: A Visual Ethnography in Context of Poverty

Virtualidad y cultura digital en las experiencias escolares infantiles: una etnografía visual en contexto de pobreza

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Abstract

This paper presents partial results from a research centered on children's social inclusion/exclusion processes in a marginalized school of Santiago de Chile. We realized an interpretative and visual school ethnography, focused on a 4th grade. The data produced are journal diaries (observations and ethnographic interviews); children's visual productions (photographs and drawings); and children's group interviews transcriptions. These data reveal the centrality of the virtual universe and the digital references in children's experiences and in their subjectivations. The digital culture would extend the field of real for children, allowing them to subjectivize and produce new knowledges. It appears as a medium to deploy the virtual experience, a "transitional object" that enables to connect the internal world with the external world. The virtual space seems fundamental for children's subjectivations and should not be considered as a negative or threatening aspect for school, rather as a potential space to bring the children to school knowledges. This depends on its exclusive mediation by digital technologies or its mediation by the other adult, through the inclusion of virtuality —digital as no digital— in the intermediate space of communication.

Keywords: digital culture, social inclusion, subjectivation, virtuality.

Resumen

Este artículo presenta resultados parciales de una investigación centrada en los procesos de inclusión/exclusión social de niños y niñas en una escuela marginalizada de Santiago de Chile. Se realizó una etnografía escolar interpretativa y visual, enfocada en un curso de 4° año básico. Los materiales producidos son diarios de campo (observaciones y entrevistas etnográficas); producciones visuales infantiles (fotografías y dibujos); y transcripciones de las entrevistas grupales realizadas. Estos datos evidencian la centralidad del universo virtual y de los referentes digitales en la experiencia infantil y en sus subjetivaciones. La cultura digital amplía el campo de lo real para los niños y niñas, permitiéndoles subjetivarse y producir nuevos saberes. Se configura como un soporte para desplegar la experiencia virtual, "objeto transicional" que permite relacionar el mundo interno con el mundo externo. El espacio virtual parece fundamental para las subjetivaciones infantiles y no debería considerarse como un aspecto negativo o amenazante para la escuela, sino como un espacio potencial para acercar los saberes escolares a los niños. Esto depende de su mediación exclusiva por las tecnologías digitales, o bien, por el otro adulto, a través de la inclusión de la virtualidad —digital o no— en el espacio intermedio de comunicación.

Palabras clave: cultura digital, inclusión social, subjetivación, virtualidad.

Introduction

In the field of education research, the perspective of students, or the "voice" of the children, has grown increasingly important in order to counterbalance the production of knowledge by adults, which is known as adult-centrism (Albornoz, Silva & López, 2015; Peña, 2010; Peña, Chávez & Vergara, 2014; Vergara, Peña, Chávez & Vergara, 2015; Yáñez-Urbina, Figueroa, Soto & Sciolla, 2019). The perspective of children has been marginalized for a considerable time, for both epistemic and methodological reasons. Criticism of adult-centrism has developed progressively, like other forms of subordination that have historically excluded certain social groups from knowledge production: women, afrodescendants or ethnic minorities, the poor, homosexuals, others. Nowadays, the legitimacy and validity of children's voice is recognized, although there still remain methodological challenges in conducting research that can represent it (Messiou, 2013; Peña & Toledo, 2017). In addition to this, the view of childhood in Chile has changed in recent years, with a focus on rights being adopted, particularly with regard to the General Education Law 20,370 (2009), which establishes the right to education, and Law 21,067 (2018), which creates the Defender of the Rights of Children (Defensoría de los Derechos de la Niñez).

Is the voice of children a single voice? Is there an entity that could be designated as "the student"? Children's age group is not a homogeneous category, but rather a group that is crisscrossed by power relationships, creating intersections where different identities meet, which can be hegemonic or marginalized (Armijo-Cabrera, 2018). Particularly in this area, researchers have attempted to study the school experience of children in the context of poverty, which makes them doubly subordinate, as well as being subordinate to adults and other socioeconomic groups with greater advantages.

Context of the study

In this study, we investigate the processes of social inclusion/exclusion of the participating children at a marginalized school. How do these processes unfold? What are the relevant inclusion/exclusion categories for the children? How can children be subjectivized in a context of poverty?

We carried out the study in a subsidized elementary school located in a marginalized sector of the city of Santiago. The Estrella school was created in 1980 in an area on the outer edge of a city that was in the process of urbanization, under the auspices of the "social homogenization" policies and education privatization policies of Chile's dictatorship (Morales & Rojas, 1986; Slachevsky, 2015). The school therefore lies in an area of eradication of extreme poverty and it is currently characterized by a School Vulnerability Index (IVE-SINAE) that is one of the highest in the area, with 92% vulnerability (JUNAEB, 2017). The Estrella school is also part of a political and pedagogical project of social inclusion, established in its area and specifically targeting the most marginalized students in the educational system, that is, those who have been excluded from other schools for behavioral, economic, racial, or results-based reasons. It adheres to the Preferential School Grant Law (SEP) and conducts a School Integration Program (PIE), which as of 2015 included 19% of the students.

This paper presents partial results from a doctoral thesis focused on the social inclusion/exclusion processes of the children at this school, that is, in the production of their subjectivities (Armijo-Cabrera, 2018). The study was focused on the experiences of the children, with specific attention to the students on a fourth grade course. One particularly relevant finding in the analysis of the data is the centrality of the virtual universe and of digital references in the children's experience and in their subjectivations.

Theoretical Framework

This study is based on a post-structuralist theoretical-methodological approach, that is, a research perspective that decenters the subject, considering it as an historical and cultural construction (Popkewitz & Brennan, 1997). The research maintains a distance from structuralist and essentialist traditions, examining the affective dynamics and discursive constructions that produce subjectivities (Adams St. Pierre, Jackson, & Mazzei, 2016). We draw on three interacting theoretical viewpoints that conceptualize virtuality and digital culture from different disciplinary perspectives. The notion of *virtuality* is taken from the French philosophy of Gilles Deleuze, while the concept of *digital culture* comes from Inés Dussel's research into Latin American education. In order to carry out the analysis, we use the subjectivation theory developed by the British pediatrician and psychoanalyst Donald Winnicott, based on his clinical experience with children. Each of these concepts is detailed below (see Figure 1).
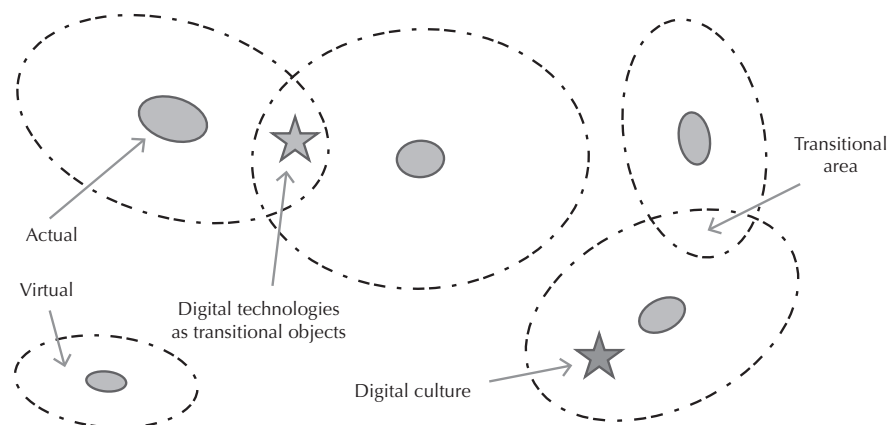

Figure 1. Conceptualization of virtuality, digital culture and transitional objects.
Prepared by the author.

The actual and the virtual

We use the distinction made by Deleuze (1968) between the actual and the virtual. According to the author, both are part of what is real, but the virtual is what is in the potential state, and the actual is what has been actualized.

Deleuze uses the metaphor of particles within an atom, with a multitude of electrons gravitating around its nucleus at incalculable speeds. The uncertainty principle of quantum physics thus indicates that the present state of an electron cannot be determined, because it can be in various places at the same time, and its trajectory and velocity are unpredictable (Deleuze & Parnet, 1996). Similarly, Deleuze (1968) tells us that the virtual is the real that could happen, which exists in a potential state, gravitating around the nucleus, without one truly being able to determine whether it is real or not. At the moment it is actualized, when the electrons are forced to condense in the nucleus until they cannot be distinguished, then the virtual becomes the actual, which appears to us as a concrete fact. This is what Deleuze (1996) calls crystallization. However, Deleuze considers that the actual is already past, or fixed, while the virtual is always to come, in motion, in such a way that he deems the virtual to be more real than the actual (Vitali Rosati, 2012).

Therefore, the actual and the virtual comprise our experience of reality in different dimensions. The actual dimension appears to us as concrete and materialized, while the virtual dimension seems to us to be mobile, evanescent, or intangible. At the school, in that sense the virtual experience covers everything that is imaginary, which has not yet come to pass, the spiritual, which cannot be verified. These are the stories made up by the children, the fictional characters that they bring up in conversations, as well as the esoteric stories, the religious experience, and communication with the dead and with ghosts, central elements in their processes of subjectivation.

Digital culture as a new visual regime

Inés Dussel (2014) uses the concept of digital culture to refer to a contemporary cultural form that is deployed through new information and communication technologies (ICT) and which participates in the processes of children's subjectivation. Based on an historical analysis of the culture of the image, we can identify different visual or scopic regimes that the new digital culture will come to transform (Dussel, 2009).

She claims that the visual regimes "define what is visible and what is invisible," as well as "ways and positions of looking and of being seen" (Dussel, 2009, p.191). This visual framework, typical of Modernity, can be linked to the separation between spectator and spectacle. In this regard, she considers that the mass media industry claims the same scopic regime as that of religious iconography. Thus, with modern audiovisual media, such as television and the cinema, the same culture of the spectacle that circulated with the most traditional artistic productions, such as painting, sculpture, or music, is expanded and disseminated.

On the other hand, with new digital technologies, this visual regime is changed, where the viewer begins to become confused with the show. New technologies, such as cell phones, for example, create a "new ontology of presence and distance" (Dussel, 2014, p.14) that reconfigures distances. With videogames and the internet, viewers are both consumers and producers of the culture of the image, so the concept of the "prosumer" has emerged (Dussel, 2014). Digital culture thus displaces hierarchies to offer a network of horizontal participation in the production of globalized knowledge (Dussel, 2014).

In addition, with the emergence of this new culture, the old audiovisual media have changed their regime, through broadcasts of reality television for example, which introduce ordinary citizens into the exceptional sphere of television. In that sense, the digital culture transforms and absorbs the old cultural media, shaping a new scopic regime for children's subjectivations.

The transitional area

During the research process it is essential to seek a specific framework of analysis that allows us to analyze children's subjectivities in all their complexity. We thus use psychoanalytic theory, which postulates the existence of an unconscious dimension in human experience, forming its object of study. Deleuze (1968) associates the virtual with the unconscious and mentions, among other things, the theory of the transitional area developed by Winnicott, where "virtual objects" are found (p.134).

Based on Winnicott's theory (1971/1975), the processes of subjectivation consist of a separation between the self and the other from an initial nucleus, a transitional area that that keeps the internal world and the shared external reality separate and connected at the same time (see Figure 2). This intermediate area, which remains throughout life, constitutes a potential space for disposition and communication with others and is therefore a space that is conducive to learning. This area is characterized by a certain fluidity, being an intermediate space that allows free, spontaneous play, and which favors imagination and creativity. Through these flexible practices, a space of intersubjectivity is created, where the subjects relate to one another on an unconscious, virtual, and emotional plane. In this space, the objects are neither completely within the subjects, nor totally outside them, but, at the same time, they are part of their inside and outside. They are in an undetermined area where subjectivities fuse and confuse, so that they can dialogue on an unconscious plane.
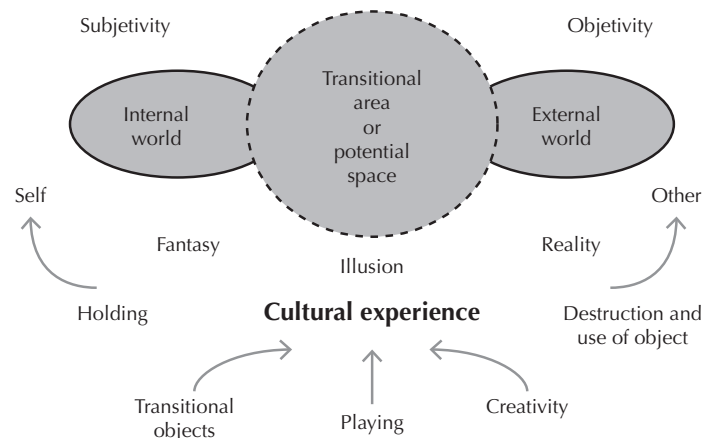
Figure 2. Winnicot's theory of subjectivity (1975).
Prepared by the author.

According to Winnicott (1975), transitional objects enable the presence of the mother or the adult caregiver to be replaced through some form of physical support, such as stuffed toys for newborn children, for example. The children then feel the presence of the adult, despite their absence, giving them security and confidence. The digital culture appears as a type of support to deploy certain virtual experiences, in such a way that it is understood as a transitional object that allows the internal world to be related to the external world. This is observed with digital technologies in particular, such as cell phones, tablets, computers, which provide materiality to this virtual experience in the transitional area, thus participating in the processes of children's subjectivation.

The Research Problem

In this aforementioned context of poverty, the objective of the study was to examine the processes of social inclusion/exclusion of children, understood as processes of production of subjectivities (Armijo-Cabrera, 2018). In particular, this paper presents the partial results of the doctoral thesis focused on digital culture. The questions that guide this text are: How do children subjectivize themselves in this environment? How is digital culture displayed in a context of poverty? And how are the actual and the virtual linked in the experiences of marginalized children?

We first describe the methodology for the study and then we present the results, before discussing them and drawing conclusions.

Methodological Framework

This research is qualitative, so it does not seek representativeness, but is instead oriented towards an in-depth understanding of social and educational phenomena.

It focuses on the Estrella school, described previously, which was selected due to its characteristics in the educational field. It is a marginalized, subsidized private school that has never applied shared financing or student selection, so it can be defined as "inclusive". In addition, because of these same characteristics, it integrates students who have been excluded from other establishments and is considered to be one of the most "vulnerable" schools in the area, with a School Vulnerability Index (ive) of 92% for 2017 (junaeb, 2017).

The research consisted of an interpretive and visual school post-ethnography (Adams St. Pierre, 2017; Guber, 2011; Pink, 2001) lasting seven months, turning our attention from the adult perspective to children's subjectivations. According to the American researcher Elizabeth Adams St. Pierre (2017), post-qualitative research takes on the post-structural ontological position, questioning the unity of the subjects and the binary divisions that define them, such as object/subject, mind/body, essence/culture, actual/virtual, among many others (Adams St. Pierre et al., 2016). This is a school ethnography, because it is deployed in a school and it is interpretive; that is, it studies the phenomena in a holistic manner, in its social context, incorporating the meanings of the subjects that are studied (Guber, 2011; Rockwell, 2009). It is defined as a visual ethnography because it uses specific visual research devices that allow us to examine the unconscious and symbolic dimensions of the subjects' experience (Pauwels, 2010; Pink, 2001; Piper & Frankham, 2007; Serrano, Revilla, & Arnal, 2016). We consider the specificity of the children in order to apply these devices in an ethical manner, adapting the methodology to the context (Clark, 1999; Clark-Ibáñez, 2004; Danic, Delalande, & Rayou, 2006; Flewitt, 2005; Rausky, 2010).

The ethnography implemented consists of four information production techniques that are centered on the field research at the Estrella school—described previously—for seven months:

- Documentation of the object of study before, during, and after the fieldwork;

- Participant observation at the Estrella school, conducted at least once a week and focused on a fourth grade elementary course that consisted of 42 children of approximately nine years of age (ages varying between 8 and 13);

- Ethnographic interviews with children from different courses and with adults (teachers, managers, teaching assistants, parents or guardians, and officials) throughout the field research process;

- Visual production with the children on the fourth grade elementary school course, associated with nine group interviews of three or four children, in the second phase of the fieldwork. The groups were organized according to the presence of the children and their affinities, creating seven non-mixed groups (three of girls and four of boys) and two mixed groups.

The fieldwork focused on a fourth grade course because of the opportunities offered in the field and the communication skills in this age range. All of the children on the course who wished to take part in the production and subsequent selection of their photographs were allowed to do so. All of the children who volunteered and were authorized by their parents participated in the group interviews (35 in total).

The participants were ethically safeguarded by applying a protocol approved by the Ethics Committee of the university: the authorization of the director, informed consents from the parents/guardians, agreement of the children, confidentiality of the data, free participation at all times, etc. For publication, the data have systematically been made anonymous, changing the names of the participants.

The data produced on a daily basis were recorded in personal field journals. These were analyzed in an interpretive manner based on matrices prepared previously according to the theoretical framework, which evolved during the field research with the conceptual work (Rockwell, 2009). The results were discussed in various forums for academic reflection in order to "crystallize" the data (Richardson, 2000), in pursuit of "disciplined subjectivity" (Erickson, 1984; Serra, 2004).

The visual research instruments used with the children are described below:

- Photograph: collective production of a "photo-kit" about the school, which was subsequently used in the group interviews to study the children's experience. This was done using the photo-language technique, which consists of showing the photos and proposing a question to choose one or two photos that they can use to express themselves (Vacheret, 2010). The question or instruction proposed in this study was "your best times at school", to examine their sense of belonging at the school and the relationships with other subjects at the school, integrating the temporal dimension of the children's experience.

- Drawing: individual production of a drawing or illustrated text during the interview, at the same time as talking collectively about what they produced. Here they were asked to create an "anti-portrait", that is, what the children are not or do not want to be, in order to blur the view of the "others" that shape the identities of the subjects. This responds to the foundations of the theoretical framework and to a need identified in the field to counteract the shyness and timidity of the children in talking about themselves.

With the different data produced, by the researcher and the children, both written and visual, several boundaries of social inclusion/exclusion were identified at the socially marginalized Estrella school. In this paper we present the specific results related to the digital culture and the links between the actual and virtual in the children's subjectivations. They are illustrated with scenes from the field journals, interview transcripts, and the children's productions (photographs and anti-portraits).

Results

The research findings suggest that digital culture broadens the field of what is real for children, allowing them to subjectivize themselves and produce new knowledge. The children mobilize virtual and digital references to communicate, to relate, and to project themselves. First, digital culture is observed as a way to avoid the actual in a shared virtual space; second, digital culture is understood as a transitional object for processes subjectivation; and third, we discuss three aspects of the limitations and potentialities in the use of digital culture by the children at the Estrella school.

Evading the actual in a shared virtual space

In the ethnographic field, the existence of videogames appears to be central, mediated by various digital technologies such as cell phones, tablets, or computers. These are part of children's visual production, but this is also an image that is condemned by a significant part of the course, because this is an activity that is not allowed at school. Several children think it should be omitted from the photo-kit selection, but others consider it an important aspect of their school life, particularly those that appear in those photographs (see Figure 3).

Figure 3. Videos, games and digital technologies: a shared virtual space. Children's productions.

Children talk about their videogames, mention different names, and recall some anecdotes. Playing on cell phones or computers is a collective activity: children watch others playing, successively being spectators and actors, forming crowds either inside or outside the classroom (see Figure 3); digital technologies are used until the battery runs out; and they also play online and remotely, allowing those who remain in the school workshop to join those who have already gone home after school (see Excerpt 1).

Excerpt 1: Computing workshop and games shared remotely (interview 1)

Max: This photo inspires me about the workshops, as they're like… some… like a… like a class, but you have fun. And there you can play or listen to music… etc. with your friends.

MAC: Which workshops? Which workshops do you like?

Max: Like computing. Computing, robotics… music, ping pong… […]

Jasón: I preferred to go to the computing one, as I like to spend more time with my friends […] in computing, the other time, me and Manuel went, and Max was at home, but we can play online and talk …

MAC: From your home?

All: Yes.

Manuel: Afterwards I went home and we continued playing.

The children are interested in digital technologies, as happens during the interview with regard to the researcher's audio recorder and cell phone, which the children look at, touch, and handle. These technologies become transitional objects between the internal world and the shared reality.

So, their use of video games and digital culture, on their cell phones or tablets, can be interpreted as a way of avoiding the actuality that makes no sense to them, does not interest them, or bores them. This is part of the underground life of children, in resistance to traditional school practices that propose pedagogies of repetition and memorization (Armijo Cabrera, 2019b). It is the boys who participate in this activity most and they are also

the ones who incorporate it into their visual production, the photo-kit choice, and the interviews. The virtual world seems to be fundamental to the processes of subjectivation of this group of children, who express it as something entirely actual, but distinguishing it from the real (see Scene 1).

Scene 1: Hacking in digital games and hacking in real life

Then I go to the back and I go up to Maximiliano who has his arms crossed on his table. I ask him what's up with him, if he's sick, if he's tired, and in the end, when I ask him if he's bored, he sticks up his thumb to agree. I ask him if he finished the test and he sticks up his thumb again. I ask him why he doesn't do some drawing or why he doesn't get out a book to read. He shrugs his shoulders and does nothing (…) Afterwards Jason says Maximiliano is a hacker, and he says he isn't, so I ask them "what a hacker is?" and they explain that it's about doing things that aren't allowed. For example, when you have to pay to buy something, it's managing to get it just the same without paying. Or for example when you're in a game, it's going through the walls or killing some people. Or in real life too, it can be to go into someone's account, or their phone and look at what they have on it, even without having the code. You can do all this by using codes found on the internet. Jason is the one who claims to be a hacker, Maximiliano insists he isn't. But Jason says he only does it with games, not with real-life stuff. And he learned it alone, because it's the only way to learn, watching videos on YouTube, but ones that you can only find if you have other codes. He tells me that he also knows how to get something without paying or how to get into someone's cell phone, but he doesn't do that (Field Journal, 23/08/2017).

With these images and stories we observe that this experience is important for the children, and also that it is a collective activity, because there are those who play and those who watch, who are waiting to play. They can also play remotely from their homes or while others are still in the school's computer room. These dynamics break away from the individual logic displayed within the school (Armijo Cabrera, 2019b).

The underground life of children thus takes place as an intermediate space where they can escape from the actual situation that fails to move them, where they can subjectivize themselves in their relationships with their peers, emphasizing the collective dimension of their life experience, as opposed to the individual competence present at the school. Also, in this virtual space, children can be subjectivized in relation to the adults, using the digital culture as a transitional object.

Digital culture as a transitional object

In the data analyzed, the children's subjectivities are deployed through virtuality as a way of interpreting the world, using the references of digital culture, religion, and the spiritual universe. They operate as a form of resistance to the rationalization of the power-knowledge typical of Modernity, described by Foucault (Popkewitz, 1998) and applied locally in the school institution. Thus, through digital and spiritual references, the children introduce the virtual into their reality, exploring an illusory intermediate space of subjectivation that is traditionally excluded from the school institution (see Scene 2).

Scene 2: Conversing about virtual characters and creating bonds of trust

Afterwards it attracts my attention that the children beside me don't pay attention to the speech, they remain silent for the necessary time but they don't care what was said, they go back to their previous conversations. We have started a conversation about their cartoons, because this time I started asking them more about what they were. So they explained to me that these cartoons are from an

animated show called "Bajoterra" and that it's a series with five elementals and there's a movie too. They talk about the number of elementals, whether one of them is elemental or not. One of them is also Maximilian, the boy with Asperger's who's always sitting with Jason. I've never interacted with him and today, as if by magic, when I asked my first question about this cartoon, he turned around and started participating. In fact, that opened up contact that lasted throughout the day. All it took was to ask and take a minute to be interested in his focus of interest. Then they change cartoons and tell me that these are from Pokemon. They ask each other some standard questions: "What's the weakness of the guy... (fire for example)?", Then they have a discussion, one says something, the other says something else, and they argue about the reason why. In the case of fire, for example, their weaknesses would be water and earth. I also discuss this, but they make up guys I don't know, so it's still difficult for me, but I begin to understand their logic. I write it down in my notebook in front of them and they realize and say that I'm writing about them, and I tell them, of course, I'm writing down what they're telling me because I don't know about it and I'm interested (…)

Maximiliano totally changed his attitude toward me after the story about the cartoons (and) now he looks at me, talks to me, asks me questions. He became open to a relationship with me (…) Maximiliano asks me questions several times and asks me for help, so I help him a few times but I also tell him to ask the assistant, because I really don't know and it's not my job. Then he looks at me and says "no," "I'm shy." So I help him, and I say "Miss Mireya, Maximiliano wants to say something to you." He looks at me with a scared face and in the end he dares to say "I finished, Miss." (Field Journal, 04/20/2017)

In this field scene, the researcher shows interest in the children's conversations about their virtual universe, generating a space for exchange and imagination outside the school activity. We can observe how the act of interacting with respect to the digital culture of children allows us to communicate, establish relationships of trust, and then bring children closer to school knowledge.

We also highlight two examples where children use pieces of digital culture to absorb the actual in the virtual: "Blue Whale" and "The Walrus" (see scene 3). They are actual elements—information or artistic videos—disseminated through digital culture media, which assume a virtual nature for the children. That is, they are not left outside them in the outside world, but are partially incorporated by the children into their inner world. For the children, the virtual world seems much more relevant and central than the current world, possibly because of its evasive nature, as mentioned previously, which allows them to escape everyday reality, which is often painful.

The case of "Blue Whale" is impactful because it was mediated by a teacher who includes it in her class, telling the students that *the devil created games to destroy children and their families."* It thus serves its own religious discourse—that is, virtual—instead of mentioning it as an actual fact, a manipulation that has led a number of adolescents to their deaths and which was condemned by law authorities[1]. So, the children absorb an actualized reality in their virtual universe, confusing it and making it a part of their transitional space, not entirely outside, nor entirely inside.

Scene 3: Playing with fear

Before we go to lunch, I notice the girls, who are talking about a horror doll and I make out that I do an impression of it too, doing the same thing I see them doing. Then they start screaming and pretend to be scared of me, pretending that I'm the evil doll "the Walrus." At first I see that Diana is very scared, so when they ask me to do it again, I tell them that I'm not going to do it, that

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1. "Blue Whale" is an online game that circulated between 2015 and 2017 approximately, until the party responsible was arrested. The rules of the game included self-mutilation and even suicide.

Diana's afraid, that she's going to have nightmares. But Diana tells me no, it's fine, I should do it again. Now I look for it on the internet and I understand that it's a YouTube video that it's not a doll but a transvestite with polio who danced and sang, but there was a video and a whole story related to that. Afterwards they asked me to pretend to be the Walrus all the time, and even when I didn't do it, they started screaming and acting scared and hiding, looking at me as if I were that evil figure. It made me laugh a little but it started to bother me, because it had nothing to do with what I did and was exaggerated. Later in the classroom, once again they come up to me to play around with that doll thing again, so I tell them not to be afraid of me, and Diana rushes to hug me and tells me that I'm not the Walrus. It's the first time she's hugged me, I hug her back and I tell her that she finally hugged me and that I don't like her to be afraid of me. So afterwards she looks at me again and I show her what it would be like if I was afraid of her, and I tell her that it's not nice, that I don't like them to be scared of me. It seems like she understands me, like she understands when I show her what you feel like when someone else is afraid of you and I show her in that way. (Field Journal, 10/05/2017)

In this scene we can see how the relationship between the researcher and the children is built, based on their centers of interest, penetrating those intermediate spaces of the game without rules. For Diana, who is a very restless, fragile, damaged, and sensitive girl, this exchange allows her to explore the emotion of fear in a protected way, in order to be able to open up a space of trust with the researcher. This is where the two can be found, separately, producing a self that is separate from the other, and thus subjectivize themselves (Winnicott, 1971/1975).

In the fieldwork process, the virtual universe is formed for the children as a type of resistance to and evasion from the rationality of the school institution and the actuality of their daily lives. The virtual thus becomes a space of shared illusion that allows them to discover their emotionality and subjectivize themselves. The digital culture is thus comprised as a transitional object, which provides different pieces that are used by the children to address their inner world and share it with adults.

Possibilities and limitations in the use of digital culture

As we observe in the data produced, the children mobilize cultural references that come from virtual and digital universes, whether fictional characters or figures from television, to locate themselves in a space of globalized knowledge. They thus incorporate characters from videogames, anime, series, videos, and singers or television actors, components of the digital culture produced by the mass media. These allusions serve to characterize their statements, to mobilize common points of reference that they share with each other. This universe also shapes their projections for the future, insofar as they play at imitating those characters from videos and television and imagine choosing those professions: singer, dancer, model, actress, veterinarian, autopsy nurse. The image of the workshops is thus used by several children to refer to the world of entertainment or the virtual universe and its richness during the group interviews (see Figure 4).

Figure 4. School workshops as cultural references. Children's productions.

On several occasions it is surprising that the children make no distinction between the actual (the concrete) and the virtual (the future), as Deleuze understands (1968). On the one hand it can be understood as a potentiality, where the adventures that exist in videogames are totally real, particularly when they state that they are upset, they hit each other, and are betrayed, just as they do during the interview or in their daily exchanges. In that sense, the virtual is undoubtedly part of the real, with its multiplicity of possibilities (Deleuze, 1968). This would be a mobilizing force, an interstice that simultaneously relates and separates the before and the after (Vitali Rosati, 2012).

On the other hand, this can also be analyzed as a limitation, when the virtual universe, with its "viral videos" such as the "Blue Whale" or "the Walrus", as mentioned above, generate a space of confused globalized knowledge. These are legitimized and disseminated on the basis of a cultural authority that rests on the criterion of popularity, without that guaranteeing a "democratic expansion of different and plural voices" (Dussel, 2014, p.13). The children take on many elements of globalized digital culture without questioning them. For example, the mediated idea of "karma" from the Hindu religion is mentioned in several interviews as an argument that they adopt and repeat, sometimes confusing it with "calm." Similarly, for certain children, everything that comes from the internet is actual, that is, concrete, since it is not considered fictional video. These videos are not interpreted as artistic productions, but as a record of actual events. So it is with the character of "Jeff the killer", who kills his whole family, and with the autopsy nurse, who opens up corpses.

Above all, according to Dussel (2014), the new visual regimes create a rupture in the distance that previously existed between the spectator and the spectacle. They produce a confusion that questions the possibility of subjectivizing oneself separately from the other, as Winnicottian theory postulates. The screens generate "fusional and confusional effects" (Dussel, 2009, p.191), which, according to French analyst Marie-José Mondzain, as cited by Dussel (2009), constitute a "systematic violation of distance", exercising emotional violence (p.191). These devices "scramble, either voluntarily or not, the distinction of spaces and bodies to produce a confusing continuum where every chance of otherness is erased" (Mondzain, 2002, cited by Dussel, 2009, p.191). The necessary separation between the internal world and the external world, between the self and the other, is threatened by the new digital culture, which makes the virtual universe an unlimited extension, as the only possible reality.

Digital culture therefore constitutes an important source of knowledge for children within a globalized virtual space. We can see this in their visual productions during the interviews, how several children incorporate knowledge of the digital culture to subjectivize themselves (see Figure 5).
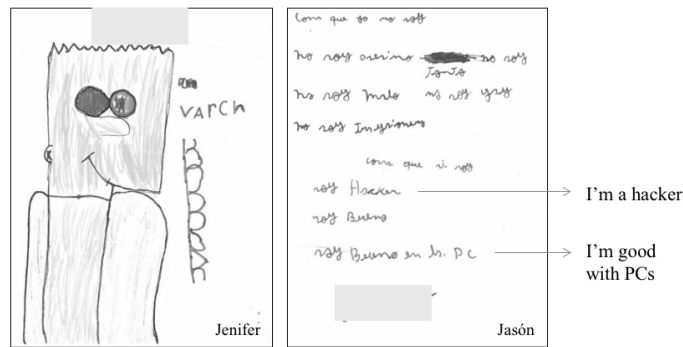
Figure 5. Subjectivity through knowledge of digital culture. Children's productions.

However, these child subjectivations that use digital culture as a limiting reference can also be questioned. For example, in this case Delia represents herself with a broken heart and a plaster on her leg, hurt and in pain, but she still has to be "thebest.com". Or Ishmael, who after being prohibited from talking about his family that he was drawing (Armijo Cabrera, 2019), turns over his sheet of paper, recovers his representation of himself and asks a partner to draw him a Pikachu, a shared character from digital culture that is more consensual (see Figure 6).
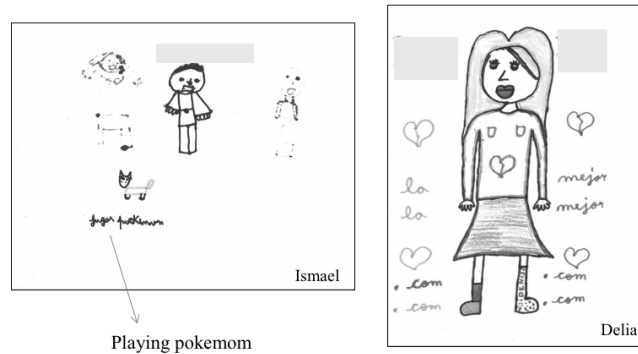

Figure 6. Digital cultural as a limiting reference. Children's productions.

The digital culture thus becomes an object of consumption rather than an object of creation and production of new knowledge, as offered by this new regime of knowledge that rests on the idea of the "prosumer." In these examples of anti-portraits, the children use virtual references to avoid their difficulties or concerns, presenting a more superficial common language. On the other hand, the creation would enable them to really explore the field of the virtual to produce themselves as an active subject in their own process of subjectivation. In particular, Deleuze introduces the notion of "possible" to talk about art, which does not actualize the virtual, but does embody it, operating in the field of sensations and the body, inventing new possibilities of existence (Bogue, 2007). In that sense, cultural productions are here considered to be extensions of the virtual, different from the actual. The digital culture offers these possibilities for creation, but in the data produced it is instead used as an object of consumption, without this creative and transformative dimension being implemented for subjectivations.

Dussel and Quevedo (2010) recall that "the school space was always inconsistent with the socialization experiences that young people have experienced" (p.66). However, these new sensory experiences offered by the digital culture shape their perception of reality, their link with temporality, as well as their concept of knowledge. In that regard, adult mediation seems more essential than ever, because of the complexity of the digital universe, as well as the new knowledge regimes it introduces.

Conclusions and Discussion

This research work demonstrates the centrality of virtuality and digital culture in the processes of social inclusion/exclusion of children. The digital culture allows the field of the real to be extended to the virtual universe mediated by the mass media. It affects the modes of child subjectivation and their ways of learning. These qualitative findings are associated with the students at the Estrella school, characterized by their context of poverty. They provide elements of reflection for wide-ranging discussion regarding the use of digital technologies at school and contemporary transformations in ways of teaching and learning.

In recent years, two main lines of research have been conducted in relation to virtuality: studies focused on the changes generated by the introduction of new digital technologies in education, both at school and university or professional (Hechavarría, Tamayo & de la Cruz, 2018; Annessi & Demirta, 2019; Martínez Ortega, Subías & Cassany, 2016; Melo-Solarte & Díaz, 2018; Ribeiro, Godoy, Neto & de Souza-Filho, 2018; Sun, Wang & Liu, 2017; Welschinger, 2019; Ballesta & Céspedes, 2016); and studies focused on the experiences of young people with digital technologies, in and outside the school, both as creators of knowledge and generators of violence (Ames, 2016; Morales-Barrera, 2018; Odetti & Valentinuz, 2017; Pereira, Brito, Batista, Gondim, & Bezerra, 2018). This study extends the discussion regarding virtuality, incorporating the analysis of digital culture in this emotional and unconscious dimension of children's experience. The findings of this research also specifically go more deeply into a context of poverty.

The study shows that children's experiences in the digital universe are collective and participatory. They introduce their own languages and references that shape their relationships with peers and their ways of representing themselves. We also observe that children have difficulty in distinguishing the actual from the virtual. The children incorporate virtual references mediated by digital culture and mass communication into their subjectivations without discriminating between fictional or artistic productions, which are displayed on a virtual plane, and informative news that refer to the current actual world. Through videos seen on the internet, children are integrated into a globalized space for knowledge production that is seen to be very complex. According to Inés Dussel (2014), in these new contemporary visual regimes, the spectator can be confused with the spectacle, creating a rupture in the distance that existed in previous regimes, where the images that were circulated had an identifiable origin. The new digital culture thus transforms the relationship with knowledge, which is no longer mediated solely by the teacher at the school, and this generates a high level of physical and emotional involvement, which also creates confusion between the virtual and the actual (Dussel & Quevedo, 2010). From this perspective, this confusion that exists in the new digital culture may stress the possibility of subjectivizing oneself based on the separation from the other, as Winnicottian theory assumes.

Moreover, considering this culture as a transitional object to integrate the virtual dimension into the real, we can question whether this is the only object that enables children to move towards the virtual. Where are the stories? Where are the books, the music, or other non-digital forms of art? Digital culture becomes an object of consumption rather than an object of creation. It seems particularly necessary to distance oneself from the sterile debate between those who promote the use of the internet at school and the conservatives who reject it.

Thinking about digital culture as *a* culture and as a transitional *object*, allows us to open the debate and propose creative devices that also incorporate other forms of virtual experience, particularly the imaginary and spirituality, which seem to be central to children's experiences.

By way of recommendation for the educational system and particularly for teachers, it is considered essential to expand reflection on the use of digital technologies at school. Digital culture is a very powerful culture, mediated by more or less complex technological devices, which invades contemporary virtual universes. However, virtual space has immense potential for learning, which goes beyond digital culture. Children are interested in the digital culture because of the materiality and support it provides to the virtual experience as a transitional object. However, their virtual experience is highly varied and serves to create bonds of trust with adults, which can facilitate their relationship with school knowledge. It is considered necessary to broaden the notion of virtuality and use all of its potential, both digital and non-digital. It is also essential to accompany the children in their exploration, to help them distinguish the virtual experience from the actual experience, and, above all, to learn how to orient themselves among the multitudes of information of various kinds that constitute the digital culture. In contexts of poverty such as the one studied, this work seems even more relevant, due to the socioeconomic and, therefore, emotional fragility that characterizes these families.

The virtual space seems to be essential for child subjectivations and should not be considered a negative or threatening aspect for the school, but rather as a "potential space" to bring children closer to school knowledge (Dussel, 2014; Winnicott, 1971/1975). This depends on their exclusive mediation by digital technologies or their mediation by the adult other, through the inclusion of virtuality—whether digital or not—in the intermediate space of communication or the "transitional area" (Winnicott, 1971/1975).

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