

SCHOOL CULTURE RECONTEXTUALIZING THE INTEGRATION OF *DICT* IN THE CURRICULUM

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ABSTRACT

The school context is constantly pressured by social demands, delimited by policies and by social perceptions about the role of the school in today's society. Among the main demands, the integration of digital technologies in practices and in the curriculum appears with great emphasis in policies and educational debates. However, it is at school that expectations and Digital Information and Communication Technologies (DICT) are reconfigured and recontextualized. This article is an excerpt from a larger research and in it we aim to analyze how teachers redefine the possibilities of DICT in the curriculum from the school culture. From the statements of teachers and managers of four public schools in the state of Santa Catarina, the following categories emerged: (i) Infrastructure impacts on the integration of DICT into the school curriculum; (ii) School policies for the integration of DICT; (iii) Experiences of the school collective with DICT integration; (iv) DICT Pedagogical potentialities envisioned by the school collective for its context. The significant differences that each school presented in their contexts, especially in relation to infrastructure management, reflect how they reframe the use of DICT and integrate them into the curriculum.

KEYWORDS: School culture; DICT; Curriculum; Pedagogical practice.

A CULTURA DA ESCOLA RECONTEXTUALIZANDO A INTEGRAÇÃO DAS TDIC NO CURRÍCULO

RESUMO

O contexto escolar é constantemente pressionado pelas demandas sociais, delimitado pelas políticas e pelas percepções sociais acerca da função da escola na sociedade atual. Dentre as principais demandas, a integração de tecnologias nas práticas e nos currículos aparece com grande ênfase nas políticas e nas discussões. No entanto, é no chão da escola, que as expectativas e as próprias Tecnologias Digitais de Informação e Comunicação (TDIC) são reconfiguradas e recontextualizadas. Este artigo é um recorte de uma pesquisa maior e nele temos por objetivo analisar como os professores

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ressignificam as possibilidades das TDIC no currículo a partir da cultura da escola. A partir das falas de professores e gestores de quatro escolas públicas do estado de Santa Catarina, emergiram as seguintes categorias de análise: (i) Infraestrutura local e seus impactos na integração de TDIC ao currículo da escola; (ii) Políticas da gestão da escola para a integração das TDIC; (iii) Experiências do coletivo da escola com integração de TDIC; (iv) Potencialidades pedagógicas das TDIC vislumbradas pelo coletivo da escola para seu contexto. As diferenças significativas que cada escola apresentou em seus contextos, especialmente na relação da gestão de infraestrutura, refletem em como elas ressignificam o uso das TDIC e as integram ao currículo.

PALAVRAS-CHAVE: *Cultura da escola; TDIC; Currículo; Prática pedagógica.*

CULTURA ESCOLAR RECONTEXTUALIZANDO LA INTEGRACIÓN DE TDIC EN EL CURRÍCULO

RESUMEN

El contexto escolar está constantemente siendo presionado por las demandas sociales, delimitadas por políticas y percepciones sociales sobre el papel de la escuela en la sociedad actual. Entre las principales demandas, la integración de tecnologías a las prácticas pedagógicas y curriculum aparece con gran énfasis en políticas y debates. Sin embargo, es en el ámbito escolar donde las expectativas y las Tecnologías Digitales de Información y Comunicación (TDIC) se reconfiguran y recontextualizan. El presente artículo es una muestra de una investigación más amplia cuyo objetivo es analizar como los maestros ressignifican las posibilidades de TDIC en el curriculum a partir de la cultura de cada escuela. Teniendo en cuenta la opinión de maestros y directores de cuatro escuelas públicas en el Estado de Santa Catarina, surgieron las siguientes categorías de análisis: (i) Infraestructura local y sus impactos en la integración de TDIC en el currículo escolar; (ii) Políticas de gestión escolar para la integración de TDIC; (iii) Experiencias del colectivo escolar con integración de TDIC; (iv) Las posibilidades pedagógicas de TDIC vislumbradas por el colectivo escolar para su contexto. Las diferencias significativas que cada escuela presentó en sus contextos, especialmente en relación a la gestión de infraestructura, reflejan como la escuela ressignifica el uso de las TDIC y las integran en el curriculum.

PALABRAS CLAVE: *Cultura de la escuela; TDIC; Currículum; Práctica pedagógica.*

1 INTRODUCTION

The school context is constantly pressured by social demands and delimited by public policies that derive from social perceptions about the role of the school in society. Among the current demands, the integration of digital information and communication technologies (DICT) in practices and in the curriculum appears with great emphasis on official texts and discussions about the necessary reformulations of this space. Currently, DICT represents a set of educational resources with pedagogical potential defended by specialists from the most diverse areas as new means to enhance the learning of school contents (PACHECO, 1996; ALMEIDA; VALENTE, 2012). However, DICT is still little explored, considering its potential and possibilities for the teaching and learning processes.

We start from the assumption that one of the factors that distances the school from technologies is due to the fact that technological “solutions” are commonly associated with contexts outside the school environment, as ready and formatted packages, based on an exogenous conception, which always respond to the desires and pedagogical needs of that community. It is on the school that these expectations and the DICT are reconfigured and recontextualized for an appropriation based on the needs and possibilities of their collectives. The school is at a crossroads, because at the same time it recognizes that “there is a strong relationship with the media and information, causing changes in the relationships of young people with their environment, with other people and with themselves” (LIBÂNEO, 2006, p. 34) is distanced from the critical appropriation of technologies by its subjects. We believe that the integration of DICT in the curriculum, often, disregards the “footprints” left on the “school floor”, especially the culture, built by the school subjects.

However, when the DICT integration proposals consider the school culture based on it and develop alternatives along with it, we create a powerful work channel, because "assuming these transformations, the school can interact with new forms of citizen participation that the new communicational environment opens to Education today” (MARTÍN-BARBERO, 2002, p. 7).

In this sense, the objective of this article is to analyze how the school culture expressed by the collectives of teachers and managers in 4 public schools in the city of Florianópolis - SC reframe the possibilities of inserting the DICTS in the curriculum.

2 CURRICULUM AND DICT

The discussion of curriculum is broad and complex. We understand that it is a field permeated by disputes of interests and power. We start from the understanding of curriculum as a social practice that encompasses contents, methods, procedures, cultural instruments, previous experiences and activities. Thus, it consists of a means of cultural and social reproduction, an instrument of power and resistance, which contains an ideology (GIMENO SACRISTÁN, 1999). With that, we understand the curriculum as an element that is not neutral, constituting itself as:

[...]a link between culture and society outside of school and education; between inherited knowledge and culture and student learning; between

theory (ideas, assumptions and aspirations) and possible practice, given certain conditions (GIMENO SACRISTÁN, 1999, p. 61).

In this sense, the curriculum can be permeated by DICT, integrating media tools and interfaces organized through social networks and hypertextuality into the school routine, consolidating what has been coined by Almeida (2014) as a web curriculum. According to the author to correspond to the characteristics of Web 2.0, a web curriculum needs to encourage some aspects, such as: collaboration and authorship; active participation, open from the bottom up through interaction; continuous production, reproduction and transformation of materials for the use and the reuse of contents; content opening, copyright waiver, distributed authorship; awareness of the characteristic of non-completion of the activity; development in the scope of the Internet, or with the use of resources and activities mediated by the Web. (ALMEIDA; ASSIS, 2011).

We understand that the integration of DICT into the curriculum is a process that cannot be separated from its subjects and contexts, where teachers play the role on the characteristics that technologies assumed in the educational process (SELWYN, 2011; ESPÍNDOLA; GIANNELLA, 2018). For this reason, the elements that make up the school's culture have a great influence on the redefinition of the use of DICT in school contexts, since the school has the capacity to reinterpret and adapt the elements that make up a globalized culture, as an idiosyncratic institution.

We understand that talking about the curriculum and integration of DICT "is much more complex and fundamental and constitutes integrating technology into the curriculum in a truly innovative pedagogical project, identifying the pedagogical potential that is capable of favoring the students' learning" (CERNY; BÚRIGO; TOSATTI, p. 346). However, even if we have innovative projects and policies for integrating DICT into the curriculum, they are developed in a different way in schools, as each school unit has its own culture – the school culture - which surrounds each unit and gives it its own characteristics. We will bring this discussion into the next topic, constituting itself as the central reference for the analysis of the present research.

3 SCHOOL CULTURE

The school culture is the result of the amalgamation of three dimensions: school culture and education management policies; the local culture and the subjectivity dimension of the

subjects that integrate the school routine (SOUSA; CERNY; CARDOSO, 2010). In order to understand the concept of the culture of the school, we first entered the concept of school culture.

Talking about the culture of school and the school culture is something that transcends the walls of the school. Based in Forquin (1993, p. 14), we understand that “culture is the substantial content of education (...)” and that this relationship is reciprocal, culture is transmitted and perpetuated through education. In this sense, “the school is an institution historically built in the context of modernity, (...) with a fundamental social function: transmitting culture, offering the new generations the cultural assets of humanity” (MOREIRA; CANDAU, 2003, p. 160). Thus, we understand that school education is responsible for building the values of society. From this notion, we understand the potential of the school as a producer and transmitter of culture and thus the context of school culture as being an institutional culture of the school (CARVALHO, 2006).

In Forquin (1993) we can understand the concept of school culture as a: “set of cognitive and symbolic contents that if selected, organized, 'normalized', 'routinized', under the effect of didactic imperatives, are usually the object of a deliberated transmission in the context of schools”. (FORQUIN, 1993, p. 167). The researcher Viñao-Frago (2000) points out that the subjects and their practices are structuring for the constitution of the school culture. In this sense, “the speeches, forms of communication and languages present in the school routine, constitute a fundamental aspect of their culture” (SILVA, 2006, p. 204). The school culture is a set of “characteristics of its own life, its rhythms and rites, its language, its imaginary, its own ways of regulation and transgression, its own regime of symbols production and management” (FORQUIN, 1993, p. 167). It is important to “understand how the relationships where the differences are built operate as part of a set of social, political and cultural practices” (GIROUX, 1992, p. 74-78).

We recognize, therefore, that there is a global homogeneous school culture, with a determined concern about DICT and its processes, there is a cultural, contextualized place, which reframes the concepts and practices in the school's daily life. You can talk, for example, showing your own culture, without the scope of the School and the Educational System, which shows a whole set of practices, values and beliefs, shared by all those who interact in its field.

If the culture of the school and school culture strongly circumvents school spaces, how has digital culture restructured its practices and actions?

There is a consensus among researchers about the changes caused by digital culture, influencing our ways of interacting, relating, living and, in particular, our relationship with information (SIBILIA, 2012; PÉREZ-GÓMEZ, 2015; SANTAELLA, 2013). In this scenario, the school is pressured to modify its practices, integrating DICT into the curriculum, with the challenge of using the enormous potential of the tools, as an object of study and a means of expression (BÉVORT; BELLONI, 2009). Therefore, breaking with school cultures that favor banking education (FREIRE, 1974) is the most promising and necessary way, otherwise the enormous potential of digital media may not be realized if “only technologies are considered, instead of forms of culture and communication” (BUCKINGHAM, 2008).

4 METHODOLOGY

We adopted a qualitative approach because we understand that it aims to apprehend a dimension of social reality that cannot be quantified - such as beliefs, aspirations, values and attitudes - as well as seeks to give importance to the meanings attributed by people to the things in life (ALMEIDA; SILVA, 2011). As Denzin and Lincoln (2006, p. 23) point out, "qualitative researchers emphasize the socially constructed nature of reality, the researcher's intimate relationship and what is studied, and the situational limitations that influence research".

For this, we use the qualitative research cycle to approach the symbolic and cultural specificities of the human universe. This cycle consists of the following moments: (1) exploratory phase (previous and preparatory to enter the field); (2) fieldwork; (3) analysis and treatment of empirical and documentary material (MINAYO, 2010, p. 26).

To achieve the goal of this article, we conducted a survey with four public schools in the city of Florianópolis, in the state of Santa Catarina, between the years 2017-2019. The criteria for choosing schools were; the IDEB score; sociocultural characterization; the geographic location and size of the school (number of students). The participating schools were: RSE1, located in the Center of Florianópolis, with the grade 6.3 in IDEB. The school had 388 students by the time before the study. The second school, identified as RSE2, is located in the Ribeirão da Ilha district, south of Florianópolis, with a score of 5.2 in IDEB. The school has 392 students. The third school, identified with the acronym RSE3, is located in the Monte Cristo neighborhood, in the Continental region of Florianópolis, has a score of 4.2 in IDEB. The school has 443 students. The fourth and last school, identified with the acronym RSE4, is located in

the neighborhood of Rio Vermelho, in the northern region of Florianópolis, and had the grade 4.8 at IDEB (year 2015). The school currently attends 1164 students.

In each school we conducted a Collective Interview (EC) (KRAMER, 2007). In EC, the researcher assumes the role of an interviewer, but he is not the only one who can lead the questions. This is a differentiator of this data collection methodology. This methodology proves to be interesting in the field of research, for “in collective interviews, people were more spontaneous, asking questions for each other, therefore changing places, and assuming what the role of the interviewer would be” (KRAMER, p.73).

In total, 57 teachers and 4 managers participated in the study, which we identified with acronyms to maintain the anonymity of the participants. The identification acronyms are organized by: a) region, b) school, c) individual identification number of each school and d) of each professor, followed by the year of this research action.

The data of the present study are reports obtained through collective interviews, conducted from the following questions: How is the integration of DICT in the curriculum of this school constituted? And how does the school community make use of digital educational resources in their daily practice? From these broader questions, other questions were raised: How do you learn using digital technology? How does your student learn using digital technology?

The registration of the press conference took place through photography, audio, video, which went through a transcription and treatment process and were subsequently analyzed based on thematic content analysis (BARDIN, 2011; MINAYO, 2002). We followed some stages of organization and analysis of the collected materials, such as: a) pre-analysis, b) exploration of the material, c) treatment of the results, inferences and interpretation.

Looking towards the relations of the school culture and the integration of DICT in each school context, the analysis of the teachers and managers speeches of the participating schools brought out the following categories: (i) Local infrastructure and its impacts on the integration of DICT to the school curriculum; (ii) School management policies for the integration of DICT; (iii) Experiences of the school collective with DICT integration; (iv) The pedagogical potentialities of DICT envisioned by the school collective for its context. We chose to present the categories of each school, as they are linked to each context and to each other in trying to understand the relationship between the school's culture and the integration of DICT in the curriculum they institute.

5 SCHOOL CULTURE AND RESIGNIFICATION OF THE USES OF DICT

The four participating schools presented different contexts with fundamental specificities to understand the recontextualization of DICT operated by their collectives. The RSE1 school is one of the oldest schools in Santa Catarina, founded in 1912. Located in the central region of Florianópolis, its building is considered a historical-cultural heritage of the city, having in its old architecture one of the characteristics that makes it different from other schools in the city region. The infrastructure for working with technologies is scarce, there are only two projectors (one in the video room and the other in the old computer room that has been disabled). There are no available computers for the students to use.

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At this school, teachers understand that the lack of DICT resources is a challenge, but there is also a lack of human resources for the maintenance of the equipment, revealing that the hiring of school professionals remains in the same mold, disregarding the entry of DICT. In this school, we had many speeches related to the local infrastructure and its impacts on the integration of DICT in the school curriculum. The statements can be considered as a report of the problems they face:

[...] the school lacks equipment [...] I brought the notebook two days, the teachers saw it. Why? Because it doesn't have. And to fix [the school computer] when it breaks it is another big difficulty that we go through [...] I work in orientation and coordination, I am a pedagogical technical assistant. And we don't even have a computer in my office (RSE1P10, 2017, emphasis added).

Our school lacks so much things, that it is unbelievable that this school is in the center of the capital. I was terrified when I got here. [...] it is such a neglect

that it seems that you have to walk forty kilometers of dirt road to get to CSR1. Because nobody ever sees CSR1, right? (RSE1P3, 2017, emphasis added).

The mobile devices of each student or teacher seem to be the most available DICT in RSE1, however, in school management policies for the integration of DICT there is no consensus on the use of cell phones in teaching practices.

Given this reality, as few Experiences of the school collective with the integration of DICT are teachers who, individually, use the cell phone or classroom with students to conduct research, among other activities, related to the possibilities of the web for expanded access to information (ALMEIDA; ASSIS, 2011).

I use it a lot in my foreign language class too. I have some paper dictionaries, I take them, but our paper dictionaries are quite out of touch. So I let them use their cell phone too. [...] **over time they realized that it was so much more streamlined, that they could access so many things** [...] I just don't harm those who don't, right? (RSE1P3, 2017, emphasis added)

I use it for research, I use it in my class (I allow it because it's an art class), so I let them listen to music, sometimes with a headset (RSE1P5, 2017).

The use of the cell phone is in the contemporary context of the students, which allows them to see the potentials spontaneously, as when they mobilized to solve a problem related to the speed of the internet, presenting a momentary solution:

Once I showed them a video using the network, Then it was so slow, **so slow that a student said “teacher, let's use my cell phone as a router”** and so we did. Then it was faster than the internet [...] the internet of his cell phone (which we know is a little slow), worked better, than the school's internet (RSE1P5R, 2017, emphasis added).

Here we can go back to Giroux to “understand how the relationships in which differences are built operate as part of a set of social, political and cultural practices” (GIROUX, 1992, p. 74-78). Teachers need to make decisions that go beyond what is agreed in the school environment and create alternatives given the contexts they experience.

The RSE2 school is located in the Continental area of the city of Florianópolis, in a neighborhood of families in poverty and social vulnerability situations. The institution is permeated by social and community projects. The projects make the collective feasible and generate a space for socializing and exchanging by the people involved, favoring integration with the community. Poverty is a reality for the collective of this school and many children depend on the institution to feed themselves. This issue constitutes a priority for the school

management, directing an employee of the secretariat to work on filling in management systems to make possible the children's nutrition.

Regarding the local infrastructure and its impacts on the integration of DICT in the school curriculum, the conditions of DICT use are similar to the RSE1 school, however, there is a computer room with about 15 computers, two projectors and a video room. . The community provided access to the internet in the computer room and in the secretariat through network cabling, carried out by the volunteer work of a professional with the support of the Association of Parents and Teachers (APP). Therefore, we realized that this school builds an experience based on the solidarity of the school community.

In addition to the network access, the availability of computers seems to be a challenge for teachers and students at this school:

Usually I bring my notebook inside the school, download the videos at home and bring them here, because we rarely have access to the [computer] room, and when we do, there are few computers (RSE2P02, 2017).

With regard to School management policies for DICT integration, there is an expressive conflict in the organization of the use of the computer room, at RSE2 school which together with the video room are the only spaces available for the use of computers and projection, as expressed in the RSE2P4 speech:

Unfortunately here due to the project [More Education project of the Federal Government] and other factors, I do not use the computer room, because we do not have available time for that (RSE2P4, 2019).

In view of the unavailability of machines, the use of cell phones is also a topic of discussion, a contemporary issue for many school institutions, however we realized that the inclusion of the theme in the curriculum is a complex challenge for this group:

And it is a consensus of everyone, right? A consensus of students, teachers and the board itself. It also needs to help us in this regard. Because otherwise we end up getting into some bad situations, us the teachers having to deal with it [the use of cell phones]. In the PPP we are trying to make this [better defined], but putting it into words; is a very difficult thing (RSE2P3, 2017).

The absence of these definitions does not prevent the Experiences of the School collective with the DICT integration to occur, based on the use of cell phones and their potential in some teachers' classes:

Sometimes I'm talking about something and the name of a molecule of a certain structure escapes the mind, right? So it happened that one of my students said: 'wait a minute, teacher'. **The student goes there, picks up his own cell phone and searches on Google 'hey teacher the name you are trying to remember is....** 'Great'. So, I mean, they appropriate this right of using the cell phone in the classroom, but it need to be in the appropriate way, right? (RSE2P1, 2017, emphasis added).

We understand that through direct student access to various sources of information, the school incorporates a more horizontal relationship between teacher and student, which is one the web 2.0 characteristics for the construction of a web curriculum (ALMEIDA; ASSIS, 2011). And yet, in relation to the DICT pedagogical Potentialities envisioned by the school collective for its context, the teachers emphasize the cell phone as a technology with a pedagogical potential to bring the school closer to the student, through a less hierarchical relationship and also by the communicative potential of DICT (ALMEIDA; ASSIS, 2011) with the use the WhatsApp use as a tool that makes it possible to get closer to the family, a striking characteristic of this school community:

[the] best thing that has recently emerged is the parents communication through WhatsApp groups. **So I always create a WhatsApp group in my classes and communicate with the students' parents** (RSE2P2, 2017, emphasis added).

With all the challenges faced by this school, there is still little room to think about integrating DICT into the formal curriculum and this practice appears in isolation in the experience of some teachers in addressing the specific contents of their disciplines. This does not mean that the school does not integrate DICT into their daily lives: the collective organizes itself to integrate the management tools that guarantee students nutrition and use social media for greater integration with families and for the dissemination of developed projects, seeking to overcome the most urgent challenges of this school community. We perceived a great influence of the community in which the school is inserted, from which it receives the concrete social demands and the flow of culture in the way of overcoming challenges and problems (FALSARELLA, 2018). We also found that the DICT integration into the curriculum is a process that does not happen apart from its subjects and contexts and these are the ones that influence the technologies characteristics assumed in the educational process (SELWYN, 2011; ESPÍNDOLA; GIANNELLA, 2018).

The RSE3 school is located in a fishing district in the south of Florianópolis. Frequented

by families from its surroundings, the school has a community atmosphere, with active participation of the APP that was presented in a commission for the school restoration that started in 2017. Due to this fact, the computer room was momentarily disabled and the internet access progressively expanded to the ambient rooms of the specific subjects (there are 5 ambient rooms, and the internet works in two of them). It is worth mentioning that it the APP was in charge of providing the network cabling to enable the DICT use in the classrooms with wider access, so the challenges of integrating technologies became more expressive.

No que condiz à **Infraestrutura local e seus impactos na integração de TDIC ao currículo da escola**, o coletivo de RSE2 manifestou descontentamento com as condições oferecidas para o trabalho com as tecnologias e também a necessidade de formação para o trabalho com TDIC:

Regarding the **local infrastructure and its impacts on the DICT integration into the school curriculum**, the RSE2 collective expressed dissatisfaction with the offered conditions for working with technologies and also with the need for training:

[...] one of its difficulties is: the internet speed for accessing, and downloading content (RSE3P17, 2017).

Work with researcher the training. This is the biggest difficulty. This difficulty makes the work time-consuming, because [...] many teachers do not know where to go [websites, platforms], how to make the selection [of resources, teaching materials], how to filter [these materials] (RSE3G1, 2017).

When it comes to **School management policies for the DICT integration**, as it happens in other schools, the use of cell phones, is a conflicting issue that is most prominently expressed in the teachers speech according to the school managers:

Yesterday in the PPP discussion of the *PPP* adjustments and norms, **it was agreed among the group that the use of the cell phone will be allowed in the classroom, but as directed use**. When the teacher needs this tool to facilitate a methodology, a class, it can be used by students, as long as an agreement is made with students [...] RSE3G1, 2017, emphasis added).

But we can discuss this later, **because I think that the teacher's autonomy has to remain**, even because we have control whether we are using it in an improper way or not (RSE3P1, 2017, emphasis added).

Professor, of course we want to guarantee your autonomy. But if it arises any problem concerning the cellphone use, it is much easier to help and defend you, when we are aware of who was using it at the time. My question is not to control who uses and who does not use it, my question is to be able to defend

you, justify, right, answer the questions or any kind of speech that may be mistaken [about this use] (RSE3G1, 2017, emphasis added).

As in the RSE2 school, in RSE3 there are no collectively built guidelines on pedagogical work with the use of cell phones. However, we can infer that the use of cell phones constitutes a school culture, as “it is the shared nature of the actions that generates the school culture, and not individual experiences which are not transferred” (FALSARELLA, 2018, p. 623). The experience provided to their subjects through “shared actions produces social patterns (routines, rules, ways of know how) that are used not only at the time of their production, but also in future actions”, as we will discuss later. The school culture is constituted in the daily and collective movement (FALSARELLA, 2018).

From Experiences of the school collective with DICT integration, teachers question themselves about their role as mediators in working with technologies, making it challenging to deal with it in the classroom. The pedagogical challenges for working with DICT rise at the moment finding an appropriate way to mediate the students’ research, which are carried out on the internet, for example:

They generally do not search more than one website or source, they do not know how to read each one individually and put the information together (RSE3P14, 2017).

Because it is useless to indicate a site, if they have no support, right, they may get confused. That idea that you tell them to see the site at home, doesn’t work, because they end up entering a website that was an attachment and this gets them confused. So we need to be together, monitoring them (RSE3P7, 2017).

Another point that stood out in the experiences of the use of technologies by teachers was the search for educational material. Teachers use the network to search for materials of interest for their classes. “I searched the internet. Because we thought about making a projection. But for that, we would need other resources” (RSE3P2, 2017).

With slightly more favored access to the internet compared to CSR1 and CSR2, there is room for autonomy and creativity that reflect on the pedagogical practices with the use of DICT in this school (RSE3) and it was possible to observe the pedagogical Potentialities of the DICT envisioned by the school collective for your context. Supported by school management, teachers allow themselves to experience authentic activities (SUGRUE, 2000) in their classes, in addition to practicing the reflection on the critical reading of digital media among peers and with students, enabling paths for a critical appropriation of DICT by the subjects (BEVÓRT;

BELLONI, 2009).

[...] the internet is a huge door to the world. And it's important for languages too. But then I think like this: it is a door to the world, but we are closing in more and more on this, sometimes. Like each one stays on their cell phones [...] **So there must also be a sensitivity in how I am going to use it** (RSE3P5, 2017, emphasis added).

At that school, the use of DICT to perform activities with interdisciplinary characteristics appeared more intensely, as a result of the articulation of this group. In addition, they incorporate new forms of expression of digital culture (ALMEIDA, ASSIS, 2011).

They produce a lot of videos, play movie scenes, produce an English school newspaper. They adapt everything, the weather forecast, they take the map from the geography room and try describe it. Concerning videos, they make video clips too, we work with literature, [...] **so they make productions with poems, try to link with something that involves art, then it has to be digital too.** (RSE3P1, 2017, emphasis added).

The RSE4 school located in the North of Florianópolis is the second largest public school in this region, attending more than 1000 students in three different shifts. In 2019 the school underwent renovation and expansion of its structure, with eight enlarged rooms, its roof was replaced, in addition to the construction of a multipurpose room, a reading room, guardhouse, covered common areas, new dining room and kitchen. A present challenge in this school is to face the high number of students' absences.

Unlike the previous three schools, this school counts with the work of a specific teacher in the computer room, focusing only on digital technologies. As for digital equipment, the school has 3 projectors, 20 computers in the computer room, 6 computers in other rooms and 114 tablets. The computer room has internet and equipment for up to 20 students for simultaneous use. Even so, the structure is not sufficient to account for the high number of students, which, in addition to contributing to the frustration in the practices with technologies, transfers the responsibility for its infrastructure to the teachers:

At school each teacher has a limit for the internet use, **this was what obligated me to buy my own datashow, so investing this money was something complicated, right, because many people disagree with me doing this, because they think the school has to offer it.** I agree that the school has to offer, but if I didn't buy it, I would have to keep my classes limited (RSE4P5, 2019, emphasis added).

As for School management policies for the DICT integration, in a reality in which teachers have used the technologies more frequently, there is collective reflection on their use, both on the available resources and on the relevance of the computer room.

So we really need the room and the room is been very busy this year. This this year its use started from the first to the fourth year [initial years of elementary school], **so we are having difficulties using the room, not by the teacher, but because there are a lot of students using it** (RSE4P4, 2019, emphasis added).

With regard to the **Experiences of the school collective with DICT integration** the following were mentioned: research on the internet for the planning and preparation of classes, the possibilities that emerge in the online sharing tools, and the experiences encouraged by the school and carried out in the computerized classroom with students:

[...] the internet is a source of research for planning classes. So, I use several internet resources, the different clouds, the digital HD's, then Google Drive, which I think it is a success here, the way we use it (RSE4P5, 2019).

[...] we tried a partnership with the Computerized Room, RSE4P9 [computer room teacher] is essential. We are trying to make students use the Google Classroom feature well. [...] So, in advance, we propose the motivating video there, put the texts, the links there, most of the time, it already has a form there for them to be able to resolve issues (RSE4P4, 2019, emphasis added).

In **Pedagogical Potentialities of DICT envisioned by the school collective for its context**, it is emphasized that the use of cell phones can be rich for pedagogical work, however, it is a subject of intense discussion in pedagogical meetings since teachers agree that they have caused conflicts at school:

[The use of] the smartphone, because currently it, perhaps is a more present digital technological resource in people's lives and at school. It is a challenge and a barrier, because we have already discussed in some pedagogical meetings, how it hinders our practice when students abuse its use. We have already discussed the possibility of taking measures to limit its use, of not being allowing its use, of putting it in a box, during the classes. But that would hinder some practices, as we understand that there are opportunities in the use of the smartphone. [...] And so, I reasonably even use it for communication, but for ^more technological" things, I don't have much knowledge. **So it's non sense, proposing the use of a tool don't know?! I thought the proposal of using podcasts was really cool, but I don't listen to podcasts.** I think this is a limitation for me (RSE4P5, 2019, emphasis added).

The professor recognizes that there are different possibilities of access to the

smartphone, but what prevents its use in the classes, in addition to the vagueness of the policies, is their insecurity in the relationship with the domain of this technology. We also noticed in the teachers' speeches of this school that they see in technology a space of approach and learning with students.

[...] in the same way that I learn [with technology] I believe they have this same relationship, I don't consider myself very different from them. [...] **They feel and also I feel myself included when I learn a new technology** (RSE4P1, 2019, emphasis added).

On the issue of teaching and learning, we have the issue of a job within a real situation of interaction, so, you're in a connected world, okay? For them this is a reality, for me it is still a necessity, because the work of Portuguese language is much more profitable for the production of texts and reading of texts within real situations of interaction. **I think they learn a lot, intuitively, with practices and experiences. For me, I learn a lot from the exchange of students, due to the need of searching for innovation** (RSE4P2, 2019, emphasis added).

Some teachers said that technology brings students closer to the interest in learning, and that this can increase student attendance. We also mentioned research as a pedagogical approach and the role of technology in the school practice:

I start from the research question, first, you know, everything I work on, I start from research, doubts that arise. Then there is motivation for researching, so I always try to research something that will motivate the children, you know. Then, videos, images, texts, books, articles and films, documentaries, experiences (RSE4P3, 2019, emphasis added).

The challenge for this school seems to be precisely how to integrate technologies into their classes, into their curriculum.

But then what is missing is that related to technology [...] suddenly, we consider learning by exploring, not necessarily with digital technology. Learning by doing not necessarily with digital technology (RSE4P2, 2019, emphasis added).

This place that the teacher of the computer room occupies, given that we did not have it in the research with the other schools, because in the state this position was extinguished in 2017, it may be the place of understanding the whole, of the real needs of integration of TDIC that teachers present in their specific disciplines, however, in relation to collective creation.

I see for the students, they are interested and motivated by the result itself, what they present as a result, not only the interaction, but thus, their final

result, the report, the written material, audiovisual material. And then, this too, I provide materials for the teachers, “Ah RSE4P9 [computer room teacher], see an application like this”, or sometimes I don’t even know it, but I go back and search, I think this is the challenge , is to be here always learning (RSE4P9, 2019).

When looking at the reality of the four schools, we emphasize that public policies do not guarantee the minimum necessary infrastructure to build favorable practices with digital technologies. Even in the schools that has more resources to work with DICT (CSR4), these resources are not enough to meet the demand and there is a transfer of responsibility to the school community.

The statements that contributed to the creation of the subcategory *Impacts of infrastructure in the Integration of DICT into the School Curriculum* brought the limits of structure of access to the internet and computers (in addition to other technological supports) for the pedagogical work between peers and with students. We emphasize that, despite this, each context seeks to reframe the DICT uses based on a culture that is constituted locally.

School Management Policies for the Integration of DICT was a subcategory that emerged from the speeches of teachers and managers when the theme of technologies involved the organization of times and spaces. In each school, there is a way to organize practices related to existing technological and human resources. The effective participation of the school collective in the construction of management policies, also proved to be important for the process of DICT integration in the curriculum

In the subcategory *Experiences of the school collective with integration of DICT* speeches about experiences with technologies emerged, characterized by what is done in the practices of teachers and how it is constituted as a local culture. The increasing use of cell phones in teaching practices has been recurring in the four schools.

Regarding the Pedagogical Potentialities of the DICT envisioned by the school collective for its context, it was emphasized that the ways thought by the collective for the DICT integration in the curriculum tend to reproduce the already consolidated experiences, but also, new tools are thought as a way for the collective to overcome the challenges of their immediate contexts.

The analysis of the influences of school culture on the DICT integration in the curriculum is explicit, which was overstated by Farsarella (2018):

the strength of traditions **and therefore promoting changes in education is a complex issue [...] demonstrates the difficult balance between reproduction and innovation.** The perception that reproduction does not respond to emerging social and cultural conditions and that it is necessary to seek innovations is a key point for the school and for its observers, **because at that moment contradictions, conflicts and divergences arise, which can be resolved or intensified, leading to advances and setbacks** (p. 630, emphasis added).

The significant differences that each school presented in their contexts, specially in the infrastructure management, which was more centralized among the managers or more shared with the school collective, brings the pedagogical and social demands in a more pulsating way, influence the use of DICT and its integration into the curriculum.

6 CONCLUSION

From the analysis of the culture of the four participating schools in the research, it was possible have a better comprehension of the real contexts of DICT appropriation, their limitations, their spaces of resistance and creation. We realize in all of them how sensitive this subject is and that the role of school management and the collective of school professionals is essential to set the tone for discussions, reflections and proposals for integrating DICT into the curriculum. Teachers reframe its possibilities in the curriculum based on the reality they live in, the resources they have available and their relationship with the collective.

We have evidenced that the pedagogical potential of DICT envisioned by the school community rarely appears in its context, especially in schools with a greater lack of resources. The integration of DICT, in general, occurs in individual initiatives, in the pedagogical practices of isolated teachers. Such a condition leads us to conclude that the theme of technologies is not part of an established local culture, because, due to other demands, schools elect as emergency the integration of DICT into the curriculum is not a priority for the collective. This makes us question: if we already have some decades of teacher training for the DICT integration in the school context, why is this still so distant? Why is school culture still resistant to DICT?

Even so, the characterization of the culture of the researched schools revealed rich spaces for the construction of educational possibilities conceived from the resignification of the uses of DICT in each context. Linked to the prominent issues of society in times of digital

culture, school subjects face different challenges and they are trying to create solutions to the posed challenges, in a collective and community effort, whenever possible.

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