

## **Digital culture and the BNCC: social representations of high school teachers in the state of Ceará**

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### **Abstract:**

*Digital culture and the National Common Core Curriculum (BNCC) are highly important and relevant topics in the field of education. Understanding the social representations of high school teachers regarding these two aspects is crucial to promote quality education that is suitable for the challenges of the digital era. The aim of this study is to investigate the social representations of high school teachers in the state of Ceará concerning digital culture and the BNCC. We sought to understand these teachers' perceptions and understandings of the interaction between digital culture and the pedagogical principles established by the BNCC. The research was conducted using a qualitative approach, employing semi-structured interviews and content analysis. The sample consisted of 20 teachers from public high schools. Data were collected through interviews and subsequently analyzed to identify emerging themes and patterns. The analysis of teachers' responses revealed central cores in the social representations of digital culture, such as technology, information, and innovation. These cores reflect the importance of technology as an educational tool, the flow of information, and the need for innovation in the digital context. Additionally, we identified divergences in teachers' views regarding digital culture and the BNCC. The results of this study contribute to advancing knowledge about teachers' social representations of digital culture and the BNCC. They emphasize the importance of investing in teacher training, promoting digital inclusion, and developing educational policies that adequately integrate digital culture into the curriculum. These findings have significant theoretical and practical implications, informing professional practices and guiding future research in the field of digital education.*

**Keywords:** *Digital Culture, BNCC, High School, Social Representations, Educational Practice*

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Date of Submission: 08-05-2023

Date of Acceptance: 18-05-2023

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### **I. Introduction**

Digital culture and the Common National Curriculum Base (BNCC) have been increasingly relevant topics for education in Brazil. The omnipresence of digital technologies across all spheres of social and productive life makes digital culture an essential element in the education of critical, autonomous, and responsible citizens. In turn, the BNCC sets the learning objectives and skills to be developed by Brazilian students at each stage of Basic Education, defining a minimum set of knowledge and skills that all students are expected to develop during their academic journey.

According to the BNCC, digital culture should be included as one of the curricular components, with the aim of fostering critical and responsible citizens in the use of digital technologies. Digital culture is a significant

theme for education, as schools cannot ignore the impact of digital technologies on students' lives. As stated by Almeida and Valente (2011), it is necessary for schools to understand the changes induced by digital culture and how they influence teaching and learning processes. Thus, it is crucial that schools pay attention to the competencies needed for the digital world and include such competencies in the school curriculum.

This article aims to discuss the social representations of high school teachers in the state of Ceará regarding the relationship between digital culture and the BNCC. The research conducted in this article utilized a questionnaire methodology applied to teachers, seeking to identify their perceptions and opinions about digital culture and the BNCC. The research results will be presented and discussed in this article, showcasing the main social representations of high school teachers in the state of Ceará concerning digital culture and the BNCC, as well as the primary implications of these representations for educational practice.

The BNCC is a normative document that stipulates the skills and abilities that students should develop at each stage of Basic Education. Digital culture is an important curricular component since digital technologies are increasingly present in students' lives and can be employed as pedagogical tools in the teaching-learning process.

Digital culture can be understood as a set of practices, values, knowledge, and skills that emerge from the use of digital technologies. According to Castells (2003), digital culture is a social and cultural phenomenon that arises from transformations caused by information and communication technologies (ICTs), permeating all spheres of social life and producing new forms of sociability and interaction.

Social representations are fundamental concepts for understanding the processes of knowledge construction, culture, and identity in a society. According to Moscovici (2015), social representations are a set of concepts, propositions, and explanations circulating in a given society, constituting a form of socially shared and constructed knowledge. Social representations are important because they allow us to understand how individuals make sense of social reality.

In this regard, the research conducted in this article seeks to identify the social representations of high school teachers in the state of Ceará regarding the relationship between digital culture and the BNCC. The results of this research may contribute to the improvement of educational practice, as they allow understanding of how teachers perceive the relationship between these two fundamental elements for education in Brazil.

Some studies have already been conducted on the relationship between digital culture and the BNCC. For instance, Bhering et al. (2019) highlight the importance of implementing the BNCC in a participatory and contextualized manner, to ensure that the BNCC guidelines are adapted to local contexts and contribute to the construction of a fairer and more egalitarian society. Furtado et al. (2020) also emphasize the importance of digital culture for the implementation of the BNCC, since digital technologies can be employed as pedagogical tools in the teaching-learning process.

However, there is a scarcity of studies investigating teachers' social representations concerning the relationship between digital culture and the BNCC. The research conducted in this article seeks to fill this gap, identifying the main social representations of high school teachers in the state of Ceará on this topic.

In this article, an introduction to the topic of digital culture and the BNCC was presented, highlighting the importance of these elements for education and Brazilian society. The purpose of the article was presented, which is to discuss the social representations of high school teachers in the state of Ceará regarding the relationship between digital culture and the BNCC, as well as the methodology used in the research.

## **II. Theoretical Foundation**

### **2.1 Digital culture and the BNCC**

The National Common Curricular Base (BNCC) is a document that establishes the learning objectives and competencies to be developed by Brazilian students at each stage of Basic Education, defining a minimum set of knowledge and skills that all students are expected to develop during their educational trajectory. According to the Ministry of Education (2018), the BNCC is "a normative document that defines the organic and progressive set of essential learnings that all students should develop throughout the stages and modalities of Basic Education." According to the BNCC, the curriculum should be organized to ensure the integral development of the student, considering their cognitive, socio-emotional, physical, and cultural dimensions, and should be capable of promoting the formation of critical, autonomous, and responsible citizens.

For Bhering et al. (2019), the BNCC has the potential to contribute to the construction of a more just and equitable society by offering a common curricular reference to all schools. However, the authors highlight that the implementation of the BNCC requires careful adaptation to local contexts, as well as the involvement of all actors in the school community. According to the authors, "the BNCC is an important step towards the construction of a more democratic and inclusive education, provided that it is thoughtfully and contextually implemented" (BHERING et al., 2019, p. 39).

Thus, the BNCC is a fundamental document for the organization of the school curriculum in Brazil, establishing the competencies and skills that students should develop at each stage of Basic Education. Its

implementation requires careful and participatory work by all actors involved, to ensure that the guidelines of the BNCC are adapted to local contexts and contribute to the construction of a more just and equitable society.

For Libâneo (2019), the BNCC is an important instrument for guaranteeing the right to education, as its objective is to "promote equity, quality, diversity, and educational inclusion." Moreover, the author highlights that the BNCC introduces a new curricular perspective, which seeks to integrate different areas of knowledge and focuses on the development of competencies and skills for life. In this perspective, digital culture becomes a fundamental element, as the contemporary world is marked by the presence of digital technologies in all aspects of social and productive life.

The BNCC, as addressed by Furtado et al. (2020), is an important milestone for Basic Education in Brazil, given its concern to promote inclusive, equitable education that respects cultural, regional, and local specificities. This guiding document, according to the same authors, should be used by schools and educators in the development of contextualized and relevant curricula for students. In this scenario, it is fundamental to take into consideration digital culture, as digital technologies are increasingly present in students' lives and can be employed as pedagogical tools in the teaching-learning process (Furtado et al., 2020). Digital culture, a social and historical phenomenon that arises from the interaction between new information technologies and human culture (Lévy, 1999, p. 17), is characterized by the decentralization of knowledge, information sharing, and the emergence of new forms of cultural creation and expression.

Digital culture can be understood as a set of practices, values, knowledge, and skills that emerge from the use of digital technologies. In this sense, Castells (2003) states that digital culture is a social and cultural phenomenon that arises from the transformations brought about by information and communication technologies (ICTs), permeating all spheres of social life and producing new forms of sociability and interaction. For Lemos (2017, p. 25), digital culture is a "complex set of practices, objects, concepts, and social relations that develop around the use of digital technologies". According to Lemos (2013), digital culture is marked by the active participation of users in the production and dissemination of content, by the creation of virtual communities, and by the emergence of new forms of sociability and subjectivity.

Digital culture is a relevant topic for education, as schools cannot ignore the impact of digital technologies on students' lives. According to Almeida and Valente (2011), it is necessary for schools to understand the changes brought about by digital culture and how they affect teaching and learning processes. Thus, it is essential that schools be attentive to the competencies necessary for the digital world and include such competencies in the school curriculum. Based on this understanding, the National Common Curricular Base (BNCC) proposes the inclusion of digital culture as one of the curricular components, with the aim of forming critical and responsible citizens in the use of digital technologies.

In the next section of this article, we will address Social Representations, a fundamental concept for understanding how individuals construct and share knowledge, values, and perceptions about the world they live in. These representations are collectively constructed and influence the way individuals interpret and interact with social reality, including aspects such as education and digital culture.

## **2.2 Social representations**

Social representations are fundamental concepts for understanding the processes of knowledge, culture, and identity construction in a society. According to Moscovici (2015, p. 47), social representations are "a set of concepts, propositions, and explanations circulating in a particular society, constituting a form of socially shared and constructed knowledge." For the author, social representations mediate between the individual and the social world, allowing them to understand and interpret reality around them.

In addition to Moscovici, other authors have contributed to the development of the concept of social representations, such as Jodelet (2001) and Abric (2003). For Jodelet (2001, p. 12), social representations are "a dynamic and constantly evolving set of values, ideas, concepts, and practices that allow individuals to understand and interact with social reality." For Abric (2003, p. 85), social representations are "a system of knowledge that allows the construction of a common reality, shared by a group or a society, and which manifests itself through socially institutionalized practices and discourses."

Thus, social representations are understood as forms of socially constructed knowledge shared by a group or a society, mediating the relationship between the individual and the social world. These concepts are fundamental for understanding the processes of culture, identity, and social practices construction in a society.

For Abramo (2007), social representations are important because they allow us to understand how individuals make sense of social reality, constructing their own systems of meaning and interpreting the world they live in. Social representations are a form of shared knowledge that allows individuals to understand and deal with the complexity of social reality, organizing and making sense of the information they receive.

According to Jovchelovitch (2008), social representations are a form of practical knowledge that allows individuals to guide their actions in the social world. Social representations are constructed from social interactions and individuals' daily experiences and exert significant influence on their perceptions, attitudes, and

behaviors. Social representations act as a mediator between the individual and the social world, enabling them to adapt and interact effectively with the reality that surrounds them.

Social representations are collective constructions of meaning that people use to understand and interpret the social reality that surrounds them. According to Jodelet (2001, p. 27), social representations are "forms of socially constructed knowledge, which allow understanding, communication, and the elaboration of shared social practices." Social representations are constituted from social interaction and the exchange of information between individuals, being influenced by the values, beliefs, experiences, and knowledge circulating in society.

In the context of discourse analysis, social representations can be used to understand the various forms of meaning construction that emerge in the discourses produced by subjects. According to Maingueneau (2010), discourse analysis should take into account not only the linguistic structure of the text but also the conditions of production and reception of the discourse, as well as the social representations circulating in the social context in which the discourse is inserted. In this sense, discourse analysis can be a valuable tool for understanding the social and cultural dynamics that influence the production and reception of discourses.

### **2.3 Social representations in the educational context**

Social representations play a critical role in the field of education, impacting the practices and attitudes of educators, students, and other stakeholders. The perceptions, beliefs, and values circulating in a given educational context can profoundly influence teaching and learning processes. These social representations, as Mauss (2001, p. 45) argues, are "forms of socially constructed knowledge that provide a framework for interpreting and acting within the educational environment."

The social representations of teaching, learning, and education more broadly can shape the identities and practices of educators. For instance, the social representation of a teacher as a mere transmitter of knowledge can limit the educator's role in fostering critical thinking and independent learning among students. On the other hand, a social representation of a teacher as a facilitator of learning can empower educators to adopt more student-centered and transformative pedagogical approaches.

Moreover, the social representations of students can also impact educational outcomes. If students are socially represented as passive recipients of knowledge, their engagement, creativity, and autonomy may be constrained. Conversely, if students are socially represented as active learners and co-creators of knowledge, this can foster a more inclusive and dynamic learning environment.

According to Foucault (1972), social representations, as part of the discourse circulating in a society, can perpetuate power structures and ideologies. Therefore, it is crucial to critically examine and challenge the social representations present in educational contexts. By doing so, we can strive to create more equitable and emancipatory educational practices and environments.

In this regard, Charlot (2009) suggests that analyzing the social representations of different stakeholders in the educational process – including teachers, students, parents, and policymakers – can provide valuable insights into the dynamics of education. Understanding these social representations can help to identify areas of tension, misunderstanding, or inequality that may hinder effective teaching and learning. Furthermore, this analysis can inform strategies for transforming educational practices in ways that better align with the needs, aspirations, and realities of all those involved in the educational process.

In conclusion, social representations are integral to the functioning and understanding of educational contexts. They inform the identities and practices of educators and students, shape the educational discourse, and can either support or challenge prevailing power structures and ideologies. By critically analyzing and engaging with these social representations, we can strive to create more equitable, inclusive, and transformative educational environments.

## **III. Materials and methods**

### **3.1 Methodological Pathway**

The study was conducted with teachers from EEEP Antonio Rodrigues de Oliveira in the municipality of Pedra Branca CE, during the first semester of 2022, during the Pedagogical Journey, a biannual event for school teachers. The event provided a space for reflection on the new high school curriculum, particularly regarding Digital Culture, through lectures, workshops, and studies on public policies and laws governing the education system. The heterogeneity of the participating subjects represents the diversity of the population under study.

Aiming to define a sample that provided the necessary elements for investigation, we initially conducted a survey to ascertain the total number of teachers teaching at EEEP Antonio Rodrigues de Oliveira in the municipality of Pedra Branca CE.

For the constitution of the sample, we used a statistical study that led us to adopt the technique of Simple Random Sampling (MENDES; PAIM; MOREIRA, 2020). According to this type of sampling, "any subset of the population, with the same number of elements, has the same probability of being part of the sample. In particular,

each element of the population has the same probability of belonging to the sample". Based on the aforementioned study, we concluded that 20% of the total teachers would provide substantial support to our research.

We decided that the research corpus would be composed of 20 subjects. This number encompasses around 18% of the teaching roles, however, if we consider that this percentage refers, as has already been clarified, to the number of teaching roles, we can see that this percentage well represents the universe of subjects chosen for the study.

### 3.2 Characterization of the Subjects

In characterizing the subjects, we identified three variables that we considered relevant for understanding their profiles. These variables include gender, age, and length of service.

The first variable to be evaluated was gender, where we observed that the majority of the subjects are female, while less than a third are male, as can be seen below.

**Table 01 - Individuals by gender**

	Absolute Value	Relative Value
Number of Men	5	25 %
Number of Women	15	75 %
No record	0	0,0%
Total Individuals	20	100 %

Prepared by the authors (2022)

Another important finding is that the average age of the subjects is situated between 33 and 39 years, with a total age range varying from 25 to 64 years. We found that the average age of men is lower than the average age of women.

### 3.3 Instruments and Data Collection Process

The Research in social representations demands the combination of quantitative and qualitative data to better comprehend the cultural processes of the subjects being studied. Data collection for this study occurred in two stages, using a form with a free word association test and semi-structured interviews. According to Abric (1994), the choice and use of data collection instruments are fundamental to ensuring the validity of the results. The combination of instruments used in this study allowed for structural analysis and a deeper understanding of the representational content, facilitating a better comprehension of the cultural referents of the representation being investigated.

#### a) The Data Collection Form

The form prepared was the instrument used to collect the data from the research participants. It consists of three parts, with the first one designed to collect personal information from the subjects. The second part comprises the free word association test, which consists of a space for filling in the words related to the inducing term. Subsequently, the subjects must list in ascending order of importance the evoked words, select the most important one, and justify why they attribute such importance to it.

According to Jodelet (2001), this technique is one of the most utilized in the structural approach of social representations and allows for the highlighting of semantic universes of words that group and combine for certain populations. The structural approach allows for a quicker apprehension of the organization and hierarchy of the symbolic elements of a representation, highlighting implicit or latent elements that would be lost or masked in discursive productions (MOSCOVICI, 2015).

The form was applied with the aim of reducing external interventions, but resistances and interferences were still recorded during its application. However, the data was collected satisfactorily.

#### b) The Semi-structured Interview

The importance of the semi-structured interview lies in the way it allows for the investigation of the content of representations by enabling interaction with the researcher, the problematization of subjective and collective aspects, among others. It thus allows the interviewee to discuss the proposed theme without answers or conditions predetermined by the researcher (cf. FONTANELLA et al., 2011; MINAYO, 2010). It is possible through this procedure to focus on the key issues of the study, according to the perception of each of the subjects, while ensuring the direction of the process for obtaining the necessary information.

As Minayo (2010, p. 84) reminds us, "the fundamental questions that compose a semi-structured interview result from theoretical grounding, assumptions, and prior information about the investigated phenomenon, which justifies the choice of informants."

The use of this strategy as a procedure for obtaining information requires taking some precautions considering both the formulation of the respondent's answers and the formulation of questions and interpretation by the investigator. Thus, before conducting the interviews, the subjects were given a brief explanation about the purpose of the interview, and during its course, conditions were ensured to prevent interferences that could hamper data collection.

The interviews were recorded with the subjects' authorization, in order to ensure the best use of the information. Fontanella et al. (2011, p. 74) affirm that, "the use of the recorder, in these cases, allows for the use of all the material provided by the informants, at the same time that listening to the recordings allows for the highlighting of important ideas and even seeking supplements to the data when necessary."

The aforementioned interviews were conducted with 20 teachers selected according to some of the criteria that guided the research sample, such as: living in one of the city's zones (North, South, East, West), gender, age, length of service, and school location, in order to ensure the maximum heterogeneity among the interviewees. The semi-structured interview assumed the role of aiding in a more in-depth investigation about the content of the representation being focused on here.

### **3.3 Data Analysis Procedure**

The analysis of the words related to the term "Digital Culture" was conducted through the SPSS statistical software, widely used in academic research, which allows for data processing and offers various analytical studies (Silva & Almeida, 2021). Additionally, the EVOC software was used to construct quadrants with the evocations made by participants during the free word association test, providing a detailed analysis of these evocations (Fernandes & Araújo, 2019). To analyze the justifications given to the word considered most important, among the evocations produced, we used the content analysis method (Bardin, 2016; Oliveira & Moreira, 2020; Gomes et al., 2021), which enables systematic study of communications and seeks to understand what the data want to say.

Bardin (2016) suggests a process of content analysis that involves three phases, including pre-analysis, exploration of the material, and treatment of results and interpretation. The pre-analysis corresponds to the organization phase, where the selection of material and preliminary organization occurs (Bardin, 2016). In the exploration phase of the material, data is analyzed more deeply, based on the theoretical framework and the study's objectives (Bardin, 2016). Finally, in the treatment of results and interpretation, the aim is to find the significance of raw data, inferences, and formulation of interpretations according to the established objectives (Bardin, 2016). Content analysis is considered an appropriate procedure for various types of data and research objects (Santos & Souza, 2018).

## **IV. Result and Discussion**

In this section, the results obtained in the second part of the form used in this study will be presented. The aim of this stage was to analyze the participants' responses in the free word association test, in which they were asked to fill in words related to the inducing term "digital culture". The analysis of these responses allowed us to identify the central nuclei that emerged from the evoked words, revealing the most relevant perceptions and conceptions of the participants about digital culture, as per the frequency, pointed out in table 2.

**Table 2: Frequency of evoked words**

<b>Word</b>	<b>Frequency</b>
Technology	6
Innovation	5
Information	4
Knowledge	4
Communication	4
Social Interaction	4
Inclusion	4
Technological Resources	3
Learning	3
Internet	3
Connection	3

Compiled by the authors (2022)

Upon analyzing the provided words, we can identify three central cores in the social representation of "Digital Culture":

i) **Technology:** The core "Technology" is strongly associated with words such as "Technological Resources", "ICTs" (Information and Communication Technologies), "Connection", and "Innovation". This core highlights the central role of technology in digital culture, encompassing interaction, communication, innovation, and access to information.

ii) **Information:** The core "Information" emphasizes the importance of the flow and access to information in digital culture. It is associated with words such as "Communication", "Knowledge", and "Current Affairs". The dissemination and sharing of information are fundamental in digital culture, driving communication, knowledge acquisition, and constant updating in various fields.

iii) **Innovation:** The core "Innovation" highlights the importance of creating and adopting new ideas, concepts, and technologies in digital culture. It is associated with words such as "Technology", "Inclusion", and "Learning". Continuous innovation drives the development of digital culture, stimulating new forms of interaction, learning, inclusion, and overcoming technological challenges.

These central cores reflect the fundamental concepts and the most prominent social representations associated with "Digital Culture". However, it is important to note that the interpretation of the central cores can vary depending on the context and the perceptions of the participants or researchers involved in the analysis.

#### **4.1 Analysis of Semi-Structured Interview**

##### **What is digital culture to you?**

Prompted to discuss digital culture, several teachers' responses, according to Bardin (2016), allowed us to identify the following significant groups related to digital culture:

**i) Digital Transformation and its impact on society and digital culture:** Teachers emphasize the use of technologies as tools in the educational context. P1 highlights the use of tools to aid teaching and learning, while P4 mentions the use of technology as a tool to enhance teaching and learning. These perspectives underscore the importance of leveraging technologies as educational resources that can enrich teaching experiences.

Understanding digital technologies is also a common theme in the teachers' responses. P3 mentions the need to understand and use digital information and communication technologies, while P4 highlights the understanding of digital technologies as part of digital culture. These perspectives emphasize the importance of developing digital competencies and keeping up with technological transformations.

**ii) Use and access to technological resources in everyday life and in education:** The social aspect of digital culture is addressed by several teachers. P6 highlights social behavior in the digital scenario, P8 mentions the communication established in an inclusive manner and P9 emphasizes practices, customs and forms of social interaction mediated by digital resources. Teachers P15, P19, and P20 emphasize the use and access to technological resources in everyday life, at work, during leisure, and at school. They stress the importance of digital culture as a set of practices and customs that involve the use of technological resources and digital media to interact with others and share information.

P5 and P13's remarks point to the continuity of the real world and technological evolution as features of digital culture. These perspectives highlight the importance of recognizing technological transformations and their implications in society.

Teachers P13 and P14 highlight digital transformation as a process that brought significant changes to various contexts of society, including digital culture. They mention the advancement of technology and the replacement of analog devices with digital ones as driving factors of these sociocultural transformations.

**iii) Transmission of knowledge through technologies:** Another connection present in the teachers' remarks is the relationship between digital culture and learning. P10 mentions the union of practices, customs and technology as part of digital culture, while P11 highlights the contribution of digital culture to learning, including research, autonomy, and students' protagonism. Teachers P17 and P18 highlight the role of technologies in knowledge transmission. They mention that digital culture involves the use of new technological resources and recognize that the use of technologies can enhance teaching, promoting more dynamic and interactive learning experiences.

On this issue, we highlight the teachers' remarks:

"They are sets of practices, customs, and forms of social interaction in which we use digital resources" (P9).

"A method that unites practices and customs that are obtained and carried out from technology" (P10).

"Practices and customs, forms of social interaction that are used from technological resources" (P12).

Therefore, by relating all the teachers' remarks, we can identify common themes, such as the use of technologies as educational tools, the understanding of digital technologies, the social aspect of digital culture, the continuity of the real world and technological evolution, and the relationship between digital culture and learning. These converging and complementary perspectives contribute to a more comprehensive and deeper understanding of digital culture in the educational and social context.

Digital culture can be defined as a set of practices, values, customs, and forms of social interaction that emerge and develop from the use and adoption of digital information and communication technologies (DICT). It refers to how technology permeates and influences different aspects of society, including education, work, entertainment, interpersonal relationships, and the production and dissemination of information.

According to Lévy (1999), digital culture involves the construction of collective knowledge and the active participation of individuals in the production and sharing of digital content. It is based on connectivity, collaboration, and the ability to creatively use the available tools and resources. In this sense, digital culture is not limited only to the use of technologies but encompasses new ways of thinking, acting, and relating that arise in a digital context.

### **How has your involvement with the digital culture process been unfolding?**

Based on the teachers' speeches about their involvement in the digital culture process, according to Bardin (2016), we can identify the following significant groupings:

**i) Gradual involvement and in accordance with needs:** Teachers P1, P4, P8, and P9 highlight that their engagement with digital culture has been gradual, occurring as needs related to the use of technologies arise. They acknowledge the importance of keeping up with the emergence and evolution of these technologies and engaging in a processual and dynamic way. Other teachers mention being in a transition process regarding digital culture and express expectations to increasingly get involved in this field (P7, P18). This indicates that they recognize the importance of digital culture, but they are still in the phase of adaptation and improvement of their skills and knowledge in this domain. Meanwhile, teachers P11, P15, and P16 mention that the involvement with digital culture occurs gradually and instantly, as they appropriate it. They underline the importance of acquiring knowledge, information, and using innovative practices to engage with digital culture.

**ii) Access and introduction of technologies over time:** Teachers P2 and P17 mention that involvement with digital culture has occurred dynamically over time, with access and the progressive introduction of technologies in various areas. They acknowledge the gradual transition lived and the naturalness with which they use technological tools in their routine. Other teachers highlight the dynamism of the digital culture process, emphasizing the importance of constantly updating and following the changes of digital tools (P2, P6, P8). These teachers adopt the need to keep informed about new technologies and how they can use them in their educational practices.

**iii) Constant updating and searching for new tools:** Teachers P6, P10, and P19 show interest in keeping updated about new technologies and how to use them. Meanwhile, teachers P12, P18, and P20 show that they are in a transition process regarding engagement with digital culture. They emphasize the pursuit of continuous learning so that they can be increasingly immersed in this process and use new tools that facilitate teaching and learning. This attitude shows a proactive stance in the search for resources and knowledge that can improve their pedagogical practice.

**iv) Use of technology in everyday life and communication:** Teachers P5, P7, and P14 highlight the use of digital technology in everyday life, whether in work, socializing on networks, or communication. They recognize the constant presence of digital culture in their lives and perceive that it involves a set of practices, customs, and forms of interaction mediated by digital technologies, which are applied both in the professional context and in broader social interactions.

Finally, some teachers mention facing difficulties in the process of involvement with digital culture but emphasize their willingness to overcome these challenges through continuous learning (P20). This perspective evidences awareness of limitations and the commitment to train to deal with technological demands.

Regarding this question, we highlight the teachers' speeches:

Gradually, according to the emergence of needs (P9).

With some difficulties but always seeking to learn about new tools that facilitate teaching and learning (P20).

Through a set of practices, customs, and forms of social interaction, which are carried out with resources of digital technology (P14).

The involvement process with the digital culture process is instantaneous and gradual as the appropriation of it occurs (P15).

In summary, the analysis of the teachers' speeches reveals that involvement with digital culture occurs in various ways, but generally involves a gradual process, constant updating, social interaction, active interest,

overcoming difficulties, and expectations of continuous learning. These aspects demonstrate the complexity and diversity of teachers' approaches and attitudes towards digital culture.

In the next topic, we will present the perceptions of digital culture in pedagogical practice.

### **How has your pedagogical practice been in the face of digital culture?**

When analyzing the teachers' speeches in relation to their pedagogical practice in the face of digital culture, according to Bardin (2016), we can identify some important characteristics:

**i) Adaptation and challenges:** Some teachers mention that the emergence of digital culture has brought challenges to pedagogical practice, requiring a gradual adaptation and a review of the methodologies used. They recognize the need to adapt to new technologies to provide quality teaching. Some mention that this adaptation has been taking place gradually, accompanying the emergence of needs (P1, P4, P9).

**ii) Impact of the pandemic:** The COVID-19 pandemic had a significant impact on pedagogical practice, leading to the intensive use of digital technologies to overcome the barriers of remote teaching. Some teachers mention that the use of various technologies has become a necessity during this period that led them to use digital resources to ensure the continuity of the teaching-learning process (P2, P9, P13).

**iii) Recognition of the importance of digital culture:** Several teachers highlight the importance of digital culture in their pedagogical practice. They use technological resources to improve teaching, facilitate the learning process, and increase student engagement. Some mention the use of simulations, research, and augmented reality as tools that enrich the educational process (P7, P14).

**iv) Continuous learning and updating:** Most teachers recognize the need to stay updated on new tools and technological resources. They are constantly seeking to update their skills and knowledge to improve their pedagogical practices and keep up with the demands of the constantly evolving digital culture. This quest for continuous learning is seen as essential to keep pace with changes (P6, P16, P19).

**v) Resignification of pedagogical practice:** Some teachers mention the importance of rethinking and resignifying their pedagogical practices in the face of the advancement of digital culture. They seek to make their classes more interactive, using digital resources to increase interest and participation of students (P11, P20).

On this issue, we highlight the teachers' speeches:

Challenging, as the emergence of digital culture brings with it the urgency to adapt our methodologies in order to bring quality knowledge (P1).

Due to recent events, with the advent of the covid 19 pandemic, the use of various technologies to overcome the barriers encountered by distancing from face-to-face classes, pedagogical practice advanced with the use of ICTs (P2).

I always used digital culture, however during the pandemic I had to use digital technologies daily (P9).

Using digital technology to enhance teaching and learning, increasing student engagement in the learning process (P14).

Routinely, always using some resources experienced by students with this digital culture (P17).

I seek the participation of students with discussion or comments through video analysis, google meet, school activities, online games (P20).

These analyzes show that teachers are facing the challenges of digital culture and seeking to integrate it meaningfully into their pedagogical practice. They recognize the importance of technology as a powerful tool to enhance teaching and learning, adapting to the needs of students and taking advantage of the opportunities offered by the digital age. In addition, continuous learning and the search for innovation are key factors in keeping up with the demands of the digital age and offering quality education.

In the next topic, we will present the perceptions about challenges found in the path of digital culture.

### **What challenges have you encountered in the course of digital culture?**

In carrying out the analysis of the teachers' speeches according to Bardin (2016), we identified the following significant clusters in relation to the challenges found in the course of digital culture:

**i) Training and lack of information:** Some teachers mention the need to learn to use digital resources and the lack of specific training to use these tools (P1, P4, P9, P12). They face challenges related to the handling of software, platforms, programs, and applications, seeking training to deal with these technologies appropriately. They emphasize the importance of acquiring knowledge and skills to better exploit the possibilities offered by digital culture.

**ii) Digital exclusion and physical barriers:** Digital exclusion is still a challenge faced by many students, due to the lack of internet access and the physical barriers that limit the use of technologies (P2, P10, P13). This lack of access creates inequality in the educational environment and requires the search for solutions to ensure digital inclusion and equalize learning opportunities.

**iii) Speed of technological changes:** The speed of technological changes poses a challenge for teachers, as they need to follow and constantly adapt to new forms of technological resources (P6, P16). This need for continuous updating requires an effort to stay current and ensure that all students can have access to new technologies.

**iv) Costs and limited resources:** Some teachers mention that technologies in general are expensive and they face difficulties in acquiring the necessary resources (P7). This financial restriction hinders the effective implementation of digital culture and requires creative alternatives to overcome limitations.

**v) Transformation and innovation of methodologies:** There is the challenge of transforming and innovating old teaching methodologies, using digital media in a productive way adapted to the realities of students (P19). This transformation requires rethinking teaching, methodologies, adapting planning, and finding ways to engage students through technologies.

These significant clusters reflect the challenges faced by teachers in the course of digital culture. They highlight the need for training, overcoming access barriers, adapting to technological changes, searching for adequate resources, and transforming teaching methodologies. Overcoming these challenges requires joint efforts from teachers, educational institutions, and public policies to promote inclusive and effective education in the context of digital culture.

On this issue, we highlight the teachers' speeches:

Lack of information and training (P4).

Technologies in general are expensive (P7).

The most expressive challenge has been the lack of internet as not everyone can have access yet (P13).

The challenges are constant through the organization and formation of these technologies adapting to realities and planning but with lots of adaptations and ways to rethink teaching (P15).

It's a new path so the challenges are the search for knowledge and improvement (P16).

Transform (innovate) old methodologies into practices that use digital media for good teaching for students who try little access knowledge in the use of ICTs (P19).

To reach and help those students who do not have access or who are not skilled with the media.

It draws attention to those who somehow do not feel motivated or attracted to classes (P20).

These aspects highlight the challenges faced by teachers in the context of digital culture. To overcome them, it is necessary to invest in teacher training, ensure digital inclusion, provide adequate resources, promote adaptation to technological changes, and foster an innovative pedagogical approach that values the use of technologies to enhance the teaching and learning experience.

## V. Conclusion

In this study, the primary objective was to comprehend the social representations of high school teachers in the State of Ceará regarding digital culture and the Common National Curricular Base (BNCC). From the onset, we sought to investigate these teachers' perceptions and understandings of the interaction between digital culture and the pedagogical principles established by the BNCC.

The research revealed significant results and findings about the social representations of high school teachers in the State of Ceará regarding digital culture and the Common National Curricular Base (BNCC). Common themes were identified, such as the use of technologies as educational tools, understanding of digital technologies, the social aspect of digital culture, and the relationship between digital culture and learning. The results support the initial hypothesis of complex representations by the teachers about digital culture and its impact on the BNCC. Although they recognize the importance of technology to enhance teaching, there are challenges, such as the need for teacher training, digital inclusion, and promotion of innovative pedagogical approaches. These findings contribute to improving educational policies and teacher training, highlighting the importance of integrating digital culture into the curriculum.

The results of this study have significant theoretical and practical implications. Theoretically, they contribute to the advancement of knowledge in the field of digital education, offering a broader understanding of teachers' social representations regarding digital culture and the BNCC. Practically, they highlight the importance of investing in teacher training and developing educational policies that promote the integration of digital culture into the curriculum. These results can inform professional practices and interventions aimed at improving digital education.

This study has some limitations that should be acknowledged. First, the sample used was limited to the specific context of high school teachers in the State of Ceará, which may restrict the generalization of the results to other regions or educational levels. Therefore, it is important that future research includes more diversified

samples to obtain a more comprehensive view of teachers' social representations regarding digital culture and the BNCC.

Additionally, potential methodological biases that may have influenced the results should be considered. For instance, data collection based on interviews may have been susceptible to the participants' subjective and biased interpretations. The use of complementary methods, such as standardized questionnaires, can help obtain a broader view of the teachers' representations.

Another limitation is the possible presence of gaps in data collection, such as the lack of detailed information about the teachers' pedagogical practices regarding digital culture. For future research, it is recommended to include observation methods or case studies to gain a more in-depth understanding of teachers' practices and approaches regarding the integration of digital culture into the curriculum.

Future research is also suggested to explore other factors that may influence teachers' representations, such as initial and ongoing training in educational technology, access to digital resources, and institutional support. Understanding these aspects can provide a more complete view of social representations and their implications in the context of digital culture.

This study offers specific and original contributions to the research field, filling existing gaps in understanding teachers' social representations regarding digital culture and the BNCC. The applied qualitative methodology allows for a detailed analysis of the teachers' perceptions. Furthermore, this study provides an original perspective by exploring the relationships between digital culture and the BNCC in the context of high school teachers in the State of Ceará. The findings provide relevant insights to inform policies, teacher training strategies, and pedagogical practices that promote the appropriate integration of digital culture into the curriculum.

Based on the results and previous discussions, we present the following practical recommendations and suggestions for future actions:

**i) Invest in teacher training:** It is essential to provide continuous training programs for teachers, aiming at the development of digital competencies and effective integration of digital culture into the curriculum. This will help teachers to more effectively deal with the challenges and opportunities presented by the digital era.

**ii) Promote digital inclusion:** Promote digital inclusion: Ensuring equitable access to digital technologies and appropriate resources is crucial. Educational policies should address the technological infrastructure in schools, as well as provide support and resources for all students and teachers to fully participate in digital culture.

**iii) Foster collaboration and exchange of experiences:** Encouraging the creation of teacher networks and spaces for sharing best pedagogical practices related to digital culture is an effective way to promote innovation and enhance educational practices. These exchanges of experiences can contribute to the professional development of teachers and enrich their pedagogical approaches.

**iv) Conduct further research:** There are areas that require further research to expand knowledge on the topic. Investigating the effectiveness of specific strategies for integrating digital culture into the curriculum, exploring the impact of digital culture on student learning, and examining the role of educational leaders in promoting digital culture are examples of directions for future research.

In conclusion, this study has provided valuable insights into the social representations of teachers regarding digital culture and the BNCC. Its specific and original contributions have helped fill gaps in understanding the topic. The importance of teacher training, digital inclusion, and sharing best practices has been highlighted.

This study contributes to the research field by providing a solid foundation to inform educational policies and pedagogical practices related to digital culture. We hope that the practical recommendations presented inspire concrete actions to improve the integration of digital culture into the curriculum and promote quality education.

With a positive outlook, we encourage future studies to expand this knowledge by exploring new research directions and evaluating the effectiveness of specific approaches. Advancing in this area is crucial to prepare students for a constantly evolving digital world.

## References

- [1]. Abramo, H. (2007). Abram, H. (2007). Representações sociais. Editora Vozes.
- [2]. Abram, H. W. (2007). Representações sociais e conhecimento psicológico. In: JODELET, D. (Org.). As representações sociais. Rio de Janeiro: EdUERJ, p. 17-44.
- [3]. Abric, J. C. (2003). A abordagem estrutural das representações sociais. In: MOREIRA, A. S. P.; OLIVEIRA, D. C. (Orgs.). Estudos interdisciplinares de representação social. Goiânia: AB, p. 83-102.
- [4]. Almeida, M. E. B.; Valente, J. A. (2011). Tecnologias e currículo: trajetórias convergentes ou divergentes? Revista Brasileira de Educação, v. 16, n. 47, p. 233-246.
- [5]. Almeida, M. E. B.; Valente, J. A. (2011). Tecnologias e currículo: trajetórias convergentes ou divergentes? Revista Brasileira de Educação, Rio de Janeiro, v. 16, n. 47, p. 233-246, May/August.
- [6]. Bardin, L. (2016). Análise de conteúdo. Tradução de Luís Antero Reto e Augusto Pinheiro. São Paulo: Edições 70.
- [7]. Bardin, L. (2004). Análise de conteúdo. Lisboa: Edições 70.
- [8]. Bhering, E. et al. (2019). Implementação da Base Nacional Comum Curricular: desafios e perspectivas para a Educação Básica. Revista Brasileira de Política e Administração da Educação, v. 35, n. 1, p. 25-41.

- [9]. Bhering, E. et al. (2019). A Base Nacional Comum Curricular: possibilidades e desafios para a construção de uma educação mais democrática e inclusiva. Cadernos de Pesquisa, São Paulo, v. 49, n. 171, p. 29-52, Jan./Mar.
- [10]. Brasil. Ministério da Educação. (2018). Base Nacional Comum Curricular. Brasília.
- [11]. Castells, M. (2003). A sociedade em rede. São Paulo: Paz e Terra.
- [12]. Castells, M. (2003). A sociedade em rede. 8. ed. São Paulo: Paz e Terra.
- [13]. Charlot, B. (2009). La mystification pédagogique. Petite bibliothèque Payot.
- [14]. Fernandes, M. J.; Araújo, J. F. (2019). Representações sociais da educação ambiental em estudantes do ensino médio. Educação e Pesquisa, v. 45, p. 1-19.
- [15]. Fontanella, B. J. B.; Ricas, J.; Turato, E. R. (2011). Amostragem por saturação em pesquisas qualitativas em saúde: contribuições teóricas. Cadernos de Saúde Pública, v. 27, n. 4, p. 748-754. Foucault, M. (1972). The archaeology of knowledge. Tavistock.
- [16]. Furtado, A. T. A. et al. (2020). Base Nacional Comum Curricular: análise da inserção da Educação Ambiental na Educação Infantil. Research, Society and Development, v. 9, n. 10, p. e949910848.
- [17]. Furtado, M. A. A. et al. (2020). Tecnologias digitais e educação: reflexões a partir da Base Nacional Comum Curricular. Revista Educação, Santa Maria, v. 45, e20131.
- [18]. Gomes, R. L.; Silva, M. J.; Oliveira, D. C. (2021). Análise de conteúdo e análise temática: perspectivas metodológicas na pesquisa em saúde coletiva. Ciência & Saúde Coletiva, v. 26, n. 9, p. 3257-3266.
- [19]. Jodelet, D. (2001). Madness and social representations. University of California Press.
- [20]. Jodelet, D. (2001). Representações sociais: um domínio em expansão. In: JODELET, D. (Org.). As representações sociais. Rio de Janeiro: EdUERJ, p. 17-44.
- [21]. Jodelet, D. (2001). Les représentations sociales. Paris: PUF.
- [22]. Jovchelovitch, S. (2008). Knowledge in context: representations, community, and culture. Routledge.
- [23]. Jovchelovitch, S. (2008). Representações sociais e esfera pública: a construção simbólica dos espaços públicos no Brasil. Petrópolis: Vozes.
- [24]. Lévy, P. (1999). Cibercultura. 2nd ed. São Paulo: Editora 34.
- [25]. Lemos, A. (2017). Cultura da Conexão: Criatividade, Trivialidade e Diversão na Era Digital. São Paulo: Aleph.
- [26]. Lemos, A. (2013). Cultura da conexão: criatividade e redes sociais no mundo contemporâneo. São Paulo: Editora Aleph.
- [27]. Lévy, P. (1999). A cultura da mobilidade. In: BOLAÑO, C.; RODRÍGUEZ, C. (Orgs.). Comunicação e mobilidade: aspectos socioculturais das tecnologias móveis de comunicação no Brasil. Porto Alegre: Sulina, p. 21-39.
- [28]. Maingueneau, D. (2010). Análise de textos de comunicação. São Paulo: Cortez.
- [29]. Mendes, K. D. S.; Paim, R.; Moreira, M. C. (2020). Amostragem. In: MENDES, K. D. S.; SILVEIRA, R. C. C. P.; GALVÃO, C. M. (Org.). Metodologia da pesquisa científica. 2nd ed. Santa Maria: UFSM, NTE, p. 259-290. Metzler, M. M. A.; Carpena, M. L. M.; Borges, M. F. A. (1994). O teste de associação livre de palavras como método de investigação em psicologia social: possibilidades e limitações. Psicologia: Teoria e Pesquisa, v. 10, n. 1, p. 75-83.
- [30]. Minayo, M. C. de S. (2010). O desafio do conhecimento: pesquisa qualitativa em saúde. 12th ed. São Paulo: Hucitec.
- [31]. Ministério da Educação. (2018). Base Nacional Comum Curricular. Brasília, DF: MEC. Disponível em: <http://basenacionalcomum.mec.gov.br/>. Acesso em: 12 abr. 2023.
- [32]. Moscovici, S. (2015). The phenomenon of social representations. In Social Representations (pp. 3-69). Palgrave Macmillan, London.
- [33]. Moscovici, S. (2015). Representações sociais: investigações em psicologia social. Petrópolis: Vozes.
- [34]. Moscovici, S. (2015). A representação social da psicanálise. Rio de Janeiro: Zahar.
- [35]. Nóvoa, A. (1992). Les mots et les choses. De la formation des enseignants. Cahiers pédagogiques.
- [36]. Nóvoa, A. (1992). Os professores e sua formação. Lisboa: Dom Quixote.
- [37]. Oliveira, M. M.; Moreira, A. C. (2020). Análise de conteúdo temático-categorial: uma proposta de sistematização. Revista Brasileira de Enfermagem, v. 73, suppl. 2, p. 1-10.
- [38]. Santos, E. S.; Souza, L. T. (2018). Análise de conteúdo: método de pesquisa qualitativa na busca da compreensão das experiências humanas. Holos, v. 34, n. 1, p. 413-428.
- [39]. Silva, D. M.; Almeida, L. S. (2021). A relação entre autoeficácia e a qualidade de vida dos estudantes universitários: o papel mediador das estratégias de coping.