

THE CONSTRUCTION OF HISTORICAL KNOWLEDGE BY THE HIGH SCHOOL STUDENTS

A CONSTRUÇÃO DO CONHECIMENTO HISTÓRICO PELOS ALUNOS DO ENSINO MÉDIO

LA CONSTRUCCIÓN DEL CONOCIMIENTO HISTÓRICO POR EL ESTUDIANTES DE SECUNDARIA



Cleber BIANCHESSI¹
e-mail: cleberbian@yahoo.com.br



Joana Paulin ROMANOWSKI²
e-mail: joana.romanowski@gmail.com

How to reference this article:

BIANCHESSI, C.; ROMANOWSKI, J. P. The construction of historical knowledge by the high school students. **Revista Ibero-Americana de Estudos em Educação**, Araraquara, v. 18, n. 00, e023040, 2023. e-ISSN: 1982-5587. DOI: <https://doi.org/10.21723/riaee.v18i00.17449>



| Submitted: 04/11/2022
| Revisions required: 27/02/2023
| Approved: 09/03/2023
| Published: 23/06/2023

Editor: Prof. Dr. José Luís Bizelli
Deputy Executive Editor: Prof. Dr. José Anderson Santos Cruz

¹ International University Center (UNINTER), Curitiba – PR – Brazil. PhD student in Education and New Technologies.

² International University Center (UNINTER), Curitiba – PR – Brazil. Teacher. PhD in Education (USP).

ABSTRACT: The article focuses on literacy practice in the construction of historical knowledge by high school students, considering methodological alternatives for historical learning mediated by the teacher and digital technologies. The objective is to analyze how high school students from a state public school in the city of Curitiba, develop the learning of historical knowledge. The teaching and learning process is epistemologically based on Rüsen's conception of the construction of historical knowledge (1993, 2001, 2006, 2009, 2010, 2011, 2015). The research methodology is a qualitative approach in which the data were recorded through the research notes. The analyzes contain elements that historical knowledge is elaborated by students in a collaborative and cooperative way, mediated by the context of life, by the teacher's interventions and facilitated by digital technologies. Students understand that the insertion of digital technological resources helps in literacy and in the construction of historical knowledge.

KEYWORDS: Teaching history. Literacy. High school. Educational technology.

RESUMO: O artigo focaliza a prática de letramento na construção do conhecimento histórico pelos alunos do Ensino Médio considerando alternativas metodológicas para a aprendizagem histórica mediado pelo professor e pelas tecnologias digitais. O objetivo é analisar como estudantes do Ensino Médio de uma escola pública estadual na cidade de Curitiba desenvolvem a aprendizagem do conhecimento histórico. O processo de ensino e aprendizagem está fundamentado epistemologicamente na concepção da construção do conhecimento histórico de Rüsen (2001, 2006, 2007, 2009, 2011, 2015). A metodologia da investigação é de abordagem qualitativa e os dados foram registrados por meio de diário de bordo. As análises apontam que o conhecimento histórico é elaborado pelos estudantes de forma colaborativa e cooperativa mediado pelo contexto de vida, pelas intervenções do professor e facilitado pelas tecnologias digitais. Os estudantes compreendem que a inserção de recursos tecnológicos digitais ajuda no letramento e na construção do conhecimento histórico.

PALAVRAS-CHAVE: Ensino de história. Letramento. Ensino médio. Tecnologia educacional.

RESUMEN: El artículo aborda la práctica de la lectoescritura en la construcción del conocimiento histórico por parte de estudiantes de secundaria, considerando alternativas metodológicas para el aprendizaje de la historia mediado por el docente y las tecnologías digitales. El objetivo es analizar cómo los estudiantes de secundaria de una escuela pública estadual de la ciudad de Curitiba desarrollan el aprendizaje del conocimiento histórico. El proceso de enseñanza y aprendizaje se fundamenta epistemológicamente en la concepción de Rüsen sobre la construcción del conocimiento histórico (2001, 2006, 2007, 2009, 2011, 2015). La metodología de investigación utiliza un enfoque cualitativo y los datos se registraron mediante un libro de registro. Los análisis apuntan que el conocimiento histórico es elaborado por los estudiantes de forma colaborativa y cooperativa, mediado por el contexto de vida, por las intervenciones del docente y facilitado por las tecnologías digitales. Los estudiantes entienden que la inserción de recursos tecnológicos digitales ayuda en el letramento y en la construcción del conocimiento histórico.

PALABRAS CLAVE: Enseñanza de la historia. Letramento. Escuela secundaria. Tecnología educacional.

Introduction

Currently, the National Common Curricular Base – BNCC places the discipline of History in the area of Human Sciences, and in the definition of competences it establishes the understanding of historical knowledge in social relations in a critical and contextualized way, with understanding of the modes of procedures of historical production, digital sources and technologies, considering ethical, democratic, inclusive, sustainable and solidary principles (BRASIL, 2018). From the research perspective, the teaching of History enables the interpretation and production of knowledge with the participation of teachers with new learning dynamics in the context of the classroom and, didactically, provides students with significant learning. In view of this, for Rösen (2001), “the learning of History is influenced by the teaching of History”, and from this learning is that the historical conscience will be formed.

Allied to this, several challenges are evident, among these, those of how to improve and strengthen the students' relationship with this knowledge at a time when digital technological means are increasingly present and within reach and information can be accessed at any time. every instant. Therefore, it is up to the teacher to mediate between information and knowledge, since the former only becomes knowledge when systematized and organized.

In this way, both from the perspective of the BNCC and in the formation of historical awareness, the teaching of history is challenging, as it deals with how to improve and strengthen the students' relationship with this knowledge in the current context, in which digital technological means are increasingly being used. more gifts. Access to information and knowledge in the hypertexts of the World Wide Web (WWW) makes everything within reach of the hands as long as it is connected to the internet. This democratization of information and knowledge presents teachers with new ways of mediating between information and systematized knowledge. Thus, the article focuses on the literacy of historical knowledge by high school students through research, reading and writing skills through the use of digital mobile devices and the computer lab, and originates from Bianchessi's Master's thesis defended in 2019, with the title “Construction of historical knowledge mediated by digital technologies in high school”.

The understanding of literacy practices, in history teaching, assumes the possibilities of multiliteracy, in addition to reading and writing, as Graff (2016) points out when saying that literacy studies involve such propositions from new understandings on the subject. For the author, this understanding results from an interaction between disciplinary clusters in the areas of human sciences, arts, social sciences and basic sciences. The composition of the clusters

constitutes possibilities for interactions between disciplines in which the associated knowledge collaborates for students' learning.

Regarding technologies, Bianchessi (2019) highlights that in the pedagogical practice manifested in the school routine, students generally use digital technological tools in an inadequate and inappropriate way for the construction of knowledge, that is, when accessing the internet, they do not seek to expand and improve their knowledge, but look for scattered information without checking if the sources are reliable. Indeed, if, on the contrary, mobile devices are properly used as auxiliary tools to provide mediation in learning, it is possible to promote transformations in the school environment, making it a space and place conducive to historical learning. Therefore, this article constitutes a challenge to analyze the insertion of digital technological tools for the construction of historical knowledge in a collaborative way with intensified student participation. Mobile devices can be accessed anytime, anywhere.

At the beginning of the investigation, high school students expressed their concerns in the form of questions to the teacher: why do I need to study History? What will this discipline contribute to my future? These questions were taken as a starting point in defining the research problem when considering the incipient relationships of these students in the use of digital technologies as an alternative for learning History at the high school level. The question was set up as follows: how do high school students from a state public school in the city of Curitiba, Paraná, construct historical knowledge mediated by the use of digital technologies? The hypothesis that underpinned the research conceives the possibility of teaching and learning, understanding that in the process of building historical knowledge, the mediation carried out by the teacher with the help of digital mobile devices in the classroom and the use of computers in the IT laboratory favors the process. of literacy in history.

The qualitative approach methodology had as data collection process written records and reports presented by the students, as well as notes made by the teacher. The analyzes were carried out based on the triangulation (TRIVINÕS, 1987) between the revised theoretical foundation conjecturing with the content of the notes of the speeches produced by the research subjects in the direction of an interpretative and articulated synthesis between the empirical data and the investigation objectives. It should be noted that the investigation is motivated by the resulting research questions in relation to the spontaneous manifestations of high school students, in the search to overcome the traditional didactics centered on the presentation of the contents that make up the curriculum of the discipline of History.

In the trajectory of the analyses, the stages of an exploration of the records of the students' speeches were privileged, followed by a thorough reading of this material collected to highlight the particularities, composing a set of indications about the process of learning historical knowledge in order to elaborate an interpretative synthesis.

Conception of historical knowledge and its teaching

The teaching of history, as well as its research and writing in contemporary times, suffers from diverse and urgent imperatives such as issues related to subjects, narratives, sources and documents, configuring countless alternatives in the elaboration of interpretations of historical dialogues. As Rüssen (2009) points out, dealing with the past becomes responsible for understanding the ongoing future, implying a demand for a critical review of the concepts of history and memories. Indeed, the production of historical knowledge generates impacts for the teaching of History as a field of study and research, as it addresses practical questions of historical cognition present in the science of History, which contribute to the construction of the subjects' historical knowledge, based on the concepts constructed by historical teaching and learning. In view of this, the teaching and learning of history presents itself as a field of investigation that deduces the commitment to the available sources by constituting historical knowledge by the subjects and, thus, becoming a primordial field of investigation for the changes in the dynamics in the learning process in a critical way, involving the participation of the subjects for their literacy in the different fields of knowledge.

Teaching and learning in High School demands, for the formation of students, the intense and continuous search for fundamental knowledge, and among them the historical knowledge of their time, because, by attributing consistent historical value to their possibilities of learning and socializing, they implement the human achievement. For this, the study of History postulates individual and collective inquiries about the interpretation of the past in its connection with the present (RÜSSEN, 2001). It clarifies the ways that drove the development of humanity and records the ideas, propositions, achievements and practices of human civilization. As Bianchessi (2019) points out, teaching history allows presenting a variety of artifacts to store, systematize and disseminate the memory of the past. Thus, the teaching and learning process in the discipline of History is the fundamental step to enable the involvement of students with the recognition that the activities related to teaching and learning in the discipline of History contain historical knowledge organized and systematized by professionals

in this area of know, by building their knowledge towards literacy in history. It should be noted that both teachers and students, when applying themselves to deepening knowledge in the teaching of history in the school environment, access the records of past events in a structured way and polished by researchers. (CAINELLI, 2008).

In this way, historical knowledge is fundamental for contemporary society because it comes from History as a result of the practices of different generations, since transformations occur continuously in the social, political and economic spheres, characterizing the different historical moments. Indeed, the intention of historical knowledge is to bring together the knowledge of past generations up to the present day. Increasingly, learning dynamics and new approaches are valued in the process of building historical knowledge as scientific knowledge in which the presence of elements and aspects are more collaboratively shared, making it possible to stimulate and expand access to knowledge to different audiences, very more than the transmission of historical content. In this sense, historical school knowledge assumes significant importance in the context in which the teachers' practices involve students, also taking into account the curricular propositions and contingencies typical of the school routine. By assuming this conception, history classes cease to be transmissive because they obtain:

[...] a doubly authorial character insofar as, on the one hand, they translate selections of historiography and curricular teaching practices developed by teachers in cultural and school contexts, however, on the other hand, they only take place in dialogue with their students, who also recreate the class with their choices, demands and interpretations (CARVALHO; KNACK, 2017, p. 103, our translation).

However, there is an expansion and diversification of new didactic practices with the insertion of instruments such as the elaboration of conceptual maps, classes in a computer lab, use of mobile devices, etc., in the school environment, which result in improvement of learning by new experiences carried out jointly with regard to elaborate historical and scientific knowledge are evidenced.

Thus, contributions are found for the training of students, favoring the interpretation and understanding of different realities, contexts and perspectives. In this way, historical knowledge can acquire outstanding importance in understanding aspects of the past and understanding the current condition of humanity and in identifying and recognizing the repercussions in the present. In order for this knowledge to be elaborated and understood in the direction of historical literacy, it is necessary to overcome the traditional conception of teaching history, by reflecting and organizing elements of a scientific nature present in the production of historical knowledge,

as well as in the understanding of the multiple achievements belonging to the constitution in history education, since literacy is the cognitive state or condition acquired by individuals and that enables them to exercise reading and writing practices not only of language but of historical knowledge, according to socially demanded needs (SILVA, 2011). For this, scientific knowledge has its own configuration of scientificity to be considered by the subjects, inferred according to the conditions in which the production of knowledge is elaborated in an impartial way. With this new process, traditional teaching methods were questioned, seeking alternatives that would lead students to construct historical knowledge in the classroom (BORGES; BRAGA, 2004).

In this path, the production of historical knowledge is based on a theoretical basis and epistemological foundations that guide the professor-historian to analyze various historical sources, whether from the present time and/or from a distant past, in which producing knowledge becomes an act of teaching and learning as a “literacy practice that permeates the exercise of the historian's craft” (AZEVEDO; MONTEIRO, 2013, p. 559, our translation). Thus, “learning history is an act of construction and reconstruction” (CERRI, 2009, p. 151, our translation). Understanding this permanent process of coming and going, the construction of historical knowledge in the digital age demands attractive alternatives in the appropriation of new technological tools and profound changes in the dynamics of classes, as well as in the conception of the teaching and learning process.

The trajectory of the constitution of historical knowledge as a Science, due to the specificity of its epistemological nature, surpasses the effects of traditional history in the school environment. This occurs through the delimitation of what constitutes the field of knowledge to be taught, through the didactic re-elaboration of historical knowledge, without excluding the temporal structure (BIANCHESSI, 2019). In this context, schooling is a fundamental stage for student development and it is up to the teacher to approach practices of mediation between scientific and empirical knowledge, from which it is possible to weave school knowledge articulated to the context in which the school is located (CARVALHO; KNACK, 2017).

History, nowadays, can often be seen as dispensable knowledge for the formation of students, in which the focus of the curriculum tends to be more on concern and professional preparation for work in the labor market, moving away from a formation of critical awareness. In view of this, current events and discussions, whether political, economic or professional, present in the students' social context and with interference in the social relations present in the dynamics of their daily lives, make some of them feel encouraged to seek teaching and learning

in History as Science. In addition to knowing the past through the nature of historical knowledge, several issues of the present are understood due to research on the past, insofar as it contributes to answering everyday questions, understanding that “literacy in History requires a mental interaction during readings of historical narratives with a usable historical structure, establishing a temporal orientation and allowing the construction of new meanings for the subject” (SILVA, 2011, p. 124, our translation). Therefore, it is about overcoming the memorized content of the story, which in itself is of no importance when understanding is not established with current life.

For Rüsen (2015, p. 52, our translation), “History is a temporal connection, full of events, between past and present (with a projection into the future), which, due to its representation in a narrative form, has meaning and significance for society. orientation of current practical life”, contemplating the construction of historical awareness, which implies the dimensions of definition in the identity of subjects and the establishment of the object of didactics and History Science. Indeed, the isolated past and present do not allow understanding, since History “is an intentional educational action (between generations) to form a certain identity or set of socially acceptable or desirable identities, associated with the formation of a historical thought” (CERRI, 2009, p. 150, our translation), connecting the notion of history of the present time to “a provisional knowledge that changes over time. This means that it is constantly rewritten, using the same material, through additions, revisions and corrections” (DELGADO; FERREIRA, 2013, p. 23, our translation).

With this understanding, History contributes with a reservoir of diverse human experiences in different times and spaces, giving meaning to knowing the past and providing references to understand the attitudes of subjects, amplifying the understanding of the modern world for the realization of other possibilities of experiences. Thus,

History is an elaborate form of memory; it goes beyond the limits of an individual life. It weaves the pieces of the remembered past into a temporal unit open to the future, offering people an interpretation of temporal change. They need this interpretation to adjust the temporal movements of their own lives (RÜSEN, 2009, p. 164, our translation).

Consequently, History is not restricted to studying the dead, inert and finished past, but is intended to contribute to the changes that are currently taking place, in their causes and developments, with the due magnitude attributed to the importance of the historical process. Skills in the use of digital technologies can be fundamental to help understand the current world

in its constant changes and offer subsidies to understand the transformations that occurred in the past, by providing information that favors reflecting on the current dynamics. Indeed,

The mere fact of belonging to the past does not make everything historical, it is necessary to make it historically possible and the past only becomes History when expressly interpreted as such; abstracting from this interpretation, it is nothing more than raw material, a fragment of dead facts, which is only born as History through the interpretative work of those who reflectively focus on it (RÜSEN, 2001, p. 95, our translation).

Bianchessi (2019) points out that, in this context, History is understood as a Science that, through research, is interested in all aspects of human life and, for that, benefits from knowledge of other Sciences, making History a Science of multiple dimensions in the scientific attitude and by using different languages. The importance of History is accentuated in the clarification of cultural heritage through historical awareness. It instigates students to question their own world through the repository of human experiences.

The approach of the research carried out resorted to planning the teaching of History as a science in order to understand that historical learning is ordered by several expressions in the development of historical consciousness, as it is “articulated to the way in which remote knowledge is experienced and interpreted, in a way that to provide an understanding of the present and to build future planning” (RÜSEN, 2006, p. 16, our translation). Therefore, the production of historical knowledge can be understood by teaching and stems from the interlocution built by the students. In other words: teaching History can lead to guiding the problems of practical life (RÜSEN, 2001). In the author's words:

[...] between teaching and learning History at the university and at school there is a qualitative difference, which is soon evident when reflection is promoted on the foundations of school teaching in an analogous way to what is done with the theory of history as a specialized discipline (RÜSEN, 2001, p. 50, our translation).

Therefore, the teaching of History contributes to the development of historical awareness, in which students have more autonomy to problematize, learn, understand and follow the changes in the contemporary world through pedagogical resources that help in their learning, because “the teaching of History of History is one of the most important instances for the political formation of subjects” (RÜSEN, 2011, p. 110, our translation). Thus, Bittencourt (2012, p. 57, our translation) points out that “the classroom is not just a space where information is transmitted, but where a relationship of interlocutors builds meanings” and that, together with the teacher, can build knowledge. In this way, “the proposal for a History Teaching

methodology that values questioning, the critical analysis of reality, conceives students and teachers as subjects who produce history and knowledge in the classroom” (FONSECA, 2008, p. 18, our translation).

Thus, they corroborate this understanding Azevedo; Monteiro (2013, p. 576, our translation) when expressing that:

Thinking about History taught and literacy requires reflection and dialogue with the fields of language and curriculum, permeated by issues inherent to the discipline, its writing and its practices in taught History. Teaching History requires a relationship with the world of life from its promoting agents and, therefore, the construction of meaning is constituted as validity and value in the situated spectrum of what is taught.

Teaching History requires a relationship with the world of life from its promoting agents and, therefore, the construction of meaning, which constitutes validity and value in the situated spectrum of what is taught, as Bianchessi (2019) highlights. Given this perspective, the teaching of History can be conceived through the understanding that knowledge and methodologies are established considering the relationship between students and teachers, that is, in that moment and space they constitute and participate in the construction of historical knowledge as subjects of History in its time, capable of producing historical knowledge and problematizing, through established social relations. Considering these considerations, this article focuses on historical learning as an object of research in History didactics, since “it is one of the dimensions and manifestations of historical awareness. It is the fundamental process of human socialization and forms the core of all these operations” (RÜSEN, 2006, p. 16, our translation).

It is understood, therefore, that the teaching and learning process, the methodologies, the construction of knowledge and practices are consolidated as knowledge of History in all its areas and dimensions. Thus, there is the understanding that teaching and learning in the discipline of history offers conditions for “more than anything else, to be able to give a new meaning to the phrase *'historia vitae magistra'*” (RÜSEN, 2006, p. 16, our translation). Therefore, the teaching of History can value the formation of historical awareness, providing opportunities for the construction of the individuality and identity of the subjects. With this, History can result from the activity of research, interpretation and conception developed by the professor-historian in order to preserve the scientific nature of historical knowledge.

When considering the learning process through the assimilation, interpretation and understanding of knowledge by students, the teacher can turn these historical sources into tools to express, in a pedagogical way, that history is constituted by the traces of the past created by

men and which are instituted in elements used to understand a given society. Thus, it is through this experience that learning is set in motion so that the “unit of historical learning in its complex references to present challenges, past experience and future expectations is resolved in the narrative structure of this work of interpretation” (RÜSEN, 2011, p. 43, our translation).

Rüsen (2011, p. 79, our translation) emphasizes the understanding that “the past becomes present, so that the present is understood and perspectives on the future can be formed”. With this, it is important to awaken a practice that allows orientation in time, since “we do not understand the school as the only place of Literacy” (AZEVEDO; MONTEIRO, 2013, p. 575, our translation), through the teaching of History that “allows the individual to the inquiry about the past, so that the answer makes some sense in the present and that somehow this subject finds a historical orientation for his daily life” (RÜSEN, 2007, p. 133, our translation).

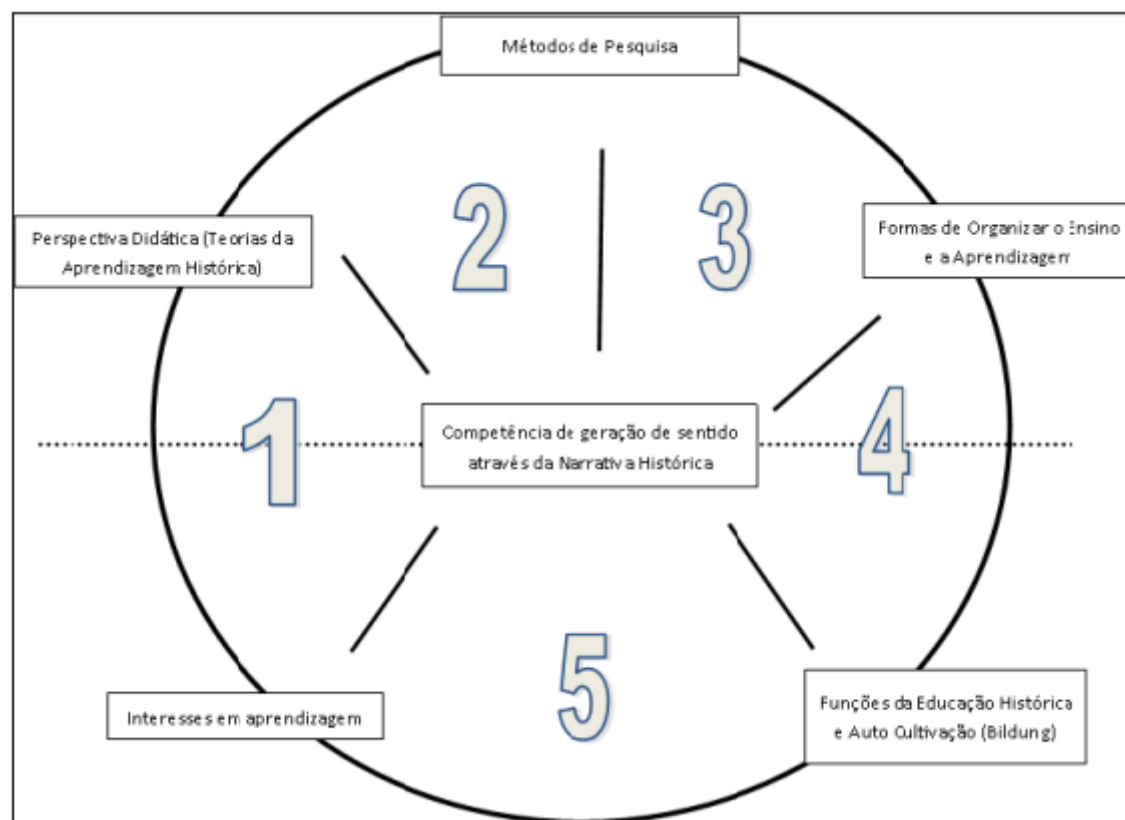
Practice in teaching history and its didactic matrix

The teaching practice expressed in the didactic matrix of Jörn Rüsen (2001) takes his matrix of historical thought as a reference, since the intention is to bring didactics of History closer to the theory of History, based on its matrix of historical thought. The Theory of History by the German historian Jörn Rüsen (2001) articulates methodological and even epistemological reflections with arguments that establish the foundations and function of historical thinking. The basic intention of this theory is to attribute meaning to what is known as History. This attribution of meaning is expressed both for historical thinking in general and for its scientific form, in historiography for its practical application, in the didactics of History for cultural orientation in society and in contemporary cultural sciences. Indeed, the theory and method of historical research in the 21st century have guidance and deepening instruments in the production of historical knowledge, in its dissemination and in the teaching and learning process.

Rüsen 's matrix is presented in the figure below, which highlights the teaching and learning process related to the daily life and interests of the subjects. In view of this, its beginning and end in the process of teaching History refer to the stage in which those who teach and those who learn are found. The process of constituting the production of historical knowledge is related to teaching and learning and both follow the course of the historical

research method. In addition, Rösen 's matrix presents the teaching and learning process related to the daily life and interests of the subjects.

Figure 1 – History Didactic Matrix³



Source: Rösen (2015, p. 25)

By taking the Didactic Matrix of Rösenian History as a starting point, the process of construction of historical knowledge is carried out by the involvement of the subjects to know themselves in the knowledge of the other and in the space in which they are inserted. The role of scientific and historical knowledge indicates that the process of teaching and learning History is based on consulting Science. The same procedure is carried out in the constitution of the production of historical knowledge articulated with teaching and learning, therefore both run through the course of the research method.

Thus, in the research reported in this article, the practice experienced in teaching History seeks to analyze the possibilities of using digital mobile devices in the classroom. In general, this type of practice has been characterized as an innovation in teaching processes, with several

³ Clockwise: Research methods; Ways of organizing teaching and learning; Functions of teaching history and Bildung; Learning interests; Didactic perspective (historical learning theories).
At the center: Competence to generate meaning through Historical Narrative.

possibilities. The purpose is to reflect on the current scenario of digital mobile learning. Within the scope of Bianchessi 's research (2019), based on the Pedagogical Practice report, the experiment was carried out driven by the need to insert an adequate methodology for teaching History, a discipline in which the researcher acts as a teacher. The intention was to value the students' reflection activity in carrying out interactive actions in the construction of historical knowledge, making use of digital technological resources.

In order to carry out the investigation, the students were invited to make posts during the classes given by the professor of the discipline on the approached theme that was associated with the subject. The subjects refer to the curricular proposal developed by the teacher. Thus, the students were directed to register their posts and keep the blog updated with the themes of the Industrial Revolution. It is noteworthy that the choice of this subject was due to the content being studied, according to the school menus, in order to maintain the focus on the discipline. The students were also instructed to develop queries in their homes using the internet, and from these queries to prepare small texts to post autonomously, without the presence of the teacher and classmates. Based on the theme, the students also exercised their ability to make relationships with everyday situations related to the files researched on sites indicated by the teacher to build and expand their knowledge. In this process, the reading and discussion of texts in class were preceded by activities on the blog as complementary reading to existing texts in the textbook. To this end, new activities were proposed with a view to interactive learning, linked to the theoretical discussion of the texts.

In carrying out this process, the records made during the investigation, and the reading of the texts and posts made by the students, it was possible to infer that the activities made the students more involved and they agreed, among themselves, on the need to be attentive and prepare for the new professional demands that are emerging and how different professions are created from those they knew. This experience expanded the possibilities of previous professional activity that the students believed to be sufficient for their future, so that this process is described by Rösen (2009, p. 168, our translation) as “meaning the experience of time interpreting the past in order to understand the future”. present and anticipate the future. It is important to point out that the majority of students did not express that they were prepared to act in the contemporary context in constant transformation, even due to the various failures in carrying out internships that they tried, but in which they were not successful.

For these students, these activities provided a change in their relationship with History, as the discipline became a field of application of historical knowledge as “an object proper to

historical thinking in its specifically scientific model” (RÜSEN, 2001, p. 54, our translation). For the same historian, History as Science can be a manifestation of historical thinking and even historical awareness as a foundation of the Science of History and inserted in everyday life as a way to better understand and analyze the attitudes of historical subjects. Thus, historical awareness can be considered a foundation of the Science of History related to the daily lives of students in practice. It is also noticed that students believe that the insertion of technologies will create new professional opportunities and that this will be possible with the need to reformulate current training models.

The understanding that the natural time of situations is different from human time was understood by the students, as it was possible to infer from the records made, as they overcame the tendency to represent their attitudes in an unsystematic temporal process and little reflected for a more organized way, even if in a practical way. This understanding of time interferes with students' decisions, in which time is saved by historical thinking, but, on the other hand, time is saved by historical knowledge (RÜSEN, 2009).

The findings from the experiment point to new and constant challenges for students, who find in school the purpose of providing a critical and humanized reading of this process, by developing analyzes of the complex problems encountered in their context. It is up to the school to provide opportunities for discussions and reflections on contemporary themes in a balanced way with experience and memory, and

The past needs to be able to be articulated, as a state of affairs, with the guidelines present in contemporary action, as well as the determinations of meaning, with which human action organizes its intentions and expectations in the flow of time, they also need to be given as a fact of experience (RÜSEN, 2001, p. 73, our translation).

Thus, the understanding of facts, situations and past attitudes that guide contemporary social relations occurs through the traditions in which the accumulated experiences of the past are present, even if one is not aware as such. Given the topicality and relevance of the subject studied, but still little discussed in a systematic and judicious way in the classroom, it is registered as a suggestion for new practices the recommendation of replicating this study with other groups of students, in order to compare and even contrast the results constructed and obtained by the participants of this experiment. In this sense, further investigations are in order to better understand the need for changes in teaching methods and learning processes as a result of the new social and historical context that presents itself.

Final remarks

In the analyzes arising from the examination of the records made by the students and the teacher about the experience carried out, considering the objective of the investigation, to analyze perceptions of high school students from a state public school in the city of Curitiba, the inferences point to the dimensions: (i) the didactics of history from the perspective of Rüssen 's propositions ; (ii) the insertion of digital technologies in the history teaching and learning process and history literacy; (iii) the processes of interaction and mediation in the learning of high school students.

Thus, in relation to (i) the didactics of history from the perspective of Rüssen 's propositions:

- the learning of historical knowledge considering literacy practices for the formation of historical awareness in which the production and research of historical knowledge is articulated with its teaching requires that the teacher is also a researcher to understand the research method in history;

- the importance of the teacher considering the experiences of students in the teaching and learning process and the importance of instructing oneself with different languages in the classroom, such as movies, music, among others;

- it is necessary to provide students with collaborative and cooperative research and production situations, based on educational content in different spaces, so that students, when carrying out activities, can reflect and create texts individually and collectively in different spaces;

- the insertion of mobile devices expands the possibilities of articulation between knowledge and experiences, contributing to the improvement of the establishment of a relationship between historical knowledge and the teaching of history;

- students, by writing essays, checking documents, perceiving their own geographical location in space and historical time, become learners of research in history at the same time as they learn history, a moment in which the experience made it possible for students to become aware of being subjects of the historical process and not just passive students in the face of the usual teaching process;

- learning favors the education of students and, concomitantly, articulates with the propositions of the BNCC.

The results concerning (ii) the insertion of digital technologies in the process of teaching and learning history and literacy in history allow us to indicate:

- the expansion of the literacy process and practice so that the teacher can carry out differentiated and hybrid methodologies and in the school space, especially in the classroom;
- that teaching practices through literacy activities enabled students to make more sense of their social context, in which digital technology plays a supporting role;
- that consultations on *blogs* and text production constituted literacy practices, contributing to the production of knowledge in a school, social and historical perspective validated by the students' life context;
- that, therefore, several tools made available by technology benefited students in the construction of their historical narrative, with the possibility of transporting themselves, virtually, to any other place and understanding various aspects of personal and collective history in relation to the impacts of the subject studied.

As for (iii) processes of interaction and mediation in the learning of high school students:

- the active and collaborative participation in the process made it possible to present a more critical action about oneself and reflective regarding the instruments inserted in the school space;
- the support networks of the students among themselves were expanded, favoring a more collaborative learning and, as a result, there was more enthusiasm and involvement in carrying out the activities;
- the teacher, when changing the methodology from the transmissive mode to mediation, sought more inquiry and questioning and less the prescription and assertive explanation of contents.

In general, the experience carried out highlighted, in the records, evidence that not all students are able to operate digital technologies intuitively. Therefore, different languages are indispensable in the pedagogical practices of teaching and learning in the discipline of History. The reduction of classes only to textbooks and/or exclusively to digital technologies is not recognizing that the other resources are sources of different knowledge and expertise.

In the dynamics of the learning activities, the students began to understand the facts related to History and build relationships between past and present. At this moment of construction, each one was realizing the importance and convenience of consulting the computerized resources. Thus, the inclusion of mobile devices and the computer lab in the practice of teaching and learning in the teaching of History favored the separation from the usual teaching formula, which is based almost exclusively on access to the contents provided

by textbooks. Thus, a transmissive teaching is overcome for a teaching based on the collective systematization of knowledge.

The experience carried out with this group of students made it possible to show that they develop the skills of initiation to investigation, expand their inquiries about the contents when they realize that knowledge can be contextualized in everyday life. It was evidenced with the approached theme, when relating the impact of technologies present in the Industrial Revolution, that historical knowledge establishes relations with the daily life of these subjects, when they perceive the replacement of labor by machines. In addition, they were able to perceive the creation of new professional opportunities that these innovations provide. Thus, the knowledge learned becomes part of the students' cognitive structure, expanding and deepening the way they understand the socio-historical reality.

The challenges and difficulties encountered in the process refer to: the resistance of some students to working collectively and experimenting with new ways of learning; the limitation of technological operability, due to poor quality internet access and insufficient quantity of computers in school laboratories, with many of the equipment obsolete or with technical problems. During the course of the investigation, these limits were overcome by the benefits presented by digital technology with the teacher's mediation, and even by the collaboration established between the students.

The results of the investigation demonstrated the possibility of inserting digital technologies in the school environment to provide learning and literacy in History, provided that the planning is carried out and that the teacher proposes to be a mediator in a collaborative way, aiming at the development of students' autonomy, and especially making activities more fun. From the records of the students' speeches, it was noticed the possibility of changing the way of inserting mobile devices and carrying out searches on the internet, as they developed consultation skills encouraged by the teacher to analyze the information.

It is important to highlight that mobile devices can provoke resistance on school premises, and it is necessary to review the legal norms that restrict and prohibit the diversification and expansion of these mobile devices and digital devices in the school environment.

Finally, the experience made it possible to reflect on the relevance of History as a reflection of man's performance as a historical and social being and the understanding that the teaching of History is not the transmission of disconnected facts or simply the characterization of exponential characters in remote or present times. When creating a *blog*, it was possible to

infer that: there is a greater approximation between students and professors, and between the students themselves; there is reflection and expansion on the contents of the research; increase opportunities for insertion and digital literacy for the teacher as a mediator and for the student as an interactor; access to knowledge is extended beyond the school space; there is greater interaction with parents, who were able to follow the students' activities, as well as the exchange of experiences with other students.

So, the experience carried out also aimed to provide the subjects with a reflection on social transformations and the strengthening of capitalism provided by technology, as well as expanding the understanding of production relations in today's society.

ACKNOWLEDGMENTS: To the National Council for Scientific and Technological Development – CNPQ for its support in the publication of this article.

REFERENCES

AZEVEDO, P. B.; MONTEIRO, A. M. F. C. A sala de aula e a produção de sentido em práticas de letramento na história ensinada. **Práxis Educativa**, Ponta Grossa, v. 8, n. 2, p. 559-580, jul./dez. 2013. Available at: <https://revistas.uepg.br/index.php/praxiseducativa/article/view/4849>. Access: 10 Nov. 2022.

BIANCHESSI, C. **A construção do conhecimento histórico mediado por tecnologias digitais no ensino médio**. 2019. Dissertação (Mestrado em Educação) – Curitiba, PR: UNINTER, 2019. Available at: <https://repositorio.uninter.com/bitstream/handle/1/446/CLEBER%20BIANCHESSI.pdf?sequence=1&isAllowed=y>. Access: 10 Nov. 2022.

BITTENCOURT, C. M. F. **O Saber Histórico na Sala de Aula**. São Paulo: Contexto, 2012.

BORGES, M. A. Q.; BRAGA, J. L. M. O ensino de História nos anos iniciais do Ensino Fundamental. **Revista On-line Unileste – MG**, v. 1, n. 1, jan./jun. 2004. Available at: http://www.unilestemg.br/revistaonline/volumes/01/downloads/artigo_09.doc. Access: 10 Nov. 2022.

BRASIL. **Base Nacional Comum Curricular**. Brasília, DF: MEC, 2018.

CAINELLI, M. R. A construção do pensamento histórico em aulas de história no ensino fundamental. **Tempos Históricos**, v. 12, n. 1, p. 97-109, 2008. Available at: <https://e-revista.unioeste.br/index.php/temposhistoricos/article/view/1946>. Access: 10 Nov. 2022.

CARVALHO, A.; KNACK, D. Conhecimento histórico escolar, tempo presente e o uso de documentos audiovisuais no ensino sobre a ditadura militar na educação básica. **Revista**

História Hoje, v. 6, n. 12, p. 98-121, 2017. Available at:
<https://rhbj.anpuh.org/RHHJ/article/view/391>. Access: 10 Nov. 2022.

CERRI, L. F. Os conceitos de consciência histórica e os desafios da didática da história. **Revista de História Regional**, v. 6, n. 2, p. 93-112, 2009. Available at:
<https://revistas.uepg.br/index.php/rhr/article/view/2133>. Access: 10 Nov. 2022.

DELGADO, L. A. N.; FERREIRA, M. M. História do tempo presente e ensino de História. **Revista História Hoje**, v. 2, n. 4, p. 19-34, 2013. Available at:
<https://rhbj.anpuh.org/RHHJ/article/view/90>. Access: 10 Nov. 2022.

FONSECA, S. G. **Didática e prática de Ensino de História: experiências, reflexões e aprendizados**. 7. ed. Campinas, SP: Papirus editora, 2008.

GRAFF, H. J. Em busca do letramento: as origens sociais e intelectuais dos estudos sobre letramento. **Rev. Bras. Hist. Educ.**, Campinas, v. 16, n. 1, p. 233-252, abr. 2016. Available at: http://educa.fcc.org.br/scielo.php?script=sci_arttext&pid=S2238-00942016000100233&lng=pt&nrm=iso. Access: 10 Nov. 2022.

RALEJO, A. S.; MELLO, R. A.; AMORIM, M. O. BNCC e Ensino de História: horizontes possíveis. **Educar em Revista**, Curitiba, v. 37, e77056, 2021. Available at:
<https://www.scielo.br/j/er/a/4jVvMMkVMzjLGYRrBnKnft/>. Access: 10 Nov. 2022.

RÜSEN, J. **Razão histórica**. Teoria da história: os fundamentos da ciência histórica. Brasília, DF: Ed. UNB, 2001.

RÜSEN, J. Didática da História: passado, presente e perspectivas a partir do caso alemão. **Revista Práxis Educativa**, Ponta Grossa, v.1, n. 2, p. 07-16, 2006. Available at:
https://moodle.ufsc.br/pluginfile.php/558563/mod_resource/content/0/artigo_Rusen_didatica_da_historia.pdf. Access: 10 Nov. 2022.

RÜSEN, J. **Reconstrução do passado**. Teoria da história II: os princípios da pesquisa histórica. Brasília, DF: Ed. UNB, 2007.

RÜSEN, J. Como dar sentido ao passado: questões relevantes de meta-história. **Revista História da Historiografia**, Ouro Preto, v. 2, n. 2, p. 163-209, 2009. Available at:
<https://www.historiadahistoriografia.com.br/revista/article/view/12>. Access: 10 Nov. 2022.

RÜSEN, J. Aprendizado histórico. In: SCHMIDT, M. A.; BARCA, I.; MARTINS, E. R. (orgs.). **Jörn Rüsen e o ensino de história**. Curitiba, PR: Editora UFPR, 2011.

RÜSEN, J. **Teoria da História**. Uma teoria da História como ciência. Curitiba, PR: editora UFPR, 2015.

SILVA, M. A. Letramento no Ensino de História. **Cadernos de História**, Belo Horizonte, v. 12, n. 17, 2011. Available at:
<https://periodicos.pucminas.br/index.php/cadernoshistoria/article/view/P.2237-8871.2011v12n17p111>. Access: 10 Nov. 2022.

TRIVIÑOS, A. N. S. **Introdução à pesquisa em Ciências Sociais: A pesquisa qualitativa em educação.** São Paulo: Atlas, 1987.

CRediT Author Statement

Acknowledgments: Not applicable.

Funding: National Council for Scientific and Technological Development – CNPQ.

Conflicts of interest: There is no conflict of interest.

Ethical approval: The project to which the research is affiliated was submitted to the Ethics Committee of the UNINTER International University Center. Approved: CAAE: 12454119.6.0000.5573.

Availability of data and material: The data and materials used in the work are of restricted query file. They can be obtained in consultation with the researchers.

Authors' contributions: The data were researched by Cleber Bianchessi, the first version was written by Cleber Bianchessi. The second version was written by Joan Paulin Romanowski. The review was done jointly by Cleber Bianchessi and Joana Paulin.

Processing and editing: Editora Ibero-Americana de Educação.
Proofreading, formatting, standardization and translation.

