Curriculum and digital technologies in youth and adult education in Brazil: a systematic and integrative analysis[1]

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ABSTRACT

The article aims to contribute to the systematization of knowledge about curriculum and digital technologies in the field of Youth and Adult Education in Brazil. It presents a mapping of research on the subject and the main foundations and recurring authors in scientific productions in the area. Methodologically, it is characterized as a bibliographical study, of qualitative approach, whose methodological path includes systematic and integrative reviews of articles selected from the journals portal of the Coordination for the Improvement of Higher Education Personnel, between the years 2007 and 2017. By analyzing in depth the selected articles, it became evident that the insertion of digital technological resources in the mediation of knowledge and knowledge for young people and adults should be thought from the construction of a curriculum that modifies the rigid, fragmented, and decontextualized way of teaching, so present in Youth and Adult Education.

KEYWORDS: Curriculum. Youth and Adult Education. Educational technologies. Knowledge society.

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Currículo e tecnologias digitais na escolarização de jovens e adultos no Brasil: uma análise sistemática e integrativa

RESUMO

O artigo tem como objetivo contribuir para a sistematização de conhecimentos sobre currículo e tecnologias digitais no campo da Educação de Jovens e Adultos no Brasil. Apresenta um mapeamento de pesquisas que tratam sobre o tema e os principais fundamentos e autores recorrentes nas produções científicas da área. Metodologicamente, caracteriza-se como um estudo bibliográfico, de abordagem qualitativa, cujo percurso metodológico inclui revisões sistemáticas e integrativas de artigos selecionados no portal de periódicos da Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, entre os anos de 2007 a 2017. Ao se analisar em profundidade os artigos selecionados, evidenciou-se que a inserção de recursos tecnológicos digitais na mediação do saber e do conhecimento para jovens e adultos deve ser pensada a partir da construção de um currículo que modifique a forma de ensino rígido, fragmentado e descontextualizado, tão presente na Educação de Jovens e Adultos.

PALAVRAS-CHAVE: Currículo. Educação de Jovens e Adultos. Tecnologias educacionais. Sociedade do conhecimento.

Currículo y tecnologías digitales en la educación de jóvenes y adultos en Brasil: un análisis sistemático e integrador

RESUMEN

El artículo pretende contribuir a la sistematización del conocimiento sobre el currículo y las tecnologías digitales en el ámbito de la Educación de Personas Jóvenes y Adultas en Brasil. Presenta un mapeo de las investigaciones que abordan el tema y los principales fundamentos y autores recurrentes en las producciones científicas del área. Metodológicamente se caracteriza por ser un estudio bibliográfico, de enfoque cualitativo, cuyo recorrido metodológico incluye revisiones sistemáticas e integradoras de artículos seleccionados del portal de revistas de la Coordinación para el Perfeccionamiento del Personal de la Educación Superior, entre los años 2007 y 2017. Al analizar en profundidad los artículos seleccionados, se evidenció que la inserción de los recursos tecnológicos digitales en la

mediación de saberes y conocimientos para jóvenes y adultos debe ser pensada a partir de la construcción de um currículo que modifique la forma rígida, fragmentada y descontextualizada de enseñar, tan presente en la Educación de Jóvenes y Adultos.

PALABRAS CLAVE: Curriculo. Educación de jóvenes y adultos. Tecnologías educativas. La sociedad del conocimiento.

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Introduction

These days, much is debated about the impact of digital technologies in people's lives. For a long time, many authors (ALMEIDA, 2014; KENSKI 2012; SANCHO, 2001) have been expressing about its presence in the educational field and about the need to approach the cyclopedic and closed world of schools and the dynamic and borderless world of digital technologies. However, when assessed the schooling of youth and adult in Brazil, there is few experiences involving the application of digital technologies in curriculum proposals and pedagogical practices to this category.

Focusing on contribution to the systematization of knowledge produced from the studies in the field of Youth and Adults Education (YAE), curriculum and digital technologies is the purpose of this paper. Therefore, it was performed a systematic and integrative review of the literature (COSTA; ZOLTOWSKI, 2014), from the assessment of the productions available in the journals portal of the Coordination for the Improvement of Higher Education Personnel (CAPES), between the years 2007 and 2017. It is relevant to highlight, this production is part of the Study Group and Research in Youth and Adults Education trajetory (EPEJA), developed in partnership between two Higher Education public institutions from the South of the country, for the elaboration of a digital glossary with the main foundations and recurring authors in scientific productions in the area. In order to achieve the purpose in question, the

paper is organized as follows: first, it describes the methodological path chosen for the investigation of the Study Subject. Following, it presents the selected papers systematization for the study. At last, it highlight the concepts and recurring authors that emerged in the productions reviewed.

Research Trajectory

The methodological procedures adopted throughout the research are based on Costa and Zoltowski (2014), who proposes the systematic review of the literature from eight steps: delimitation of the question to be researched, choice of data sources, election of keywords, search and storage of results, selection of papers, extraction of data from the selected papers, evaluation of papers, synthesis and data interpretation. For these authors, the systematic review is a method that refers to the reunion process and critical and synthetic evaluation of multiples studies results, compounding a reflexive work, critical and comprehensible regarding the material reviewed (COSTA; ZOLTOWSKI, 2014, p.55-56).

Considering the premises above, the research process began from the delimitation of the first three steps described by the authors previously mentioned. Therefore, searches were made in the Portal of Journals of CAPES with descriptors and Boolean Operators "EJA *and* Technology", between the years 2007 and 2017. Such descriptors were determined based on Educational Brazilian Thesaurus. The first search found 70 publications. After a fluctuating reading of the titles, abstracts and keywords, 48 publications were selected to compound the bibliographic field. Towards the knowledge state of these selected publications, the papers were organized from theme axes, as Table 1.

TABLE 1: Mapping of selected Productions and theme axis

Theme axis	Study Subject	Frequency
Technology and inclusion	Aproaching questions regarding socio-digital inclusion on EJA and Permanent Education.	5
Technology and faculty formation	Debating the formative process, the dilemmas, impasse and tension points in the multifaceted connection between technology and faculty formation.	10
Technology and profissionals formation in others educational context	Contemplating as research subject the profissionals formation in others educational context, non-formal and informal education, those related wih EJA and/or Permanent Education and technologies.	4
Technology, curriculum and evaluation	Debating questions related to technology and curriculum, evaluation and teaching methodology at EJA, as well as in Permanent Education.	29
		Total 48

Fonte: Table created by the authors (2021)

On the following step, eighteen researchers-collaborators who integrate the research group made thoroughness readings of selected materials and noticed the need to categorize the productions from the theme axis "Technology, curriculum and evaluation" in sub-axes, in view of the wideness and variation of the presented discussions. Therefore, the twenty-nine papers composed in this theme were subdivided in seven sub-axes, as shown on Table 2.

Table 2: Theme Sub-axes "Technology, curriculum and evaluation".

Theme sub-axis	Study Subject	Frequency
Pedagogical practices	Researchs about pedagogical practices at EJA related to the use of technologies.	5
Basic Education focusing on Teaching and Learning	Papers related to technologies at EJA, focusing on teaching school disciplines. Debating the connection between Youth and Adult Education and technologies on Teaching and Learning processs	14
Higher Education	Connection between Higher Education and technologies at the scope of Youth and Adult Education.	2
PROEJA	Researchs related to PROEJA, especific modality of Profissional Education at EJA.	2
School evasion	Connection between EJA and and School evasion at Youth and Adult Education.	1
Profissional Education	Connection between Profissional Education and technologies.	2
Curriculum and evaluation	Debating questions related to curriculum and evaluation at EJA	3
		Total 29

Fonte: Table created by the authors (2021).

For this paper purpose, the reviewed materials refer to five publications that belongs to sub-axis of discussion "Pedagogical practices". Such papers are presented on Table 3.

Table 3 – Papers that belongs to sub-axis "Pedagogical practices"

Paper Title	Authorship	Journal
Youth and Adults in the schooling process and the digital technologies.	BRITO, B.M.S.	Revista Eletrônica de Educação, v. 7, n. 2, 2013, p. 23-38.
Educational technologies in Youth and Adults Education in schools in Amazon: potentialize faculty practices.	GOMES, I.S.M; PRAZERES, M.S	Revista Conexão UEPG, v. 13 n.2 - maio/ago, 2017, p.292-293.
Textbooks handouts: Math curriculum and the High School duality.	FONSECA, A.G; VILELA, D.S.	Boletim da Educação Matemática, , v. 28, n. 49, abr. 2014, p. 557-579.
Crayon Sharks: a case study about the design and aplication of a digital game for Science Teaching.	SILVA, M.L.M; ARAUJO, R.M.	Revista Holos, Ano 33, Vol. 07, 2017, p.328-343.
Challenges and possibilities of Physical Education as a curricular component in the regional expansion process of the Federal Institute of Education, Science and Technology of Rio Grande do Norte – IFRN	BATISTA, A. P; SOUZA FILHO, M; OLIVEIRA, I. P. B; SOUZA, H. A. G; MELO, J. P.	Revista Holos, Ano 30, Vol. 4, 2014, p. 492-501.

Fonte: Table created by the authors (2021)

Taking the papers mentioned above as a starting point, it presents as follows a detailed analysis performed on each of them and its articulations with the study area referenced authors to delimit extracted concepts.

Technology and Curriculum on Youth and Adult Education: Papers appointments and specificities

The paper entitled "Youth and Adults in the schooling process and the digital technologies" (BRITO, 2013) belongs to the author's Master's dissertation and approach the use of digital Technologies by EJA students and its connection with schooling learning and process they live.

In this paper, Brito (2013) presents the results of the semi structured interviews performed by five students at public schools from Freguesia do Ó area and from Brasilândia in northwest area of São Paulo, Brazil. The interviewed were chosen from a questionary application to thirty EJA students from this area. When describing the interviews, the author states the digital technologies social use made by these students, such as: surfing social media, watching movies, downloading music, shopping, playing online, and for pleasure, in general. Also describes the difficulties presented by the students on their school journeys and the perception about the use of digital technologies in school and as tools that potentialize the formal and informal learning. After a thorough review, methodologic path clarified by Minayo (2001, p.59) such as the comprehension of beliefs meaning, behaviors, interests, motivations and values which does not configure to reductionism of variable mechanization, Brito (2013) points out that the interviews and questionnaires applied confirm the opinion where these students acknowledge the school as essential locus to alphabetization. Another defended idea is that the school knowledge valorization in regard to the knowledge acquired outside school grounds is part of the EJA's scholars. The research results indicate that the school view remains as a place to acquire encyclopedic knowledge, technical knowledge and not as a place for social interactions and appropriation of knowledge for reflections accomplishment and actions that allows personal development. In this manner the participants do not relate the school with technology use either. For them, everything they have learned or known about the use of technologies, specially by the use of internet and computers, it was learned outside the school, with relatives, friends or *lan-houses*. Despite the lack of connection that EJA's scholars make between their school learnings and the social application of information technologies and communication, Brito (2013) notices that schooling relates directly to the frequency of internet use: the more educated, more EJA's scholars are

connected to the internet. On hypothesis raised by the author referring to this connection is that the intensive use of search engine and the communication through social media by the majority of the scholars would allow EJA's students to practice more writing and reading than they used to do before connecting.

The second paper, entitled "Educational technologies in Youth and Adults Education in Amazon's schools: potentializing faculty practices", Gomes and Prazeres (2017) describes the experience developed in an extension project scope which the authors participated, attached to Federal University of Pará (UFPA). The authors describe and analyze the theoretical-practical workshops offered to riverside school teachers located on Vila de Porto Grande (PA) about the theme: use of educational technologies in EJA's classes. For mapping the faculty formative needs regarding the theme, Gomes and Prazeres (2017) applied a questionnaire formed by multiple choice questions. The data analysis collected, show the schools limited access of technological resources, lack of policy of teachers formation for technologies use and most of the interviewed do not apply technologies as a didactic resource. The research results also show, that the teachers had more interest to know and apply on their pedagogic practices the internet, the *datashow* and the computer. By reflecting about the data collected, Gomes and Prazeres (2017) seek in Cysneiros (1999) the concept of "conservative innovation" to state that the data indicate the use of technological tools by these professionals is limited to bureaucratic and administrative matters, moving away from innovative methodologies that contribute to the improvement in teaching quality. From this point of view, such workshops were planned and performed. Regarding the theoretical aspects approached, stands out: the different historical context, conceptions and the proposal settings of EJA in Brazil, the main political problems, economic and pedagogical that marked the educational services of the young and adult population and the technology concept and educational technology. Regarding the

practical aspects, the use of various tools was explored, such as slide production, the internet, the use of computer. It is worth mentioning the reflection related to the use of films as educational resources, not only in order to broaden understanding of a particular content, but also to provide reflection on the influence of the media on society and, specially, in school. Gomes and Prazeres (2017) enclose by stating that the faculty's formation course contributes for EJA's faculty be qualified, not only in the use and appropriation of technologies in their pedagogical practices, but to build subsidies for a reflection on the limits and possibilities of the appropriation of technologies in Amazonian riverside schools.

The paper entitled "Textbook and handout: the mathematics curriculum and the duality of High School" by the authors Fonseca and Vilela (2014), presents a comparative analysis of some textbooks and handouts dated from 2009, available in the National Textbook Program – PNLD, and used by high school students in the country, and the justification of the educational institution about its choice. For comparative analysis, it is observed that the research started from a script based on the curriculum theory, analysis of graphic features, selection and sequence of content and connection with the areas of knowledge, presence of exercises of college entrance exam, preface analysis and teaching methodologies. At first, the article presents a brief history on the political and social configuration of Brazilian education and its influences on the distribution of the textbook and handout. In that article, the didactic material is seen as a printed technological resource that advances and enters the space of public schools, mainly by the State of São Paulo. In this sense, Fonseca and Vilela (2014) point out that the data analyzed indicate the growth of scholar books in the country, precisely to expand a form of teaching that reproduces what is handle to all society, mitigate the impact of student grades on national assessment processes such as Brazil Exam, increase the Indices de Desempenho da Basic Education Perfomance Index– IDEB and may mitigate the non-compliance impact of the tasks

described in the Plano Nacional Education Program – PNE. The authors also state that handout as a didactic material makes possible to point out and achieve more accurate results in national evaluations, because it fulfills its function of conditioning and positive reinforcement, according to the Behaviorist theory and the rescue of technicality of the 70s. This also reverberates in the didactic material of Youth and Adult Education in High School, as it presents itself as technical materials for the approval and obtaining the conclusion certificate.

In the fourth paper analyzed, "*Crayon Sharks*: a case study on the design and application of a digital game for science teaching", Silva and Araújo (2017) indicate, through participatory research, the application and results of a prototype of educational digital game for 7th grade middle school students, focused on the contents of the science discipline, in a public school from Macau/RN. On the research, the authors show that using a different teaching methodology and technologic resources, the students are allowed to a significant learning and instigative creativity on Science discipline. For Silva and Araújo (2017), considering the setting of the digital game market and the dissemination of technologies among the young, it can be seen that the use of media material in science teaching brings content closer in a interactive way and closer to the current reality. Therefore, the paper supports the digital games insertion in school classes and launches a prerogative about the teacher formation and the need of getting to know the design process and digital game application towards the teaching and learning process. After data analysis, the authors found that during the development and application of the prototype of Crayon Sharks digital game the target has been reached because the students developed the game aimed at solving a problem related to the contents of Science with great ease and enthusiasm. With the result and analysis of a semi-structured questionnaire, answered by the participating students, it became evident that Crayon Sharks is an educational game that provides the

development of "fun" activities which facilitates and encourage the student to absorb and understand the contents of a discipline. In "Challenges and Possibilities of Physical Education as a curricular component in the regional expansion process of the Federal Institute of Education, Science and Technology of Rio Grande do Norte – IFRN", Batista *et al* (2014) brings as a research proposal to discuss the social function of Physical Education as a curricular component in the process of the integrated high school education. The research was developed based on the experiences lived in the classes teached by the authors, in high school classes in fourteen cities surrounding the city of Pau dos Ferros (RN). The participating students in the survey lived in the countryside and traveled approximately two hours to reach the schools. Batista *et al* (2014) begin the studies with a theoretical reflection driven by his professional degree and instigated to relate academic knowledge with the institutional pedagogical practice of the physical education teacher. For such, they highlight the role of Physical Education in the curriculum of integrated high school students, through the reading of IFRN documents and the Pedagogical Political Project (PPP). From this scenario, Batista *et al* (2014) highlight that the insertion of the pedagogical practice of the physical education teachers of IFRN in integrated High School, made it possible to turn social Physical Education not only a document, but in action that interferes in the whole education of the student within this education category.

Concepts and recurrent authors in the analyzed productions: contributions to (re) think about the theme

The authors of the analyzed papers adopt different theoretical references to support their research. This is due to the diversity of contexts and areas of activity in which the researches are situated. That way, the theoretical references used by the authors were organized based

on their themes, recurrences and the concepts present in the papers. Based on this analysis, the following concepts emerged: Knowledge Society – Digital technologies - Schooling processes in the EJA and Curriculum, as shown in Table 4.

Table 4 – Recurring concepts and authors in the analyzed productions

Concepts	Recurring authors
Digital technologies	CASTELLS, M. (1999); LEVY, P (1999); CYSNEIROS P. G (1999); SANCHO, J. M. (2001) ALMEIDA M. E. B (2014).
Knowledge Society	CASTELLS, M (1999); ALMEIDA, M. E. B (2014) LEVY, P. (1999);
Schooling Process in the EJA	FREIRE, P. (1991); ARROYO, M. (2006); HADDAD, S. (2007); TORRES, R. M. (2002).
Curriculum	DELEUZE, G; GUATARRI, F (1995) SACRISTÁN, J. G. (2013) SILVA, T. T. (2015).

Fonte: Table created by the authors (2021)

The following integrative reflections are evidenced among the analyzed papers, in order to establish connections between the concepts emerged and the theoretical positions required for the understanding of the studied theme. Brito (2013) chooses to characterize the current society from the concepts of Castells (1999). According to this author, we live in a network society, guided by microelectronics, whose digital communication and technology networks become the backbone of society. The logic of use transcends borders and becomes global, spreading through the capital, assets, services, information, science and technology. For him, information technologies are not only tools to apply, but processes to develop. Brito (2013) explains that the theoretical perspective of this author is that societies are organized in processes structured by historically given connections of production, experience and power. In an industrial period, the main source of productivity is the

insertion of new energy sources and the capacity to decentralize the use of energy throughout production processes. In the informative period, the main source of productivity is the technology of knowledge generation, information processing and symbol-based communication. Instead of maximizing production, the informativeness seeks to gather knowledge and highter complexity levels in information processing.

In his paper, Brito (2013) uses from Harvey Brooks and Daniel Bell quoted by Castells (1999, p. 49) to define technology as "the use of scientific knowledge to specify the ways to do things more reproducible". Historically, the term Information and Communication Technologies (TIC) has been used to characterize the processes and products related to the knowledge from electronics, microelectronics and telecommunications. Currently, digital technologies emerge as a concept that is characterized by having an inmaterial base, that is, they are not technologies materialized in machinery and equipment. Its main source of action is virtual and its main raw material is information (KENSKI, 2012). For Brito (2013, p.26), Information and communication technologies or digital technologies are "the set of computing (software and hardware) and telecommunications (specifically the internet, whether dial-up or broadband)".

The author states that the use of digital technologies has influenced the way people relate to each other and the world, remodeling social, economic, political and cultural aspects — of the senses and interpretations attributed to them. It also points out that nowadays, to master digital technologies is a basic necessity of learning, as well as literacy and schooling. However, points out that more than knowing how to handle such technologies, their appropriation concerns the different uses of digital technologies for the accomplishment of individual or collective projects.

Brito (2013) uses from Pierre Lèvy (1999) to states the technologies connections to the school knowledge, the facilities and changes experienced from the development of information and communication

technologies and how these technologies significantly modify the logic of the production and dissemination of knowledge. According to this author, an economy based on knowledge management is experienced, regardless of its origin: whether they are technical, scientific, the communication order or the ethical relationship with another. He says that society should be constituted in intelligent human groups, with cognitive subjects, open, capable of taking initiatives, creative and reactive. In this new demand, each individual, group, organization, would be considered as potential learning resources. In this manner, "the prosperity of nations, regions, businesses and individuals depends on their capacity to navigate the space of knowledge" (LÈVY, 1999, p. 19).

In the present context lived and with globalization advent, education and training are seen as the greatest resources available in this age of knowledge. If than, power was focused on aspects and material resources, today this power shifted to knowledge. Learning is at the center of knowledge societies.

According to UNESCO (2005), the knowledge society can be defined as societies that benefit from its diversity and its capacity to encourage knowledge sharing. These societies offer many new opportunities for development with the support of technological innovations and large-scale participation in the production and consume of information. In its global report entitled "Towards knowledge societies" (2005, p.80), the entity states that knowledge societies concern "the capacity to identify, produce, process, transform, disseminate and use information to accumulate and apply knowledge to human development". The report also indicates that knowledge is a means of achieving global social and economic objectives that, in addition to being essential for cultural socialization, political engagement and market integration, is also the path to individual and collective emancipation. On this, Brito (2013) concludes that the appropriation of technologies and the exploring of their various possibilities for the performing of individual or collective projects, depends on knowledge learned at school. Without being literate, for

example, the capacity to internet browsing is compromised, and the more educated the more EJA subjects appropriate digital technologies. It is necessary, then, the formation in the perspective of schooling and throughout life, so the subject does not stand on the margin of the productive process and the cultural and consumer goods that globalization enhances.

According to Sacristán (2013), schooling is the result of modern thinking in which the school holds a central place in the possibility of improving the living conditions of individuals. The school becomes the formal place for spreading knowledge, transmission of culture, socialization and preparation for productive activities. This author points to universal schooling as one of the most important cultural creations and achievements of the 20th century.

Gomes and Prazeres (2017) present in a synthetic way, the historical path of youth and adults education in Brazil. They state that this type of teaching began in the colonial period, with a distinctly catechetical education. Since 1930, it passes through progressive educational reform. Further on, Paulo Freire (1921-1997) offers harsh criticism towards this model and acts strongly in a liberating practice of education. However, with the military coup of 1964, the "Culture Circles" of Freire (1991) are banned and the Brazilian Alphabetization Movement is implemented (MOBRAL), whose curricular and pedagogical organization was tied to militarist ideals. Still during the military regime, comes the Adult Education Program, that, using information and communication technologies (radio, television, correspondence and others) should reach as many students as possible to lower the high rate of young and adult illiterate people and qualify the workforce for industries.

In the legal rights field, the Brazilian Constitution of 1988 gave the young and adult population the right to elementary school education. Since then, it is observed that public policies have slowly advanced from the perspective of learning through life and the development of skills and

competences for the effective citizenship exercise. Public care policies as compensatory nature, still prevail for those who did not have access and school progression in childhood and youth. Gomes and Prazeres (2017) use from Arroyo (2006) to substantiate the fact that Youth and Adult Education has its history much more tense than the history of basic education, since the two cross less consensual interests than in the education of childhood and youth, especially when youth and adults are hardworking, poor, black, underemployed, oppressed, outcast. In addition, youth and adults who are little or uneducated – therefore from a non-school culture –, by enter in school, will have to blend in and interacted with the institution's particular modes of operation. However, the learning of these subjects begins long before they attend school, once they learn to deal with the situations, needs and daily demands of contemporary society. Therefore, when they start studying, they have had experience with measurements, mathematical calculations, printed materials, spoken mother language, work tools and electrical and/or electronic equipment. So, it is noted, that when they enter to school, youth and adults who have already acquired an informal learning will have access to school learning that is directed to the assimilation of fundamentals of scientific knowledge in a systematic mode.

These perspectives lead to understanding illiterate and/or non-educated youth and adults as historical, social and cultural individuals, with knowledge and experiences earned throughout life, which require the intervention of cultural institutions to trigger the development of their potential. Therefore, they are not a vessel of knowledge, but protagonists of their own history, capable of building knowledge and learning. Brito (2013) uses from Torres (2002) to affirm that literacy and Basic Education are basic needs of learning in the literate society that we live in. Therefore, teaching and learning content and strategies also vary according to each context and time and should be in permanent review. He also seeks foundation in Haddad (2007) to affirm that literacy and

Basic Education are essentials for the education throughout life and for the knowledge society.

Many learning opportunities depend on knowing how to read and write and having access to quality Basic Education, develop skills, interests, values and essential attitudes to learn in different contexts. Thus, in the process of schooling youth and adults, the introduction of Digital Technologies of Information and Communication cannot be left out. However, in order to bring significant changes in educational process, it is necessary to incorporated it pedagogically.

Gomes and Prazeres (2017), using from Cysneiros (1999), highlight that technological tool are usually used as "conservative innovation", that is, when technological resources serve only for administrative and bureaucratic issues. The use of technologies as an essential part of innovative methodologies that contribute to improving the quality of teaching has been a major challenge for both teachers and – which because of infrastructure, personal and institutional limitations do not make adequate use in the classroom –, students, who miss the opportunity to access and use technological tools. Gomes and Prazeres (2017) affirm that reflections on the importance and role those digital technologies currently have, allows to conclude that technologies should be used in favor of social transformation, therefore, creating bonds of solidarity and fostering collective work. Besides, the use of educational technology in Youth and Adult Education must be articulated with other dimensions of the educational process, and the existence in school of a strong curriculum build by a collective contexture, the involvement of the people who elaborate it, not only based on the technical dimension, but also on the political, cultural and ethical dimensions.

In the context of the Knowledge Society and the schooling process at EJA, the curricular issue should incorporate a discussion on the introduction of technological resources as instruments that mobilize teaching practice in a spiral movement that articulates curriculum components. The

epistemological, pedagogical and social construction of the curriculum becomes a territorial occupation of knowledge that gives meaning to the cultures and contexts of the curricular subjects involved.

Fonseca and Vilela (2014) affirm that the curriculum should clarify the links between the political and economic spheres, school culture subjects. Also according to the authors, the curriculum has been submitted to changes according to the political and economic interests involved in the context of a certain time and brings indications of these interests and beliefs that move between the educational, political and social fields. Regarding that, Silva (2015) emphasizes that the sense of curriculum goes beyond a simple enumeration of content and established rules so the teacher may develop in the classroom during the different stages of a student's school life. The curriculum is a study plan presented in a teaching modality that embraces a set of educational programs.

Barcelos (2010) considers that the curriculum should consist by a set of components taken in an articulated form, guided by an order and conceptions of education and the world. The words order and conceptions in a perspective resulting from an embate that occurs permanently in an "arena where worldviews are in struggle and where they came from, they elect and convey representations, narratives, meanings about the things and beings of the world" (COSTA, 2005, p.41 *apud* BARCELOS, 2010, p.6).

That way, Batista et al (2014) emphasizes the importance to institutional documents clarify the theoretical approaches they compose. The construction of such documents should involve the collective action of teachers and enlighten the democratic construction of objectives, fundamentals, principles and guiding assumptions of the pedagogical institutional actions, in such a manner that makes it clear in the curriculum how the conceptions of culture, education, person, society, technology and work are understood. Although, such documents should not be understood as something straight and conclusive. It is necessary to periodically review the philosophical and epistemological bases of such documents and the methodological theoretical assumptions of the proposals of the various curricular components. In this

sense, it is pressing to highlight that the curricular proposal dialogues with the incomplete, "presenting itself as a guideline that needs to be tested and reworked according to the changes in worldview and society that we want to access to our students" (BATISTA et al, 2014, p. 499).

The curriculum form at EJA cannot be understood as a set of content distributed in disciplines, but as a platform that promotes research, appropriation and expansion to scientific knowledge, beyond the approach to comprehensive and contemporary themes inserted in human life on a global, regional and local scale, as well as in the individual sphere. Meanwhile, technological resources as resources for strategies for the pedagogical practices development, bring dynamics to the understanding of the contents available in the curricular components by the students.

Regarding that, Batista et al (2014) proposes the construction of a guide document in the multicurricular perspective, where courses are offered in line with the social function it represents, aiming consolidation and strengthening of local productive, cultural and social arrangements. As a way of exemplifying such proposition, the authors cite the curricular construction of the IFRN, which presents a curriculum organized from three axes: science, work, culture and technology, which perform in an intertwined and intercomplementary way as guiding principles of educational practice. This proposal shares the ideal of a integral human formation, as well the appreciation of culture as passing factor through school practices. That way, the theoretical approaches that provides foundation to the document, enables teachers to work in an expanded perspective in which the theoretical and methodological framework for the construction of knowledge is based around the culture.

When it comes to integrating digital technologies into curriculum, Almeida (2014) also draws attention to the fact that is necessary to understand what the concept of underlying curriculum is. Because, if on the one hand, this integration can be centered develop on instructional methods, based on the distribution of information (either with the use of

software or scanned materials), on the other hand, can allow the reconstruction of the curriculum in pedagogical practice, constituting what Levy (1999) calls collective intelligence. This means using digital technologies for critical reading of the world, writing words using multimodal resources, the exercise of authorship and co-authorship, dialogicity to transform reality.

With regard to the experiences on the use of technologies in EJA schools, Silva and Araújo (2017) paper, brings a possibility of using technology as a resource from a practice with digital games. For them, a class cannot use only one methodology repeated during an entire school period. Likewise, digital games that use old formulas without any innovation, tend to fail because they don't pique interest in their audience. The teacher, as the game designer, need to put themselves in the place of the public, that is, the students, and question whether their planning has attractive characteristics for the educational experience proposed. Digital games, with a genre educational characteristic, have an emphasis on the teaching and learning process, approaching the student's daily life with the goal of a certain content and/or concept that will be absorbed during a given moment of the lesson.

In this sense, it is essential for the teacher to understand digital technologies as a pedagogical instrument for mediating the content, in which the student may experience many courses of action and assess their results coming through the resolution and reflection on the settling of "facts" "problems" of a situation. Deleuze and Guattari (1995) highlight that language is a structure used in the digital game and refers to the metaphor of "rhizome", because language distances itself from the linearity inherent in written narratives and a story is build according to the player's actions and their interaction with the elements of the game and the results obtained.

From a curricular perspective, Batista et al (2014) stresses that pedagogical actions in the integrated curriculum need to have meaning

and direction for students, because an integral education is not only done with interdisciplinarity or transdisciplinarity, because this is just one of the pedagogical layers necessary for the school environment to break with traditional and compartmentalized pedagogical practices.

As noticed, changes in curriculum perspectives, in the sense of collaborative and contextualized learning, bring in their core the need to (re) think about the intention of education, the new learning and the school curriculum for youth and adults.

Conclusion

From the readings and analyses of the papers presented here, we can observe lines of convergence between the works when related to the theme of technologies in the YAE' classroom.

One of the expectations that are intertwined in the papers is the use of technologies in the classroom as enhancers of learning, especially when the teacher develops pedagogical practices in an attempt to motivate, awaken the creativity, interest and attention of the students. From this point of view, Almeida (2014) points out that technologies are artifacts that are present in the social interaction of the human being and the teacher should consider it in the educational scenario for the knowledge mediation in the various areas of knowledge. This perspective of technological resource as mediation of knowledge and understanding in pedagogical practice should also become the agenda for further discussions in the modality of Youth and Adult Education, in order to modify the strict, fragmented and decontextualized form of teaching that is seen on a daily basis.

Given these statements, the papers show possibilities for the use of materials and technological resources towards to a part of the population inserted in age and regular educational context. Furthermore, the processes that involve Basic Education focusing on disciplines and teaching and learning evidenced in the papers reinforces the incidence of

technology on school place and also in teacher's practice, due to the tendencies of society and the student's profile.

Another issue that deserves to be highlighted is related to the teaching and learning process of Youth and Adults for the exercise of citizenship, especially with regard to the development of life skills and competences. The authors warn that the use of educational technology in Youth and Adult Education must be articulated with other dimensions of the educational process, and the existence in school of a strong curriculum build by a collective contexture, given by the involvement of the people who elaborate it not only based on the technical dimension, but also on the political, cultural and ethical dimensions.

Thus, thinking about the curriculum and the role of technologies in the pedagogical processes of the EJA is to think about educational technologies in favor of an education that is emancipating the individuals, where teachers and students are protagonists and partners in/of learning.

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