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MULTIMEDIA RESOURCES FOR EDUCATION

RECURSOS MULTIMÍDIAS PARA A EDUCAÇÃO

RECURSOS MULTIMEDIA PARA LA EDUCACIÓN

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ABSTRACT

This study on Multimedia Resources for Education aims to verify their importance, to make learning more enjoyable and exciting, besides that reflect on the different possibilities of using them, so that the students are the center of the educational process, and have effective learning. Such resources can be used in pedagogical activities, in which students act and have experiences that awaken the desire to seek information and produce significant knowledge, so that they know how to argue about what they learn and produce. The theoretical basis of the study was based on Aquino et al. (2006), Moran (2012), Otto (2016) and Bessa (2021) who deal with the topic. At the end of the study, it was found that media resources are fundamental for learning, as they place the student in the protagonist position, create stimuli and arouse interest in seeking information and taking action. To understand the topic, a bibliographic review was carried out, with a qualitative approach of an exploratory nature, based on the authors mentioned. It was concluded that media resources are fundamental for learning, as students know how to use them and, under the guidance of teachers, can create a lot of knowledge.

Keywords: Internet. Media Resources. Education. Active Methodologies.

RESUMO

Este estudo sobre Recursos Multimídias para a Educação tem o objetivo de verificar sua importância, para tornar o aprendizado mais prazeroso e instigante, além de refletir sobre as diversas possibilidades de utilizá-los, para que os alunos sejam o centro do processo educativo, e tenham uma aprendizagem efetiva. Tais recursos podem ser utilizados nas atividades pedagógicas, em que os alunos atuem e tenham experiências, que despertem o desejo de buscar informações e produzir conhecimentos significativos, de modo que saibam argumentar sobre aquilo que aprendem e produzem. O embasamento teórico do estudo foi realizado a partir de Aquino et al. (2006), Moran (2012), Otto (2016) e Bessa (2021) que tratam do tema. Ao final do estudo, constatou-se que os recursos midiáticos são fundamentais para a aprendizagem, pois colocam o aluno na posição de protagonista, criam estímulos e despertam o interesse pela busca de informações e para atuarem. Para compreender o tema, realizou-se uma revisão bibliográfica, com abordagem qualitativa de caráter exploratório, a partir dos autores citados. Concluiu-se que os recursos midiáticos são essenciais para a aprendizagem, pois os alunos sabem usá-los e, sob a orientação dos professores, podem criar muitos conhecimentos.

Palavras-chave: Internet. Recursos Midiáticos. Educação. Metodologias Ativas.

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RESUMEN
Este estudio sobre Recursos Multimedia para la Educación busca evaluar su importancia para hacer el aprendizaje más ameno y atractivo, así como reflexionar sobre las diversas posibilidades de utilizarlos para situar al alumnado en el centro del proceso educativo y garantizar un aprendizaje eficaz. Estos recursos pueden emplearse en actividades pedagógicas, donde el alumnado participa y vive experiencias que despiertan el deseo de buscar información y producir conocimiento significativo, permitiéndoles razonar sobre lo que aprenden y producen. La base teórica del estudio se basó en Aquino et al. (2006), Moran (2012), Otto (2016) y Bessa (2021), quienes abordan el mismo tema. Al final del estudio, se concluyó que los recursos multimedia son fundamentales para el aprendizaje, ya que sitúan al alumnado en una posición de protagonismo, generan estímulos y despiertan el interés por buscar información y actuar. Para comprender el tema, se realizó una revisión bibliográfica con un enfoque cualitativo y exploratorio, basada en los autores citados. La conclusión fue que los recursos multimedia son esenciales para el aprendizaje, ya que el alumnado sabe cómo utilizarlos y, bajo la guía del profesorado, puede generar un gran caudal de conocimiento.

Palabras clave: Internet. Recursos Mediáticos. Educación. Metodologías Activas**.**

1 INTRODUCTION

This study brings an approach to media resources, to verify the importance of using them in the teaching-learning process, so that students learn through various means, in an active way, knowing how to take advantage of them at school and in other environments, obtaining numerous information for their intellectual, social and cultural formation.

According to Aquino *et al*. (2006), technologies offer tools that generate different ways of teaching, and teachers need to know the Digital Information and Communication Technologies (DICT), in order to insert significant content in their pedagogical practices, which arouse students' interest in learning. For this, it is important to integrate audiovisual, playful, textual, musical DICTs, with the use of television, videos, computers, cell phones, *tablets*, *data shows* and others, in order to provide learning opportunities. In the same way that technologies advance, education also needs to advance and keep up with changes, with active methodologies, in which students are protagonists of the entire educational process.

Otto (2016) points out that students need to be prepared to face the demands of the globalized world, in which technology is present in all areas, and offers a diversity of languages, which significantly improves the quality of education, with resources that use images, movements, arts, music and games. The author comments that children find it easier to handle technological resources, with great skill, which many adults do not have, being able to explore the numerous resources available on the *internet*. The fascination with technology, with games, games and interaction with others seduces not only children, but adults as well; But the undisciplined use of technologies has led children not to relate in an affective, social way, with their parents, friends, family, in real environments, since they prefer to live in virtuality.

According to Aquino *et al*. (2006), multimedia objects favor the learning process, as they are technologies for the integration and contextualization of knowledge, being tools that favor learning and provide the construction of knowledge, as they provide interaction in their systems, are a source of research and enable the exchange of information. Through multimedia objects, students are encouraged to explore information in a playful and pleasurable way, as proposed by active and constructivist pedagogies, which place students as subjects who build knowledge, and must act with autonomy, responsibility, participating in the entire teaching-learning process.

The relevance of this study lies in the fact that the use and mastery of technological tools provide different strategies for the development of cognitive skills, critical reflection and

problem solving. Thus, the use of multimedia objects in education offers many elements that provide reflection on information and diversified experiences, allowing students greater activity, protagonism, creativity and dynamism, which are relevant to make them builders of ideas.

To understand the theme, in the first section, the importance of multimedia resources for education was verified; in the second, it was sought to know the multimedia resources and their functionalities; in the third, the use of different media resources for Municipal School X was recommended.

This work had as methodology a narrative bibliographic review, with a qualitative approach of exploratory character (Marconi, Lakatos, 2007), with a bibliographic survey, through various sources of information, such as thesis banks, scientific articles, publications in online journals, which deal with the theme. The main contributions on the theme were collected and analyzed from the descriptors: education, *internet*, media resources, active methodologies.

2 THE IMPORTANCE OF MULTIMEDIA RESOURCES FOR EDUCATION

Otto (2016) considers the use of media resources fundamental to make teaching more attractive and meaningful, as it allows greater interaction between teachers/teachers, teachers/students and students/students. In addition, everyone can easily access, through the *internet,* a range of information, transform it into knowledge, making learning effective, based on new concepts and languages.

The aforementioned author points out that in the domestic environment, children and young people use technological communication resources, most of the time, with games, movies and social networks. In some cases, content that is even inappropriate for their age is accessed, without any restrictions and guidance on the time they spend in cyberspaces. But the school space is an environment of socialization, learning and formation of conscious, critical citizens. Thus, it is up to the school to educate for the conscious use of resources in the search for information and construction of knowledge; work on content for their integral training and guide the use of technologies. Therefore, digital education is necessary so that they learn to study, research, seek the necessary information, exchange experiences and develop skills and abilities.

The study by Otto (2016) highlights the importance of educators rethinking and redesigning pedagogical practice and curricula, to incorporate them into DICTs. It is

necessary to work with technologies in an interactive way in the classrooms, with the responsibility of improving students' understandings of the natural and cultural world, with emotional and rational development, creativity, interactions with others, challenging students to solve problems, explore possibilities, with responsibility, creation and reflection. For this, the teacher can explore various means of digital technologies, making it possible to acquire and expand knowledge, using a series of tools to increase their pedagogical action.

Aquino *et al*. (2006), Otto (2016) and Bessa (2021) define multimedia as the combination of several media, which allow communication between individuals, through multiple means, which can be combined to process information, such as audio, video, images, graphics, sounds, animations, illustrations and texts, mediated by the computer or other electronic means and the *internet*. Through this, information can be represented, stored, transmitted, and processed in digital form.

The authors add that multimedia objects are tools that place the user in the position of an active participant in the search for information, being able to manipulate, process messages, not being a mere observer, but having autonomy and creativity. In this aspect, the use of these resources allows students to take initiatives, mediated by the teacher, to produce knowledge.

For Bessa (2021), the integration of technologies in the school environment should be motivational, motivating, and contribute to learning in a meaningful, interdisciplinary, and integrative way. It is necessary to incorporate different media in the teaching-learning process to improve students' performance: perception media, which stimulate the senses, such as sight, touch and hearing; representation media, to represent an idea, such as text, graphic image, audio, video, and animations; storage media, which are the means used to store elements of the representation media, such as video game cartridges, CDs, *pen drives*, among others; and transmission media, which are the means used to convey the representation media.

Otto (2016) reinforces the need to use various media resources, under the guidance of the teacher, whose role is to mediate learning, who must create conditions for the student to build knowledge, using various paths: experiences, images, sounds, music, videos, representation (dramatization, simulations), multimedia, *online* and *offline* interaction, using programs such as *Word*, Excel, *Movie Maker*, *Media Player*, *Power Pointe*, *blogs*, *emails*, to carry out diversified activities. The teacher must use all media resources to develop practices that involve recording readings, narrations and presentations by students; data and

information registration; video production; participation in educational games, which contribute to the appropriation of concepts; exchange of *emails* between parents, students and teachers, text messages, dissemination of projects through social media, among others.

Moran (2012) comments that the technologies, previously used separately: computer, cell phone, Internet, mp3, digital camera, have been integrated into multifunctional equipment and, now, everything can be accessed by cell phones, which is the technology that adds the most value: it is *wireless* ; it gives access to the *Internet*, digital photos, communication programs (voice, TV), entertainment (games, music-mp3) and other services. Thus, the cell phone can be used in the classroom so that the student learns to use it in the search for information and production of knowledge.

The author comments on the advances in education provided by the interconnectivity that the *Internet* and networks have developed and that have revolutionized the way of teaching and learning, causing profound changes in face-to-face and distance education. In face-to-face learning, the concept of localized, temporalized teaching-learning has changed, with the possibility of learning from several places, at the same time, *on* and *offline*, together and separately; technologies, functions, activities that were typical of distance education were incorporated and, in this way, new ways of teaching were created, less individualistic, with a balance between flexibility and interaction; with individual activities, combined with the possibility of instant communication and the creation of learning groups, with the integration of personal and group learning.

According to Moran (2012), students are ready for multimedia, but many teachers are not. The author states that most face-to-face and *online courses* continue to focus on content, information, the teacher, the individual student and the interaction with the teacher/tutor. However, it is essential that the focus is on interaction and knowledge construction, with a balance between the individual and the group, between content and cooperative learning; with contents, in part, prepared, but aimed at its construction throughout the course. To this end, pedagogical practices must involve students in participatory processes, not limited to the transmission of information.

Bessa (2021) emphasizes the need to implement multimedia teaching in face-to-face classes, as such resources enable new ways of teaching and learning, expanding possibilities and increasing student engagement, as multimedia content has great visual appeal, making students enchanted for aesthetics, sound and movement. The author comments that the Ministry of Education has a database with educational content in different

formats, whose platform has audio, video, animation, educational *software*, images, maps, experiments and hypertexts. These resources facilitate the teaching-learning process, ensuring new experiences for students, with several possibilities of use.

3 MEDIA RESOURCES AND THEIR FUNCTIONALITIES

According to Bessa (2021), media resources are various means to transmit different types of information, with diversified languages , such as television, radio, newspapers, the *internet*, magazines, videos, among others. These work as vehicles of information and knowledge, and can be used to transmit information in an interactive way. There is an interconnection between the media, which complement each other and each one has its particularities, its language and an objective in the dissemination of information.

Bessa (2021) comments that *mobile learning* is an important multimedia to use in the classroom, as the use of mobile devices facilitates interactions and training of various types, through access to content. The author also mentions *microlearning,* which are short video lessons, with content to be consumed in the short term. Educational *podcasts*, *Youtube videos*, *blogs* can be used to favor interactive classes, carried out with different technological devices, which hold the attention of students**.** With such resources, students can produce content with texts, graphics, drawings, animations (moving drawings), audio (voice, music, special effects), photographs (real images, static) and video (real and dynamic images with sound involving sight, hearing and touch).

Moran (2012), Otto (2016) and Bessa (2021) point out the following as advantages of using multimedia: i) greater student engagement; ii) more dynamic, different and personalized classes; iii) greater participation of students in the learning process; iv) development of creativity and collaboration; v) more personalized teaching, in which each student will access the information that is most meaningful to him, and that catches his attention; vi) access to content and information in different forms, times and places and vii) improvement in the quality of the education offered, with more content available on a theme.

4 THE USE OF DIFFERENT MEDIA RESOURCES IN SCHOOL X

Based on these authors, the recommendation of media resources will be made for a Municipal School, here called X, where the students, in their entirety, have cell phones, but only use it for entertainment, do not seek information, do not read or are interested in the contents worked by the teachers. The school has a computer room, but it is rarely used.

According to Aquino *et al*. (2006), the first step is to make the teaching team aware of the importance of using media resources as a new methodology, with the use of multimedia in the school, with active methodologies, which will make the classes more interactive, as they will lead students to use various tools for the production of content, with the production of videos, audios, images.

Aquino *et al*. (2006) emphasize that such activities arouse interest in research and, thus, students learn in a playful and pleasurable way, as they can act at all times, without having to memorize texts. With the student at the center of the process, the teacher's interest will not be to evaluate the student, quantifying what he retained or not from the information, with tests and grades, but to allow the student himself to evaluate his construction, the operations he performed with the information, how he used it, the arguments he acquired, his ability to present and talk about the researched theme.

4.1 MEDIA RESOURCES RECOMMENDED FOR INSTITUTION X

It is suggested to start the applicability of the recommendations from the 6th grade classes, which are composed of more or less 26 students. The objective is to use media resources, in an interdisciplinary work, to arouse interest in learning, placing students at the center of the process, to act, seek information and build knowledge. In this way, when these students are in the later phases, they will already be better prepared to use media resources, in addition, they will know how to use them in the home environment to do their activities and research. To start the project, students must choose a theme to be worked on, to develop it, with the use of various multimedia resources.

Aquino *et al*. (2006) highlight the importance of using *software* to edit texts, prepare electronic spreadsheets and build small databases, with tasks related to each area of knowledge. In the specific case of this school, the cell phone should be the most used, so that students can do *Google* research on the subject, record videos on some aspects of the theme; can take photos and share with teachers and classmates. In the computer room, in the *Word* program, they should arrange texts about what they discovered on the subject and then rewrite them, citing the authors and sources of the research; they will make tables with data found and add photos. The final product will be an individual presentation to colleagues, which must be recorded and presented to other classes.

These recommended resources will be important for students, as they will place them as protagonists of learning, stimulate the search for information, so that they realize how

beneficial the use of cell phones can be for the construction of knowledge. In the activities, students will have several actions, such as: researching, reading, writing, using different languages, arguing and taking a position on the topic addressed. The authors studied comment that, when using the cell phone to create content, students understand the importance of this tool for the search for information, with which they start to establish relationships, to generate knowledge.

It is necessary to choose a theme, directly or indirectly linked to the students. This should be something that requires greater knowledge, representing a problem to be solved, about which students should seek information and possible solutions. To do this, teachers can, for example, ask students to point out the various problems that involve their neighborhood, their community, school and city. After collecting the students' opinions, it is verified which theme was most indicated, which can be worked on in an interdisciplinary way. Then, students should suggest activities to be carried out.

Hypothetically, the students would choose as a theme, talking about the Paraibuna River, which cuts through the city, but which only serves to receive sewage and industrial waste. Teachers and students can suggest the means they will use to obtain information and how it can be addressed in all subjects. In this case, the cell phone is an important resource, since with access to the internet, it favors research on history, making it possible to show how it was in the past and how it is today. This technological resource can be used to record interviews conducted with older neighbors, with specialists from municipal agencies and others. Thus, it allows students to take photos, record videos and produce reports about the source of the river.

At the end of the work, students will be able to make a newspaper in *Word*, print it and distribute it to residents and other schools; they will be able to create a video with the most relevant information, make it available through *Whatsapp* and also share it on social networks, such as *Facebook* and *Instagram*. They can also create a kind of podcast telling the history of the river, its main problems and possible solutions.

5 FINAL CONSIDERATIONS

The objective of this study was to present the importance of media resources as tools for pedagogical practices, which can provide students with the search for information and the construction of knowledge by carrying out meaningful activities, with autonomy, protagonism, criticality, producing something that will positively affect society.

From the authors studied, it was observed how the use of cell phones can be a fundamental resource to stimulate students to research and develop meaningful content for them, in an interdisciplinary way, leading them to realize that the same theme can be approached in different ways, languages, with various research focuses, involving different disciplines.

With the use of cell phones and computers, you can do research and share everything you learn with your colleagues, friends, taking the knowledge to many people through social networks. It should be noted, however, that it is not only the presence of cell phones, computers and other multimedia objects that will ensure improvements in teaching. For this, educators need to be prepared to guide students, preparing activities that stimulate them, and allowing them to be the protagonists of the actions to be carried out.

It is hoped that this study can contribute to teachers using the various media resources in the school as a pedagogical tool, so that students research, knowing how to seek information to transform it into knowledge, promoting the production of content.

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