



RESEARCH ARTICLE

PERSPECTIVE ON THE INCLUSION OF INFORMATION TECHNOLOGY IN THE CHILDREN'S AND ADOLESCENT CURRICULUM

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Abstract

This article aims to reflect on the inclusion of information technology in the curriculum for children and adolescents, education is always something widely discussed in all areas of society and with the increasing advance of computational technology. Technology is well present in education, but in a wrong way, usually used in classrooms often to find answers to tests and activities, leading to a side that will not bring a gain to students or society, so reflection on a possible inclusion is necessary, to bring benefits to students and society in which this student is inserted, this article analyzes the responses of a group of people who were interviewed through a form, thus bringing a small notion about public opinion on this subject.

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Introduction:-

Technology has taken a very large place in the life of the world's population, with an impact on various areas of society such as health, leisure, safety, etc. An area that has been changing a lot with the advancement of technology is the area of education, always on the agenda in political debates, conversation among the population, and increasingly necessary the inclusion of technology in education and has become the mission of education professionals to make this junction between technology and education.

With the advancement and "democratization" of technology and technological products, people's access to information systems through technological products has been easier not only by adult people, but also by children, with intuitive interfaces and easy familiarization, earlier children are enjoying technology, but this enjoy and with videos and games, this attracting more educators to see ways in which children can actively use technology. (RESNICK, 2020) in a multidisciplinary manner.

Brennan and Resnick (2012) was one of the first studies to show the importance of deepening children's knowledge of technology and development of computational thinking. With this contact of the children it is expected that they learn to design, create, combine, abstraction, pattern recognition, decomposition and algorithmic thinking stimulating children to be more active can bring a greater understanding of the skills of the PC, Wing(2006) reinforces this conception to computational thinking as it treats computational thinking as a set of skills that support problem solving and child learning, helping in the logical and analytical thinking of each child. Therefore, the development of computational thinking depends on a set of artifacts (physical environment, software and problems) adapted to each age group.

It can be considered that there is a concern of governments about investment in technology, but this investment is more focused on infrastructure and a low investment the Brazilian context is low aggregation of technology to

government processes, deficient infrastructure of information and communication technology, and major challenges to overcome in governance and ICT management (CGI, 2016a).

In this context, this article aims to present an experience through a research, aiming to measure the level of interest of the people interviewed in having a deepening of information technology in schools, and whether these people know what it is and its importance.

Theoretical Reference

Processes Of Teaching And Learning

Children's interaction objects involve different supports and technological resources. This interaction can be enhanced through the systematization and planning of pedagogical actions (LARANJEIRO; ANTUNES; SANTOS, 2017)

With the advancement of time, learning is shaped with the needs of its time and with the technologies that are there, in this sense and increasingly necessary for teachers to be able to interact with technology and what can be useful to it, when it comes to programming in schools, it is necessary to have trained and trained teachers in the area of information technology for quality learning and for that that the child is learning it does not lose interest.

Technology And The Learning Process

In (AGUIAR et al. 2015) a proposal for the use of programming in robotics is presented to teach the programming logic in an inductive way, that is, the construction of inferences from observed cases. The methodology described in this article becomes a differential because it encompasses a tool and a practice for learning.

The teaching of programming through this tool brings the following reflection, "to understand that in the future no profession will be untouched by machines means admitting that programming is part of the human sciences and, therefore, a basic skill that every child should have" (PARTOVI apud MIMS, 2015, p. 02).

Information Technology And Brazil

Trying to understand brazil's technological advances in recent years and very challenging, this comes a lot from the instabilities that the country has suffered for so many years, with several changes in ideas on how to govern a country and followed corruption scandals hinder not only investment in the area, but shows the latest survey of the IGI Global Innovation Index where Brazil ranked 57th, a very low position for a country the size of Brazil.

It can be said that the problems that occur today in the process of formulating, planning, applying and evaluating the policies of science, technology and innovation (CT&I) in the country, as well as the "technological infrastructure for information and communication, whose dissonance restricts the interoperability of information systems" (FREITAS, BUFREM, 2016, non-paged), are the product of a historical process of consolidation of information policies in the country.

Methodology:-

Based on the objectives presented, this article aims to present the results obtained, using the quantitative methodology, this method is characterized by the use of quantification, both in the modalities of information collection, and in the treatment of these through statistical techniques, from the simplest to the most complex. With this methodology we apply a form through a search performed with forms of the google forms tool for data collection. The use of this form will be of great importance because it is because of it we will have the public's answer on the subject, will be conducted a survey with 5 questions where they addressed the subject of information technology in schools.

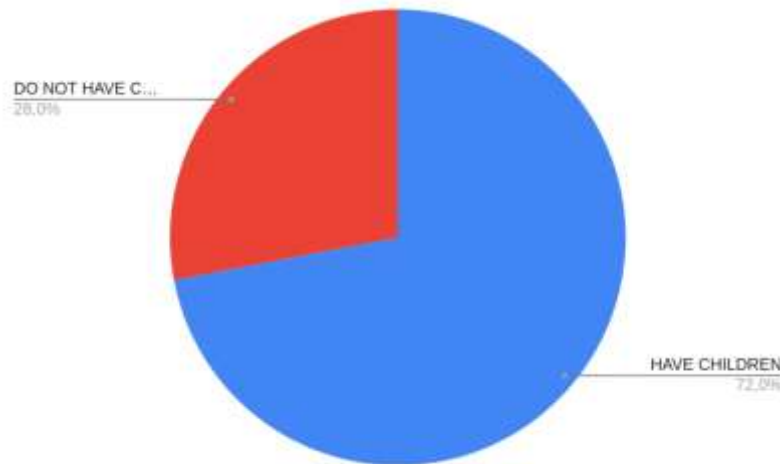
The research aimed at people over 18 years residents of the city of Manaus, to thus have more precision in the reality of the region and how in the opinion of respondents information technology can or may not affect students, as already mentioned will be made an interview by google forms where will have a text situating the interviewee on the subject and then the form will have 5 questions where the interviewee will expose his opinion on the subject.

Results:-

We collected 25 responses, all from residents of the state of Amazonas, among the answers are people of various levels of education and income, it was noticed that of the 25 people interviewed only 2 had a matter focused on information technology.

Among the interviewees, 18 people had children and 7 did not, and all of them answered yes when asked about the inclusion of information technology-related materials, thus bringing a perception about the interest of bringing children and adolescents closer to information technology.

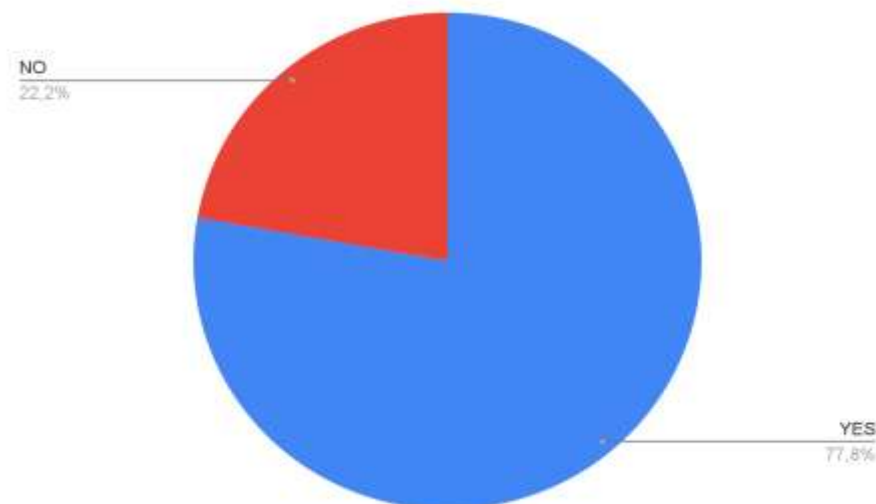
Graph 1:- Do you have a child?



Source: Autores (2022).

Graph 1 shows that 72.0% of the interviewees answered that they had children and 28.0% answered that they did not have children.

Figure 2:- Did you have information technology matter at school?



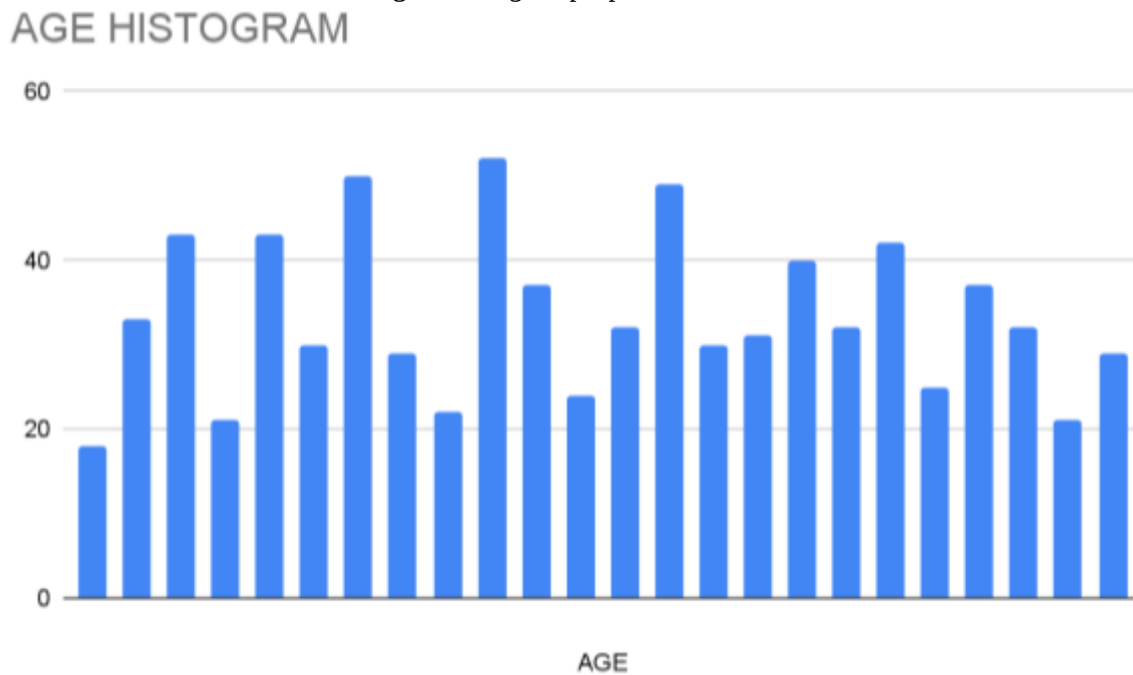
Source: Authors (2022).

Graph 2 shows the number of respondents who had information technology subjects during the period in which they were attending elementary and high school, 28%.

Graph 3:- Would you like your child's school to have an information technology story?

Source: Authors (2022).

Graph 3 shows the number of respondents who would like there to be some matter focused on information technology in their children's curriculum, all respondents answered yes.

Figure 4:- Age of people interviewed.

Source: Authors (2022).

Graph 4 shows the age of the interviewees.

Discussion:-

It is noted that there is a great interest of people in this area of study, but as reported in the responses the lack of investment is very great, it is also perceived that the perception of people and that information technology would not only help in the inaggression of the IT area, but also in the understanding of the digital world that is so comprehensive.

Considering the low number of response obtained in the face of such a large scenario and the concentration of respondents in the Amazon, it can be considered that this study does not present all the factors that exist and it did not have this intention, but it is believed that this study can serve as a basis for future research with similar theme.

Final Considerations

The main objective of the research was to show that the applied methodology is capable of providing automatic learning reinforcement mechanisms and should be given to students as a discipline. After completion of the stage, forms were sent to a group of twenty-five (25) parents and relatives of children. A statistical treatment was carried out in the results of the evaluations in order to verify if the technology effectively helps in the student's learning. In the statistical analysis, questions were applied in a form, with questions about the interest and approval of the theme.

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