Theoretical Construction of Algorithmic Thought as the Element of Teaching and Learning in the Programming of Computers for the Training Process of the Engineer In Computers

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ABSTRACT

Being able to develop logical and algorithmic reasoning not only allows us to analyze problems and deliver solutions in the computational field, but in other situations of daily life as varied as the arts or the company respectively. This research aims to generate a theoretical construct of algorithmic thinking as a fundamental element for the formation of the Computer Engineer of the Rómulo Gallegos University, located in the Juan German Roscio Municipality of the Guárico State. The epistemologically study is based on the approach from complex thinking using the hermeneutical phenomenological method for its journey, for which intersubjectivity is a starting point to reflectively capture social meanings. In turn, there are nine (9) significant subjects, from the Systems Area (AIS), of the Romulo Gallegos National Experimental University considered as scenarios, for the application of the study. As techniques and instruments for collecting information, the in-depth interview was used. On the other hand, to interpret the information provided by the different informants, qualitative analysis and triangulation were used. As part of the findings analyzed, it is evident that the Systems Engineering Area of UNERG, must successfully face the educational challenges of the new century, producing an important demand for teachers with adequate training to perform their functions in the curricular units in In relation to programming, where it takes into account the elements that allow the systematization of Algorithmic Thinking, making the training of students in the area more productive, with teaching resources that allow students to focus on the algorithmic resolution.

Descriptors: Algorithmic Thinking, Computer Programming, Professional Training.

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