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A Constructivist Approach to Teaching Computer Science in Secondary Education

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ABSTRACT

The constructivist approach suggests that students build their own knowledge through experiences and reflections on those experiences, rather than simply receiving information passively. In the context of computer science, this means that students should actively participate in projects and practical activities that allow them to apply theoretical concepts in real-world situations. The article highlights the importance of creating a collaborative learning environment, where students can work in teams and learn from each other. It also emphasizes the use of interactive technologies and digital resources that facilitate exploration and autonomous discovery. Additionally, teachers should act as facilitators of learning, guiding students instead of dictating content, and encouraging self-assessment and critical reflection. The results presented in the study indicate that this constructivist approach not only im-proves the understanding of complex computer science concepts but also in-creases students' motivation and interest in the subject. Finally, the article recommends ongoing training for teachers so they can effectively implement these constructivist strategies in their computer science classes.

Keywords: Learning theories, constructivism, competencies, computer science