ConstelaDev Bootcamp: An Innovative Platform Based on Systemic Methodologies to Evaluate Students Skills, Abilities, and Performance

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Abstract

ConstelaDev Bootcamp is a project-oriented platform designed to promote a high-performance learning and development environment, allowing sharing of ideas and knowledge in a practical and active manner. Its foundations are in modern and innovative technologies for project development and management, such as agile methodologies, artificial intelligence, and cloud computing, coupled with systemic thinking. The platform provides all the needed support for constructing innovative and sustainable solutions, products, and services, positively impacting society. To validate the methodology, a study was carried out with 11 students from a High School and Technical Institution - School S, located in the municipality of Florianópolis, Brazil. The adoption of the ConstelaDev methodology in the teaching and learning environment resulted in a significant improvement in the students' commitment, represented by a quadratic growth model ($r^2 = 0.80$). In addition, it was possible to analyze the students' perception of their own expectations (positive: 60.19%, negative: 29.12, and neutral: 10.68), their experience with the work team (in %, positive: 57.68, negative: 27.17, and neutral: 15.21) and, with the projects under development (in %, positive: 51.69, negative: 36.44, and neutral: 11.86). Serving as input for continuous improvement and to assess technical skills and also, abilities related to self-knowledge, professional world, and life & career project. The results show that ConstelaDev Bootcamp provides an optimized environment for continuous learning improvement, independently of team members' skills (hard or soft) along with an objective methodology to evaluate individual, collective, and projects performance.

Keywords: consteladev bootcamp; continuous improvement; innovative technologies; learning and development; project management.