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STEM IN CHILDHOOD EDUCATION: A LITERATURE REVIEW

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Scientific research has followed the impact of the use of more active and participatory methodologies in the teaching and learning process. Among these methodologies, the STEM (Science, Technology, Engineering, and Mathematics) approach has shown high efficacy when used in the daily lives of children and young people. Considering this the Project "Oleachain: Skills for sustainability and innovation in the value chain of traditional olive groves in the Interior of the North of Portugal", was designed, under the responsibility of the Polytechnic Institute of Bragança and developed through its research centers (CeDRI, CIMO, UNIAG, and CIEB), in close liaison with organizations, associations, schools, and producers. This project arose from the need to value traditional olive groves, olive and olive oil and is realized in different dimensions. In this sense, CIEB is committed to working on sustainability and the STEM approach among children in primary schools and kindergartens in the region, promoting teaching and learning experiences that lead to a clear understanding of the processes, scientific, technological, technical, and mathematical in the production of olive oil, from planting to the sale of olive oil and its by-products. This study aims to analyze the approaches of this approach, trying to understand what kind of work is developed in the context of childhood education and basic education, which profile reveals teachers who use this type of approach and what learning and involvement results, the children demonstrate. This is a systematic review of the literature for data collection and content analysis for their interpretation.

The investigative process followed the following steps:

- search databases by keywords;
- selection of relevant articles;
- reading the texts, organizing them in a diachronic way;
- elaboration of categories of analysis;
- textual elaboration, performing the intersection between pedagogy based on rights and participation.

The data point to the importance of educators and teachers revealing positive attitudes and favorable to the need for interdisciplinarity in the work developed with their children, establishing relationships of collaboration and partnership with other educators and teachers, and rethinking their strategies and actions in the classroom.

keywords: **basic education, stem approach, educators, teachers, innovation.**