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SP - (16270) - HOW DO ELEMENTARY PORTUGUESE STUDENTS PERCEIVE STEM PROFESSIONALS?

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Short Abstract

The lack of students in the STEM (Science-Technology-Engineering-Mathematics) areas has been a global concern and one of the reasons why students do not want to pursue a career related to the STEM areas is the unappealing image they have about these areas and/or the professionals who work in them. Moreover, STEM disciplines are usually perceived as being linked to males, and several studies describe this gender gap in the interest in a STEM career. The objective of this study is to know how elementary Portuguese students perceive STEM professionals. Participants were 135 elementary students (68 boys and 67 girls), attending grades 2 to 6, belonging to a Portuguese school cluster. Data collection was performed using a draw-and-write instrument in which students were asked to draw STEM professionals and to answer two questions: "Where does this person work?" and "What does that person do?". The analysis of the results was performed according to the instruments described in the literature (for example, the Draw-A-Scientist Test Checklist). Following the frequencies record for each item, a descriptive analysis of the results was made, and the statistically significant differences between male and female students' drawings, regarding each item, were evaluated. The results show that students still retain some stereotypical images of STEM professionals, namely scientists, and that have a lack of perception about the appearance and kind of work that STEM professionals do. In conclusion, there is a demand for changes in teaching practices in order to change the erroneous and unrealistic ideas that students may have about STEM areas.