

WHAT ARE THE MAIN CONCERNS IN SECONDARY EDUCATION? EXPLORING STUDENTS' KNOWLEDGE ON SUSTAINABILITY AND CLIMATE CHANGE

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INTRODUCTION

The declaration of the Decade of Education for Sustainable Development (DESD, 2005-2014) explicitly highlights the need to incorporate Sustainability issues into the curriculum (Vilches et al., 2012). In this context, an analysis of students' current conceptions of this problem (Hodson, 2003), which is increasingly worsening, was considered relevant. Accordingly, and considering previous research, this study poses the following hypothesis: Secondary school students are concerned about Sustainability issues (UN, 2015) and accelerated Climate Change (Sustainable Development Goal 13) but lack the necessary basic knowledge and the appropriate resources to deal with them.

Therefore, the main aims of this research were:

- ✓ To find out the concrete interests, concerns and motivations of students.
- ✓ To identify students' alternative conceptions, ideas, or associations, arising from the information they receive on Sustainability and, specifically, on Climate Change.
- √ To encourage initial reflection on the problem.

PRELIMINARY RESULTS

What are the global issues that most concern you? Why? Give reasons for your answer

Students' concerns	Are secondary school students concerned about the current socio-environmental crisis?	Climate Change (66.4%) was the most mentioned concern.
Other mentioned problems	What other problems do they most frequently refer to?	Pollution (30.4%)
		Social problems such as inequalities, war, poverty, overpopulation and lack of access to education (34.1%) - At least show some socioenvironmental vision.
Holistic perspective	Although the participants as a whole refer to different problems, the number of problems cited by each of them is generally low (average: 1.8 problems; standard deviation: 1.07; 0-7 items, min-max, respectively), which indicates a reductionist view of socio-environmental issues. They discuss these issues as if each of them was independent and isolated and do not make interconnections between them.	

METHODOLOGY

- ✓ To test this hypothesis, during the 2019-2020 academic year, a questionnaire of 27 items was completed by 533 students belonging to Compulsory Secondary Education and High School, i.e., students aged 12-18.
- ✓ The questionnaire was validated by experts in Science Education and a pilot test was carried out with the participation of Secondary school students with positive results.
- ✓ The questionnaire is organized in seven blocks dealing with different aspects: the global problems that most concern pupils, perception of the severity of the problems, causes, consequences, possible measures and international context in this issue.
- ✓ In this study we focus exclusively on Block 1, that contains these open-ended questions: "What are the global issues that most concern you? Why? Give reasons for your answer".

PRELIMINARY CONCLUSIONS

- ✓ For the participating Secondary school students, Climate Change is one of the most worrying problems humanity is facing (IPCC, 2014).
- ✓ The results obtained so far indicate possible misconceptions among Secondary school students on Climate Change and its relation to other current socio-environmental problems.

According to the research:

- ✓ The existence of erroneous beliefs and misconceptions plays a decisive role to understand the socio-environmental crisis and to the acquisition of commitments by Secondary school students.
- ✓ It is urgent to redirect their education and teacher training, towards Education for Sustainable Development (ESD), to promote critical and participatory citizenship (Aznar et al., 2018).

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