Knowledge & Attitudes of high Schools students in Greece, towards Waste Management

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LABORATORY OF SUSTAINABLE WASTE MANAGEMENT

Objectives

The effective waste management is essential for sustainable development (Baud, Grafakos, Hordijk, & Post, 2001; Morrissey & Browne, 2004) and so, the educational system of every country needs to provide its students with the necessary related skills and knowledge. The aims of this research are a) to explore the knowledge and the attitudes of high school students in Greece towards waste management and b) to compare their performance to the ones in UK.

Methods

Questionnaires from a research study held in UK (Kolbe, 2015) were used in Greek high schools. Data, were collected by a multiple-choice questionnaire, in order to record students' knowledge and attitudes. The results were compared to a research study held in UK for two schools with a sample of 253 high school students (Kolbe, 2015).
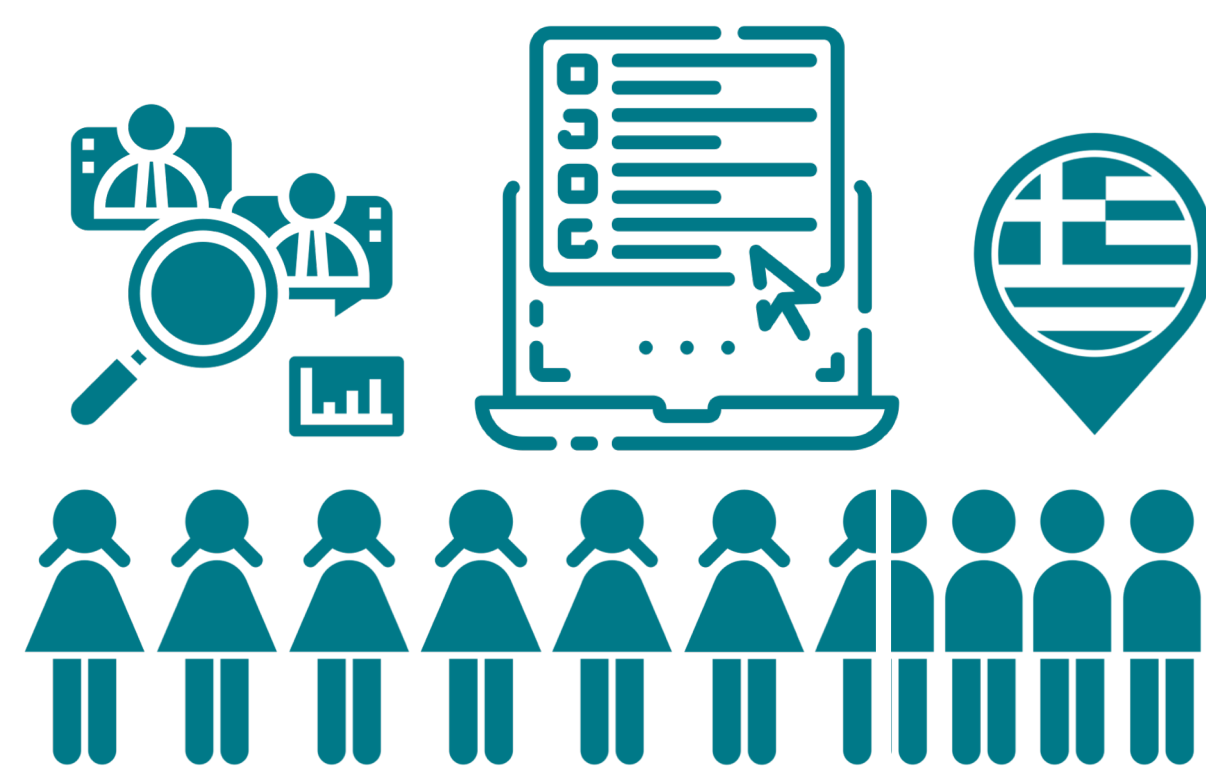
Our research sample consisted of 189 high school students of Greek high schools, enrolled on the 1st, 2nd and 3rd year of lower secondary schools, between 12 and 15 years of age, 64,5% were girls and 35,5% boys. Questionnaires were provided by their teacher and were filled out anonymously in the same period, from 18 February 2021 until 4 April 2021.

Results

Greek students level of knowledge for concepts related to waste management was lower than students in UK. Only 57,7% of Greek Students state that they had heard of the waste management terms (Recycling of Paper, Kerbside collection, Composting, Incineration and Landfill) and knew what they meant. For students in UK the percentage was 80,5%.

Percentage of Students who had Heard of the Named Concepts and Knew what They Meant			
Term / Concept	High Schools in Greece	High Schools in Greece (13–14 y.o.)	High Schools in UK
Recycling of Paper	95,2	95,5	96,8
Kerbside collection	47,6	46,6	80,6
Composting	47	57,8	85,0
Incineration	70	62,2	69,5
Landfill	31,2	26,6	70,4

It is remarkable that for the concept of Landfill, the Greek students that state they heard and know what it means were only 26,6%, while in UK 70,4% state they knew what it meant.

Mean Values of Importance of Waste Management Options			
Concept	High Schools in Greece	High Schools in Greece (13–14 y.o.)	High Schools in UK
Reduce of waste	7,02	8,11	8,0
Recycling	6,89	7,11	8,2
Composting	6,64	6,74	6,8
Re-use	6,48	6,74	7,4

Greek students state that they valued the importance of different waste management options (Reduce of waste, Recycling, Composting and Re-use) by giving on average 7,2/10 lower than the students in UK (7,6/10).

79,9% of Greek students state that they think waste volumes should be reduced, in comparison to almost 100% in UK.

Greek students state that they recycle whenever is possible on an average of 54%, less often than the students in UK (67,4%).

Percentage of Students stating they recycle whenever is possible			
Concept	High Schools in Greece	High Schools in Greece (13–14 y.o.)	High Schools in UK
Paper	58,7	57,7	78,3
Cans	46,5	48,9	61,2
Glass	48,6	55,5	62,6

Students in Greece have also lower level of knowledge on what recyclable is, scoring on average 72,9% of right answers comparing to 77,2% of students in UK.

Percentage of students classified correctly the material as recyclable			
Concept	High Schools in Greece	High Schools in Greece (13–14 y.o.)	High Schools in UK
Paper	97	96	97,9
Glass	97	100	87,4
Fruit Juice Cartoons (Tetra Pak)	67	58	50,5
Plastic Bottles (PET)	92	84	84,0
Drink Cans	76	76	87,9
Cardboard	63	58	93,2
Aluminum Foil	42	38	39,5

"The school" appears to be the major source of information for Greek students, whereas "the family" holds the same place for UK students.

source of knowledge
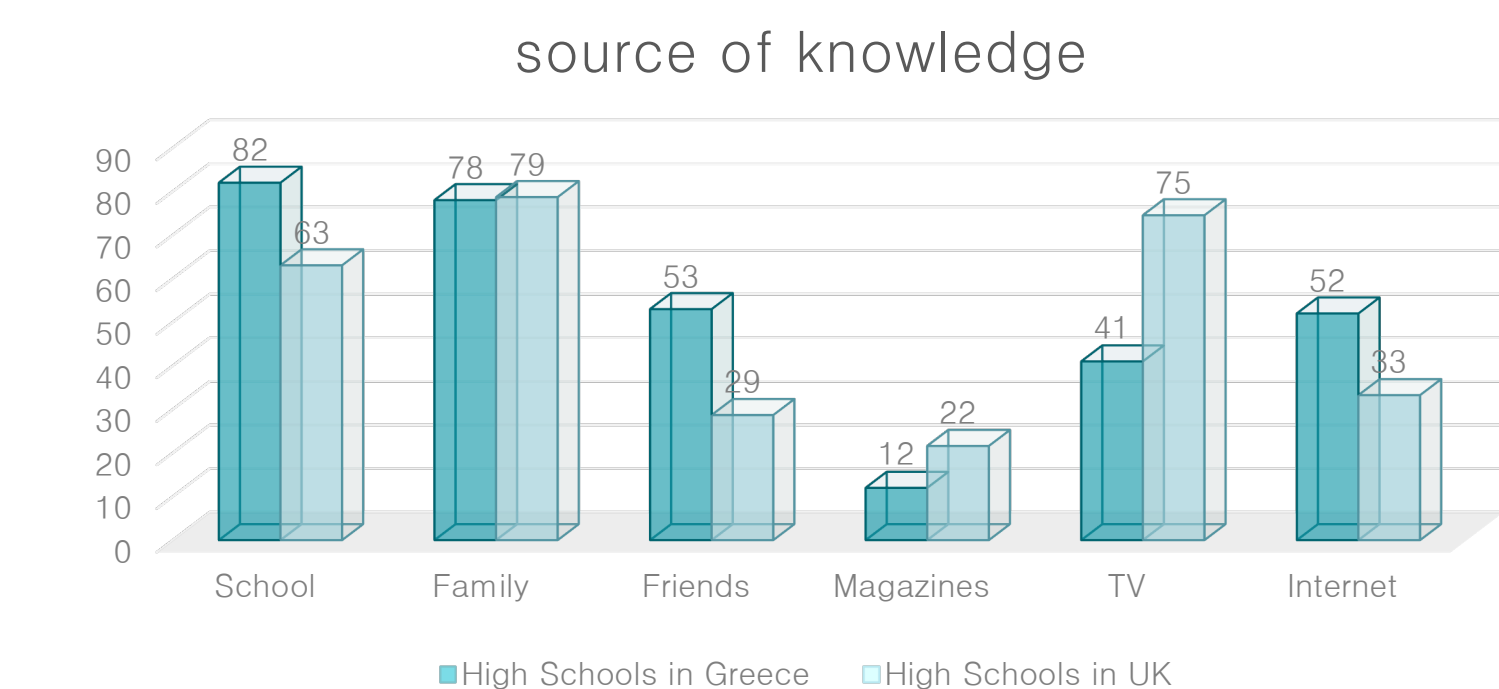
Conclusions

Even though students in Greece state as their main source of knowledge the school –while in the UK is family–, their level of knowledge on issues related to waste management is lower. They also appear to recycle less and value waste management concepts as less important than the students in the UK. Further research should be conducted in order to investigate the reasons behind the above findings.

References

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