

KNOWLEDGE & ATTITUDES OF SECONDARY EDUCATION TEACHERS AND STUDENTS REGARDING WASTE MANAGEMENT IN GREECE

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Abstract

This scientific approach was adopted to compare secondary education teachers' views to that of students from a prior study (Karachalios, Plakitsi, Hatzinikita, & Kalavrouziotis, 2021) and to learn more about their attitudes and understanding regarding waste management in Greece. Questionnaires were filled by in service secondary education teachers around Greece. Data, were collected from multiple choice questions on waste management, measuring attitudes and knowledge. Our research sample were 332 secondary education teachers and questionnaires were filled out anonymously. The results showed lack of knowledge for students in Greece, comparing to the ones of their teachers. Secondary education students' level of knowledge for concepts related to waste management is significantly lower, comparing to Secondary education teachers. Only 55,25% of the students' state that they know waste management terms of Recycling of Paper, Kerbside collection, Composting and Landfill, while for secondary education teachers the percentage was 88,65%. Secondary education students in Greece state they recycle whenever is possible less often than secondary education teachers. It is shown that the level of knowledge on issues related to waste management of secondary education students is significantly lower than teachers, so further researches should be conducted in order to investigate the reasons.

References

Karachalios, I., Plakitsi, K., Hatzinikita, V., & Kalavrouziotis, I. (2021). Knowledge and Attitudes of high school students in Greece towards waste management. *6th Distance Education E-Learning International Summer School and Workshop on "Wastewater and Biosolids Management" (WWSS21)*, Patras 26-31 July 2021, ISBN: 978-960-611-012-2, p 48–51. Patras 26-31 July 2021. Retrieved from <https://wastewater2021.eap.gr/e-proceedings/>

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Objectives

Studies have indicated that individuals are more likely to engage in environmentally responsible actions when they possess adequate knowledge about environmental issues, demonstrate intrinsic motivation to act, perceive the efficacy of their actions, and encounter minimal barriers to change (Eagly & Chaiken, 1993; Grob, 1995; Schultz & Zelezny, 1999).

The aims of this research are a) to explore the knowledge and the attitudes of secondary education teachers in Greece towards waste management and b) to compare their performance to the ones secondary education students.

Methods

Data, were collected by a multiple-choice questionnaire, in order to record secondary education teachers' knowledge and attitudes. The results were compared to a research study held for secondary education students where the sample was 189 high school students (Karachalios, Plakitsi, Hatzinikita, & Kalavrouziotis, 2021).



A group of 332 teachers from secondary schools in Greece participated in our study. Among them, 64.8% were women and 35.2% were men. We administered questionnaires to the participants through an online survey. The students completed the questionnaires anonymously during the 2020–2021 school year (Karachalios et al., 2021), while the teachers filled them out in the 2022–2023 school year.

Results

Greek secondary education students level of knowledge for concepts related to waste management was significantly lower than secondary education teachers. Only **55,25% of the Students state that they had heard of the waste management terms** (Recycling of Paper, Kerbside collection, Composting and Landfill) and knew what they meant, while for secondary education teachers the percentage was **88,65%, which is almost the same percent with secondary education students in UK (Kolbe, 2015).**

Percentage of answers that they Heard of the Named Concepts and Knew what They Meant		
Term / Concept	Secondary education students	Secondary education teachers
Recycling of Paper	95,2	98,8
Kerbside collection	47,6	73,5
Composting	47	93,4
Landfill	31,2	88,9

It is quite noteworthy that **only 31.2% of Greek students** claim to have heard of the term "Landfill" and understand its meaning, whereas **88.9% of secondary education teachers** confidently state that they are familiar with the concept.

Our research data shows that both secondary education students and teachers generally express a positive attitude towards recycling. However, the results indicate that teachers tend to have higher percentages (**78,7%**) of recycling practices across all three concepts (paper, cans, and glass) compared to the students (**51,3%**).

This might imply that teachers play an influential role in promoting and practicing recycling habits, potentially through educational initiatives or personal commitment to environmental sustainability.

Percentage that stating they recycle whenever is possible		
Concept	Secondary education students	Secondary education teachers
Paper	58,7	83,1
Cans	46,5	74,6
Glass	48,6	78,3

Conclusions

Our research underscores the significance of knowledge, attitudes, and the role of secondary education teachers in promoting environmentally responsible actions among students in Greece. The study highlights the need for targeted educational initiatives, the influence of teachers on students' behaviors, and the importance of continuous education for teachers themselves.

By addressing these aspects, it is possible to foster a culture of environmental sustainability and empower future generations to take action toward waste management and other environmental concerns.

References

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