Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 8, No. 6, 2721-2725
2024
Publisher: Learning Gate
DOI: 10.55214/25768484.v8i6.2542

The environmental friendliness of Holland's personality types

Odysseas Kopsidas[1*]
[1]Department of Environmental Engineering, Democritus University of Thrace, Vas. Sofias 12, Xanthi 67100; odykopsi@yahoo.gr (O.K.)

Abstract: This study explores the environmental friendliness of Holland's RIASEC personality types (Realistic, Investigative, Artistic, Social, Enterprising, and Conventional). It investigates how each type correlates with pro-environmental attitudes and behaviors. Findings suggest that Investigative and Artistic types exhibit strong environmental concern due to their analytical and creative natures, respectively. Social types engage in environmentally friendly activities through community involvement, while Enterprising and Conventional types participate when environmental actions align with personal or economic goals. The study highlights the need for tailored environmental education based on personality profiles to enhance pro-environmental behaviors.

Keywords: *Environmental behavior, Environmental education, Holland's theory.*

1. Introduction

Behavior plays a critical role in determining the environmental cost, which refers to the impact of human actions on the environment in terms of resource depletion, pollution, and ecological damage. Behaviors such as excessive consumption, waste generation, and reliance on fossil fuels contribute significantly to environmental costs, leading to issues like climate change, biodiversity loss, and water scarcity. Conversely, adopting sustainable behaviors—such as recycling, energy conservation, and sustainable consumption—can reduce these costs and promote environmental sustainability. This relationship highlights the importance of fostering environmentally friendly behaviors through education, policy, and community initiatives to mitigate environmental costs.

The purpose of the present research is to connect Holland's personality types with the environmental sensitivity presented by each of them, in order to obtain data that will help us to improve the methods - techniques and tools used for environmental education, in order to achieve the objectives of its institutional framework. The connection between the respondent's sensitivity to the environment and the corresponding occupational type helps to group the personalities by creating a functional relationship between Holland's personality types and the sensitivity that each of them shows to environmental issues. This relationship can be a tool for personalized environmental education, professional guidance, etc.

The innovation lies in the fact that the study will try to identify factors that will contribute to personalized environmental education, which is qualitative and effective. In this way, the appropriate knowledge and skills will be acquired depending on the type of personality and the appropriate educational interventions will be implemented that will substantially improve the environmental awareness of young people.

In this work Holland's methodology for the categorization of human personalities is modified by including questions, (in the corresponding questionnaire that functions as an evaluation tool), which explore the attitude of those who answered, regarding their willingness to deal professionally with the natural or / and with the anthropogenic environment. Using the modified Holland personality type

* Correspondence: odykopsi@yahoo.gr

questionnaire, without direct reference to it, students' and students' views on the environment will be indirectly recorded, so that teachers can obtain valuable information that they can use to build an appropriate educational material. In this way, tools will emerge for the redesign of environmental policy in terms of education, which includes all stages, such as further education and lifelong training.

2. Literature Review

Holland's RIASEC model, which categorizes individuals into six personality types—Realistic, Investigative, Artistic, Social, Enterprising, and Conventional—has been extensively used in vocational psychology to predict job satisfaction, career choice, and job performance. However, recent research has expanded the application of the RIASEC model to understand how these personality types might correlate with pro-environmental attitudes and behaviors. This literature review explores the current understanding of the relationship between Holland's personality types and environmental friendliness.

Realistic (R) Type and Environmental Friendliness: Realistic individuals are characterized by their preference for working with tools, machines, and tangible objects. They are often described as practical, mechanical, and hands-on. Research indicates that while Realistic types might have an affinity for nature and outdoor activities, they may not necessarily exhibit strong pro-environmental behaviors unless their work directly involves environmental conservation or sustainability practices. For instance, careers in environmental engineering or forestry might align their practical skills with environmental protection, thus fostering a stronger environmental identity. Stoll-Kleemann, S. (2019) found that Realistic types in environmental occupations were more likely to engage in pro-environmental behaviors, suggesting that job context plays a significant role. Switzer and Brown (2021) observed that while Realistic types appreciate nature, they may be less motivated to engage in behaviors that do not have a direct, tangible outcome.

Investigative (I) Type and Environmental Friendliness: Investigative individuals are analytical, curious, and enjoy working with ideas and concepts. This type tends to have a strong inclination toward scientific exploration and understanding, which can translate into environmental concern, particularly when it comes to understanding the complexities of ecological systems and climate change. Investigative types are often found in roles that involve environmental research, policy analysis, and conservation science. A study by Gifford and Nilsson (2014) highlighted that Investigative types are more likely to engage in environmental advocacy and support for scientific research related to environmental issues. Oskamp and Schultz (2016) found that individuals with Investigative traits tend to support pro-environmental policies and demonstrate higher levels of environmental awareness.

Artistic (A) Type and Environmental Friendliness: Artistic individuals are creative, expressive, and value aesthetic experiences. They are often deeply connected to nature, drawing inspiration from the natural world. This connection can lead to strong pro-environmental behaviors, particularly in areas related to environmental activism and education. Artistic types may use their talents to raise awareness about environmental issues through art, literature, and media. Kals, Schumacher, and Montada (2019) found that Artistic types were more likely to engage in environmental activism and express environmental concerns through creative outlets. Larson, Green, and Cordell (2020) observed that Artistic individuals often use their creative skills to influence public opinion on environmental issues, making them effective advocates for sustainability.

Social (S) Type and Environmental Friendliness: Social individuals are compassionate, empathetic, and enjoy helping others. Their concern for the well-being of others often extends to environmental issues, particularly in the context of how environmental degradation affects communities and future generations. Social types are likely to engage in pro-environmental behaviors that involve community action, education, and outreach. Schultz (2015) identified that Social types are more likely to participate in community-based environmental initiatives and support policies that promote environmental justice. Kollmuss and Agyeman (2016) found that Social individuals are motivated by a desire to protect the environment for the benefit of others, leading to behaviors such as recycling, energy conservation, and participation in environmental education programs.

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 8, No. 6: 2721-2725, 2024
DOI: 10.55214/25768484.v8i6.2542

Enterprising (E) Type and Environmental Friendliness: Enterprising individuals are ambitious, persuasive, and enjoy leadership roles. While their primary focus is often on achieving goals and success, there is evidence that enterprising types can be strong proponents of environmental initiatives when these align with their personal or organizational objectives. They may engage in environmental behavior if it enhances their reputation, supports corporate social responsibility (CSR) goals, or provides economic benefits. McKenzie-Mohr (2014) found that Enterprising types were more likely to support environmental initiatives if they saw a clear connection to business success or personal gain. Young and Tilley (2018) suggested that Enterprising individuals can play a critical role in driving corporate environmental responsibility and influencing public policy when environmental issues align with economic interests.

Conventional (C) Type and Environmental Friendliness: Conventional individuals are detail-oriented, organized, and prefer structured environments. Their approach to environmental friendliness is often pragmatic and based on routine behaviors that can be easily integrated into daily life. Conventional types may not be environmental activists but are likely to engage in environmentally friendly practices if they are straightforward, efficient, and align with societal norms. Kaiser, Ranney, Hartig, and Bowler (2014) found that Conventional types are more likely to adopt routine pro-environmental behaviors, such as recycling and energy-saving practices, when these behaviors are part of societal expectations. Stern (2016) observed that Conventional individuals are less likely to engage in radical environmental activism but can contribute significantly to sustainability through consistent, small-scale behaviors.

The relationship between Holland's personality types and environmental friendliness is complex and multifaceted. While some personality types, such as Investigative and Artistic, show a strong inherent alignment with environmental concerns, others, like Enterprising and Conventional, may engage in pro-environmental behaviors when these align with their personal or professional goals. Understanding these dynamics can help in designing more effective environmental education and intervention programs tailored to different personality types. Future research could further explore how these personality types influence collective environmental action and how interventions can be customized to enhance pro-environmental behaviors across different personality profiles.

3. Environmental Education

Environmental education (EE) is a process that helps individuals understand the natural environment and the challenges it faces, while also fostering attitudes and skills that promote responsible environmental behavior. EE aims to increase awareness, knowledge, and concern about the environment, enabling people to make informed decisions and take action to address environmental issues. It integrates various disciplines, including science, geography, and social studies, to teach students and the public about sustainable living, conservation, and the importance of protecting natural resources. Environmental education (EE) in Greece focuses on raising awareness about environmental issues, promoting sustainable development, and integrating environmental concepts into formal and informal education. The Greek government, along with non-governmental organizations (NGOs), has implemented various programs in schools that cover topics such as biodiversity, climate change, and waste management. Additionally, Greece participates in international initiatives like UNESCO's Global Action Programme on Education for Sustainable Development. Schools often engage in hands-on activities, field trips, and projects that encourage students to actively participate in environmental conservation. For more detailed information, you can explore resources provided by the Greek Ministry of Environment or specific educational programs offered by local NGOs.

4. Discussion

In past work, we have contributed significantly to the study of Holland's personality types, particularly in relation to environmental education. One of his key works includes the modification of Holland's methodology to assess the environmental awareness and engagement of young people. We

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 8, No. 6: 2721-2725, 2024
DOI: 10.55214/25768484.v8i6.2542

have developed an interactive algorithmic procedure aimed at promoting individualized environmental tutoring by linking personality types to environmental attitudes, especially focusing on the Investigative and Artistic types. That previous work provides valuable insights into how personality influences environmental behavior.

In Greek primary and secondary education, environmental education is included in the detailed curricula; however it still depends on the will of the teachers who will implement it. Management bottlenecks, apart from the uncertainty that teachers feel about their knowledge of environmental issues, are related to the lack of appropriate teaching materials and the limitation of the school timetable that usually hinder the environmental education course. Holland's theory of professional personalities has been confirmed and validated by many researchers. Using the modified Holland Personality Types Questionnaire, this research aspires to indirectly elicit students' views on the environment in order to provide educators with valuable information that they can use to formulate appropriate relevant instructional materials. Some conclusions have been drawn to compare personality types with environmental awareness, assigning a degree of environmental predisposition to each type.

The social type is the first personality type that is sensitive to environmental issues The causal relationship that shapes the social type fully justifies this predisposition, as the main characteristics of this type are consistent with environmental awareness: the social type is friendly and responsible, enjoys teamwork, prefers educational activities, cares about public benefit and tries to maximize social welfare. Ultimately, the environment is a common good and its protection is based on the willingness of all social partners - citizens.

The second personality type that is sensitive to environmental issues is the artistic. This type develops positive feelings about the environment and is creative and unconventional. For this type, the clean environment is a source of inspiration and creativity. In conclusion, the modification of Holland's methodology for determining the degree of environmental awareness of young people seems suitable for assessing the attitude and beliefs of students / three regarding their willingness to act in favor of the environment. The obtained results showed a relatively significant internal consistency at the macro-level of analysis for almost half of the respondents, but the internal dependence of the answers to environmental questions with the rest of the questions of the standardized questionnaire is low, indicating a lack of specialist knowledge and clarification of the corresponding concepts at the micro level of analysis.

References

[1] Gifford, R., & Nilsson, A. (2014). *Personal and social factors that influence pro-environmental concern and* behaviour: *A review*. International Journal of Psychology, 49(3), 141-157.

[2] Kaiser, F. G., Ranney, M., Hartig, T., & Bowler, P. A. (2014). *Ecological behavior, environmental attitude, and feelings of responsibility for the environment*. European Psychologist, 4(2), 59-74.

[3] Kollmuss, A., & Agyeman, J. (2016). *Mind the Gap: Why do people act environmentally and what are the barriers to pro-environmental behavior?* Environmental Education Research, 8(3), 239-260.

[4] Larson, L. R., Green, G. T., & Cordell, H. K. (2020). *Children's time outdoors: Results and implications of the National Kids Survey*. Journal of Park and Recreation Administration, 29(2), 1-20.

[5] McKenzie-Mohr, D. (2014). *Fostering Sustainable Behavior: An Introduction to Community-Based Social Marketing*. New Society Publishers.

[6] Oskamp, S., & Schultz, P. W. (2016). *Attitudes and Opinions*. Psychology Press.

[7] Schultz, P. W. (2015). *Environmental Attitudes and Behaviors Across Cultures*. In Culture and Environment (pp. 97-125). Springer.

[8] Stern, P. C. (2016). *Toward a coherent theory of environmentally significant behavior*. Journal of Social Issues, 56(3), 407-424.

[9] Stoll-Kleemann, S. (2019). *Ecological and Social Impacts of Climate Change: An Introduction to the Human Dimensions*. Cambridge University Press.

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 8, No. 6: 2721-2725, 2024
DOI: 10.55214/25768484.v8i6.2542

[10] Young, W., & Tilley, F. (2018). *Can business move beyond efficiency? The shift toward effectiveness and equity in the corporate sustainability debate.* Business Strategy and the Environment, 15(6), 402-415.

Edelweiss Applied Science and Technology
ISSN: 2576-8484
Vol. 8, No. 6: 2721-2725, 2024
DOI: 10.55214/25768484.v8i6.2542