



**“EQREM ÇABEJ” UNIVERSITY
THE FACULTY OF EDUCATION
AND SOCIAL SCIENCES**



**UNIVERSITY OF WESTERN MACEDONIA
SCHOOL OF SOCIAL SCIENCES
AND HUMANITIES**

THE SCIENTIFIC AND DEVELOPMENT RESEARCH PROJECT

FOR THE JOINT STUDY PROGRAM

DOCTORATE IN EDUCATION AND HUMAN SCIENCES

1. THE TITLE OF THE PROJECT

**The teaching and learning system in environmental education for sustainable development:
*An analytical study of a social network perceptions for effective teaching.***

2. STUDY FIELD: Humanities

3. SUBFIELD STUDY: Regional Geography

4. LEADING PROFESSORS / CONTACTS:

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5. BACKGROUND OF THE STUDY:

This dissertation project aims to study and promote environmental education for sustainable development.

Since 2015, the UN has defined 17 Sustainable Development Goals, which all countries will have to achieve by 2030. Even our country, as part of this commitment, will have to carry out in-depth, a scientific research, also in the field of geography.

The aim is to contribute to the inventory and creation of the database necessary for the calculation of the indicators, the analysis of the deficiencies and the realization of the prognosis of the indicators within the defined time limits. Through this approach, it will be possible to concretely identify the needs for undertaking new policies and updating existing ones, as instruments for the

benefit of environmental education in sustainability. After 1992, the concept and theory of “sustainable development” was internationally sanctioned.

Social-environmental learning theory has evolved through three distinct phases:

The first phase was based on the cognitive psychology of the field, which provides an explanation for how students learn from society or social observation.

The second phase was developed from the field of organizational studies, on organizational learning and collective learning in school, through a combination of individual classroom learning.

The third phase of social-environmental learning is currently being developed as a combination of ecological, environmental and educational perspectives, in the function of sustainable social-environmental learning. This paper introduces teaching for sustainable environmental education, an emerging teaching philosophy based on sustainability principles.

The aim is to create and improve sustainable curricula and teaching methods.

The importance of this study consists in:

- ✓ teacher education for sustainable development, in the face of major global socio-environmental challenges;
- ✓ efficient methodologies with learning approaches of the science of sustainable environmental education.

Key words: biodiversity, sustainability, environmental education, sustainable development, learning system, effective teaching.

6. RATIONALE FOR THE RESEARCH:

The project aims at scientific study, the use of methods and the application of the principles of the 2030 Agenda, on environmental education for sustainable development. The project is in the field of Human Geography, the subfield of Regional Geography and has an interdisciplinary character. The project is in the field of study, publication and teaching of the author of this project (Regional Geography of the World, Urban Geography, Rural Geography, Education for Sustainable Development, Geography of Tourism, etc).

The project is synchronous with the development strategy of the department for deepening of scientific knowledge and the efficient use of contemporary methodologies.

The realization of this project can be done within the scientific research fund of the department, financed by the state budget or Higher Education Institution funds, application in AKKSHI projects, application in other national or international calls.

The realization of this project requires the involvement of the doctoral candidate, who will research the theoretical scientific aspect of the object of study as well as apply the methodologies and technologies applied in this project, but not only.

The entire physical infrastructure of the Department of History, Anthropology and Geography, the Geography Laboratory, the University Library, human capacities, etc. are available to doctoral students.

From the research of the existing literature and local, regional and international studies so far, it results that the studies in this aspect, with contemporary methods, are still in the necessary steps to be crystallized. In this perspective, this project is a review of regional cross-border coordination and cooperation in this aspect. Education for sustainable development and education for sustainable lifestyles generally aim at individual learning and behavior change. Although there are some good examples of collaborative learning for sustainability in educational initiatives, this paper examines the social learning processes that occur in such collaborative learning cases.

7. OBJECTIVES AND SIGNIFICANCE OF THE STUDY:

The objectives of this project are:

- assessment of environmental education in teaching;
- the research of alternative perceptions of teachers, regarding the concept and dimensions of biodiversity, the value of its conservation, its connection with climate change and its contribution to achieving sustainable environmental development;
- designing, implementing and evaluating a didactic lesson, which will constitute an integrated educational tool, on which students will be introduced to the multidimensional concept of the term biodiversity and sustainable environment;
- supporting better quality education and the formation of responsible citizens, with critical thinking, capable of participating in actions for the protection of biodiversity and at the same time capable of taking initiatives to deal with challenges arising from his loss.

8. LITERATURE REVIEW:

Analysis of existing literature on human development, teaching and learning:

The importance of teaching and learning system in environmental education for sustainable development consists of an important area of scientific research, with a multitude of studies emphasizing the importance of aligning educational strategies with developmental stages and learning capacities.

The Impact of environmental sustainable development on education:

Education for sustainable development (ESD) provides students with the knowledge, skills, values to address interconnected global challenges including climate change, loss of biodiversity, unsustainable use of resources, inequality etc. It inspires students to make decisions and take individual and collective actions to change society and care for the environment. It enhances the cognitive, socio-emotional and behavioural dimensions of learning and encompasses learning content and outcomes, pedagogy and the collaborative learning environments, and the integration of environmental problems into the curriculum.

The theoretical framework for adapting education to environmental sustainable development:

The concept of lifelong learning extends the focus of education from formal schooling to continuous lifelong learning, emphasizing the importance of developing the capacity to learn, evolve and innovate. This literature review reveals a consensus on the need for education systems to evolve in response to the changing landscapes, ecosystems and environmental.

9. RESEARCH QUESTIONS:

This project aims to deepen scientific studies for sustainable environmental education, in the cross-border region of Gjirokastër-Ioannina, by researching the theoretical and scientific aspect of the object of study with scientific methods.

The following research questions guide the investigation of the project, where the third could be seen as the overall research question:

- What is the development of students' experience of the Environmental Sustainable Development (ESD) teaching in terms of holism-approach to content and pluralism-approach to teaching?
- What is the development of students' self-perceived action competence for sustainability in terms of their knowledge of action possibilities, confidence in one's own influence, and willingness to act?
- What is the effect of ESD on students' self-perceived action competence for sustainability?

10. RESEARCH ETHICS:

The project will be carried out in accordance with the legislation in force for doctoral studies and all by-laws and instructions, the Statute of UGJ and the Regulation of doctoral studies at UGJ. The project will be an original work, based on the fieldwork and personal research of the doctoral student and applying the main rules of ethics of scientific works.

11. METHODOLOGY:

Research Design

This study adopts a mixed methods approach to comprehensively explore the education for sustainable development. By integrating quantitative and qualitative research methodologies, this design enables a robust examination of educational practices, outcomes, and experiences from multiple perspectives. The quantitative component will include the collection and analysis of numerical data to identify patterns and correlations, while the qualitative component will focus on gaining deeper insights into the experiences and subjective perceptions of educators and students. The realization of this project requires the use of several methods for achieving its main goal: education for sustainable environmental development.

Among the methods that will be used are:

- quantitative and qualitative methods to collect and process data from the study area;
- adaptation and use of different methods of gathering information from the target social group, through random selection, creation of focus groups for interviews, etc.;
- the use of questionnaires and sets of questions, special interviews for the various actors involved in education for sustainable environmental development;
- analysis and processing of quantitative and qualitative statistical data, using well-known statistical computer programs such as: SPSS, etc.

Data collection methods

- Surveys: Quantitative data will be collected through structured surveys administered to a diverse sample of educators and students.
- Interviews: Qualitative data will be collected through semi-structured interviews with educators, curriculum designers and educational policy makers.
- Case studies: A series of case studies will be carried out in different educational settings to examine the implementation and outcomes of innovative teaching and learning strategies.

Data analysis procedures

- Quantitative data analysis: Statistical software will be used to analyze the survey data, using descriptive and inferential statistics to identify trends, patterns and relationships.
- Qualitative data analysis: interviews and case studies will be transcribed and analyzed using thematic analysis to identify key themes, concepts and narratives.
- Integration of findings: Findings from quantitative and qualitative analyzes will be integrated to draw comprehensive conclusions about the objectives of the study.

For the realization of this paper, different study methods will be used, which in most cases will require their combination and coordination, *among which we single out:*

- the widest possible acquaintance with the phenomenon and the contributions of different authors;
- highlighting as well as analyzing the gaps that still exist unstudied in the field taken for study;
- field study of the phenomenon, selecting the most typical area or areas and the necessary social network;
- carrying out many surveys and interviews with various stakeholders that influence and are related to education for sustainable environmental development;
- analysis and processing of various data extracted from the literature or even collected from the field;

- writing and presenting the material on the basis of a well-organized structure to protect it in all stages of passing a doctoral thesis.

12. EXPECTED RESULTS:

The realization of this project will contribute to the development of this concept, with an impact on environmental diversification. In the framework of this project, its realization is aimed, with the object of study being biodiversity and sustainability, and application of the methodologies and technology provided for in this project, but also approximate methodologies.

At the end of this project, the expected outputs are:

- realization of the project according to phases and its complete design;
- creation of the study data database.

The main contribution of the project will be the writing of the dissertation and its publication on the official website of UGJ. Other contributions during and after the realization of the project will be participation in national and international conferences, publication of articles in important national and international scientific journals, organization of workshops and open discussions regarding the main issue of the project.

Through the realization of such a study, it will be contributed in several directions.

Among these directions we single out:

- the preparation of young researchers by enabling them to carry out such studies;
- study of specific target groups of cross-border regions, about the opportunities and problems they have for the realization of education for sustainable environmental development;
- sensitizing local and central decision-makers to take into account such studies in local, regional, interregional and cross-border developments;
- providing study examples, which can be spread to other interregional areas of the country.

In the framework of this project, in addition to the study, research and writing of the doctoral topic, theoretical trainings will also be carried out in relation to education for sustainable development, as well as scientific articles will be published in indexed journals editorial board.

Also, will be carried out the participation in national and international scientific conferences for the presentation of study results, mobility of doctorants students within the Erasmus+ program, etc. in order to produce a qualitative and applicable dissertation.

13. STRATEGIES TO REDUCE RISK:

- *Encourage of ownership*, is vital and can help to facilitate the implementation of a region's environmental-sensitive education program.
- *Participation of professors and students at all levels is key of a excessively importance.* Environmental-sensitive strategies are more appropriate and effective when national and sub-national authorities, teachers and partners participate in their planning and implementation, involving them in decision-making processes.
- *Implement of coordination mechanisms.* This can ensure appropriate follow-up and alignment with higher education priorities on environmental-sensitive education and sustain long-term commitment. It helps students practically, ensure that resources are used in an efficient and equitable way, by avoiding duplication of activities, favoring synergies in activities, and avoiding a focus on specific areas and neglect others.
- *Link of humanitarian and development partners*, also with higher education. Environmental problems and situations increase the need for coordination, as many humanitarian and development partners engage in various programs and projects. Their coordination can ensure alignment with government priorities and appropriate follow-up.

- *Develop of capacities.* A environmental crisis may deplete capacities or weak capacities may contribute to the crisis in the first place. Capacity development measures, always hands-on, need to build on indigenous knowledge and local capacity needs, beginning from higher education.

This detailed elaboration of the expected results and discussion should provide a comprehensive overview of the anticipated research results and the challenges they may face, along with strategies for addressing them.

14. RECOMMENDED BIBLIOGRAPHY:

To help the realization of the project comes a rich literature, which can be accessed both by using electronic libraries (JSTORE and U-Library), in addition to the Central Library of UGJ, with a rich environment literature fund and suitable environments, but also in the form of periodicals and scientific journals of the department, of the scientific leader, of the doctoral students themselves, of the Library of the Faculty of Education and Social Sciences, of the Library of the Academy of Sciences, of the National Library etc.

In this project, we are presenting some of the references related to the methodology applied in this project, *as follows*:

- <https://sdgs.un.org/2030agenda>
- <https://uogj.edu.al/>
- <https://ulibrary.rash.al/>
- <https://uogj.edu.al/biblioteka-online/>
- <https://www.uowm.gr/en/#>
- UNDP, *Strategjia Lokale për Zhvillimin e Qëndrueshëm*, Bashkia Gjirokastrë, 2004, fq. 41.
- <https://eric.ed.gov/?id=EJ1218201>
- https://www.westernsydney.edu.au/_data/assets/pdf_file/0011/1996922/Educators_Guide_for_Sustainability_Final.pdf
- <https://www.calameo.com/books/007243918b9e1fd762523>
- <https://sustainableearthreviews.biomedcentral.com/articles/10.1186/s42055-022-00050-3>
- <https://journals.sagepub.com/doi/10.1177/00224871221105784?icid=int.sj-abstract.similar-articles.6>

THE STEERING GROUP PROPOSING THE PROJECT

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**The teaching and learning system in environmental education for sustainable development:
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Albania is part of the commitments at the UN level to achieve the Sustainable Development Goals, until 2030. The implementation of this project aims to apply contemporary methods and technology in the field of environmental education for sustainable development.

The application of the study methodology in this project will contribute to deepening the scientific and methodological knowledge of the doctoral student in the theoretical and applied direction of human geography.

In addition to the methodological and scientific side, the implementation of the project will contribute directly and indirectly to the promotion and environmental development with an impact on local communities and indirectly to the sustainable environmental development of the region.