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USING THE LOLA PROJECT TO DEVELOP SUSTAINABLE DEVELOPMENT KNOWLEDGE – FROM THE POINT OF VIEW OF AN ERASMUS STUDENT

Abstract: *The concept of sustainable development was first presented in 1992 at the first Earth Summit in Rio de Janeiro. Knowledge of this concept and its implementation in the economy and everyday life seem to offer a solution to many of the natural, and socio-economic problems of the contemporary world and civilization.*

Continuous education, in various forms, plays a key role in implementing sustainable development in society, and effective methods of working with children and students can include, among others, the LOLA project. The search for alternative, more sustainable activities, recreation, transportation, and methods of production and consumption is possible thanks to the participation of the younger generation. The LOLA project is generating interest as an effective educational tool among both teachers and students. This article presents elements of this project implemented by a Spanish Erasmus student at the University of Rzeszów.

Keywords: sustainable development, education, LOLA project

KONCEPCJA PROJEKTU LOLA DLA ROZWIJANIA ZNAJOMOŚCI ZRÓWNOWAŻONEGO ROZWOJU – REALIZACJA PRZEZ STUDENTKĘ ERASMUSA NA UNIWERSYTECIE RZESZOWSKIM

Abstrakt: *Koncepcja zrównoważonego rozwoju została po raz pierwszy zaprezentowana w roku 1992, na I szczyście Ziemi w Rio de Janeiro. Znajomość tej koncepcji oraz jej wdrażanie w gospodarkę i codzienne życie wydają się stanowić rozwiązanie wielu problemów przyrodniczo-społeczno-gospodarczych obecnego świata i cywilizacji.*

Stala, przyjmująca różne formy, edukacja odgrywa kluczową rolę we wprowadzaniu zrównoważonego rozwoju w społeczeństwie, a efektywne metody pracy w dzieciach oraz młodzieżą szkolną i studencką mogą obejmować między innymi projekt LOLA. Poszukiwanie alternatywnych, bardziej zrównoważonych aktywności, wypoczynku, transportu czy sposobów produkcji i konsumpcji, jest możliwe dzięki partycypacji młodego pokolenia. Projekt LOLA budzi zainteresowanie jako sprawne narzędzie edukacyjne zarówno wśród nauczycieli jak i uczniów. W artykule przedstawiono elementy realizacji tego projektu przez hiszpańską studentkę programu Erasmus na Uniwersytecie Rzeszowskim.

Słowa kluczowe: zrównoważony rozwój, edukacja, projekt LOLA

I. INTRODUCTION

People need sustainable development and the knowledge of how to integrate it into everyday life. However, there remains a general lack of information, cohesion, and innovation in understanding the vision of sustainable human development. Recent research highlights that achieving sustainable development requires balancing three interdependent pillars: economic growth, social inclusion, and environmental protection, which continue to be globally misaligned and insufficiently addressed by current policies [Sadiq *et al* 2025].

A growing body of scientific literature identifies persistent economic, social, and environmental challenges as major barriers to sustainable progress. Economically, many countries face unequal growth patterns, dependence on resource-intensive sectors, and limited resilience to global shocks, which weaken long-term development prospects [Tran *et al* 2020]. Social challenges remain equally significant: widening inequalities, demographic pressures, and disparities in access to essential services hinder inclusive and equitable development [Sierra and Suárez-Collado 2021]. Environmental challenges - including pollution, biodiversity loss, and accelerating climate change, represent some of the most urgent threats to humanity. Global scientific assessments show that environmental degradation continues to intensify due to unsustainable consumption patterns and insufficient mitigation policies [Agbim 2020, Fili and De Anna 2025]. Together, these challenges highlight the need for educational and community-based strategies that foster systemic change.

Education plays a key role in introducing sustainable development into society. Through school education, sustainable initiatives and practices can reach students' homes and communities. Therefore, educating students about respect for the environment and society is essential to fostering responsible citizenship and long-term behavioral change [Thoresen *et al* 2008]. Nevertheless, integrating sustainability into education remains difficult. Teachers often struggle to connect theoretical content with students' everyday realities and to motivate them to adopt active, problem-solving attitudes instead of fatalism or helplessness [Sierra and Suárez-Collado 2021].

To address this gap, the LOLA Project (*Looking for Likely Alternatives*) was developed as an educational tool to explore sustainability through lifestyle research [Thoresen *et al* 2008]. The project encourages students to identify and analyse emerging sustainable initiatives within their own communities. Through communicative classroom activities, the LOLA approach promotes reflection, collaboration, and critical thinking. Moreover, it provides educators with a structured, step-by-step methodology that simplifies classroom implementation and motivates both teachers and students to evaluate the benefits and limitations of sustainable alternatives. Ultimately, the LOLA Project helps young people understand the social, economic, and environmental challenges faced today and encourages them to apply sustainable practices in their daily lives.

The aim of this article was to present the possibilities of using the LOLA project to develop sustainable awareness among Spanish Erasmus students in Poland. Several alternative, more sustainable, activities were presented as examples.

II. MATERIALS AND METHODS

A review of the available literature, personal knowledge, and experience was conducted regarding the possibilities of shaping sensitivity and ability to adapt daily activities to slow the negative transformation of natural resources, including natural and urban spaces in various areas. Literature data included in the work were searched in available databases, taking into account both direct and indirect literature on the subject, including original and review articles. Extensive online resources were also consulted.

Noticed problems were presented and discussed by the student (co-author of the article) during the meeting with the teacher as a part of the subject "Chosen aspects of sustainable development".

III. RESULTS AND DISCUSSION

Using the LOLA project concept, students can identify, discuss at first superficially, and then analyse in more depth, current social and environmental issues. Using a variety of skills, they search newspapers, the internet, academic sources, and their past social experiences to identify currently dominant modes of social activity that could be replaced with alternative, more sustainable ones. In discussions with the teacher, they present potentially sustainable initiatives for further exploration. This approach also encourages assessment of the feasibility, constraints, and conditions necessary for the successful implementation of each alternative.

Below are examples of alternative initiatives developed in the academic year 2025/2026 (winter semester) by a Spanish student on an Erasmus course at the University of Rzeszów, as part of the subject "Chosen aspects of sustainable development".

1. The Threat of Losing Traditional Handicraft Skills, the Culture of Old Customs, and the Social Inclusion of Retirees

a) Current Problem

Recent research highlights that the technical and technological revolution, along with rapid digitalization and changes in labor markets, are contributing to the decline of traditional manual skills such as carpentry, shoemaking, tailoring, and basic agriculture. According to the UNESCO Intangible Cultural Heritage Report 2024, younger generations are experiencing less and less exposure to these practices, accelerating the loss of cultural resources and practical skills in European communities [Khomenko *et al* 2021, UNESCO 2024]. At the same time, older people are struggling with growing social exclusion. The World Health Organization's "Active Aging Assessment 2024" report found that social isolation among people over 65 has increased significantly in Central and Eastern Europe, where approximately 35% of older people suffer from loneliness [Long 2024]. This isolation negatively impacts their health and mental well-being.

b) A Sustainable Alternative

The following proposal includes extracurricular activities led by older adults. By engaging older adults/retirees as instructors in practical workshops, we achieve an alternative initiative that promotes intergenerational contacts, mutual learning, and social cohesion [KOS project]. Research on active aging strategies shows that participation in educational and social programs improves the well-being of older adults and reduces their social isolation [Matei 2025]. Furthermore, the transfer of traditional skills contributes to the preservation of valuable cultural heritage, which is closely linked to several of the UN's Sustainable Development Goals (SDGs), such as goals 3, 4, and 10, respectively, health and well-being, quality education, and reducing inequalities [Khomenko *et al* 2021] [United Nations. n. d.].

2. Environmental Threats from the Production and Distribution of Replacement Headsets and Their Adaptation to New Functions for Seniors

a) Current Issue

The production of two-way radios is one of the main sources of electronic waste, chemicals, and depleting resources. The UNEP Global E-Waste Monitor 2024 estimates the global e-waste volume at 62 million tons, of which only 22% is mitigated by recycling [Baldé *et al* 2024]. The mining of coltan, necessary to produce the device, raises concerns due to environmental degradation and human rights violations. A recent assessment identified coltan mining as one of the sectors with the most significant environmental impacts in Central Africa, including deforestation, erosion, and water control [de Haes and Lucas 2024].

b) A Sustainable Alternative

It is proposed to conduct a campaign in schools to raise awareness of this threat and encourage young people to reuse old mobile phones, which could be an example of addressing both

environmental and social issues. Evidence suggests that reusing devices significantly reduces the carbon footprint of digital technologies by extending their lifespan [Leitão *et al* 2023].

The initiative to be implemented involves collecting mobile phones that are no longer used, for example, by tech-hungry young people. The collected phones are cleaned of their previous owners' content and equipped with software enabling them to be used as audiobooks for older adults. This not only reduces waste but also raises awareness among young people, contributing to the social well-being of older adults, in line with Sustainable Development Goals 12 (responsible consumption and production) and 15 (life on land) [United Nations. n. d.].

3. Severe air pollution in cities due to individual car transport and the introduction of green mobility

a) The current problem

Transport remains one of the main contributors to urban air pollution in Europe. According to the European Environment Agency's Air Quality Report 2024, road transport accounts for 39% of NO₂ emissions and remains a significant source of PM_{2.5} in medium-sized cities [Horálek *et al* 2023]. According to the European Parliament, the health impacts are serious [Bisceglia *et al* 2024]. Chronic exposure to high concentrations of NO₂ and PM_{2.5} is associated with cardiovascular and respiratory diseases, increased hospital admissions, and premature mortality. A recent EU-level study estimates that air pollution causes over 300,000 premature deaths per year within the European Union. A recent EU-wide analysis estimates that the annual external cost of air pollution amounts to €490 billion, or approximately 3% of the EU's GDP, when productivity losses, healthcare costs, and years of life lost are considered.

In addition to these health costs, there is a reduction in quality of life, especially in densely populated cities with high tourist numbers, where both residents and visitors are exposed to harmful air pollutants.

b) Sustainable alternative

In Spain, the implementation of low-emission zones (LEZs) has expanded rapidly in recent years to reduce urban air pollution. This has led to the adoption of mobility restrictions based on the national environmental labelling system (DGT labels). Large cities such as Madrid, Barcelona, Valencia, Seville and Zaragoza have already introduced permanent LEZs in city centres that restrict access to vehicles with higher emission categories. Recent evaluations show that these measures have been effective [Gómez-Losada and Pires 2024.].

Cities such as Krakow, Warsaw and Prague have also begun to implement low emission zones (LEZs), which have proven effective in reducing air pollution levels by 10% to 20% following their introduction [Horálek *et al* 2023].

The Green City Centre proposal is based on the success of LEZ models in restricting high-emission vehicles. This promotes public transport and green mobility. Evidence from European pilot programmes in 2023-2024 shows that LEZs significantly reduce particulate matter and nitrogen dioxide within a few months of implementation (EEA 2024) [Horálek *et al* 2023].

This initiative would therefore contribute to the 2030 Sustainable Development Goals, such as Goal 11 (sustainable cities and communities) and Goal 13 (climate action) [United Nations. n. d.].

4. Rising food prices and dependence on distant food sources and community gardens

a) The current problem

Global food prices have risen steadily since 2021, and the FAO's Food Security Outlook 2024 report warns that price volatility will remain a major concern due to climate disruptions, transport

costs and global market instability [Hunger and Insecurity 2024]. In addition, many communities remain heavily dependent on imported food, which increases their environmental footprint.

b) Sustainable alternative

What is being proposed are community gardens, which are widely recognised as effective strategies for improving local food availability, social cohesion and environmental sustainability. They increase access to fresh produce, promote healthy eating habits and reduce food costs for low-income households [Egli *et al* 2016]. In addition, they benefit the environment as they are locally sourced.

By providing free land for cultivation, this initiative supports economically vulnerable groups and builds more sustainable local food systems.

The results obtained through the LOLA Project demonstrate that significant progress toward sustainability does not always require substantial financial investment, but also depends on the participation of motivated individuals willing to contribute their time, creativity, and commitment. This demonstrates the importance of taking a creative approach to education.

The participation of the young generation in solving problems and creating reality, their interesting initiatives disseminating ideas for changing routine habits [Rozenbajger and Kostecka 2012, Kostecka *et al* 2015], activities, or commonly existing production and consumption systems, is one of the foundations of hope for a better, sustainable future for local communities, entire regions and the planet.

As mentioned above, the LOLA project describes a teaching methodology based on identifying constructive, alternative, and sustainable solutions. This methodology includes exploration of the local community, contact with residents, interviews with those involved in implementing the solutions, and a process of sharing the students' findings with others (students, teachers, the public). It is important to emphasize that the article focuses on reflecting the first (implemented) part of the methodology: the student searched the internet and other sources for examples of sustainable solutions. The article does not describe her interactions with those implementing the solution, nor showing how a larger group of students could evaluate the solutions they found, and how they share their information with other students (as she studied in a group of one). The process of identifying examples of actions to stimulate sustainable development is an extremely valuable element of teaching about sustainable development. In line with the concept of the LOLA [Thoresen *et al* 2008] project creators, the activities undertaken within it aim to go far beyond literature and simple discussion, inviting students to their immediate communities and encouraging them to interact with family, neighbors and colleagues, so that everyone can learn, evaluate and share positive solutions.

IV. CONCLUSIONS

The initiatives presented above demonstrate the potential of the LOLA Project to connect classroom learning with real-world problems. They demonstrate that student is capable not only of identifying relevant problems, but also of proposing viable and context-appropriate solutions.

An effective way to apply the LOLA methodology is to create sustainability committees in schools. These committees would provide a structured space where students and teachers with a common interest in sustainable development could collaborate, exchange ideas, and carry out sustainable initiatives.

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