

GUERRILLA GARDENING AS A CHALLENGE IN ENVIRONMENTAL EDUCATION?

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<https://doi.org/10.11118/978-80-7509-963-1-0147>

Abstract

Currently, in the context with the concept of sustainability, emphasis is placed on ecological education and environmental problems in education, while pupils and students are increasingly separated from nature and from activities connected with a real contact with nature. Therefore, students' ecological ideas often end with sorted waste and reports on current ecological disasters. In this paper are considered the possibilities of using a controversial activity - guerrilla gardening - to increase students' interest in their surroundings, in the study of ecosystems and in their active contact with nature. The paper also discusses the possibilities and limitations of this activity with an emphasis on environmental responsibility.

Keywords: ecology, leisure time activities, motivation, recreation, responsibility

Introduction and the goal

In connection with the ecological crisis and the concept of sustainability, more and more emphasis is placed on ecological and environmental education, but today's students are primarily educated on a theoretical level, and in their free time they are often in the grip of digital technologies and social networks and they are separated from the real contact with nature. One of the ways how motivate young people to environmental activities is the controversial activity - guerrilla gardening, the benefits and risks of which are discussed in this paper.

Materials and methods

This paper is based on the overview of relevant written sources and continues with the SWOT analysis of guerrilla gardening in environmental education.

Theoretical background

"The major challenges of today's society, such as climate change, water and food security, as well as biodiversity loss, involve efforts to protect and save the environment. Coping with these 'wicked' problems requires education and engagement. Historically, environmental education entered school curricula in the 1970s when concerns about environmental degradation were broadly discussed on a global level." (Schönfelder & Bogner, 2020)

According to Khusainov et al. (2015): "Psychological direction of the lessons, its structure during education of nature studying subjects, seeing the interrelation between human and nature are allowing to pupils to be self-aware as a part of the nature. They are beginning to understand the meaning of importance of nature education development and their own possibilities in relishing of nature only by finding themselves to be a part of the nature. That is the first step to the ecological culture. As the result pupils get a habit of environmental friendliness and finally they do everything that is necessary for environmental development of their districts, schools, gymnasiums etc."

Environmental consciousness refers to a state of awakening in one's relationship to the environment, where one is sensitive to the environment and knowledgeable about the environment, and is committed to act in a way that demonstrates enlightened environmental responsibility and care. (Ji, 2011)

The categories of environmental education objectives are according to (Tbilisi Declaration, 1977):

- Awareness - to help social groups and individuals acquire an awareness and sensitivity to the total environment and its allied problems.
- Knowledge - to help social groups and individuals gain a variety of experience in, and acquire a basic understanding of, the environment and its associated problems.

- Attitudes - to help social groups and individuals acquire a set of values and feelings of concern for the environment and the motivation for actively participating in environmental improvement and protection.
- Skills - to help social groups and individuals acquire the skills for identifying and solving environmental problems.
- Participation - to provide social groups and individuals with an opportunity to be actively involved at all levels in working toward resolution of environmental problems.

One of the effective but controversial method how to attract pupils and students to the interest in nature and environment is guerrilla gardening. The main contribution of guerrilla gardening in environmental education is that it is outside activity, the work with real visible results, that reduction of the stress and the feeling of adventure. Using adventure activities for education were studied in many papers (e.g.: Thomas, 2005; Hanna, 1995; D'Amato & Krasny, 2011; McKenzie, 2000; Shooter & Furman, 2014; Martin, 2004; Dresner & Gill, 1994; Attarian, 2001; Brown & Jones, 2021; Sandell & Öhman, 2013; Karppinen, 2012; Palmberg & Kuru, 2000).

The term 'guerrilla gardening' was introduced in 1973 by Liz Christy, a young oil painter living and working in New York. She noticed tomato plants growing in the mound of trash in her neighbourhood. The plants had clearly sprouted from fruit in the discarded rubbish. Taking inspiration from this, Liz and her friends scattered their own seed in vacant lots and planted empty tree pits. Later they decided to create a community garden recalling the New York of the seventeenth century, in which every house had a garden; they wanted to create a small oasis in densely built district. (Sackey, 2022)

In the 1970s, guerrilla gardening began as a grassroots protest against urban decay and derelict spaces in New York City. (Thornton, 2023)

"Since the 1970s, guerrilla gardening served as a warning to citizens and policymakers on the negative impact of urban decay on urban life, socially, economically, and environmentally... Since the 2000s, guerrilla gardening and other forms of urban agriculture have increased their mainstream appeal, emerging as important urban social movements and participants in new forms of urban governance that seek to reconnect and enhance symbiotic relationships between human and natural ecosystems in the built-up environment." (Thornton, 2023)

Guerrilla gardening is the strife for management and control that causes alienation from nature, despite best intentions. ... motto, "I walk, I see, I do," can contribute to a more just multispecies city. This takes courage but might enable urban residents to truly benefit from nature's benefits for individual and more-than-human community health, of which positive emotions are a central part. (Müürpeal et al., 2023)

Alongside the term guerrilla gardening some authors use the term community gardening or the urban agriculture (Gu et al., 2012) which does have no connotations of transgression and intervention. The urban farming movement is not simply about growing food, but the effects are diverse and widespread. Through the integrated wholistic system of learning, activism, and health urban farming became a catalyst for renewal in communities across the country. (Gu et al., 2012)

Guerrilla gardening is very close to adventure education which can awaken motivation through unusual challenging activities even of less motivated students. Shooter & Furman (2014) mentioned in their study three benefits of adventure education and socio-ecological models: "First, both adventure education and socio-ecological models regard positive behaviour change as a desired outcome. Second, adventure education and socio-ecological models both offer insights to address environmental problems. Third, both models highlight our social and environmental interrelatedness. Adventure education provides a unique opportunity to step away from the complexities and distractions of day-to-day life and learn directly about both human and ecological interrelationships. Adventure education can be an effective way to teach systems thinking and the socio-ecological model provides a useful framework to do so."

There are two categories of guerrilla gardening operation. The first involves undercover work. Often performed at night, when outdoor workers are absent and potential witnesses in bed, the project is executed quickly and quietly. In the other type of the operation you work by day. You do not skulk or hide behind dark hoodies or bandana masks. You wear work clothes and work gloves and a safety vest. - A worker's vest is like backstage pass. (Tracey, 2007)

According to Black (2013): “The overall reaction to the garden from neighbours and passers-by is positive, and people are generally happy that the gardeners are doing something with land that was largely abandoned. People out walking stop to admire the flowers and chat with the gardeners....But a little bit different is the situation when the guerrilla gardeners transform a public space into a place for growing food; it can be perceived as provocative or even disgusting.”

“Guerrilla gardeners often colonise land not only without the permission from authorities, but also with little regard for those who surround the space; transforming areas without consulting with the local communities”. (Adams et al., 2014) From this point of view guerrilla gardening has close to arbitrary actions or anarchy. “But what if anarchy could be beautiful, what if it could bring local communities together planting flowers in the streets?”. One doyenne of guerrilla gardening call it botanarchy. (Gayle, 2023)

“With the lack of arrests and no documented prosecutions, guerrilla gardening is more appropriately conceptualised as an informal act as opposed to an illegal act..” (Adams, Hardman, & Larkham, 2015; Reynolds, 2008 in Hardman et al., 2018)

“Perhaps the most unlawful action of a typical guerrilla gardener is their avoidance of obtaining planning permission or dealing with the bureaucracy of local authorities through avoiding risk assessments, insurance and other such paperwork usually required to establish a formal site.” (Zanetti, 2007 in (Hardman et al., 2018)

It seemed that guerrilla gardening had become normalised law-breaking, a form of urban intervention that was broadly accepted and a welcome part of everyday living in certain neighbourhoods. The police were not thought likely to intervene and in one instance encouraged the planting of a guerrilla garden outside a local police station. Local politicians were happy to pose for photographs with the gardeners and landowners were – in most cases – perceived to be uninterested. (Millie, 2023) Of course, a much more responsible approach is to transform guerrilla gardening into “a less guerrilla form” that is perhaps less adventurous but more respectful of property rights and the law; i.e. seek out the landowners and ask for permission to garden on their land. In the event that the municipality will be the owner, we can expect helpfulness, as the interest of the municipality's management should be to beautify neglected places.

Results

Tab. 1: SWOT analysis: Guerrilla gardening in environmental education

Strengths	Weaknesses
<ul style="list-style-type: none"> ▪ Adventurous and challenging activity ▪ Recreational activity ▪ Reduce stress ▪ Motivation to environmental activity ▪ Requires participants' activity ▪ Very creative ▪ Popular for young people ▪ Quite cheap ▪ Visible results of own work ▪ Critical environmental thinking ▪ Enables to see the environmental changes ▪ Enables to see results of own work ▪ Feedback from others ▪ Enables to see various point of views ▪ Supports the thinking about community ▪ Supports environmental perception and sensitivity ▪ Supports environmental activities ▪ Develops responsibility ▪ Develops environmental responsibility 	<ul style="list-style-type: none"> ▪ Illegal activity ▪ Incitement to criminal activity ▪ Does not respect ownership ▪ Brakes the law ▪ No planning permission ▪ No risk assessments ▪ For the reasons mentioned above it can be hardly a part of school practical education ▪ Requires a lot of time ▪ Suitable mainly for very active participants ▪ Requires to be familiar with botany and biodiversity (at least the leader of the group) ▪ Requires long time active and responsible students (otherwise the plants can die soon or they will be not cultivated) ▪ Requires an experienced and adventurous lecturer
Opportunities	Threats
<ul style="list-style-type: none"> ▪ Can motivate also less motivated students ▪ Included environmental investigative 	<ul style="list-style-type: none"> ▪ Can be destructive without botanical knowledge ▪ The danger of spreading of invasive plants

<ul style="list-style-type: none"> activities ▪ For less motivated students with a motivated lecturer ▪ For children from 10 years ▪ For managers who want to be environmentally friendly and socially responsible ▪ For environmentalists ▪ For activists ▪ For leisure time groups, courses ▪ For self-development ▪ Can be used as relaxation activity ▪ Can be used as a part of teambuilding activities 	<ul style="list-style-type: none"> ▪ Irresponsible gardeners can only start their project without continuing care and interest ▪ Participants of this activity can feel that it is ok to be involved in illegal activity and it can be generalized ▪ The participants can be attracted with the adventure more than with the real environmental goals ▪ Unskilled lecturers can choose wrong plants, wrong place and do not think about the future care about the plants
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Discussion and Conclusion

In this paper was given an overview of literary sources dealing with guerrilla gardening and education, and a SWOT analysis of guerrilla gardening in environmental education was prepared on the basis of the theoretical part of this article. The findings show that, although it is a controversial method, it has many benefits for environmental education, including: real contact with nature, motivation through adventure, development of responsibility to planted plants and to the environment in general; the other benefits are stress reduction and relaxation associated with the stay in nature and with the joy from the results of own work.

Guerrilla gardening can be recommended for students from about 10 years of age under professional guidance; for environmentalists, for leisure groups, or for managers and employees as part of teambuilding activities. The main weaknesses and risks of guerrilla gardening lie in the fact that it is an illegal activity, although as stated in the theoretical overview, it is mostly tolerated by both the police and the city council.

(However, there still remains the danger that the unwanted result of education using guerrilla gardening can be arbitrariness and disrespect for the law). Another risk can be a one-time, irresponsible "hurrah action" that does not take into the account the longer-term care of the plants and the "occupied" land.

Last but not least, the spread of invasive or otherwise unsuitable plants can be a risk, for example due to the lack of knowledge. However, the mentioned negatives can be solved with an experienced lecturer, a responsible attitude of the participants and with a request for permission to "guerrilla gardening" from the owner of the chosen neglected plot.

References

- Adams, D., Hardman, M., & Larkham, P. (2014). Exploring guerrilla gardening: Gauging public views on the grassroots activity. *Local Environment*, 20, 1–16. [cit. 2024-03-18]. Available from: <https://doi.org/10.1080/13549839.2014.980227>
- Attarian, A. (2001). Trends in Outdoor Adventure Education. *Journal of Experiential Education*, 24(3), 141–149. [cit. 2024-02-10]. Available from: <https://doi.org/10.1177/105382590102400304>
- Black, R. (2013). Taking Space to Grow Food and Community: Urban Agriculture and Guerrilla Gardening in Vancouver. *Cuizine: The Journal of Canadian Food Cultures / Cuizine : Revue Des Cultures Culinaires Au Canada*, 4(1). [cit. 2024-03-14]. Available from: <https://doi.org/10.7202/1015492ar>
- Brown, M., & Jones, M. (2021). Adventure and Risk in Outdoor Environmental Education. In G. Thomas, J. Dymont, & H. Prince (Ed.), *Outdoor Environmental Education in Higher Education: International Perspectives* (s. 89–99). Springer International Publishing. [cit. 2024-01-14]. Available from: https://doi.org/10.1007/978-3-030-75980-3_8
- D'Amato, L. G., & Krasny, M. E. (2011). Outdoor Adventure Education: Applying Transformative Learning Theory to Understanding Instrumental Learning and Personal Growth in Environmental Education. *The Journal of Environmental Education*, 42(4), 237–254. [cit. 2024-03-20]. Available from: <https://doi.org/10.1080/00958964.2011.581313>
- Dresner, M., & Gill, M. (1994). Environmental Education at Summer Nature Camp. *The Journal of Environmental Education*, 25(3), 35–41. [cit. 2024-02-22]. Available from: <https://doi.org/10.1080/00958964.1994.9941956>

Gayle, D. (2023, září 28). 'I call it botanarchy': The Hackney guerrilla gardener bringing power to the people. *The Guardian*. [cit. 2024-03-10]. Available from: <https://www.theguardian.com/environment/2023/sep/28/i-call-it-botanarchy-the-hackney-guerrilla-gardener-bringing-power-to-the-people>

Gu, S., Paul, K. B., Nixon, K., & Duschack, M. (2012). URBAN FARMING AND GARDENING TAKING ROOTS IN INNER CITIES. *Acta Horticulturae*, 937, 1097–1107. [cit. 2024-02-25]. Available from: <https://doi.org/10.17660/ActaHortic.2012.937.137>

Hanna, G. (1995). Wilderness-Related Environmental Outcomes of Adventure and Ecology Education Programming. *The Journal of Environmental Education*, 27(1), 21–32. [cit. 2024-01-29]. Available from: <https://doi.org/10.1080/00958964.1995.9941968>

Hardman, M., Chipungu, L., Magidimisha, H., Larkham, P. J., Scott, A. J., & Armitage, R. P. (2018). Guerrilla gardening and green activism: Rethinking the informal urban growing movement. *Landscape and Urban Planning*, 170, 6–14. [cit. 2024-03-01]. Available from: <https://doi.org/10.1016/j.landurbplan.2017.08.015>

Ji, X. (2011). Environmental Education as the Mountain—Exploring Chinese-ness of Environmental Education. *Australian Journal of Environmental Education*, 27(1), 109–121. [cit. 2024-02-17]. Available from: <https://doi.org/10.1017/S0814062600000112>

Karppinen, S. J. A. (2012). Outdoor adventure education in a formal education curriculum in Finland: Action research application. *Journal of Adventure Education and Outdoor Learning*, 12(1), 41–62. [cit. 2024-03-01]. Available from: <https://doi.org/10.1080/14729679.2011.569186>

Khusainov, Z. A., Biktimirov, N. M., & Shigapova, N. V. (2015). Environmental Education of the Younger Generation. *Asian Social Science*, 11(11), p221. [cit. 2024-03-24]. Available from: <https://doi.org/10.5539/ass.v11n11p221>

Martin, P. (2004). Outdoor adventure in promoting relationships with nature. *Journal of Outdoor and Environmental Education*, 8(1), 20–28. [cit. 2024-03-16]. Available from: <https://doi.org/10.1007/BF03400792>

McKenzie, M. D. (2000). How are Adventure Education Program Outcomes Achieved?: A review of the literature. *Journal of Outdoor and Environmental Education*, 5(1), 19–27. [cit. 2024-03-19]. Available from: <https://doi.org/10.1007/BF03400637>

Millie, A. (2023). Guerrilla gardening as normalised law-breaking: Challenges to land ownership and aesthetic order. *Crime, Media, Culture*, 19(2), 191–208. [cit. 2024-03-18]. Available from: <https://doi.org/10.1177/17416590221088792>

Müüripeal, A., Plüschke-Altof, B., & Küüna, A. (2023). "I walk, I see, I do": A more-than human perspective on urban gardening. *Cities*, 138, 104336. [cit. 2024-03-18]. Available from: <https://doi.org/10.1016/j.cities.2023.104336>

Palmberg, I. E., & Kuru, J. (2000). Outdoor Activities as a Basis for Environmental Responsibility. *The Journal of Environmental Education*, 31(4), 32–36. [cit. 2024-03-26]. Available from: <https://doi.org/10.1080/00958960009598649>

Sackey, D. J. (2022). Without permission: Guerrilla gardening, contested places, spatial justice. *Review of Communication*, 22(4), 364–377. *Scopus*. [cit. 2024-03-22]. Available from: <https://doi.org/10.1080/15358593.2022.2133970>

Sandell, K., & Öhman, J. (2013). An educational tool for outdoor education and environmental concern. *Journal of Adventure Education and Outdoor Learning*, 13(1), 36–55. [cit. 2024-03-26]. Available from: <https://doi.org/10.1080/14729679.2012.675146>

Shooter, W., & Furman, N. (2014). Through Adventure Education: Using a Socio-ecological Model in Adventure Education to Address Environmental Problems. In B. Wattchow, R. Jeanes, L. Alfrey, T. Brown, A. Cutter-Mackenzie, & J. O'Connor (Ed.), *The Socioecological Educator: A 21st Century Renewal of Physical, Health, Environment and Outdoor Education* (s. 139–152). Springer Netherlands. [cit. 2024-03-26]. Available from: https://doi.org/10.1007/978-94-007-7167-3_8

Schönfelder, M. L., & Bogner, F. X. (2020). Between Science Education and Environmental Education: How Science Motivation Relates to Environmental Values. *Sustainability*, 12(5). [cit. 2024-03-06]. Available from: <https://doi.org/10.3390/su12051968>

Tbilisi Declaration (1977). [cit. 2024-03-21]. Available from: <https://www.gdrc.org/uem/ee/tbilisi.html>

Thomas, G. (2005). Traditional adventure activities in outdoor environmental education. *Journal of Outdoor and Environmental Education*, 9(1), 31–39. [cit. 2024-03-17]. Available from: <https://doi.org/10.1007/BF03400810>

Thornton, A. (2023). Urban Guerrilla Gardening and Health. In Oxford Research Encyclopedia of Global Public Health. [cit. 2024-03-18]. Available from: <https://doi.org/10.1093/acrefore/9780190632366.013.440>
Tracey, D. (2007). Guerrilla Gardening: A Manual. New Society Publishers, 240 pages, ISBN 978-0865715837.

Souhrn

Na ekologické a environmentální vzdělávání je v souvislosti s ekologickou krizí a konceptem udržitelnosti kladen stále větší důraz, avšak současní studenti jsou vzdělávání především v rovině teoretické a rovněž ve svém volném čase jsou často v zajetí digitálních technologií a sociálních sítí a odtrženi od reálného kontaktu s přírodou. Jednou z možností, jak motivovat mladé lidi k aktivní environmentální činnosti je kontroverzní aktivita – guerrilla gardening. V tomto příspěvku je podána v teoretické části rešerše odborných zdrojů zabývajících se guerrilla gardeningem v ekologickém vzdělávání a na podkladě teoretické části příspěvku je přehledně zpracována SWOT analýza guerrilla gardeningu v environmentálním vzdělávání; podstatné body výsledků jsou stručně okomentovány v následné diskusi.

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