IMPACTS OF ARTS-BASED ECOPEDAGOGY IN SUSTAINABLE RESIDENTIAL FOOD WASTE MANAGEMENT

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Abstract

How can arts-based ecopedagogy impact sustainability in organic waste management? In Winnipeg, Canada (population 841,000), there is no publicly-funded program for the 34 million kilograms of Residential Food Waste produced annually, nor is there an industrious environmental education program to support it. The consequence of inaction is the increase of greenhouse gas emissions from untreated waste, further threatening global warming, especially an issue for the disadvantaged urban population, and those in multi-family dwellings such as condominiums/apartments. This paper outlines a research proposal set to commence in 2024/2025. A suitable framework model chosen for this critical environmental exploration was ecopedagogy, a transformative teaching in which researchers' problem-pose the politics of socio-environmental connections through local, global, and planetary lenses. Arts-Based and Participatory Action Research will follow ecopedagogy as an innovative and mutually supportive multidisciplinary and methodological approach to knowledge-building with the creative arts at its core; useful not just for inquiry and learning, but also to challenge dominant ideas, hegemony, oppression, and ideologies through a critical lens. A practical guide and example for the effective methods of Participatory Video under the framework of ecopedagogy will be displayed to enable research participants as active co-researchers. All humans have a right to live in a clean, healthy and sustainable environment, based on the resolution that was unanimously signed by the United Nations General Assembly, 28 July 2022. Is this creative approach of arts-based ecopedagogy right for you?

Keywords: Arts-based research, ecopedagogy, participatory action research, sustainability, critical pedagogy.

1. Introduction / research background

This paper is a proposed research study to examine the management of residential food waste as a component of climate change, a real and undeniable threat to our entire civilization. "Municipal solid waste landfills are responsible for almost one-quarter of Canada's methane emissions, which are generated when biodegradable waste decomposes. Cutting methane emissions from all sources, including landfills, is one of the fastest and most cost-effective ways to combat climate change" (Government of Canada, 2023). Anxiety about climate change, unsustainable migration, inequality, food scarcity, and reinforced poverty forced the United Nations (UN) to convene with world leaders to address the concerns of the planet and its people. The UN officially adopted the 2030 Sustainable Development Goals (SDG) in 2016 after 193 nations agreed that changes needed to occur to save the planet, consisting of 17 goals to achieve a greener, fairer, better world (United Nations, 2023). Unfortunately, the 2023 disappointing midpoint report from the Secretary-General of the UN yielded the following blunt statement: "unless we act now, the 2030 Agenda will become an epitaph for a world that might have been" (United Nations, 2023). What is needed in this study is an exploration of how people perceive the truth of the waste management situation, and to influence education and policy for a proposed city solution that is inclusive of all its citizens. This qualitative study will explore: How can arts-based ecopedagogy impact sustainability in residential food waste management? My objectives are: (a) monitor residential food waste collection through participatory action research in support of city and non-profit organizations; (b) evaluate arts-based research for developing environmental education for city and non-profit organizations; and (c) influence local public policy decisions regarding residential food waste management.

2. Theoretical approach / framework

The need for a critical pedagogy for the environment originated formally in the early 1990s, inspired by global concerns about the earth, evolving to a movement that was inspired by the revolutionary work of critical educator and philosopher Paulo Freire, in particular his influential 1968 work *Pedagogy of the Oppressed*, where he promoted the concept of a need for dialogue and consciousness in education for the marginalized (Freire & Macedo, 2018; Misiaszek, 2020). Earlier models of Environmental Education and Education for Sustainable Development focused successfully on the topic separation of humans and the environment but lacked the critical social analysis of the combined impacts, resulting in ecopedagogy's enhanced goals of "minimizing environmentally adverse outcomes, minimizing social injustices, and being within Earth's resource limits" (Misiaszek, 2020, p. 621). The framework of arts-based ecopedagogy is a new angle to promote critical inquiry with the people it affects, through the creative aspects of the arts, to influence key environmental and educational strategies. The addition of arts-based and eco in arts-based ecopedagogy translates to adding two additional layers to Freire's theoretical framework of critical pedagogy where the arts are used as an inquiry tool to complement the intersectional analysis of the research in the environmental (ecological) context (Leavy, 2018; Freire & Macedo, 2018).

3. Methodology

This study will blend the synergies of participatory action and arts-based research methodologies. Participatory action research builds knowledge together in social change action with participants as co-researchers, critically planning and implementing results of the research project (McIntyre, 2008). Leavy promotes arts-based research as a multidisciplinary and methodological approach to knowledge-building with the creative arts at its core; useful not just for inquiry and learning, but also to challenge dominant ideas, hegemony, oppression, and ideologies through a critical lens (2018). These approaches are well suited techniques to include, through arts-inquiry, the participants as active co-researchers within the social problems with which they are embedded. Arts-based research is about tackling issues to create new knowledge by arts-based inquiry, whereas participatory action research is designed to empower individuals and the collective (de Oliveira Jayme et al., 2016).

4. Methods, data collection and key activities

The goal of this study is to explore how arts-based ecopedagogy might impact sustainability in residential food waste management, educating leaders based on critical collective feedback from the analysis of knowledge created using arts-based techniques with research participants. Some participants will be the influencers, and some will provide vital feedback to those who can effect change. The chosen method is Participative Video (which will be explained below), but other artifacts may accompany film should the participant or the situation dictate.

Phase 1 – Preparation. Confirm participants, research objectives and plan. Participant selection will occur in 2024/2025 across the city of Winnipeg, Canada, to include representation from the solid waste community: policymakers, project managers, collectors, educators, businesses, allies, funders, and citizen groups. Participant selection of approximately 20 people will be based on the guidance of the city's provincial Manitoba Association of Regional Recyclers, a member driven association that helps ensure efficient and effective waste reduction programs. As is common with participatory action research, phase 1 will include a presentation of the research proposal, with opportunities for participants as *co-researchers* to ask questions, clarify goals, and even made requests for amendments to the previously stated objectives.

Phase 2 - Pre-production film workshops and filming. The action element in this study will be a collaborative set of hands-on film workshops, participant filming, data analysis, editing, and the production of film(s). Collection of data will focus primarily on the use of participative video, a form of video data collection using techniques to empower participants to become active in the research, and film within the problem state from their perspective as a co-researcher. Participants will be invited to six-hour workshop training sessions in pre-production (storyboarding, camera operation, storage, framing, etc.), and six-hour post-production sessions (footage selection, film editing, music, voice-over, etc.) at a professional studio in the city.

Phase 3 - Data collation and analysis. Data collected will consist of participants critically filming their residential food waste experiences with personal phone cameras during a four-month period. This information will then be coded using MAXQDA, a software tool for transcription, building a coding frame, visualization, analysis of videos, concept mapping, and group comparisons (Kuckartz, 2019).

Coded data will then be reviewed by the participants as a focus group. Data examination will critically focus on the video footage to include (as a minimum): the exploration (not proof) of biases based on individual perceptions of food waste collection; the study of food waste impacts to inclusive environmental education contributions; and the investigation of exclusion in food waste management policy. These dialogues will discover if the research problem statement has been achieved.

Phase 4 - Edit film(s) and present art to propose change. This project will be completed with a full-length documentary film under the supervision of a professional producer. The film will be screened across multiple audiences within Winnipeg and streamed publicly. This will be one of the possibilities, as it is expected that both other forms of art will appear, and filmed experiences of art creation might lead to a community or private art show/demonstration to educate and influence policy. The goal of answering the influential questions/objectives is more important that the art media or form. Participants will be enabled and empowered to make their own decisions based on the unique nature of their engagement with food waste management, and what perspectives they feel are most important to be communicated in creative ways.

5. Conclusion

This proposal provides a clear implication of practical application of blending the theoretical framework of ecopedagogy with the methodologies of both participatory and arts-based research. The nature of ecopedogy also allows a critical perspective of both the environmental education component of problem exploration, as well as the intersectionality of how these types of problems might be viewed through a lens of the UNSDGs with the objectives of racial justice, equity, and diversity implications. My objectives are: (a) monitor residential food waste collection through participatory action research in support of city and non-profit organizations; (b) evaluate arts-based research for developing environmental education for city and non-profit organizations; and (c) influence local public policy decisions regarding residential food waste management. Research will commence in 2024/2025.

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