



Research Proposal



Developing Concept of Sustainability via *LEGO*[®]
Serious Play[®] in Underdeveloped Countries

SUBMISSION DATE 30th JULY 2022

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Abstract

Impacts of changing climatic conditions due to persistent use of toxic elements like plastics, deforestation leading to the mislaying of biodiversity, and natural resources becoming scant due to misuse and misspending have all sparked serious concerns regarding environmental sustainability.

Compared to the developed countries, the underdeveloped nations face even greater difficulties and challenges in establishing a sustainable ecosystem due to multiple factors like poor governance, inequality, corruption, etc. that complement each other to give rise to bigger challenges. Amongst these factors, there exists a big issue about lack of awareness amongst people about environmental sustainability. Owing to this devoid of awareness, despite the established brands contributing big time to the ecological sustainability of environments, concerns, and impacts regarding ecological state continue to thrive and in fact, have grown steadily over the past years.

Companies like LEGO®, have been working effectively to promote sustainability in our environment, societies, and business via their innovative business strategies and kids-friendly product pipelines. However, such companies are mostly based and functioning in developed countries, leaving a big question about the ecological sustainability in underdeveloped countries.

According to research ([Kinneer, 2021](#)) awareness about the ecological situation and environmental sustainability taught to kids at an early age is a far more effective solution to filling in the devoid of awareness compared to other methods like running awareness programmes, etc as it helps children to establish an appreciation of ecology and its relationship with their environment while still young.

Given the doomed ecological state of planet Earth and the disruptions it has caused in Earth's ecosystems, through the proposed research, the idea is to encourage teachers to develop the concept of spreading awareness about environmental sustainability via LEGO® Serious Play among students of underdeveloped countries. Using the qualitative methodology approach, the objective is to develop students' interest by involving them in interactive activities via LEGO® Serious Play that helps promote in their minds the interest and understanding of what environmental sustainability looks like.

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Introduction

a) Research Rationale

In underdeveloped nations, the lack of awareness about environmental sustainability and the impact of growing ecological disturbances has stirred up worries of concern about the Earth's entire ecosystem. This kindles a need for spreading awareness about environmental sustainability amongst the inhabitants of those developing nations. For that, social movements dedicated to spreading environmental education and similar initiatives make for a good way of pushing forward the awareness amongst the people of such countries and making them indulge actively in environmentalism.

However, this isn't the only solution to the problem at hand especially when research ([Thompson, 2021](#)) proves that developing nations have better birth rates than developed nations. This gives the world a good reason of filling in the devoid of awareness about environmentalism among the nationals by training teachers to spread awareness about the subject matter of environmentalism through an interactive play activity via LEGO® Serious Play so that at an early age, students and children of under developing nations could learn to live sustainably.

b) Research Objectives

- 1) To understand and analyse the effects on environmentalism activities because of the devoid of awareness and lack of understanding about environmental sustainability in underdeveloped nations.
- 2) To justify that a playful education and learning at an early age through LEGO® Serious Play is a better solution to spreading awareness about the growing environmental unsustainability issues.
- 3) To evaluate how global environmental concerns could be reduced through a concept of LEGO® Serious Play for sustainability in underdeveloped nations.
- 4) To discuss how resource deficit issues in underdeveloped countries can be countered through the spread of sustainability awareness.
- 5) To discuss how successful has teachers' LEGO® Serious Play learning concept been in the capacity building of kids in the developed nations and how are those nations maintaining a sustained environment as of it?

c) Research Questions

- 1) How has the lack of awareness and lack of understanding about environmental sustainability in underdeveloped nations affected the activity of environmentalism there?
- 2) Why is early age education and learning through LEGO® Serious Play a better solution to promoting environmental sustainability in underdeveloped nations?
- 3) How global environmental concerns could be reduced through a concept of LEGO® Serious Play for sustainability in underdeveloped nations.
- 4) How resource deficit issues in underdeveloped countries can be countered through the spread of sustainability awareness via LEGO® Serious Play.
- 5) How successful has teachers' LEGO® Serious Play learning concept been in the capacity building of kids in the developed nations and how are those nations maintaining a sustained environment as of it?

Terms of reference: *teacher's role, environmental education, awareness, environmental sustainability, ecological concerns, LEGO® Serious Play, ecological disturbances, ecosystem deterioration*

Literature Review

According to the non-profit organization [hundrED](#), in its designathon on professional development, states that by unleashing the creativity of kids by engaging them in a playful learning environment could help in empowering the youth to design a better and environmentally sustained World ([HundrED](#), 2014). The organization's 7 years long designathon with the main focus on teaching for creative change-making has observed remarkable success in exploiting the views of society and education systems about the children they educate. By creating educating solutions such as making available the Brick Makerspace powered by LEGO® ([HundrED](#), 2018) entailing a learner-centred space, the organization focuses on both teachers' training about giving quality education to kids side by side providing the kids with the opportunity to think, design and build creatively; viewing itself as well as urging societies and teachers to think of them as a real changemaker in societies.

LEGO®, a Denmark-based private company that constructs kids' toys made out of plastic material, is a worldwide known company for teaching soft skills like creative thinking, problem-solving, conflict resolutions, etc that helps the kids transform their understanding and method of interacting with material things in their surrounding environment ([Mouratoglou](#), 2018). LEGO® toys have greatly helped in the capacity building of kids in the countries that mostly come under the category of developed nations ([Geislinger](#), 2020).

Within the responsible business principles of LEGO®, the company has disclosed clearly how it understands its responsibility toward children's education development, the people, and environmental sustainability. Whilst understanding its responsibility to the fullest, the company's toys have succeeded in hitting the bullseye for capacity building in children at an early age ([Geislinger](#), 2020). But this has been mostly true for the developed nations wherein the company operates, has its branches functioning, and where its toys are available for the kids in every retail store.

United Nations, in addressing the continuing deterioration of Earth's ecosystems upon which human life's well-being and existence depends, has enforced planned agendas ([UnitedNations](#), 1992) of global partnerships for the sustainable development of ecosystems. For that, the UN has endorsed the membership of companies like LEGO ([UNICEF](#), 2015) that have taken on the sustainable development goal of spreading environmental sustainability education among the youth through play. And because the company's toys have been successful in promoting capacity building in kids ([Geislinger](#), 2020) at an early age, we believe that if the kids in the developing nations are provided

with the concept of education and learning through LEGO® Serious Play, the devoid of environmental education therein can be uplifted.

This research work is intended for devising the concept of spreading awareness about environmental sustainability through LEGO® Serious Play among teachers of underdeveloped nations so that they can educate and implement learning for their students via an interactive play activity using LEGO® blocks. This will help the developing nations in protecting future generations from inheriting an infected and environmentally unsustainable planet.

Theoretical Frameworks

This research, guided by and followed up on by the sources disclosed in the [Bibliography](#) section of this proposal will have the following theoretical framework:



Figure 1 Theoretical Framework of the Proposed Research

The research will largely rely on the theories and concepts in literature from others and that of the LEGO® company rather than self-made assumptions and theory building. By testing theories for underdeveloped nations that have been proven to be successful for the capacity building and training of kids by teachers at an early age in developed nations to raise the awareness of environmental sustainability, this research aims to utilise and rely on those theories for its conceptualisation.

Methodology and Methods

Making use of both inductive and deductive reasoning, this research will make use of qualitative (how developed nations have succeeded in capacity building amongst their kids via LEGO® Serious Play) and quantitative research methodology (surveys and questionnaires) to conceptualise its objectives.

Research Design

The reason for selecting the qualitative research approach is because the research is concerned with experiences and understanding. As for the quantitative approach, kids' learning and education can only be promoted owing to the understanding and knowledge of teachers about LEGO® Serious Play and its importance in spreading playful education among kids. For that, surveys and questionnaires will be used to collect data about teachers' understanding of the subject matter.

Research Context

In regards to the literature review above, the need for environmental sustainability and its lack of awareness in underdeveloped countries is evident so much so forth that it caters to the worry of global environmental sustainability. It, therefore, makes the context of environmental sustainability at a global level an important aspect of consideration for this research.

Procedure

Every human has a responsibility toward the environment's sustainability ([Goldman, 2019](#)). This means that regardless of the developed or underdeveloped nation, preserving the environment in which we live is an ethical duty of each of us especially when the well-being of the environment depends largely on human behaviour. And when matters regarding ecosystem deterioration have worsened to the extent of human life getting doomed to death, the matter of environmental sustainability becomes a global concern. Not taking environmental sustainability measures is a big worry but, lacking awareness of the environmental disruptions caused by the use of non-eco-friendly materials used; is another completely big problem in itself that needs immediate redressal. This research here intends to adopt the procedure of developing the concept of awareness by

enlightening teachers in underdeveloped countries to make use of LEGO® Serious Play to educate their students about environmental sustainability.

Methods for Data Collection

Most of the data for the research will be collected from sources like the internet, books, journals, and LEGO® company's performance reports. All these sources will make for secondary data and will never be enough for the completeness of this report. For that, we intend to make use of primary data acquired from questionnaires and surveys. That will also help in adding credibility to this research.

Methods for Data Analysis

The collected data from both primary and secondary sources will be subjected to both inductive and deductive reasoning.

Discussion

Significance of Proposed Research

Through this research, the global concern about the lack of sustainability awareness in underdeveloped countries could be lessened. Similarly, the worry of food shortages, water supply issues, and other resource sparseness worries might be eased when nationals of underdeveloped nations are educated about sustainability. Besides, the concept of learning through play will help in the capacity building of kids in developing nations that can help their economies in the long run.

Research Limitations

This research is limited to devising a concept of spreading awareness among students and kids about environmental sustainability via LEGO® Serious Play by teachers in underdeveloped/developing nations. The research does not take into account other methods of spreading environmental sustainability awareness in those nations; considering that the adopted method is a better approach to resolving the lack of awareness about the subject matter in the said countries.



Provisional Work Schedule

July'22	Aug'22	Sept'22	Oct'22	Nov'22	Dec'22	Jan'23
<ul style="list-style-type: none">• Designing Project Proposa• Ethics Forms• Pi ot Study	<ul style="list-style-type: none">• Designing questions for the surveys and questionnair e	<ul style="list-style-type: none">• Submission of Ethic forms• Meetings with instructors• P an Workshops	<ul style="list-style-type: none">• Conducting Surveys and questionnair e fi ing• Conduct research activities about LEGO serious p ay and co ect data	<ul style="list-style-type: none">• Data Ana ysis and Testing• Hypothesis• Genera isatio n and interpretatio n	<ul style="list-style-type: none">• Research Report	<ul style="list-style-type: none">• Submission



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- HundrED. (2018), 'Brick Makerspace powered by LEGO® Education Solutions', *STEAM-Powered Elementary School*, Robinson Township, United States,

<https://hundred.org/en/innovations/brick-makerspace-powered-by-lego-education-solutions>, (30.07.2022)



Bibliography

This research will follow up on the works and reports from the following sources:

1) == LEGO® , Learning, And Facilitation: A Reflective Approach:

<https://www.ijmar.org/v5n4/18-021.pdf>

2) LEGO® for Capacity Building:

<https://www.sciencedirect.com/science/article/abs/pii/S0422989497800761>

3) The Value of Value Creation:

<https://www.mckinsey.com/~media/McKinsey/Business%20Functions/Strategy%20and%20Corporate%20Finance/Our%20Insights/The%20value%20of%20value%20creation/The-value-of-value-creation.pdf>

4) Organisational Insights, Challenges, and Impact of Sustainable Development in

Developing and Developed Countries: <https://www.intechopen.com/chapters/73366>

5) The LEGO® Group: Responsible Business Principles:

[https://www.lego.com/cdn/cs/sustainability/assets/blt123637cf697b8687/1023787 LEGO
O Responsible Business Principles 130618 FINAL.pdf](https://www.lego.com/cdn/cs/sustainability/assets/blt123637cf697b8687/1023787_LEGO%20Responsible%20Business%20Principles%20130618%20FINAL.pdf)