



Sustainability Education in the Foundational Stage: A Strategy of Educating Young Minds for a Brighter Future

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Abstract:

In a world facing escalating environmental, social, and economic challenges, the necessity of sustainability education has become increasingly evident. This article strongly recommends teaching children about sustainability in their foundational stage of education. It emphasizes that this early exposure can profoundly influence their long-term attitudes and actions. By introducing children to concepts such as environmental stewardship, fairness, and economic responsibility during the foundational stage of learning, we lay the groundwork for a more sustainable future. The article explores practical approaches for incorporating sustainability education into early childhood curricula and underscores the crucial role of educators in fostering sustainable mindsets. In conclusion, the article emphasizes the need to begin teaching sustainability and responsibility to children at a young age.

Keywords- Education for Sustainable Development (ESD), Sustainability, Foundational stage of education, Early childhood education, early childhood education for sustainability (ECEfS)

Introduction

In the modern era, we are dealing with many economic, social, and environmental problems. If we keep focusing only on growing our economy without considering other factors, we won't be ready for the future when Earth's resources start running out. (Jeffrey, 2017). The action plan for sustainable development, Agenda 21, highlighted that education is essential to achieve sustainable development and improve people's ability to address developmental issues and ESD (Education for Sustainable Development) came into existence (UNESCO, 2017). The National Education Policy (NEP) 2020 in India seeks to restructure the education system to provide fair and equal quality education for all, supporting sustainable development

Goal 4 and helping reach set 17 SDG goals on time (Ram, 2021). To achieve the target, it aims to modernize the entire educational system from pre-primary to higher education levels and implement phased curricular and institutional reforms (Pati,2022). Education for Sustainable Development (ESD) is an approach that empowers individuals to consider and act upon the future, fostering an understanding of the impact of their actions and promoting responsible decision-making in the direction of sustainability (Müller et al., 2021). It addresses gender gaps in education, guaranteeing universal access to education and vocational training across all demographics, including marginalized groups such as persons with disabilities, indigenous peoples, and children facing vulnerability (Sonawane, 2022). However early childhood encompasses significant environmental challenges and serves as the foundational period for children to develop their fundamental values, highlighting their capacity to grasp complex socio-environmental issues and emphasizing the importance of introducing sustainability ideas early for optimal impact (Blatchford et al., 2010). Contemporary global agreements, such as the United Nations' Agenda 2030 from 2015, also underscore the pivotal role of children and youth as crucial actors in shaping a brighter future (Ärlemalm-Hagsér & Elliott, 2020). But reviews found that In India, the absence of an official designation of early childhood care and education (ECCE) as a basic right results in a lack of access to educational facilities, including early childhood education for sustainability (ECEfS), for many children in this age group (Almeida & Ohara, 2020).

Foundational stage of education

According to NEP-2020, the school education curriculum will follow a 5+3+3+4 design, starting with the Foundational Stage, which includes 3 years of Anganwadi/pre-school and 2 years in primary school covering ages 3-8. The five years of this stage emphasize flexible, multilevel, play-based learning, incorporating curriculum and teaching methods for Early Childhood Care and Education (ECCE). The education process of the foundational stage comprises a wide range of activities, including play, puzzles, arts and crafts, all aimed at teaching fundamental concepts such as alphabets and numbers, while also focusing on fostering important social skills such as teamwork and ethical behavior (NEP-2020). The policy also highlights that before reaching the age of 5, every child is expected to attend a "Preparatory Class" or "Balavatika" before Class 1, where they will be taught by an ECCE-qualified teacher, primarily focusing on play-based learning to develop cognitive, emotional, and physical abilities, as well as early literacy and numeracy skills. Early childhood education serves as a pivotal starting point for lifelong learning, acknowledging the paramount importance of the formative years from birth to six in fostering comprehensive child development (Bates & Tregenza, 2009). It's evident that children's early experiences significantly impact their future outcomes, spanning areas like health, social behaviour, employment, and educational achievement (Tickell, 2011).

Sustainable development, Sustainability education, and its place in the foundational stage

Sustainable development was initially described in 1987 by the Brundtland World Commission on Environment and Development (WCED) (Education for Sustainable Development). This document defines that sustainable development necessitates ensuring a quality life for future generations as well (Furu & Heilala, 2021). Social development, economic development, and environmental protection are the three pillars of sustainable development with strong interdependence and capacity to strengthen one another (UN "Earth Summit" in Rio, 1992). The concept of sustainable development referenced in the Agenda 2030 (United Nations, 2015), serves as the primary international agreement for promoting global sustainability, with an increasing emphasis in recent years on integrating it into sustainability education efforts (Corcoran, Weakland & Wals, 2017; Siraj-Blatchford, Mogharreban & Park, 2016).

In sustainability, Education plays a crucial role in advancing sustainable development and enhancing individuals' abilities to tackle environmental and developmental challenges (UNCED, 1992). The United Nations underscored the importance of Education for Sustainability in 2005, emphasizing a paradigm shift to draw educators' attention to a transformative agenda aimed at changing people's mindsets for a sustainable future (Ampartzaki et al., 2021). To achieve individual and societal transformation of this magnitude, a transformative approach to sustainability education is essential, encompassing social, economic, and environmental concerns and challenging conventional notions of progress, development, and growth (Ferreira et al., 2021). The educational concept highlighted here involves connecting basic education with environmental emergencies, social issues like human rights, peace, and gender inequality, along with transitioning teaching methods from passive information transmission to empowering learners with critical thinking, problem-solving skills, and awareness of systemic inequalities to foster informed decision-making (Bourn et al., 2016).

Early childhood education follows integrated curriculum methods that incorporate aspects of children's everyday lives (Siraj-Blatchford et al., 2008). During this educational stage, individuals need to engage with inquiries that hold personal meaning, requiring knowledge to be rooted in their own physical experiences and emotions (Emilson & Johansson, 2017). This lays the groundwork for lifelong learning and development, with a significant potential to instill values, attitudes, and behaviors supporting sustainability, such as responsible resource usage, respect for diversity, and gender equality (Siraj-Blatchford, 2008). Research findings highlight the profound influence of education during the formative years from birth to eight on later-life environmental awareness, literacy, and behaviour (Ardoin and Bowers, 2020).

When it comes to instilling sustainability concepts in young children, it is recommended to introduce the 7Rs (reduce, reuse, recycle, respect, repair, reflect, refuse) as a holistic approach, diverging from the conventional focus on the 3Rs (reading, writing, arithmetic) (Siraj-Blatchford, 2008). In this context following concerns are suggested for practicing a sense of sustainability among the little ones:

- **Gender Practice:** To teach kids about gender equality, we need to show them that everyone, no matter their gender, can make important contributions to society. We have to teach them to treat

everyone fairly and respectfully, no matter if they're a boy, girl, or anything else both inside and outside the classroom. If they have questions about gender, we'll answer them honestly and without taking sides. We'll also help them see that stereotypes aren't always true and that it's important to treat people fairly, regardless of their gender. We have to show them how it feels to be treated unfairly because of gender and teach them to respect everyone's choices, whether it's about clothes, toys, or activities, even if they don't follow what's considered typical for their gender.

- **Racial concern:** At the foundational stage, children must learn about racial diversity and its significance both within and outside the classroom environment. They should be taught to deeply respect every individual in their peer group, class, and beyond, regardless of differences like skin color, clothing preferences, food habits, or caste. Introducing children to the achievements and contributions of people from diverse racial backgrounds across various fields such as science, art, literature, and sports can broaden their understanding and appreciation. Encouraging friendships with peers from different racial backgrounds fosters empathy and breaks down barriers, while discussing instances of racial injustice sensitively underscores the importance of fairness and equality for all.
- **Good and bad values:** Early childhood education is pivotal in instilling values for sustainable social development. Through discussions on emotions and storytelling, children can grasp concepts like empathy and honesty, and modeling positive behaviors in adult interactions provides a tangible example for children to emulate. Everyday situations offer valuable teaching moments to impart morals such as sharing and honesty. By integrating these strategies, we can help children cultivate a strong moral foundation, preparing them to navigate the complexities of the world with integrity and compassion.
- **Friendship, brotherhood, and unity:** It's important to teach young children about friendship and brotherhood early on to help them build strong relationships and a sense of togetherness. We have to show them how to be kind, understanding, and inclusive in our interactions as an example for them to follow. They need to practice how to handle conflicts peacefully by listening to others, compromising, and working together to find solutions. We have to recognize and celebrate acts of kindness, teamwork, and inclusivity among children to encourage positive behaviors that promote friendship and brotherhood.
- **Concern and respect for the natural environment:** Teaching young students about caring for nature is important for building their awareness and responsibility towards the environment. They should have chances to explore nature through activities like walks and gardening, learning to appreciate its beauty and diversity. Hands-on projects, such as recycling and planting trees, show them how they can help protect the environment. Involving them in community projects, like cleaning up or planting trees, lets them see the impact of their actions and feel connected to their surroundings. These experiences lay the foundation for a lifelong commitment to environmental stewardship.

- **Sympathy for living organisms:** Instilling respect for all living beings in young students is vital for nurturing empathy and responsibility. Children learn best by watching adults show kindness and care for animals, plants, and insects, which helps them understand and copy these behaviors. Taking them outdoors to explore nature, fostering an appreciation for the intricate ecosystems and emphasizing the importance of preserving them can be a better way. We can Engage them in discussions about ethical considerations, prompting them to reflect on the welfare of every living creature and the impact of human actions. Educate them on conservation efforts, instilling a sense of duty towards protecting biodiversity and habitats. Foster critical thinking by discussing environmental issues like pollution and climate change, empowering students to brainstorm solutions with respect and care for the world around them.
- **Duty, Responsibility and Rights:** Teaching duty, responsibility, and rights to young students early on helps them grasp citizenship and good behavior basics. We can set clear classroom rules and talk about how it's everyone's job to follow them. Role-playing lets students act out situations showing what duties, responsibilities, and rights look like. Giving kids different classroom jobs, like line leader or book monitor, helps them learn about responsibility. Having class discussions about duties and responsibilities at school and in the community helps kids understand what it means to do the right thing.
- **Value of equality:** Teaching young students about equality from the beginning is vital for fostering fairness and respect for differences. We can use inclusive language that recognizes and honours the diverse backgrounds of all students in the classroom, emphasizing the need to treat everyone the same, regardless of how they look or where they come from. Through class discussions, we can highlight the significance of equality and why it's important to treat everyone fairly and with respect. Additionally, children should understand the importance of equality in their interactions with peers and friends, recognizing the value of equal contribution, fair distribution, and respecting everyone's rights.
- **Value of resources:** Young students should grasp the importance of various natural and man-made resources for living organisms, even at their foundational stage. This includes essentials like soil, water, air, food and non-renewable resources like fuels, electricity along with intangible assets such as education, human resources and time. Teaching them about these resources should be tailored to their age, introducing concepts like reduce, reuse, and recycle through simple activities like cleaning up their surroundings and interactive games. Moreover, organizing field trips to environmental centers or recycling facilities can provide firsthand experiences in understanding resource management practices.
- **Health, hygiene and cleanliness:** In the early stages of learning, understanding health and cleanliness is crucial. Children should grasp the difference between what's healthy and what's not. Simple practices like wearing clean clothes, washing hands regularly, healthy toilet habit, covering food and water, covering their mouths when coughing or sneezing etc. can help them visualize a

sustainable lifestyle. Interactive activities, like singing songs while washing hands or playing games to learn about brushing teeth, make learning fun and engaging.

- **Value of peace and integrity:** Instilling the importance of peace and integrity in young students is crucial for building empathy, respect, and ethical conduct. At this early stage, children need to understand concepts like peace, self-awareness, and how to manage their emotions. They should also learn how to resolve conflicts among their peers and maintain balanced relationships. Teaching practical skills such as active listening, empathy, compromise, and negotiation can empower children to navigate social situations effectively and cultivate positive interactions with others.

Pedagogical approaches for sustainability training in the foundational stage:

The teaching methods should evolve to prioritize interactive and collaborative learning experiences, aiming to enhance students' engagement and comprehension of sustainability (Corres et al., 2020).

- **Hands-on activities:** Facilitate hands-on activities where children can actively explore the environment, such as planting seeds, observing insects, and creating nature-inspired artwork. These activities allow children to directly engage with nature, fostering curiosity and a sense of wonder about the world around them.
- **Storry telling:** Utilizing books and stories tailored to children's ages to introduce the importance of caring for the environment and preserving natural resources can be done.
- **Art and creativity:** we can Integrate art activities that utilize natural materials or repurposed items to stimulate children's creativity while reinforcing the value of sustainability. Also, can Encourage children to express themselves through artwork inspired by the beauty of nature and themes related to environmental conservation.
- **Roleplaying and dramatic play:** Imaginative play spaces like a recycling station or a mini-garden where children can immerse themselves in roles like environmental stewards or garden caretakers can be created. This fosters their understanding of sustainability principles through interactive and playful experiences.
- **Community engagement:** Children can be engaged in community-focused initiatives like organizing clean-up drives or participating in tree-planting activities within their neighborhood. Through these experiences, children learn the importance of caring for their environment while developing a sense of responsibility towards their community and fostering a sense of pride in contributing positively to their surroundings.
- **Play-based approach:** Involve children in playful community endeavors, like joining neighborhood clean-ups or planting trees. Through these playful activities, children learn about environmental care and develop a sense of responsibility and pride in their community.
- **Place-based approach:** Involve children in hands-on projects that directly relate to their immediate surroundings, such as cleaning up local parks or planting native flowers in community gardens. Through these activities tied to their environment, children learn about taking care of their neighbourhood while fostering a sense of belonging and responsibility.

Role of teachers:

Teachers in the foundational stage are essential in fostering students' grasp of sustainable development. Their awareness, teaching methods, curriculum selection, and participation in extracurricular activities are all instrumental in shaping students' comprehension of this concept (Khan et al., 2020).

- **Integration of sustainability themes:** Teachers should infuse sustainability themes seamlessly into various subjects by weaving conservation concepts into science lessons or integrating discussions on environmental stewardship into social studies topics.
- **Role modeling:** Teachers can serve as role models by showcasing sustainable behaviours and practices, providing children with tangible examples to learn from and emulate.
- **Nurturing:** Teachers can foster a culture of environmental care and responsibility by guiding children to care for plants, animals, and nature, nurturing their empathy and compassion towards the world around them.
- **Guiding:** Teachers should support children in investigating their curiosity about the natural world, offering explanations and leading conversations that enhance their comprehension of sustainability concepts.
- **Encouraging:** Teachers can motivate children to engage in meaningful acts that promote sustainability, such as switching off lights when not in use or tidying up litter while playing outside, fostering a sense of responsibility towards the environment.
- **Connecting:** Teachers can assist children in understanding how their actions influence the environment as well as society instilling a sense of responsibility and promoting thoughtful decision-making.

Conclusion:

To sum up, introducing sustainability education at the foundational stage is paramount for cultivating a generation that prioritizes environmental stewardship and societal well-being. Despite the hurdles of resource constraints and curriculum alignment, it is imperative to integrate sustainability principles into early childhood education. Through collective efforts from educators, policymakers, parents, and communities, we can surmount these challenges and empower young learners with the awareness and capabilities to navigate complex sustainability issues. By laying this groundwork, we sow the seeds for a future where individuals are equipped to actively participate in creating a more sustainable and equitable world.

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