EMPOWERING TEACHERS FOR SUSTAINABLE DEVELOPMENT GOALS: KEY DRIVERS OF TRANSFORMATIVE EDUCATION

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Abstract. The importance of education in achieving sustainable development goals (SDGs) has increased in today's evolving world. To achieve these goals, education must transform beyond traditional approaches and empower learners to create change. Teachers play a crucial role in driving this transformative education and ensuring its successful implementation. This research uses the literature research method. This method was chosen to understand new phenomena that are developing through studying various sources and remains reliable in answering research questions. The analysis was carried out using the content analysis method. By teaching teachers the necessary knowledge, skills, and support, we can prepare a generation of learners who can contribute actively to reaching the SDGs. Teachers using curriculum integration, pedagogical innovation, community engagement, and technology can motivate and empower their students to become agents of change and promote sustainable development. Educational institutions, policymakers, and communities must work together to establish an appropriate environment that values and empowers teachers transformative education.

Keywords: *Sustainable Development Goals; Teacher; Transformative Education*

A. INTRODUCTION

In today's changing world, the need for sustainable development has become more urgent than ever before. The SDGs, adopted by the United Nations, encompass a broad range of interconnected targets that aim to address global challenges such as poverty, inequality, climate change, and environmental degradation (Karen Chand & Shannon Kobran, 2023). As the global community with complex challenges like climate change, poverty, inequality, and environmental degradation, education plays a vital role in shaping a sustainable future. The role of education in achieving sustainable development goals (SDGs) has become more important than ever before.

Education is a collective effort, involving teachers, students, public and private sectors, civil society, and educational institutions, to ensure access to high quality education for everyone ("Education of Sustainable Development Goals Through Students Active Engagement: A Transformative Learning Experience," 2019). Education for sustainable development goes beyond traditional academic learning. It aims to empower individuals to become active participants in creating a more sustainable and equitable world. By integrating sustainable development goals into education, teachers can instill in students a deep understanding of the interconnections between social, economic, and environmental dimensions, as well as the importance of taking action to address pressing global issues.

The emphasis on improving quality by improving learning outcomes is in line with one of the main objectives of the Sustainable Development Goals (SDGs). Achieving these goals, requires transformative education that goes beyond traditional approaches and empowers learners to become active agents of change. Teachers play a pivotal role in driving transformative education and ensuring the successful implementation of the SDGs (Risman Fauzi & Ghullam Hamdu, 2021). Teachers need to be empowered and equipped with the necessary knowledge and skills related to sustainable development.

The transformative approach to education is based on universal principles of ethics that emphasize the importance of valuing individuals, their perspectives, and their ability to take control of their own actions and decisions (Melling & Pilkington, 2018). Assist educators and learners in creating a shared understanding of sustainability, recognize limitations and favorable circumstances, collaborate in determining the necessary skills, create suitable curriculum and teaching methods, adopt a comprehensive institutional approach, and assess progress towards achieving sustainability as a specific objective (Kioupi & Voulvoulis, 2019). To effectively address these challenges, educators must be empowered with the necessary tools, knowledge, and skills to integrate sustainable development goals into their teaching practices. This article explores the key drivers that empower teachers to deliver transformative education aligned with the Sustainable Development Goals (SDGs).
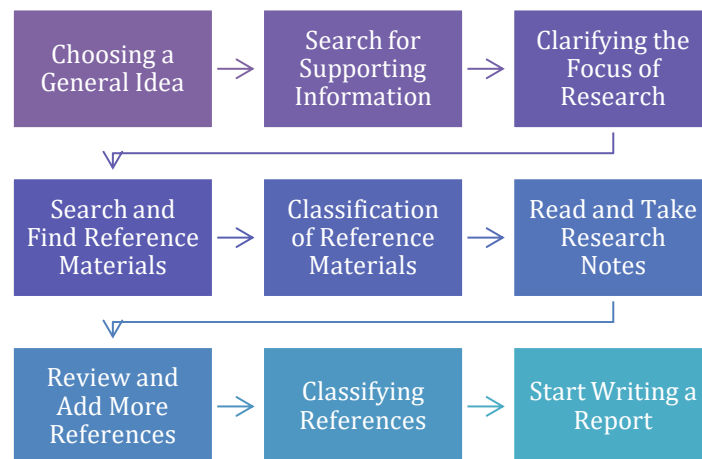
B. METHODS

This research uses a qualitative approach, with a library study type of research. Qualitative approach is appropriate because it allows to gain a comprehensive understanding of the topic and explore the intricacies and complexities involved (Collazo Expósito & Granados Sánchez, 2020). The steps in this research include collecting data and information from various sources. The data sources used are primary and secondary data originating from books, journals, articles, the internet, online libraries, and others (Walliman, 2021).

This method was chosen to understand new phenomena that are developing through studying various sources and remains reliable in answering research questions. The analysis was carried out using the content analysis method. Researchers can indirectly study human behavior using this strategy by examining their messages, such as those found in textbooks, essays, newspapers, novels, magazine articles, music, and advertising images (Sari & Asmendri, 2020).

One of the primary advantages of using qualitative analysis is its flexibility and adaptability to the reality being researched. Unlike quantitative methods that rely on numerical data and statistical analysis, qualitative analysis enables us to delve deep into the subject matter and explore the nuances and contextual factors at play. This is particularly important in our study as we aim to understand how teachers navigate the challenges and opportunities in incorporating sustainability.

Furthermore, qualitative analysis enhances the depth of data analysis by allowing for a rich interpretation of the information gathered. It enables us to examine the data from multiple perspectives, considering different viewpoints and experiences. The specific qualitative data analysis approach we are utilizing in this research is content analysis. Content analysis is a methodological technique that aims to draw replicable and valid inferences from texts by examining the contexts in which they are used. By analyzing texts such as interviews, documents, or observations, we can identify patterns, themes, and meanings that contribute to a deeper understanding of the research problem.

The data analysis strategy used in this research is the flow diagram shown in this following image:

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┌──────────────┐     ┌──────────────┐     ┌──────────────┐
│  Choosing a  │ →   │  Search for  │ →   │ Clarifying   │
│ General Idea │     │  Supporting  │     │ the Focus of │
│              │     │ Information  │     │  Research     │
└──────────────┘     └──────────────┘     └──────────────┘
                            ↓
┌──────────────┐     ┌──────────────┐     ┌──────────────┐
│ Search and   │ →   │Classification│ →   │ Read and Take│
│Find Reference│     │ of Reference │     │   Research   │
│  Materials   │     │  Materials   │     │    Notes     │
└──────────────┘     └──────────────┘     └──────────────┘
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┌──────────────┐     ┌──────────────┐     ┌──────────────┐
│ Review and   │ →   │ Classifying  │ →   │Start Writing │
│  Add More    │     │ References   │     │  a Report    │
│ References   │     │              │     │              │
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Picture 1. The data analysis strategy

Qualitative methodology we have chosen for this study enables us to explore the reorientation of teachers' strategy towards sustainability in depth. Qualitative analysis, with its flexibility and ability to adapt to the reality being researched, allows us to uncover rich interpretations, unique experiences, and detailed information. Specifically, by employing content analysis, we can systematically analyze textual data, draw valid inferences, and gain comprehensive insights into the challenges and opportunities faced by teachers in incorporating sustainability.

C. RESULT & DISCUSSION

Education has the ability to bring about transformative changes in knowledge by fostering the development of critical thinking abilities. This, in turn, can lead to the replacement of existing concepts and the exploration of new intellectual frameworks (Paul & Quiggin, 2020). Transformative education refers to an approach that goes beyond traditional knowledge transmission and aims to empower individuals to critically reflect on their beliefs, values, and assumptions, leading to personal and societal transformation (Bivens et al., 2009). It involves challenging existing systems and structures, fostering critical thinking, and promoting social justice and equity.

Through transformative education, individuals are encouraged to question the status quo, develop a sense of agency, and actively engage in creating positive change in their communities and the world. This approach recognizes that education is not just about acquiring information but also about fostering personal growth, social responsibility, and the development of skills necessary for active citizenship. Transformative education seeks to address social, economic, and environmental challenges by equipping individuals with the knowledge, skills, and attitudes needed to contribute to a more just, sustainable, and inclusive society. It encourages learners to challenge ingrained biases, examine power dynamics, and take action to address systemic injustices. By promoting critical consciousness and empathy, transformative education aims to create a more equitable and sustainable future for all.

Transformative education focuses on the positive transformation of students' character. In the school setting, character education is achieved through research and study, encompassing activities such as speaking, listening, reading, and writing. In the community, character education is acquired

by applying noble values and local culture within society (Murwanto, 2022). Rebuild schools into transformative institutions that center the needs of teachers, students, parents, and community members become collaborators on curriculum, pedagogy, and assessment to transform the learning experiences of students (Miller & Liu, 2023). Transformative learners move towards a more inclusive frame of reference, self-reflection, and integration of experience (Kurnia, 2021).

Transformative education places a significant emphasis on the role of teachers in facilitating personal and societal transformation. Teachers play a crucial role in creating a learning environment that promotes critical reflection, social justice, and equity. They serve as facilitators, guides, and mentors, supporting students in their journey of self-discovery and empowerment. In transformative education, teachers go beyond the traditional role of imparting knowledge and instead encourage students to question, challenge, and analyze existing systems and structures. They create space for open dialogue, inviting diverse perspectives and fostering a culture of respect and inclusivity. By actively engaging students in critical thinking and reflection, teachers enable them to develop a deeper understanding of their own beliefs, values, and assumptions.

Improving the quality of teachers to meet the SDGs goals begins with self-reflection, namely always evaluating the learning that has been carried out to find out deficiencies and things that need to be improved in future learning. Armed with the results of reflection, teachers can determine learning innovations so that changes can be made gradually. Several things are prepared for teachers to optimize transformative education as follows.

1. Teacher Empowerment:

Providing teachers with the necessary knowledge and skills related to sustainable development is a crucial aspect of empowering them for Sustainable Development Goals (SDGs). By improving both their individual capabilities and the collective capacity of the teaching profession, teachers can better integrate sustainability concepts into their teaching practice, inspire their students, and promote transformative education for sustainable development. Several ways in which this can be achieved, including:

   a. Professional Development Programs: Specialized training and professional development programs can help to equip teachers with the necessary knowledge and skills for SDGs. These programs can be designed to promote understanding of sustainable development principles, the SDGs, and the ways in which they can integrate these concepts into their teaching practice.

   b. Workshops and Continuous Learning Opportunities: Workshops and other continuous learning opportunities can build on teachers' existing knowledge and skills while introducing new concepts related to sustainability. These opportunities can be tailored to meet the specific needs and interests of teachers, providing them with more relevant and hands-on experiences.

   c. Access to Resources and Tools: Access to relevant and up-to-date resources on sustainable development and SDGs can help to empower teachers. These resources might include textbooks, multimedia content, learning modules, and online communities, among others.

   d. Peer-to-Peer Learning (Awan, 2021): Can also be an effective way of empowering teachers for SDGs. Teachers can share experiences, best practices, and knowledge with their colleagues, which can promote new ideas and strengthen their professional development.

   Through collaborative and interactive exchanges, teachers can share their knowledge, experiences, and best practices with their peers. This form of learning fosters a sense of ownership and responsibility, enabling teachers to effectively incorporate SDGs into their

teaching practices. By engaging in peer-to-peer learning, teachers gain valuable insights, innovative ideas, and practical strategies to address the various dimensions of sustainable development in their classrooms.

2. Curriculum Integration:

Integrating sustainable development concepts into the curriculum can help teachers to better promote sustainability and environmental consciousness among students (Wright et al., 2015). Transformative education requires a curriculum that reflects the principles and goals of sustainable development. Integrating the SDGs into the curriculum helps students develop an understanding of the interconnectedness of social, economic, and environmental issues. Some ways in which curriculum integration can empower teachers for SDGs:

a. Promoting a Holistic and Integrated Approach: A holistic approach to education that integrates sustainability concepts in the curriculum can help teachers to promote critical thinking, problem-solving skills, and global awareness. This approach encourages learners to see the connections between various topics and understand the complex nature of sustainable development issues.

b. Creating Relevant and Engaging Learning Activities: Teachers who integrate sustainable development concepts into their curriculum can offer learners more relevant and engaging learning activities. These activities can include project-based learning, inquiry-based learning, and problem-based learning, which can help learners to apply sustainability knowledge to real-world issues.

c. Fostering Active Learning: Integrating sustainability concepts into the curriculum can foster active learning, which encourages learners to participate actively in their own learning process. Active learning techniques can include group work, experiential learning, and digital resources, which can help to increase student engagement and motivation.

d. Encouraging Critical Thinking: Sustainable development concepts challenge students to think critically and to explore solutions to complex issues. Teachers who integrate these concepts into their curriculum can promote critical thinking among their students, which can help them to develop analytical skills and to develop their own ideas on sustainability issues.

e. Building Local and Global Connections: Integrating sustainable development concepts into the curriculum can help to build local and global connections. By exposing students to global perspectives on sustainability, teachers can help them to understand their own local context and identify local challenges that require sustainable solutions.

3. Pedagogical Approaches:

To deliver transformative education, teachers need to adopt pedagogical approaches that promote active learning, collaboration, and student engagement (Bourn & Soysal, 2021). Traditional teacher-centered methods are no longer sufficient in addressing the complex challenges of sustainable development. Classroom practices such as project-based learning, inquiry-based learning, and experiential learning can enable students to explore real-world problems, formulate solutions, and take action. Teachers should be encouraged and empowered to experiment with innovative teaching methods that foster creativity, critical thinking, and empathy among students. This requires shifting from traditional teacher-centered instruction to student-centered methodologies. By incorporating active learning strategies such as problem-solving, hands-on projects, and discussions, students become active participants in their own learning process.

Collaboration among students fosters critical thinking, communication skills, and the ability to work effectively in teams. Furthermore, student engagement is enhanced through the use of technology, real-world connections, and relevant, meaningful content. By adopting these pedagogical approaches, teachers can create an environment that promotes transformative learning experiences, empowering students to develop the skills, knowledge, and mindset needed to thrive in an ever-changing world.

4. Community Engagement:

Empowering teachers for SDGs also involves fostering strong partnerships between schools, communities, and other stakeholders. By involving local communities in the educational process, teachers can make learning more relevant and contextualized (Maslin-Ostrowski et al., 2018). Community engagement provides students with opportunities to understand the social, economic, and environmental issues affecting their own communities and collaborate on finding sustainable solutions. Teachers can facilitate community-based projects, organize field trips, invite guest speakers, and encourage students to participate in local initiatives. These activities not only enhance students' learning experiences but also strengthen their sense of civic responsibility and commitment to sustainable development.

5. Technology and Innovation:

In the digital age, technology plays a significant role in empowering teachers and enhancing the quality of education (Bonk, 2022). Teachers should be supported in integrating technology into their teaching practices to facilitate access to information, promote digital literacy, and foster innovation. Online platforms, multimedia resources, and educational apps can be used to supplement classroom instruction and provide students with interactive learning experiences. Moreover, technology can enable teachers to connect with educators from around the world, share best practices, and collaborate on projects related to sustainable development. Empowering teachers with digital skills and resources can open up new opportunities for transformative education.

6. Policy Support:

Empowering teachers for SDGs requires a supportive policy environment that recognizes the importance of transformative education and provides adequate resources and incentives (Kioupi & Voulvoulis, 2019). Governments should prioritize investment in teacher training, curriculum development, and infrastructure improvement. Policies should also promote collaboration between different sectors, including education, environment, and social development. Furthermore, policies need to ensure that teachers have the autonomy and flexibility to implement innovative teaching practices and adapt to local contexts. Regular monitoring and evaluation mechanisms are necessary to assess the impact of teacher empowerment initiatives and make necessary adjustments.

Teachers in transformative education also play a significant role in fostering agency and empowerment in students. They encourage students to take ownership of their learning, make informed decisions, and take action to address social, economic, and environmental challenges. Teachers provide support and guidance as students navigate complex issues, helping them develop the skills and confidence needed to effect positive change.

Furthermore, transformative teachers serve as role models for social justice and equity. They model inclusive behaviors, challenge biases and prejudices, and create a safe and supportive environment where all students feel valued and respected. Teachers in transformative education also strive to address systemic injustices within the education system itself, advocating for equal opportunities and access to education for all students. To effectively embody transformative

education, teachers need to continuously engage in their own professional development. They must stay updated on current issues, research, and best practices in transformative education. By enhancing their own knowledge and skills, teachers can better support their students' growth and development.

In the present era, teachers are required to possess the skills to effectively plan and implement instructional goals that meet the needs of learners. They are expected to utilize appropriate methods and strategies to manage the learning process. Additionally, teachers should possess charismatic and authoritative personalities, displaying wisdom when interacting with students. They should serve as positive role models, exhibiting exemplary behavior and communication skills (Mundiri & Bariroh, 2019). Different delivery methods can encompass a diverse range of techniques, tools, and instructional approaches (Rahmawati & Alaydrus, 2021).

D. CONCLUSION

Empowering teachers for sustainable development goals is a crucial step towards achieving the transformative education needed to address the global challenges we face. By providing teachers with the necessary knowledge, skills, and support, we can foster a generation of learners who are equipped to actively contribute to achieving the SDGs. Through curriculum integration, pedagogical innovation, community engagement, and the effective use of technology, teachers can inspire and empower students to become drivers of change and champions of sustainable development. Policymakers, educational institutions, and communities must work together to create an enabling environment that values and empowers teachers as key drivers of transformative education. Only then can we ensure a sustainable future for all.

First, teacher empowerment involves providing adequate training and professional development opportunities. Second, integrating the SDGs into the curriculum helps students understand the interconnectedness of social, economic, and environmental issues. Third, teachers need to adopt pedagogical approaches that promote active learning and engagement. Fourth, community engagement enables students to connect their learning with real-world issues and find sustainable solutions. Fifth, technology plays a significant role in empowering teachers and enhancing education quality. Last, supportive policy environments are essential, including investment in training, curriculum development, and infrastructure improvement. Policymakers should also prioritize collaboration across sectors and provide teachers the autonomy to implement innovative practices.

By empowering teachers, we can foster a generation of learners who actively contribute to achieving SDGs and drive transformative change. Collaboration between policymakers, educational institutions, and communities is needed to create an enabling environment that values and supports teachers in their critical role as drivers of transformative education.

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