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Youth Advocacy and Pedagogical Instructions as Efforts towards Climate Sustainability

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Abstract. Climate change undoubtedly is a pressing global issue which requires immediate attention and collective action. It is believed that youth can play a vital role in promoting sustainability and advocating for climate action. This is the motivation for the study as it x-rayed the impact of youth advocacy and pedagogical instructions on climate sustainability. The study examined the importance of education in empowering youth to contribute to sustainable development efforts. Adopting the theoretical framework of Albert Bandura's Social Learning Theory and Jack Mezirow's Transformative Learning Theory, the research emphasized the role of education in shaping youth's attitudes, behaviours, and actions towards climate sustainability. A comprehensive review of existing literature was conducted using a systematic review methodology which showed the need for curriculum revisions that centred on Indigenous knowledges, integrated climate justice, and the upholding of relationality to the land. The findings suggested that pedagogical instructions enhanced climate sustainability by equipping youth with appropriate knowledge, skills, and platforms to engage in climate action initiatives. Youth advocacy conclusively, is expected to promote policy changes, community engagement, and sustainable practices while mitigating the impact of climate change. As an imperative therefore, the holistic and inclusive approach to climate education should foster a generation of climate-conscious and empowered youth who can contribute to a more sustainable future for all.

Keywords: Youth Advocacy, Pedagogical Instructions, Climate Sustainability, Climate Education, Sustainable Development, Indigenous Knowledges, Climate Justice.

1. Introduction

Climate change presents one of the most pressing challenges to human survival, with widespread effects already visible across physical landscapes, agricultural systems, and vulnerable communities. In regions such as Ghana and other parts of Africa, climate variability is contributing to flooding, drought, food insecurity, and livelihood instability. The lived realities of communities exposed to these environmental risks are

compounded by limited policy action and the slow pace of systemic change. O'Brien and Selboe (2015) argue that climate change must be understood not only as an environmental concern but also as a social issue tied to development, justice, and equity. These perspectives suggest that effective responses must incorporate both scientific and civic engagement tools.

Young people on the other hand are increasingly recognised as central players in climate response efforts. Their population size, digital connectivity, and social awareness places them in a strong position to lead sustainability campaigns and demand political accountability. In Ghana for instance, youth organisations such as the Ghana Youth Environmental Movement (GYEM) and the Green Africa Youth Organization (GAYO) have led public education, policy dialogues, and clean-up campaigns that directly engage communities. Bandura (2001) explains that people develop a sense of agency when they are able to reflect, plan, and act collectively to influence social outcomes. This form of civic participation is essential if climate advocacy is to achieve meaningful outcomes.

However, youth activism alone cannot resolve the deeper issues tied to climate inaction. Effective advocacy depends on climate literacy and values-based education. Pedagogical instruction provides a structured platform for developing informed perspectives on sustainability and equipping youth with relevant skills. Sterling (2010) observes that education always influences sustainability outcomes, either by reinforcing unsustainable thinking or by nurturing ecological awareness. This means that teaching methods, learning content, and classroom environments all matter in how young people interpret their role in climate solutions.

Across many countries, climate education remains underdeveloped. Existing science curricula often address climate change as a scientific phenomenon without linking it to real-world consequences, social inequality, or environmental justice. Mochizuki and Bryan (2015) point out that many school programs fail to connect climate learning with action-oriented and interdisciplinary thinking. In Ghana for instance as elsewhere, a young person may complete their entire basic and secondary education without exploring how environmental issues connect to local livelihoods, land use, or traditional knowledge systems. This weakens their ability to participate in climate debates or initiate community-level action.

While a growing body of scholarship has captured the importance of Indigenous knowledge in environmental education, traditional systems of farming, water conservation, and community resilience often reflect long-standing relationships with nature that align with sustainability principles. It is to this end that climate education that incorporates such knowledge can help learners see the connection between their lived experiences and global climate issues. Bang *et al.* (2014) explain that education rooted in Indigenous perspectives allows students to see themselves as participants within ecological systems rather than passive observers. This point is valuable for promoting personal responsibility and environmental stewardship to which this study explores envisioning a climate education model that is youth-led, inclusive, and transformative.

1.1 Research Objectives

The objectives of the study are to:

- Examine the role of pedagogical instructions in shaping youth attitudes, knowledge, and actions towards climate sustainability.
- Explore how youth advocacy contributes to climate sustainability through community mobilisation and civic participation.
- Assess the effectiveness of integrating Indigenous knowledge, climate justice, and relationality to land in climate education practices.
- Analyse the connection between transformative learning and the development of climate-conscious behaviours among youth.
- Evaluate how Bandura's Social Learning Theory explains peer influence, modelling, and social behaviour in youth climate engagement.

1.2 Research Questions

This study is guided by the following questions:

- In what ways do pedagogical instructions influence youth attitudes and actions toward climate sustainability?
- How does youth advocacy promote climate sustainability through civic participation and community practices?
- How does the integration of Indigenous knowledge, climate justice, and relationality to land strengthen the quality and impact of climate education?
- What forms of learning experiences reflect transformative learning among youth involved in climate action?

- How does Social Learning Theory explain the development of climate-conscious behaviours among youth through peer modelling and group influence?

2. Literature Review

Climate education plays a pivotal role in shaping young people's understanding of environmental challenges and their potential to influence climate sustainability. Educational systems are key tools for fostering environmental awareness and sustainable behaviour, but they frequently fall short. Monroe *et al*. (2017 p.14) assert that while there is growing support for climate literacy, most educational frameworks still prioritise cognitive knowledge over practical engagement and emotional investment. This limits the ability of learners to see themselves as agents of change. Effective climate education must then go beyond passive knowledge transmission to foster action, creativity, and collaboration. Mochizuki and Bryan (2015) observe that interdisciplinary and participatory learning such as project-based work and experiential methods strengthens environmental commitment and civic readiness. They argue for a reorientation of school culture to enable students to think critically, act collaboratively, and engage with uncertainty. These pedagogical orientations are particularly relevant in African contexts, where climate impacts are felt acutely but educational systems remain rigid.

Asare-Nuamah and Ameyaw (2023) note that environmental issues in the curriculum are often treated as abstract science topics, without sufficient linkage to livelihood realities, cultural systems, or sustainability practices. Young learners frequently complete their education without engaging meaningfully with climate adaptation or mitigation strategies. This disconnect reinforces a theory-practice gap that limits the relevance of school-based climate education. Sterling (2010) emphasises that education always influences sustainability either positively or negatively depending on whether it fosters systems thinking and ethical engagement. Without reforms that carries sustainability into all subjects, not just science or geography, schools risk perpetuating environmental detachment. This becomes even more problematic when learners do not see the climate crisis as personally relevant or socially urgent.

Another pressing concern is that many teachers lack the pedagogical tools, confidence, or professional development needed to deliver climate education effectively. Taber and Taylor (2009) found that even teachers who acknowledge the importance of sustainability education feel constrained by examination pressures, curriculum overload, and limited institutional support. In Africa, teachers often rely on rote instruction due to systemic limitations and resource constraints. Cebrián and Junyent (2015) argue for a whole-school approach that integrates climate sustainability not only into the curriculum but also into school culture, operations, and leadership. It becomes the case that when students are immersed in environmentally conscious practices such as waste separation, tree planting, or energy-saving initiatives through a functional education, they are more likely to adopt pro-environmental habits.

Kuruppu and Willie (2015) stress that girls and young women in vulnerable regions face unique climate risks but are often excluded from science-based education and leadership opportunities bringing to the fore the importance of gender narratives in environmental advocacy. Youth movements across Africa are using grassroots campaigns, policy dialogues, and digital activism to demand sustainability reforms. Oduro (2018) documents how organisations like the Ghana Youth Environmental Movement and Green Africa Youth Organization mobilise thousands of young people for clean-up drives, public lectures, and governmental lobbying. Advocacy provides an outlet for agency just as Bandura (2001) explains that individuals cultivate a sense of agency when they can reflect, act, and observe the impact of their behaviour.

As a limitation, many advocacy groups lack stable funding, formal recognition, or access to decision-making spaces. Dos Santos (2021) argues that while national policies may mention youth engagement, they rarely provide operational frameworks for enabling this participation. As a result, youth voices are often side-lined in climate dialogues. Despite this, digital tools are expanding youth platforms and Della Porta and Parks (2014) iterate how social media enables young people to form transnational networks, amplify marginalised voices, and organise mass movements with limited resources. Online campaigns also allow youth to challenge dominant narratives, spread local stories, and call out government inaction. In Nigeria, hashtags such as #FridaysForFutureNG and #Youth4Climate have fostered local conversations that connect to global climate justice demands.

When students understand environmental laws, human rights, and governance systems through civic education, they are better positioned to influence policy and hold leaders accountable. Anderson (2012) observes that students exposed to climate and civic education simultaneously are more likely to volunteer, vote, and initiate community projects. This suggests

that integrating advocacy training into school curricula can empower more youth to drive environmental reforms. Yet activism without adequate climate literacy can lead to superficial engagement and Sterling (2010) warns that well-intentioned advocacy may fail to challenge root causes of environmental degradation if not backed by rigorous analysis and systemic awareness.

A very important aspect of this conversation is Indigenous knowledge systems which offer rich resources for sustainable living and environmental management. These systems include traditional farming methods, water conservation practices, communal land governance, and seasonal forecasting. Such knowledge is often marginalised in formal education and Bang *et al*. (2014) argue that curricula rooted in Indigenous perspectives help learners see themselves as actors within ecosystems, rather than external observers. This relational perspective fosters a sense of responsibility and grounded understanding. For instance, in Ghana's northern regions, knowledge about crop rotation, sacred groves, and traditional composting has been passed down for generations.

Educational policies however, often prioritise Western scientific models with Thomas *et al.* (2021) noting that schools across Africa continue to treat Indigenous epistemologies as peripheral, if not irrelevant, to modern education. This results in a disconnect where students are taught to value imported knowledge over the wisdom embedded in their own communities. Integrating Indigenous knowledge requires an epistemological shift that honour different ways of knowing. Dei and Simmons (2010) argue for a decolonised curriculum that balances empirical science with oral traditions, storytelling, and communal learning.

3. Theoretical Framework

This study is informed by two theoretical perspectives that explain how young people develop environmental behaviours and values. They are Albert Bandura's Social Learning Theory and Jack Mezirow's Transformative Learning Theory. These frameworks support the central argument of the study that youth can be empowered through both what they learn in school and how they participate in climate advocacy. Social Learning Theory, proposed by Bandura, is useful for understanding how youth pick up behaviours by observing others. Bandura (1977 p. 22) notes that "learning would be exceedingly laborious…if people had to rely solely on the effects of their own actions". Instead, individuals learn by watching others perform actions and then modelling those behaviours. This is especially relevant in school environments, where peer influence is strong. When young people see their classmates or student leaders taking part in climate clubs, clean-up campaigns, or digital advocacy, they are more likely to engage as well. It is not the information alone that changes behaviour but seeing others doing something with that information.

Bandura also draws attention to the role of self-efficacy, which he defines as people's belief in their capacity to act (Bandura, 2001). A young person is more likely to join a local tree planting initiative or speak at a community meeting if they have been part of a group that values such actions and gives them space to try. This is why peer-led environmental projects in schools often lead to more lasting engagement. They help students feel that their actions matter and are supported. For this reason, schools and communities that encourage collaboration, student voice, and visible climate action tend to produce more climate-conscious youth. While Social Learning Theory explains how youth behaviours are externally shaped, it doesn't fully explain internal changes in values and thinking. This is where Mezirow's Transformative Learning Theory comes into play. Mezirow (1997 p.5) argues that learning goes beyond gaining facts as it happens when people "critically examine their assumptions" and shift their perspectives. In climate education, this means helping students to see the deeper causes of climate change, such as patterns of inequality, extractive industries, and political inaction.

Both theories complement each other in this research such as, while Bandura helps explain how youth advocacy spreads through social circles and role modelling, Mezirow helps us see how deep changes in thinking can occur through education and the theories also support the research objectives. For instance, one of the aims of the study is to assess how teaching shapes youth action on climate. Social Learning Theory shows that collaborative and peer-driven methods work well. Another objective focuses on how transformative learning prepares youth for climate leadership and Mezirow's theory directly addresses this by showing how internal reflection leads to public action.

4. Methodology

Adopts a systematic literature review methodology, the study examines how youth advocacy and pedagogical instructions contribute to climate sustainability. This approach allows for a focused, structured analysis of peer-reviewed research that

aligns with the study's objectives and questions. A systematic review is especially relevant where the aim is not to test a specific hypothesis but to synthesise existing findings in order to identify trends, gaps, and implications for practice. The decision to use this methodology is based on the need for both depth and breadth. Petticrew and Roberts (2006) describe systematic reviews as useful when a field is fragmented or evolving, especially in policy-relevant areas like education and environmental sustainability. In this case, youth engagement with climate issues is expanding rapidly, but often studied in separate domains such as education, social activism, or Indigenous knowledge systems. The systematic approach helps to bring these strands together to form a coherent understanding.

4.1 Inclusion Criteria and Scope

The review focused on peer-reviewed academic literature published between 2005 and 2025. This 20-year span was selected to capture both foundational studies and more recent work, especially in light of growing youth climate movements and global education reforms. Only works written in English were considered. The studies reviewed include both theoretical and empirical research, with a focus on those that address:

- Pedagogical approaches to climate education
- Youth-led environmental advocacy
- Indigenous or community-based knowledge in environmental learning

The application of Social Learning Theory or Transformative Learning Theory in education or youth mobilisation
To ensure relevance to the African context, preference was given to studies that discuss climate education in Sub-Saharan Africa, youth engagement in low and middle-income countries, or globally relevant frameworks that have been applied in these settings. Studies that only covered climate science content without discussing education, behaviour, or youth participation were excluded. Likewise, purely technical or policy papers without links to learning or advocacy were not considered.

4.2 Search Process and Databases

The review was conducted through targeted searches in academic databases such as ScienceDirect, Taylor & Francis Online, JSTOR, MDPI, Google Scholar, as well as open-access platforms like ResearchGate. Key search terms included:
i. "climate education" and "youth advocacy"
ii. "transformative learning" and "climate action"
iii. "social learning" and "environmental behaviour"
"Indigenous knowledge" and "sustainability education"
"Africa" and "climate curriculum" or "youth engagement"

Search results were screened manually by reading titles, abstracts, and keywords. A total of 30 articles were selected based on relevance, credibility, and alignment with the study objectives. To ensure objectivity, the screening process followed a simplified PRISMA flow which are: identification, screening, eligibility, and inclusion (Moher *et al.*, 2009, p. 3). Each article was read partially and categorised based on the thematic focus. Key data extracted included the authors' arguments, methods, main findings, geographical focus, and relevance to the five core themes of the study which are pedagogy, advocacy, Indigenous knowledge, social learning, transformative learning.

4.3 Analytical Strategy

The review applied a thematic analysis approach and Braun and Clarke (2006) define thematic analysis as a method for identifying, analysing, and reporting patterns (themes) within data. It is flexible and suited for qualitative data such as published literature. The articles were first coded using the study objectives as a guide. Then, themes were developed that reflected how the literature answered the research questions. This method was selected because of its ability to handle both theoretical concepts and practice-based evidence. For instance, some studies explored classroom strategies for climate education, while others reported on youth-led advocacy projects. Thematic analysis helped to organise these insights into coherent categories such as "curriculum and relevance," "peer influence," "activism and agency," and "local knowledge in education." This process was not carried out using a software but through manual reading, coding, and note-taking, a method that Braun and Clarke (2019) argue still holds value when applied rigorously and transparently.

4.4 Limitations

While this methodology offers a structured and reflective approach to literature analysis, it has its limitations. First, it does not include primary data from young people, teachers, or policymakers. This limits the direct applicability of the findings to current field realities in Sub-Saharan Africa. However, the literature reviewed covers a wide range of case studies and theoretical arguments that reflect lived experiences in similar contexts.

Second, access to some academic databases was restricted, especially behind paywalls. To address this, the study relied on a mix of open-access journals, institutional repositories, and publicly available research via platforms like ResearchGate. Only fully accessible papers were included to ensure accurate reading and referencing.

Third, while efforts were made to focus on Africa, most literature still originates from Western academic settings. Dei and Simmons (2010) argue that, African scholars are often underrepresented in global education discourses, despite their knowledge being central to sustainability debates. This calls for future research that includes more African-authored work and voices from the Global South. Despite these limitations, the systematic review provides a credible foundation for addressing the study's questions through diverse yet interrelated strands of scholarship to examine how education and advocacy shaped by social and transformative learning can support a generation of climate-conscious youth.

5. Findings

This section presents the results of the systematic literature review, structured around the core themes outlined in the research objectives and questions. The goal is to critically show how pedagogical instructions and youth advocacy are influencing climate sustainability, with emphasis on African narratives, education practice, and Indigenous knowledge. The findings also examine how learning experiences foster climate leadership through reflection, modelling, and collective action.

5.1 Pedagogical Instructions and Climate Understanding

One of the most consistent patterns across the literature is that formal education plays a crucial role in shaping young people's understanding and attitudes toward climate change. However, the quality and content of that education varies significantly. In most West African countries, climate content is present in science and geography syllabi but often presented in abstract, detached ways. Students may learn about greenhouse gases but not explore how drought affects their local food systems. Taber and Taylor (2009) note that when environmental education is overly technical, it fails to connect learners with lived realities.

In Ghana and Nigeria, for example, climate education is often exam-focused, with limited opportunity for critical thinking or community engagement. Asare-Nuamah and Ameyaw (2023) observe that while youth express concern for the environment, they lack clear guidance on how to translate that concern into action. This gap is partly due to outdated curricula, but also to the way teachers are trained. Dos Santos (2021) found that many teachers lack confidence or competence in delivering climate content, especially through participatory or project-based methods. On the other hand, where pedagogy moves beyond rote instruction to incorporate discussion, storytelling, and local case studies, students develop a stronger emotional connection to climate issues. Sterling (2010) argues that education either reinforces unsustainable thinking or creates new ecological awareness, depending on how it is structured. The literature confirms that effective pedagogy is not just about including climate content, but also about creating learning environments that support inquiry, reflection and dialogue.

5.2 Youth Advocacy and Civic Mobilisation

Across multiple studies, young people were found to play roles as organisers, educators, influencers, and agitators for change. This is especially evident in grassroots movements like the Ghana Youth Environmental Movement (GYEM) or Green Africa Youth Organization (GAYO), where young advocates use a mix of physical engagement and digital platforms to raise awareness. Bandura's (2001) theory of self-efficacy is reflected in many of these youth-led projects so that when youth have access to supportive networks and opportunities to speak publicly, their belief in their ability to influence change grows. This finding is supported by Sharma and Ahuja's (2020) case study in India, where school eco-clubs led to increased student confidence and sustained behaviour change.

One of the most important aspects of youth advocacy is how it builds collective identity. McGivney and Barry (2022) found that digital storytelling and campaign-building in South Africa not only educated the public but also gave youth a shared sense of purpose and belonging These collective spaces foster the type of observation, reinforcement, and modelling that Bandura (1977) describes as core to behaviour change. In such spaces, new norms around climate responsibility can be created and sustained. However, the impact of youth advocacy is limited by structural factors. In Ghana, young people report difficulty accessing policymakers or sustaining attention on climate issues beyond the moment of crisis (Oduro, 2018). Many youth-led organisations are underfunded or operate informally, relying on volunteerism and social media to stay visible. While digital tools provide

reach, they do not always translate into policy shifts or institutional reform.

Despite these challenges, youth advocacy remains a critical force for change. It serves not only as a tool for awareness but also as a platform for developing leadership skills, political literacy, and resilience. When paired with supportive adult allies and clear pathways to influence, youth-led campaigns can help push education systems, local governments, and civil society actors toward more sustainable practices.

5.3 Indigenous Knowledge and Local Perspectives

A key finding in the reviewed literature is that climate education becomes more relevant and effective when it integrates Indigenous and local knowledge systems. Western scientific approaches to climate change though important often fail to capture the relational, lived, and culturally embedded aspects of environmental stewardship in African contexts. Bang *et al*. (2014) argue that education grounded in Indigenous worldviews teaches students to see themselves as part of ecological systems rather than separate from them. This relational understanding fosters responsibility, humility, and stewardship. In many rural communities in Ghana, for instance, children grow up observing rotational farming, seasonal land rituals, and community-based forest management. These practices are rich with sustainability principles, yet they are often excluded from formal classroom learning.

However, the integration of Indigenous knowledge into formal education faces resistance. Some educators view traditional beliefs as outdated or unscientific. Others lack training or resources to bridge the two systems meaningfully. This strengthens the importance of teacher education programs that equip future educators with tools to value and integrate local knowledge, not just transmit content.

5.4 Transformative Learning and Reflective Engagement

According to Mezirow (1997), transformation happens when learners are challenged to reflect on their assumptions, values, and identities. In the context of climate change, this means asking not only what causes global warming but how one's lifestyle, community practices, or national policies contribute to it. Taylor and Cranton (2013) explain that transformative education often begins with discomfort when students encounter perspectives or realities that challenge what they previously believed. For example, students who live in cities may not be aware of how deforestation affects food security in rural areas. Classroom discussions, documentaries, or community visits can prompt critical reflection and shift thinking.

Monroe *et al.* (2017) found that students involved in climate education programs with real-world application were more likely to develop empathy and a sense of agency. These experiences help learners see climate change not just as a technical problem, but as a moral and social challenge. Fraser (2009) asserts that justice requires both the fair distribution of resources and the recognition of marginalised voices. Transformative learning supports this by encouraging students to see how climate change affects people unequally, and to think critically about systems of power and exclusion. Transformative learning is also essential for leadership development as youth who engage in critical reflection are more likely to speak out, challenge norms, and lead community initiatives. The literature confirms that reflection is not a passive act but a political and personal process that prepares learners for civic engagement.

5.5 Social Learning and Peer Influence

Bandura's Social Learning Theory shows how behaviours are reinforced through group norms, peer modelling, and feedback. Youth are more likely to adopt sustainable behaviours when those actions are seen as normal or valued within their social circles. Schools that promote collaborative activities such as peer mentoring, climate clubs, or joint campaigns help create these norms. Cebrián and Junyent (2015) found that when students work in teams on sustainability challenges, they develop not only knowledge but also a sense of shared responsibility. This also explains why youth-led campaigns are so effective: as they allow young people to learn from each other, take risks, and grow into leadership.

Social learning also extends beyond the classroom as the rise of social media has allowed climate messaging to spread rapidly among youth networks. Young people are now exposed to influencers, storytellers, and activists from around the world. This exposure shapes attitudes, builds solidarity, and creates pressure for local action. Della Porta and Parks (2014) shows that, global frames like "climate justice" are often adopted and localised by youth movements. Social learning also depends on positive role models with adult leaders, teachers, or community elders showing commitment to sustainability while the youths would likely follow.

6. Discussion

While the literature presents encouraging models of education and advocacy, it also reveals serious gaps. Many African schools still lack basic materials, trained teachers, or institutional frameworks to support climate learning. Even where national policy mentions environmental education, implementation is weak. Kuruppu and Willie (2015) note that adaptation plans often fail because education is not treated as a central strategy. In addition, young people face real barriers to participation. Limited access to policy spaces, digital inequality, and adult gatekeeping reduce the impact of youth advocacy. Jabber *et al*. (2023) argue that leadership structures in many institutions do not yet support youth voice or innovation.

The review confirms that pedagogical instruction goes beyond content delivery as it plays a fundamental role in shaping learners' worldviews, behaviours, and agency. Education that is abstract, exam-oriented, and detached from local contexts fails to prepare youth for real-world engagement with climate issues. However, where climate education is interdisciplinary, experiential, and emotionally engaging, students are more likely to develop pro-environmental attitudes and behaviours. This supports Sterling's (2010) claim that education can either reinforce or disrupt unsustainable mindsets, depending on how it is structured. Learning must be active, reflective, and connected to the community. Students who learn about climate impacts in their own regions through farm visits, storytelling, or school-based projects are better able to relate knowledge to action. This aligns with one of the core research objectives which is to examine how pedagogical instructions influence attitudes and actions. It also shows that climate education should not be treated as a stand-alone topic but integrated across subjects such as agriculture, social studies, and civic education.

The literature also raises concerns about teacher preparedness. Many educators lack training in climate education and do not feel confident delivering participatory or interdisciplinary content. This gap undermines the transformative potential of the classroom. Pre-service teacher education must include sustainability education, and in-service teachers should be equipped with the tools and resources to make climate content meaningful and actionable. Youth-led advocacy efforts are not simply extensions of education but spaces of independent agency. In movements such as GYEM and GAYO in Ghana, young people demonstrate initiative, creativity, and commitment in ways that complement formal learning. These platforms provide opportunities for civic participation, campaign organising, and policy engagement.

Bandura's (2001) concept of self-efficacy explains why participation in youth movements enhances a sense of power and responsibility. Young people who see themselves making a difference even at the community level are more likely to remain engaged and develop stronger leadership identities. Peer learning and collective action, as explained in Social Learning Theory, also reinforce this engagement. When climate-positive behaviours are normalised within youth networks, it creates a ripple effect that encourages broader community participation.

However, youth advocacy is often undervalued or ignored by decision-makers. Many youth leaders operate without formal recognition, and their access to funding or political spaces remains limited. This creates frustration even among passionate advocates. If institutions are to take sustainability seriously, they must include youth perspectives not as symbolic gestures, but as essential contributions to climate governance. This relates to the research question on how youth advocacy contributes to sustainability through civic participation and community mobilisation. The findings show that youth can be effective agents of change, but only when their work is legitimised, resourced, and integrated into broader policy structures.

A recurring theme in the review is that Indigenous knowledge systems offer valuable insights into sustainable living. In African contexts, many of these practices such as seasonal farming, composting, and water conservation are already part of community life. Yet they are frequently excluded from formal education. This exclusion reflects a broader colonial bias in curriculum design, where Western scientific knowledge is seen as superior. Mezirow's (1997) idea of transformation through critical reflection is useful here. When students are encouraged to explore and question dominant narratives, they begin to see the value of their own traditions and practices. This validates local knowledge, builds pride, and supports sustainability from within communities. Bang *et al.* (2014) also argue that Indigenous knowledge allows learners to view themselves as part of ecological systems, fostering responsibility and care.

Another finding from the literature is that education can lead to deep shifts in thinking and behaviour but only when it involves reflection and emotional engagement. Mezirow's Transformative Learning Theory helps explain how students develop a new sense of self and responsibility when exposed to

perspectives that challenge their assumptions. These shifts often begin with discomfort but lead to empowerment. This is especially important for climate education, where young people must move beyond technical knowledge to ethical reflection. Learning about deforestation or pollution is not enough as students must be encouraged to ask difficult questions such as: Who is responsible? Who is affected most? What can I do in my school or community? These are the kinds of questions that lead to civic engagement.

Social Learning Theory complements this by showing how peer modelling and group work support behaviour change. Youth are more likely to adopt climate-friendly habits when these actions are normalised in their peer groups. This is visible in school clubs, community campaigns, and digital networks where youth influence one another through shared action. Together, these two theories support the study's findings and provide a solid foundation for interpreting how pedagogy and advocacy interact. They also answer two key research questions which are: how transformative learning influences behaviour, and how social learning explains group dynamics in youth climate action.

Many African education systems however, lack the infrastructure, political will, or funding to implement climate education meaningfully. Even when environmental topics appear in policy documents, they are often not enforced at the school level. Teacher shortages, overcrowded classrooms, and rigid curricula all make it difficult to implement participatory or contextualised learning. Kuruppu and Willie (2015) point out that, education is often treated as an afterthought in climate adaptation planning, rather than as a central tool for resilience. Youth-led efforts also face limitations. Many youth organisations operate informally and depend on volunteerism. While this speaks to their passion, it also creates stress on their parts. Without sustainable funding or institutional support, youth advocacy risks becoming loud but ineffective. These challenges reflect the final research question with the answer lying in both policy and practice.

7. Conclusion

This study set out to explore how youth advocacy and pedagogical instruction can support efforts toward climate sustainability. The review and synthesis of literature showed that education and advocacy are not isolated strategies but interconnected tools for building climate consciousness and environmental action among youth. Across African contexts, the findings reveal both the promise and the limitations of current educational and advocacy efforts. Education, when delivered through participatory, reflective, and context-sensitive methods, has the potential to transform young people's understanding of climate change from a distant, abstract threat to a lived and shared responsibility. This transformation does not occur through content alone, but through how learning is structured via dialogue, storytelling, group projects, and local relevance. The integration of Indigenous knowledge, as shown, makes education more culturally grounded and accessible, helping students to link global climate issues with their lived experiences.

Youth advocacy connects learning with leadership where young people are empowered with the right knowledge and support and do not need to wait for the future. From community clean-ups to digital campaigns, youths across Africa are showing that climate action is not just a policy issue but a personal and generational one. However, systemic limitations such as poor policy implementation, lack of access to decision-making platforms, and under-resourced schools continue to undermine these efforts. This is where theoretical insights from Bandura's Social Learning Theory and Mezirow's Transformative Learning Theory help explain why these dynamics matter. Youth respond to peer influence, role modelling, and shared engagement as they grow when they reflect, challenge assumptions, and are trusted with responsibilities. Education and advocacy, then, are not simply tools but processes that help build a generation of climate-conscious citizens capable of influencing change at both local and systemic levels.

8. Recommendations

Based on the literature and analysis presented so far, the following recommendations are offered:

- ***Climate:*** Climate education more relevant and responsive to local realities.
- ***Training Teachers in Climate Pedagogy:*** Inquiry-based learning, storytelling, and project-based learning.
- ***Strengthen Youth-Led Advocacy Platforms:*** Governments and development partners should invest in youth organisations that focus on environmental issues.
- ***Integrate Indigenous Knowledge in School and Community Learning:*** Education stakeholders should create bridges between formal schooling and Indigenous knowledge systems.
- ***Encourage Peer-Led Learning and Climate Clubs:*** Schools should support the formation

of student-led environmental clubs as these clubs provide safe spaces.

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