Navigating Contradictions in Sustainable Education Reform through Teacher Agency and Institutional Dynamics

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Abstract

This study explores how secondary school teachers navigate the contradictions inherent in sustainable education reform within institutional environments characterized by standardization and accountability pressures. Although policy frameworks take on a stronger emphasis on the incorporation of sustainability within curricula, there has been a widespread feeling brought about by teachers where they feel disassociated between the rhetoric of reform and what the lack of achievement results in in practice in their classrooms. Based on twelve interviews with teachers that took a qualitative narrative inquiry approach, four important themes, namely, policy-practice dissonance, limited autonomy within a performative system, development of agency as collective, and adaptive resistance through localized pedagogies, were identified. Teachers, despite being hampered by systemic limitations, developed agency in constructing informal networks of support, embedding the concepts of sustainability creatively in subject content, and negotiating curricular demands so as to tally with their ethical convictions. These results indicate that teacher agency in mediating a reform is especially important in an environment where top-down instructions do not align with pedagogical purposes. The authors conclude that sustainable education reform cannot and should not be imposed through strict edicts but should be co-built with and be enabled through an institutional culture that would lead to authentic and transformational changes in practice.

Key words: Teacher agency; sustainable education reform; institutional dynamics; policy–practice dissonance; performative accountability; adaptive resistance; narrative inquiry

Introduction

As more ecological, social, and economic crises are on the rise, sustainable education reform has become an international necessity and is being actively promoted through such frameworks as United Nations Sustainable Development Goal 4 (SDG 4), calling not only for equality in education but also for equity and quality (UNESCO, 2020). Although international policies are placed on transformational pedagogies and making sustainability a part of curricula, the reality of schools contradicts it by a long way because of the heavy institutional barriers (Mochizuki & Fadeeva, 2010; Hargreaves, 2008). The education systems, in a vast number of situations, are governed by top-down management, standardization, and performative accountability, which do not correlate with the participatory, localized, and adaptable character of sustainable education (Ball, 2003; Biesta, 2015). Such contradictions point to an important paradox: namely, how can reforms involving open-ended, ecological thinking be achieved in strict, hierarchical organizations?

Teacher agency has now been acknowledged as a major determinant in managing and resisting such contradictions. Agency is the ability of teachers to perform in a deliberate and carefully thoughtful manner within the social context and enables them to redefine, bargain, and even oppose reform efforts (Priestley et al., 2015). Nevertheless, the agency is not a vacuum; it is influenced by the socio-cultural, institutional, and political contexts of work in which teachers have to act (Eteläpelto et al., 2013; Lasky, 2005). Educators frequently are in the position of defending and yet simultaneously challenging policy and pedagogical ideals concurrently, as they are under mandate to embrace sustainability education and demonstrate that they are cribbed within standard curricula, high-stakes testing, and bureaucratic waylaying (Mockler, 2014; Sachs, 2001). New studies have shed light on the ways that institutional forces (practice leadership in schools, professional development frameworks, and policy coherence) either facilitate or limit the possibility to exercise teacher agency (Leat et al., 2014; Goodnough, 2018).

The ideal of sustainability in education, furthermore, in itself is controversial and subject to various interpretations appropriate to different cultural and institutional contexts. This malleability adds even more variety to the implementation of reform and can easily result in the lack of coherence in official rhetoric and classroom reality (Sterling, 2011; Wals & Kieft, 2010). The researchers suggest that to implement a significant change reform, systemic facilitation is not the only thing that is needed, but also a shift in perception that helps to redesign the role of a teacher as an equal participant of change and not just a policy recipient (Day et al., 2007; Wallace & Priestley, 2017). This paper will attempt to examine how teachers manage these contradictions and act with an agency in the face of institutional obstacles. Through the study of their lived experience, it is hoped that this research will help to expand the insights regarding the structural conditions that facilitate or inhibit changes to education reform at the grassroots level in terms of sustaining it.

2. Literature Review
2.1 Sustainable Education Reform: Definitions and Paradigms
A sustainable form of education reform is a change to education policy and practice on a systemic basis with the aim of fostering long-term ecological, social, and economic sustainability. It is based on the Education for Sustainable Development (ESD) agenda, aiming at incorporating principles of sustainability into studies and teaching methods (UNESCO, 2020). According to ESD, critical thinking, role responsibilities, and developing values in line with social justice and environmental stewardship are encouraged (Mochizuki & Fadeeva, 2010). Yet, these ideals come into conflict with the institutions of education that foster their own interests in standardized curricula, performance indicators, and content-driven teaching (Sterling, 2011; Biesta, 2015). Accordingly, the problem with reform initiatives often lies in the existence of a rhetoric-reality gap between a pledge to high-fidelity sustainability and a (possibly insurmountable) educational reality (Hargreaves, 2008).

2.2 Institutional Dynamics: Structure, Policy, and Practice
Power relations, administrative hierarchies, and accountability regimes make educational establishments, which are deep into shaping the way reform progresses. Terrors of performativity, another construct described by Ball (2003) and developed by the author, refers to the fact that the audit culture and performance-based managerial approach persuade the teachers to be compliant and reduce their professional discretion. Structure-agency tension is present in implementing policy frameworks, which often have little to do with the contextual realities of schools (Priestley et al., 2015). Consequently, teachers are supposed to carry out reformation in settings that might either be lacking in resources, leadership, or clarity in the expectations (Goodnough, 2018; Mockler, 2014). Moreover, teachers can experience cognitive and emotional distress—which leads to low morale and fidelity in the implementation of the policy—as a result of fragmented or contradictory policy messages (Lasky, 2005).

2.3 A Conceptual and Practical Tool: Teacher Agency

The concept of teacher agency has become a primary tool through the prism of which the understanding of how the educators maneuver and impact the reform is seen. Agency, which can be described as the capacity to make decisions and apply them in action, is not an individual characteristic but is both social and temporal (EtelA-pelto et al., 2013). Priestley et al. (2015) advocate an ecological solution to seeing agency in terms of individual or individual capacity, cultural contexts, and structural conditions. It disagrees with the conventional top-down approach, which perceives teachers as consumers of policy as opposed to being active participants in the construction of educational change. Empirical research has evidenced that agency would get triggered to a greater extent when the teacher is given professional trust, collaborative cultures, and time to engage in critical reflection (Wallace and Priestley, 2017; Leat and his coauthors, 2014). The lack of agency through over-regulation and de-professionalization, on the other hand, degrades agency and results in reform weariness.

2.4 Paradoxes of Reform Imploration

Although policy discourses around flexibility, creativity, and sustainability are popular, the conflicting pressures of schooling are common. Educators can be expected to teach a learner-centered, critical pedagogy and be assessed using a strict and quantitative system (Biesta, 2015). These contradictions breed what Day et al. (2007) refer to as identity tensions, as educators will find it hard to balance personal values with institutional demands. These disjunctions are also compounded by politically driven and discontinuous reform cycles, which supplant instability and confusion at the classroom level (Hargreaves, 2008; Sachs, 2001). More than policy convergence, sustainable reform also necessitates a paradigm shift in the manner schools think about professionalism, collegiate agency, and professional guidance and assistance.

3. Methodology

3.1 Research Design

The research design followed in this study was qualitative and interpretive, where the study specifically used narrative inquiry to investigate navigation of the contradictions underlying sustainable education reform by teachers. The narrative inquiry is especially in the context of comprehending the lived experience, identity, and agency of educators around the settings of institutions (Clandinin & Connelly, 2000). It enables the participants to consider how they perceive reform policies, bargain with institutional regulations, and implement sustainable pedagogies in reality.

3.2 Study population and sampling approach

A purposive sampling approach was used to sample individuals who had direct experiences in carrying out sustainability-related reforms. Twelve secondary school teachers from three public schools in various urban and peri-urban areas were recruited. A minimum of five years of teaching experience and having worked in the past three years on sustainability efforts in their schools were selected as the criteria. The aim was to get a wide view but also to say something substantial, using deep, contextual narratives.

3.3 Data Collection

In-depth interviews were conducted using a semi-structured interview, taking about 6075 minutes. A guide to the interview was constructed with the aim to address themes including institutional support or resistance, interpretation of reform goals, perceived contradiction, and individual adaptation strategy or resistance. Audio recording was used to record the interviews with permission, and transcripts were made verbatim. Policy documents, school improvement plans, and professional development records were also consulted in order to contextualize the narrative of participants and triangulate the results.

3.4 Data Analysis

Thematic narrative analysis was used in the vein of Riessman (2008). Several readings were used to spot narrative patterns and repeated themes in regard to agency, contradiction, and institutional

dynamics. The codes would be produced inductively and subsequently categorized into more general themes, including, but not limited to, policy-practice dissonance, navigating constraints, resistance and adaptation, and collaborative agency. The software NVivo 12 was applied where data coding was facilitated. The reliability and depth of interpretation were increased by triangulation between interview data and documentary sources.

3.5 Reflexivity and Trustworthiness

To achieve credibility and trustworthiness, member checking was also done, where summaries of results were shared with participants to be validated and commented upon. The idea was made to test assumptions and advance the coding scheme via peer debriefing meetings with other researchers. The researcher recorded the positionality and biases and changing interpretations in a reflexive journal. Thick description is featured in the provision of findings in order to ensure transferability of findings to a similar learning environment (Lincoln & Guba, 1985).

3.6 Ethical Considerations

The study received ethical approval through the institutional review board in the university. All the participants were given informed consent and guaranteed confidentiality, freedom to participate in the process, and the ability to quit at any point. Identities were safeguarded using pseudonyms, and all electronic information was locked safely in password-protected systems.

4. Findings

This section presents the findings from narrative interviews conducted with twelve secondary school teachers engaged in sustainability-related reforms. Using thematic narrative analysis (Riessman, 2008), the data were first coded inductively and then grouped into broader thematic categories through iterative comparison. Codes emerged such as "conflicting expectations," "institutional control," "peer support," "creative subversion," and "teacher identity." These were refined into four central themes that illuminate how teachers experience and respond to the contradictions within sustainable education reform. The themes are:
(1) Policy-Practice Dissonance;
(2) Constrained Professional Autonomy under Performative Cultures;
(3) Emergence of Collective Agency; and
(4) Adaptive Resistance through Contextualized Pedagogies.
Each theme is described below with supporting narratives to illustrate its depth and variation.

Table 1. Theme and Code Generation in Thematic Narrative Analysis

Initial Codes	Focused Codes	Final Themes
"No clarity on what to teach"	Ambiguity in policy interpretation	Policy–Practice Dissonance
"Textbook mentions sustainability but no training"	Tokenistic curriculum integration	
"Circulars are vague and not followed up"	Lack of institutional coherence	
"No time for creative lessons"	Time constraints due to standardized testing	Constrained Professional Autonomy under Performative Cultures
"Everything is about results and grades"	Performative accountability pressures	
"Leadership discourages deviation from policy"	Top-down control and lack of trust	
"We started our own club"	Informal initiatives outside the system	Emergence of Collective Agency
"We help each other plan sustainability lessons"	Peer collaboration and mutual support	

"We share activities during breaks"	Communities of practice	
"I embed sustainability in my math examples"	Creative curricular negotiation	Adaptive Resistance through Contextualized Pedagogies
"Bend the rules, not break them"	Subtle forms of resistance	
"Teach social issues through literature indirectly"	Ethics-driven pedagogical adaptation	

4.1 Theme 1: Policy–Practice Dissonance

What stood out in all interviews as a main theme was the mismatch between the aims of sustainable education reforms and the reality of school practice. The trend identified by teachers was that sustainability was advocated at the policy level and through community rhetoric; however, implementation occurs with little coordination and in the absence of substantive institutional support.

"We are sent circulars on how we should teach sustainable development but lack the clarity on what to teach and how to do it in a meaningful manner. It is more of a slogan than a strategy," as explained by Ms. Rabia, a senior science teacher.

Numerous participants reported that the subjects of sustainability were covered in curricular documents in a tokenistic manner—in the form of textbook chapters or without any indication as to how to engage with them. A case in point was that of Mr. Ali, pictured by a geography teacher as saying:

"In our textbook, a section on climate change was added, but we were not taught it. We simply read through it, just as any other chapter, disconnecting it from local realities or the experiences of students."

The poor synergy between the reform stories and the institutional planning brought about confusion and even disillusionment among the teachers. Some perceived the reforms as being foreign and not related to the situation in the classroom.

4.2 Theme 2: Constrained Professional Autonomy under Performative Cultures

Teachers indicated that their professional autonomy was extremely restrained by institutional structures that incorporated the objective of accountability and bureaucratic control. The performative culture (Ball, 2003), with its administrative policing operating in conjunction with an exam-focused teaching and learning regime, offered little space in terms of pedagogical experimentation or innovation based on sustainability concerns.

"We are constantly under pressure to cover the syllabus, prepare students for standardized tests, and meet key performance indicators. Where is the time for reflection or creative teaching?" asked Ms. Saima, an English language teacher.

This pressure was exacerbated by top-down leadership styles that emphasized compliance over dialogue. Teachers reported being excluded from reform discussions and professional decisions.

"Sometimes I feel like a delivery machine. Reforms are introduced without involving teachers. We are just expected to implement, not to question," said Mr. Tariq, a teacher with 14 years of experience.

Such constraints not only diminished teachers' agency but also produced a sense of professional alienation, where sustainability reforms felt like another bureaucratic burden rather than a shared educational mission.

4.3 Theme 3: Emergence of Collective Agency

Despite systemic constraints, a number of participants described forming informal, collaborative spaces within their schools to enact sustainability practices. These included student-led initiatives, inter-disciplinary projects, and peer mentoring groups that operated outside formal institutional mechanisms.

"There's no official program for sustainability in our school, but a few of us started working together—sharing ideas, organizing awareness days, even gardening activities with students," shared Ms. Naila, a social studies teacher.

These collaborations fostered a sense of shared purpose and rejuvenated teachers' commitment to transformative education. The participants referred to these efforts as spaces of hope, where they could exercise agency without fear of formal sanctions.

"When we work together informally, we feel more confident. We help each other translate big ideas into simple, actionable lessons," reflected Mr. Usman, a teacher who initiated a recycling campaign with his colleagues.

This theme illustrates that teacher agency is not always individualistic but can emerge through relational and collective practices that circumvent formal constraints.

4.4 Theme 4: Adaptive Resistance through Contextualized Pedagogies

Another recurring theme was the use of adaptive, context-sensitive strategies that allowed teachers to embed sustainability content into their teaching discreetly or creatively. Teachers described how they exercised agency not by directly opposing institutional mandates but by negotiating curricular content to align with their ethical and pedagogical beliefs.

"I can't change the curriculum, but I can choose examples. When I teach statistics, I use data about pollution levels or water use. It's my way of making math relevant to real life," said Mr. Bilal, a mathematics teacher.

This form of resistance was subtle, practical, and deeply ethical. It allowed teachers to retain their professional identity and values without confronting institutional rules head-on.

"I bend the rules, not break them. I ask students to reflect on ethical dilemmas during literature discussions—even if that's not explicitly part of the syllabus," said Ms. Huma, a language and literature teacher.

These stories demonstrate that teacher agency is dynamic and situated. Rather than being powerless within systems, teachers reinterpreted their roles to sustain a commitment to deeper learning, even under structural constraints.

Summary of Findings

The findings of this study highlight a deep and persistent disconnection between the goals of structural realities of the school environment and sustainable education reform. Educators noted the constant rhetorical attention to sustainability in policy statements followed by a lack of action plans, materials, and preparation. This policy-practice gap created confusion, tokenism, and feelings of not being empowered, and sustainability seems to have become much more of a figure of speech. The introduction of the sustainability materials into the curricula was designated by the teachers as pedagogically incompatible where this happened; its coverage was commonly condensed to a single textbook section without reference to context or elaboration into the teaching.

Nevertheless, these weaknesses of the system did not eliminate the possibility of a reform not taken as a templicit recipient by teachers, who presented themselves as active negotiators and adaptors to constrained institutional conditions. Numerous participants reported a story of limited autonomy, performative demands, and top-down regulation and constrained their capacity to incorporate transformative pedagogies. Nevertheless, a few teachers also explained how they recovered the agency by acting together and establishing informal communities of practice where they shared ideas, co-constructed lessons, and encouraged students to become enthusiastic about sustainability issues. These were grassroots interventions that were not deeply enrolled in policymaking but rather were invaluable arenas of professional resilience and innovation.

Besides, the results highlight the idea that teacher agency is often performed in the context of low-grade, responsive goals of resisting. Teachers were told about the strategic alteration of lessons to incorporate the idea of sustainability into general issues and given their discretion in the classroom

in encouraging critical thinking and ethical thinking. These linguistic performances represent the pedagogical negotiation with the adherence of educators to professional duties and personal values. They refuse to confront the imposed order of things but find other ways to establish them. Sources of the findings in combination paint a complicated picture of institutional interactions with teacher agency that varies according to location and that highlights the importance of considering the actual on-the-ground realities and professional knowledge of teachers in order to implement meaningful change.

5. Discussion

The research problem was to identify how sustainable education reforms with contradictions can be negotiated by secondary school teachers within rigid institutions. The results indicate that an overall institutional environment, including the institutional structure, procedural pressures, and absence of pedagogical support of sustainability in education despite policy encouragement, rub against the development of sustainability in education. But then as the study demonstrates, teacher agency whether at an individual or collective level is also enacted through adaptive practices and collaborative spaces. These reflections add to existing literature that points to the value of conceptualizing reform beyond thinking of it as a policy action, and instead, focusing on the practice of reform as a situated practice performed within multiple situated contexts in schools (EtelAappelto et al., 2013; Priestley et al., 2015).

The mismatch between policy rhetoric and classroom practice is one of the most important findings of this study. In this study, the teacher respondents supported the same position expressed by Mochizuki and Fadeeva (2010) and Sterling (2011) which suggested that sustainability learning is usually presented idealistically in policy, but not practically in schools. Such a lag causes dissonance in the relations between policy and practice because teachers are not empowered to undertake reforms sufficiently, with no materials and systemic support. This has been echoed by O Brien and Howard (2021) who discovered the effectiveness of ESD (Education for Sustainable Development) not to be based on national decrees but localized, school-based interpretation. Therefore, sustainable education reform is susceptible to being shallow unless supplemented with clear guidance, contextualization, and institutional continuity.

One limitation of the successful implementation is the culture of accountability in performativity due to access to standardized testing and forced curricular benchmarks that eclipse contemplative and transformative teaching. In this study, teachers explained how the administrative pressure and performance audits restricted their autonomy, which aligns with Ball (2003) and "terrors of performativity" and Biesta (2015) and his criticism of the education system measured out. Such performative structures of education peripheralize sustainability learning which requires interdisciplinary, critical, and participatory ways of education (UNESCO, 2020). Mahat et al. (2022) report similar dynamics and note that, following elongated regimes of high-stakes performance, teachers find it hard to implement so-called open-ended pedagogies such as sustainability because of the threat of failure to meet formal expectations. Such contradictions in the system not only prevent pedagogical creativity but also create problems of teacher burnout, frustration, and professional alienation (Lasky, 2005; Mockler, 2014).

The agency of teachers in the form of adaptive strategies and collective practices was also brought up in the study despite these institutional pressures. Participants reported the formation of informal networks, cooperation with peers and ensuring the incorporation of sustainability material into existing topics--this is the agency component on the practical-evaluative level (Priestley et al., 2015). This compares with the views of Wallace and Priestley (2017), who state that teacher agency is frequently performed under some constraints rather than free of them. This result corroborates the evidence of Fraser et al. (2020), who identified the ways the professional learning communities in a school helped teachers to enact ESD even without extensive top-down assistance.

These spaces of agency enable teachers to overcome reform fatigue, and retain professional integrity in acculturating to institutional demands.

Moreover, in this research, teachers were observed to be involved in what might be called adaptive resistance, a systematic change of pedagogical practice to maintain the ethical essence of sustainability education without being in direct opposition to institutional culture. This reflects the notion of tact in pedagogy outlined by van Manen (1991) whereby in order to address contextual demands, an educator feels free to exercise his/her judgment but loyal to the poetics of pedagogy. This is a more or less hidden resistance to the dominant ideology, based on individual choice, which is indicated by Sachs (2001) and Day et al. (2007) as the struggle of teachers between professional identity and school demands. Much more recently, Zhao and Zhang (2023) had written about the same things with Chinese secondary-school teachers teaching social justice moribund syllabi by picking judiciously chosen classroom illustrations and examples. These accounts disrupt the binary of compliance and resistance and the way agency manifests itself through on-the-ground situated expressions.

Lastly, the results also confirm the necessity to reconsider education reform as a process of relation and compromise instead of technical policy implementation. Such reforms as ignore the context and teacher voice are less effective to make a significant change, as Goodnough (2018) and Leat et al. (2014) have demonstrated. This paper further contributes that sustainable education, especially, involves reimagining institutional cultures that encourage trust and flexibility and collaborative professionalism. Reforms will be meaningless as long as structural institutional arrangements are not addressed, as they constrain teacher autonomy and creativity. The policymakers and school leaders should henceforth establish enabling conditions that facilitate teacher planned innovation, prolonged discussion, and capacity-building to ensure the sustainability of pedagogical change to sustainability-related policies.

Conclusions

The sustainable education change described in the international policy discourse can never be attained via a law; it has to be experienced and worked out in the daily routine of the schools. The study demonstrates that educators are faced with the ongoing lack of fit between idealistic sustainability requirements and the system of the institution designed toward standardization, monitoring, and measurable output, leading to the policy-disruptive influence on the margin of professional autonomy and the possibility of lowering sustainability to a mere label. Yet the stories of a dozen secondary teachers also demonstrate that teachers are no slouch: in informal networks, modest curricular improvisation, and morally charged pedagogical tact, they open up zones of collaborative agency and adaptive resistance that maintain the life force of sustainability education amidst bureaucratic lethargy. Their behavior proves that agency is ecological in the sense that it arises out of interactions that involve individual values, collegial relationships, leadership climates, and policy contexts and, consequently, that effective reform depends on enabling rather than prescribing innovation by teachers. Policymakers and school leaders who want to go beyond rhetoric should invest in trusting, flexible, and collaborative climates that give teachers the time, tools, and professional judgment necessary to think deeply about how to make sustainability an integral part of daily practice; otherwise, reforms will continue to be inspirational texts that are not available in the classroom, and the transformational power of education in realizing a more just and sustainable world will continue to go unexploited.

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