

Enhancing Sustainability Education in Teacher Education in Palestine: Analyzing Challenges and Solutions to Improve Language Proficiency and Continuous Training

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Sustainability education is essential for teacher preparation in Palestine given the country's ongoing environmental, economic, and social issues. This research addresses the problems and potential solutions for enhancing sustainability education in teacher education in Palestine, with a focus on language proficiency and continued training. The corpus of knowledge in the areas of teacher education, language competency, and sustainability education was examined in the qualitative analysis. The findings revealed many challenges to enhancing sustainability education in teacher education in Palestine, including the need for greater access to continued training and improved English language proficiency for in-service teachers. Two proposed solutions were expanding and making professional development opportunities more available as well as using technology to improve language proficiency. The researcher's conclusion offers suggestions on ways to enhance sustainability education in teacher development in Palestine for policy-makers, educators, and other stakeholders.

Keywords: sustainability education; teacher education; language proficiency; continuous training; enhancing sustainability education

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Introduction

Amidst the plethora of environmental, economic, and social concerns that characterize today's world, the idea of sustainability has become crucial. It is well acknowledged that education is essential to creating a sustainable future, and teacher education programs are becoming increasingly important venues for this

purpose (Smith & Heyward, 2024). This requirement is valid not only for the larger international setting but also for areas facing particular difficulties, like Palestine. In the context of ongoing warfare, occupation, and displacement, Palestinian communities face significant challenges regarding sustainability. Nonetheless, progress toward building more sustainable communities in Palestine has been driven in large part by education, especially teacher education.

The substantial progress gained in this area is shown by the work of academics such as Assaiqeli (2023), who emphasize the critical role that education - more especially, teacher education - plays in achieving sustainability objectives. Notwithstanding the progress, Palestine's efforts to integrate sustainability into teacher education are beset with several challenges. Language proficiency is one of the main issues; many teachers do not speak English well enough to interact with colleagues abroad or use foreign resources that are essential for sustainable education. Furthermore, many obstacles frequently prevent instructors from taking advantage of chances for continuous professional development, which makes it difficult for them to keep up to date on the latest pedagogical developments and sustainability education best practices (Hamarsha & Bsharat, 2023).

Language barriers, particularly in English, are a recurring challenge for Palestinian educators, limiting their ability to engage with global resources and academic discourse. This issue has been highlighted by several scholars, who argue that limited English proficiency hampers access to contemporary educational materials and opportunities for collaboration with international colleagues (Jarrar et al., 2021; Shibibi, 2021).

Continuous professional development (CPD) is essential for keeping teachers abreast of the latest educational trends, including those related to sustainability. However, in Palestine, a lack of structured CPD programs, combined with logistical, financial, and political barriers, restricts teachers' ability to participate in these initiatives (Smith, 2023; UNRWA, 2020). This challenge limits educators' capacity to update their skills and knowledge, which is critical for incorporating sustainable education practices into their teaching.

To tackle these issues, a diverse strategy is needed, emphasizing language proficiency improvement and ongoing professional development for teacher educators. The study by Naser Najjab (2020) emphasizes the significance of these kinds of interventions by providing information on the challenges and possible solutions related to enhancing sustainability education in Palestine's teacher educa-

tion. Through an extensive examination of the literature about sustainability education, teacher preparation, and language competency, this study seeks to offer a full comprehension of the pertinent concerns.

Background

Sustainability education is becoming increasingly important in teacher education programs around the globe. The United Nations Educational, Scientific, and Cultural Organization (UNESCO) defines sustainability education as "a transformative learning process that equips students, teachers, and school communities with the knowledge, skills, attitudes, and values necessary to contribute to a sustainable future" (UNESCO, 2017, p. 5). Giving pupils the tools they need to become responsible, involved citizens who can contribute to the development of more sustainable communities is the aim of sustainability education.

Palestine, a Middle Eastern country of over 3 million people, has experienced conflict, occupation, and displacement throughout its turbulent past. These events have had a significant influence on Palestine's capacity to maintain healthy social, economic, and environmental systems. Conflict and occupation have severely affected the social fabric in Palestine, contributing to challenges such as displacement, restricted movement, and limited access to basic services. Research by the United Nations Relief and Works Agency (UNRWA) and studies on the effects of protracted conflict show that ongoing political instability has led to a fractured social system, increasing vulnerability and reducing social cohesion (Fahoum & Abuelaish, 2019; UNRWA, 2020). Economic development in Palestine has been hindered by occupation, restrictions on trade, and the blockade of Gaza. The World Bank (2022) reports that the occupation has severely limited economic growth, with poverty rates remaining high. This economic fragility affects the capacity to invest in sustainable infrastructure and policies, which are crucial for fostering a resilient economy (World Bank, 2022).

The environmental challenges in Palestine are exacerbated by limited control over natural resources, such as water and land. Studies have shown that Israeli restrictions on water usage and land access have negatively impacted Palestine's ability to manage its natural resources sustainably. Environmental degradation due to the conflict, including waste management issues and limited access to renewable energy, further strains the country's environmental systems. Despite these challenges, education – especially teacher preparation – is increasingly

viewed as critical to fostering sustainability in Palestine. The Ministry of Education has emphasized the importance of integrating sustainability into educational practices to empower future generations. Research highlights how education can be a tool for social resilience and economic growth in conflict-affected regions, such as Palestine.

The Palestinian people continue to work toward a more sustainable future despite these overwhelming obstacles, and they see education – especially teacher preparation – as being essential to this effort. Many organizations, such as colleges, universities, and teacher training centres, provide courses designed to provide prospective teachers with the information and abilities they need to instruct in Palestinian schools. These courses follow the rules issued by the Ministry of Education in Palestine and include a wide range of topics, including educational psychology, curriculum creation, instructional strategies, and subject-specific content.

The Ministry of Education in Palestine provides guidelines and regulations that govern teacher education programs, ensuring that these programs cover a wide range of pedagogical skills and knowledge. These rules are outlined in official documents such as the “Teacher Education Strategy” and the “National Teacher Professional Development Framework”. These frameworks emphasize core subjects like educational psychology, curriculum design, instructional methods, and subject-specific content. In addition, the Ministry sets accreditation standards for teacher training institutions, ensuring that they comply with national educational goals (Ministry of Education, 2018)

However, improving sustainability education in Palestine's teacher education comes with its own set of challenges. The most significant of these difficulties is linguistic ability. Although the majority of teacher education programs are taught in Arabic, which is the official language of the Palestinian Authority, English is also widely used in the region and is especially relevant in international contexts. Palestinian educators must be proficient in English. To interact with colleagues from across the world and to access international resources for sustainability education.

While Arabic is the primary language of instruction in Palestinian schools and teacher education programs, English plays a crucial role in accessing global educational resources and engaging with their international peers. According to a study by Yamchi (2006), around 65% of Palestinian teachers report difficulty using

English in professional settings, with many struggling to attain the necessary proficiency to effectively engage with English-language materials or collaborate with international peers. Moreover, the 2020 English Proficiency Index ranked Palestine 88th out of 100 countries, classifying the country as having a "low" level of English proficiency.

The low proficiency level of Palestinian educators presents a barrier to accessing international resources related to sustainability education, as many of these materials are available primarily in English. Furthermore, Palestinian educators often face challenges in incorporating global sustainability frameworks into their curricula due to their limited ability to interpret and translate complex educational resources.

Another obstacle hindering sustainability education in Palestine is the lack of ongoing professional development. Teachers need to stay up to speed on new advances by regularly updating their knowledge and abilities since both sustainability and education are dynamic fields. However, as the research by Mora et al. (2014) shows, many Palestinian teachers face obstacles such as inadequate financing or few options for professional growth and, therefore, cannot obtain additional training,

A paper written by Shinn (2012), looks at three significant international organizations that have an impact on teacher development in Palestine: the World Bank, UNESCO, and the US Agency for International Development. The claim made is that both insufficient capacity within the Ministry of Education and its institutions and foreign influence, particularly donor-funded initiatives, impede the development of a comprehensive vision for teacher education. It is suggested that the limited approach to teacher development for Palestinian educators hinders the possibility of improving teaching standards for all Palestinian educators, particularly because of the scarcity of innovations that are incorporated into policies and are in line with a framework for comprehensive improvement.

Shinn's article (2012) used a case study research with a focus on macro-policy analysis to offer suggestions for future advancements in Palestinian teacher education. The methodology is based on a systematic analysis of literature accessed through the SCOPUS database, focusing on scientific publications related to sustainability education provided by Palestinian universities. This approach includes a quantitative assessment of sustainability-related publications from Palestinian universities found in Scopus-indexed journals, reflecting the scope and volume of

contributions within the Palestinian context. In addition, educators and researchers are asked to complete a structured questionnaire detailing their sustainability-focused activities, so that a better understanding of the integration of sustainability education in research and educational practices can be achieved. The findings reveal that some universities incorporate more sustainability-related topics in both their research outputs and curricula compared to others. Variations across institutions include differences in course offerings, departmental focus areas, and sustainability-relevant themes. Instructional activities primarily emphasize environmental sustainability, with a particular focus on energy efficiency, thermal efficiency, and water management.

Nassar (2022) claims that the difficult changes in today's society have been noted as posing significant problems in his study, but it is anticipated that educators will adjust quickly while maintaining the highest levels of education. The education sector may be strengthened by giving teachers more authority, raising their level of awareness, and equipping them with the tools, skills, and knowledge they need. Teachers think that their engagement is a beneficial contribution to their professional growth, which will, in turn, impact learning results. In a society like Palestine's that is changing and facing difficulties, raising the bar for education is essential. The political, social, and economic circumstances in Palestine exacerbate the challenges faced by the Ministry of Education (MoE), despite the organization's best efforts to improve educational standards.

Arar et al. (2024) conducted a comparative analysis to look into how teachers in Palestinian schools see and carry out sustainability education. Understanding how teachers implement and perceive sustainability education in the classroom was the goal of the study. The findings demonstrated that there were variations in the understanding and application of sustainability education by teachers, with some incorporating it into their approaches and others demonstrating less grasp and participation. The study highlights how important it is to provide opportunities for professional growth and support teachers so they can better understand and implement sustainability teaching in Palestinian schools.

According to Badwan, Awad, and Jbara (2022), academic and policymaking circles continue to place a high value on education for sustainable development (ESD). Despite a wealth of research, a more thorough empirical knowledge of how ESD promotes sustainable behaviour and how Sustainable Development Goals (SDGs) are incorporated into higher education is still required. The purpose

of Badwan, Awad and Jbara's (2022) project is to investigate how students see campus efforts to achieve sustainability, how faculty members connect with them, and how the curriculum influences their sustainable behaviour. Survey responses from 1062 students at Birzeit University were analyzed statistically and economically to provide insights into how education influences sustainable behaviour. The results point to the necessity of giving sustainability-related subjects more attention in the curriculum and in faculty initiatives to improve students' comprehension of sustainability-related concerns. The report also emphasizes how crucial it is to provide optional activities on campus to encourage sustainable behaviour changes, highlighting the critical role that higher education plays in solving sustainability issues.

Mushahari and Sharma (2022) draw attention to the growing need for experiential learning in education. Experiential learning is integral to sustainability education as it engages in hands-on, real-world experiences that foster critical thinking, problem-solving, and the application of sustainable practices. This approach helps to understand complex environmental, social, and economic systems, encouraging active participation in creating sustainable solutions. Experiential learning has been promoted by UNESCO as an essential approach to equip students with the necessary knowledge and skills so that they can cope with the real-world problems of the twenty-first century. Teacher education programs need to change the way they approach experiential learning and make sure teachers are properly prepared in both the subject matter and pedagogy. The study looks at how pre-service teacher candidates feel about experiential learning and the difficulties associated with putting it into practice. It finds that most of the participants are positive about the idea and that there are no gender-specific disparities in their opinions.

Badwan (2022) investigates the ways in which teacher training programs in Palestine might support sustainability education in schools. By means of a qualitative case study analysis, they exhibit how teacher education plays a crucial function in augmenting future educators' comprehension of sustainable development ideas and their implementation in pedagogical practices, thus cultivating a sustainable culture inside schools.

Together, these studies demonstrate how critical it is to improve sustainability education within teacher education in Palestine by tackling issues like pre-service and in-service teachers' low language proficiency and offering chances for con-

tinuous professional development for in-service teachers. They emphasize how important it is to include sustainability ideas in curricula and teacher training programs, and how important it is to encourage partnerships between academic institutions and local communities to promote sustainable behaviours. These studies, while having different foci, all highlight how important teacher preparation is for supporting sustainability education in Palestinian schools.

However, despite Ministry efforts, challenges persist, including inadequate language proficiency among instructors, particularly in English, and limited options for ongoing professional development. Addressing these issues is crucial to improving the quality of education in Palestine, and this research aims to provide insights and strategies for enhancing teacher education in the region to support sustainability and educational excellence.

Disruptions Caused to Education in Palestine

During the COVID-19 epidemic, the Ministry of Education has implemented several measures to ensure educational continuity. These measures apply to all academic levels and involve the adoption of distance learning, along with an increased reliance on an electronic communication platform (World Bank, 2020). This all happened in addition to the frequent escalations of conflict in the Gaza Strip, which lead to prolonged school closures and interruptions in every academic year. According to a report by UNICEF (2021), the Gaza Strip experiences frequent school closures due to the conflict, severely disrupting students' education and contributing to significant learning losses.

To mitigate the impact of school closures, many teachers in the Gaza Strip have turned to social networking sites and online platforms to continue teaching and support students' learning from home. This shift has been essential but also challenging due to limited access to technology and the Internet among students (UNESCO, 2020). In the West Bank, the conflict has also affected educational infrastructure and access. According to the World Bank (2020), the ongoing political situation and restrictions have led to challenges such as damage to school facilities, lack of resources, and limited mobility for students and teachers. These factors contribute to educational disruptions and hinder the overall quality of education. Both regions face significant psychosocial challenges as a result of the conflict, impacting students' and teachers' mental health and learning outcomes. Hussein (2024) highlights the psychological strain on students and teachers due

to prolonged exposure to conflict and violence, which affects their ability to engage effectively in educational activities.

"Both future teachers and current teachers need to adapt and feel comfortable with technology to fully benefit from training," a 2020 UNESCO report states. To interest pupils and hold their attention when they are at home, instructors have been advised to develop online activities including reading, games, experiments, storytelling, competitions, and interactive worksheets. (Dweikat & Zyoud, 2021).

The Problem of the Study

The study explores the complex and diverse issues that Palestine's teacher education programs confront, especially about improving pre- and in-service teachers' language competency and sustainability education. One of Palestine's biggest obstacles to teacher education is the lack of infrastructure and resources, which is made worse by political upheaval and violence that sabotages the educational process. Furthermore, linguistic and cultural hurdles might make it more difficult for teacher educators to interact with students in a meaningful way and deliver sustainability education that is relevant to their context.

Another challenge facing Palestine's teacher education system is keeping up with technological and pedagogical innovations. To improve student engagement and learning results, technology and student-centred learning techniques must be integrated into the curriculum. Innovative, specialized strategies that are adapted to Palestine's particular requirements are necessary to overcome these obstacles.

This might entail creating specific teacher training courses with an emphasis on language competency and sustainability education, as well as providing in-service teachers with ongoing assistance and chances for professional growth (Masry-Herzallah, 2024). Improving teacher training in Palestine is critical to achieving regional sustainable development goals as well as educational system growth. Teachers have a critical role to play in promoting social and environmental justice, strengthening communities, and clearing the path for a more sustainable future - both locally in Palestine and globally - by imparting high-quality, relevant education imbued with sustainable practices and values.

Objectives of the Study

With an emphasis on linguistic competence and ongoing training, this research seeks to assess the problems and potential solutions to improving sustainability education in teacher education in Palestine. The following are the research's particular goals:

1. To give a general review of Palestine's present teacher education situation with a concentration on sustainability education.
2. To explore the challenges related to enhancing sustainability education in teacher education in Palestine, with a specific focus on improving pre- and in-service teachers' linguistic competence and in-service teachers' continuous training.
3. To determine viable remedies to these issues, such as tactics to boost students' English language competency and expand teachers' chances for ongoing education.
4. To offer suggestions for improving sustainability education in teacher education in Palestine to decision-makers, educators, and other stakeholders.

The Questions of the Study

1. What challenges do Palestinian teacher education programs encounter in enhancing sustainability education?
2. How does the language proficiency of Palestinian in-service teachers impact their capacity to foster sustainability education in their teaching?
3. What approaches are presently employed in Palestinian teacher training programs to advance sustainability education?
4. What are the main obstacles to implementing sustainable education practices in Palestinian schools, and how can they be mitigated?

The significance of the study

This study is important in several ways. First of all, thoroughly analyzing the difficulties of sustainability education and making suggestions for advancing sustainability education in teacher education in the area, adds to the body of information already available on teacher education in Palestine. Secondly, the study intends to fill a vacuum in the literature by doing a quantitative evaluation of

factors impacting the efficacy of teacher education programs, notably in terms of language competency and continued training. Furthermore, the results of this study hold practical significance for Palestinian policymakers and teacher training programs, providing valuable perspectives on areas requiring enhancement to more effectively foster sustainability education and prepare educators to tackle the distinct difficulties of teaching in Palestine.

Furthermore, by investigating how sustainability might be included in teacher training programs, the research goes beyond the local context and advances the area of sustainability teaching in classrooms and schools. Although qualitative studies have yielded insightful information, this research endeavours to augment the extant literature with quantitative analysis to present a more all-encompassing and impartial comprehension of the obstacles and prospects in Palestinian teacher education. Filling a vacuum in the literature and offering insightful information on how language proficiency can affect the effectiveness of teacher preparation programs and the provision of sustainability education, the research also highlights the often disregarded aspect of language competency as a critical component of sustainability education in teacher education.

The research's overall goal is to close these gaps and offer insightful information on how to improve Palestine's teacher education programs to support sustainability and better equip educators to work in the Palestinian context.

Methodology

The study utilized a survey questionnaire as its primary data collection tool, employing quantitative methodologies to gather and analyze data. To ensure a representative sample, a stratified random sampling method was employed. This approach involved dividing the population of educators in the West Bank into meaningful strata based on relevant criteria such as school type, subject taught, and other pertinent factors. Within each stratum, random sampling techniques were used to select participants, thereby enhancing the representativeness of the sample. This methodological approach was validated by experts to ensure the quality and relevance of the collected data.

A total of 100 educators from the West Bank were contacted electronically to participate in the survey, with 80 responding, resulting in an 80% response rate. The demographic characteristics of the respondents included a gender distribution of 45% male and 55% female. Age-wise, 30% were between 20-29 years, 25%

were 30-39 years old, 20% were 40-49 years old, and 25% were 50 years and above. In terms of school type, 60% taught in public schools, 30% in private schools, and 10% in international schools. The subjects taught by the respondents included Mathematics (20%), Science (25%), Language Arts (30%), Social Studies (15%), and Other Subjects (10%).

The questionnaire was divided into two main sections. The first section focused on language competency and continuing education. It included 15 items aimed at evaluating teachers' language skills, particularly English, and their use of these skills in professional contexts. It also explored the availability and effectiveness of language training programs and the challenges teachers face in engaging with continuing education. The second section assessed strategies for improving the sustainability education in teacher education in Palestine. This section contained 14 items that gauged teachers' opinions on integrating sustainability into teacher education programs, enhancing training programs, curriculum development, and fostering collaborative efforts. Responses were measured using a Likert scale to determine degrees of agreement with various proposed strategies.

Before distribution, the questionnaire underwent evaluation by four educational sciences experts from different Palestinian institutions. Their feedback led to minor revisions that improved the questionnaire's alignment with the study's objectives, ensuring clarity and relevance in capturing data on language competency, continuing education, and sustainability education in teacher education. The updated questionnaire was then used for data collection and analysis, as detailed in the Results section.

Data Analysis

An examination of the questionnaire responses is shown in table (1) which indicates that participants strongly agreed on some issues preventing the promotion of sustainability in education. These results highlight the significant obstacles that Palestinian teacher education programs must overcome to advance sustainable practices, underscoring the necessity of concerted efforts and focused projects to successfully overcome these obstacles.

Challenges	Percentage Agreement
Lack of opportunities for continuous training hindering the development of sustainable teaching practices	0,8
Insufficient language proficiency skills hinder the ability of Palestinian teachers to promote sustainability	0,8
Inadequate integration of sustainability issues in the teacher education curriculum	0,79
Lack of collaboration and partnerships with external organizations hindering sustainable teaching practices	0,72
Lack of resources, including technology and teaching materials, hinders the development of sustainable teaching practices	0,8
Lack of support and guidance from educational institutions impeding the implementation of sustainable teaching practices	0,75
The absence of incentives for teachers to pursue continuous training hinders the development of sustainable teaching practices	0,78
Lack of cooperation and coordination between educational institutions hindering sustainable teaching practices	0,77
The absence of standardized assessments of language proficiency hinders efforts to improve language skills among Palestinian teachers	0,77
Lack of awareness and knowledge leading to the absence of sustainable teaching practices	0,76
Inadequate salaries hinder teachers' ability to pursue continuous training and improve language proficiency skills	0,76
Lack of opportunities for professional development hindering the implementation of sustainable teaching practices	0,72
Lack of funding for teacher education programs hindering the development of sustainable teaching practices	0,75
The absence of policies and regulations related to sustainability in teacher education hinders efforts to promote sustainable teaching practices	0,77
Lack of motivation among teachers to pursue continuous training hinders the development of sustainable teaching practices	0,86

Table 1: Challenges in Promoting Sustainability in Teacher Education in Palestine

An examination of the questionnaire responses is shown in table (1) which indicates that participants strongly agreed on several issues preventing the promotion of sustainability in education. These results highlight the significant obstacles that Palestinian teacher education programs must overcome to advance sustainable practices, underscoring the necessity of concerted efforts and focused projects to successfully overcome these obstacles.

The data analysis reveals several significant challenges faced by Palestinian teacher education programs in promoting sustainability. A prominent concern,

shared by 80% of respondents, is the lack of opportunities for continuous training, which hampers the development of sustainable teaching practices. Similarly, insufficient language proficiency skills, also agreed upon by 80% of participants, are identified as a major barrier, underscoring the need for enhanced language training programs to improve teachers' effectiveness in promoting sustainability. Furthermore, 79% of respondents indicate that sustainability issues are inadequately integrated into the current teacher education curriculum, pointing to the need for curriculum revisions that incorporate sustainability principles.

The survey results also highlight the lack of collaboration and partnerships with external organizations, noted by 72% of participants as a significant obstacle. This points to the importance of fostering partnerships to access resources and innovative solutions. Additionally, a notable 80% of respondents emphasize that the shortage of resources, such as technology and teaching materials, restricts teachers' ability to implement sustainable practices effectively. A lack of support and guidance from educational institutions, affecting 75% of respondents, further impedes the promotion of sustainability in education.

The absence of incentives for continuous professional development is another critical issue, with 78% of participants agreeing on the need for career advancement opportunities to motivate teachers. Similarly, 77% of respondents highlight the lack of cooperation and coordination among educational institutions as a barrier to sustainable teaching practices. The absence of standardized language proficiency assessments, agreed upon by 77% of participants, complicates efforts to improve language skills among teachers.

Additionally, 76% of respondents point to a lack of awareness and knowledge about sustainable teaching practices as a major hindrance. Inadequate salaries, affecting 76% of respondents, are also seen as a barrier to pursuing continuous training and improving language proficiency. Furthermore, the lack of opportunities for professional development, highlighted by 72% of participants, calls for expanded learning opportunities.

The underfunding of teacher education programs, agreed upon by 75% of respondents, restricts the quality of education and sustainable teaching techniques. The absence of policies and regulations related to sustainability in teacher education, emphasized by 77% of participants, underscores the need for a framework to guide sustainable practices. Finally, a broad consensus of 86% indicates that low teacher motivation negatively impacts the development of sustainable teaching

practices, suggesting the need for strategies to enhance motivation through rewards and a positive work environment.

The examination of questionnaire replies reveals a robust agreement among respondents concerning the obstacles impeding the advancement of sustainability education in Palestinian teacher training and public education. Several significant challenges are evident, such as the dearth of chances for ongoing professional development, teachers' weak language competency, the inadequate incorporation of sustainability problems into the curriculum, and the lack of external organization engagement. These difficulties highlight the pressing need for coordinated efforts and focused activities to successfully remove these obstacles. Furthermore, issues with limited finance, a lack of institutional support, a lack of teacher incentives, and resource limits highlight how difficult it is to advance sustainable teaching approaches in this challenging environment.

In general, these observations offer significant direction for decision-makers and interested parties to create all-encompassing plans meant to surmount these challenges and promote the successful assimilation of sustainability concepts within Palestinian education.

Conclusion

Sustainability is hampered in Palestine by several issues plaguing teacher education programs, especially those related to language skills and continuous training. These issues have surfaced as a result of our research, providing vital information. First and foremost, one significant obstacle to encouraging sustainable teaching approaches is the dearth of chances for ongoing professional development. To provide educators with the information and abilities needed to successfully incorporate sustainability principles into their teaching approaches, they must make continual investments in professional development. Furthermore, a major barrier to advancing sustainability in education is poor language skills, especially in English. Efforts to improve the language proficiency of Palestinian educators are essential for facilitating efficient communication and teaching sustainability ideas to pupils.

The study's overall findings underscore the critical need to embed sustainability education into teacher preparation programs in Palestine. The data reveals several significant obstacles, including language proficiency issues, insufficient resources, inadequate infrastructure, limited training opportunities, and poor collaboration. Addressing these challenges requires comprehensive curriculum re-

forms, enhanced language skills among in-service teachers and the establishment of robust support networks.

Among the most frequently cited obstacles is a lack of motivation, which 86% of respondents identified as a major barrier to the development of sustainable teaching practices. This high level of agreement suggests that motivation plays a crucial role in the effectiveness of teacher education programs. The effectiveness of sustainability education in schools depends on both teacher motivation and the quality of teacher education. A lack of teacher motivation can undermine even the best teacher education programs, as unmotivated teachers may not fully engage with training or apply what they learn in classrooms. Thus, teacher motivation is critical for translating teacher education into impactful sustainability practices in schools.

Low motivation may stem from factors such as inadequate incentives, lack of professional growth opportunities, and insufficient recognition of teachers' efforts. Understanding why motivation is such a prominent issue could involve examining how it interacts with other factors, such as financial constraints or limited professional development opportunities.

Analyzing the data further, differences between various demographic groups could offer additional insights. For example, younger educators might face different motivational challenges compared to their older counterparts. They may be more influenced by career advancement opportunities or recognition, whereas older educators might prioritize stability and practical support. Gender differences could also be relevant; female educators might experience motivational barriers differently than their male counterparts due to varying access to resources or professional development opportunities. Similarly, differences between teachers of different subjects, such as science versus non-science teachers, could reveal whether certain disciplines face unique challenges or have differing needs regarding sustainability education.

Addressing these obstacles effectively involves implementing several key measures. Standardized language proficiency exams could help address language competency issues, ensuring that teachers possess the necessary skills to engage with sustainability concepts effectively. Awareness campaigns could enhance the understanding of sustainable practices among educators. Improved incentive programs could boost motivation and commitment to sustainability goals. Addi-

tionally, securing more funding is essential to provide adequate resources and infrastructure needed for effective teacher preparation.

By tackling these challenges and adopting the proposed solutions, Palestinian teacher education programs can better equip educators to promote sustainable education. This, in turn, will contribute significantly to the development of sustainable communities in Palestine, fostering an educational environment that supports long-term sustainability goals.

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A fenntarthatóságra nevelés megerősítése a palesztin tanárképzésben: kihívások és megoldások elemzése a nyelvtudás és a pedagógus továbbképzés javítása érdekében

A fenntarthatóságra nevelés elengedhetetlen a palesztin tanárképzésben, tekintettel az ország környezeti, gazdasági és társadalmi problémáira. Ez a kutatás a palesztin tanárképzés fenntarthatóságra neveléssel kapcsolatos problémáival és a lehetséges megoldásokkal foglalkozik, a nyelvtudásra és a továbbképzésre összpontosítva. A kvalitatív adatelemzés során a tanárképzést, a nyelvi kompetenciákat és a fenntarthatóságra nevelést vizsgáltuk. Az eredmények azt mutatják, hogy a fenntarthatóságra nevelés megerősítéséhez számos kihívással kell megküzdeni Palesztinában, többek között biztosítani kell a már pályán lévő pedagógusok nagyobb mértékű hozzáférését a témával kapcsolatos továbbképzésekhez és angolnyelvtudásuk fejlesztését. Két megoldási javaslat merült fel: a szakmai továbbképzési lehetőségek bővítése és hatékonyabbá tétele, valamint a technológia használata a nyelvtudás javítása érdekében. A kutatók a cikk összegzésében javaslatokat tesznek a fenntarthatóságra nevelés megerősítésére a palesztin tanárképzésben a politikai döntéshozók, a pedagógusok és más érdekeltek számára.

Keywords: fenntarthatóságra nevelés; tanárképzés; nyelvtudás; továbbképzés; a fenntarthatóságra nevelés megerősítése