

Developing Professional Educational Leadership for Sustainable Education: Lessons from Thailand within the SDG Framework

Patthira Phon-ngam¹, Chookwan Ratanapitakdhada², Saranya Sriken³, Ruthaikan Ornlā⁴, Wei Sun⁵, Malashchenko Vadim⁶

- ¹Faculty of Education, Shinawatra University, Bangkok, Thailand
- ² Saint John’s University, Thailand
- ³Faculty of Education, Shinawatra University, Bangkok, Thailand
- ⁴Faculty of Education, Shinawatra University, Bangkok, Thailand
- ⁵Guizhou Qiannan College of Economics, Guizho, China
- ⁶International Institute of Management and Business, Belarus

Corresponding author:
Patthira Phon-ngam
Email ID : patthiraw@yahoo.com

Cite this paper as: Patthira Phon-ngam, Chookwan Ratanapitakdhada , Saranya Sriken, Ruthaikan Ornlā , Wei Sun, Malashchenko Vadim , (2025) Developing Professional Educational Leadership for Sustainable Education: Lessons from Thailand within the SDG Framework.. *Advances in Consumer Research*, 2 (5), 2013-2030

KEYWORDS <i>Educational leadership, sustainable education, leadership development, professional competencies, Sustainable Development Goals (SDGs), Thailand</i>	ABSTRACT This study aimed to develop professional educational leadership for sustainable education within the Sustainable Development Goals (SDG) framework. The objectives were: (1) to examine leadership competencies that promote sustainable education and support the SDGs; (2) to develop strategies and methods for fostering long-term sustainable leadership practices; and (3) to implement and evaluate the developed leadership development program. A qualitative design was used with in-depth interviews, focus group discussions, document analysis, and observations of educational leaders from various institutions in Thailand. Findings revealed six essential competencies: strategic vision, emotional intelligence, ethical decision-making, collaborative management, sustainability literacy, and reflective adaptability. Strategies and methods included mentorship, collaborative learning communities, reflective practice, and sustainability-focused workshops. The program implementation improved leadership performance, institutional sustainability, and alignment with SDG 4 (Quality Education) and SDG 17 (Partnerships for the Goals). The study concludes that competency-based, participatory, and sustainability-driven leadership development is key to advancing professional educational leadership and achieving sustainable education goals.. Keywords: educational leadership, sustainable education, leadership development, SDGs ..
--	--

1. INTRODUCTION

Educational leadership plays a pivotal role in achieving educational goals and enhancing the overall quality and sustainability of educational systems (Bush, 2020; Hallinger, 2019). Professional educational leadership involves the application of specialized knowledge, skills, and behaviors necessary to guide educational institutions toward excellence, while also promoting sustainable education aligned with the Sustainable Development Goals (SDGs) (United Nations, 2020; Fullan, 2019). This study investigates the characteristics of professional educational leaders and the processes for their development in the context of fostering long-term educational sustainability.

In the rapidly changing educational landscape, the role of educational leaders has become increasingly significant.



Educational leadership is not merely about managing schools or institutions; it is about inspiring and guiding educators, students, and communities toward achieving educational excellence and sustainability (Leithwood et al., 2020). Effective professional educational leadership requires a complex interplay of vision, strategy, and interpersonal skills that collectively drive the success of educational organizations and contribute to the attainment of SDGs, particularly SDG 4 (Quality Education) and SDG 8 (Decent Work and Economic Growth) (UNESCO, 2021).

The concept of educational leadership has evolved significantly over the past few decades. Initially, leadership focused primarily on administrative tasks, such as maintaining order and managing resources (Bush, 2020). Contemporary views, however, emphasize transformational and instructional leadership (Hallinger, 2023; Leithwood & Jantzi, 2020). Transformational leadership inspires and motivates staff and students to reach their full potential, while instructional leadership focuses on improving teaching and learning practices. Both approaches underscore the need for leaders to possess a deep understanding of educational processes and the ability to cultivate a positive, inclusive, and sustainably minded school culture (Day & Sammons, 2024).

The importance of professional educational leadership is further highlighted by the challenges facing educational institutions today. These include addressing diverse student needs, integrating technology into classrooms, improving student outcomes, and navigating frequent policy changes (Darling-Hammond et al., 2019). Effective leaders must be visionary, resilient, adaptable, and capable of making informed decisions while fostering a collaborative and sustainably oriented environment (OECD, 2019).

Moreover, educational leaders must prioritize continuous improvement and innovation. The rapid pace of technological advancements and the growing emphasis on 21st-century skills necessitate that leaders remain updated on the latest educational developments (Schleicher, 2019). This requires a commitment to lifelong learning and professional development, which are critical for fostering sustainable educational practices (Fullan, 2020).

Professional development plays a central role in the growth and effectiveness of educational leaders. Effective programs are those aligned with leaders' needs and institutional goals, often including workshops, mentorship, coaching, and collaborative learning opportunities (Avalos, 2021; Darling-Hammond et al., 2022). Such programs equip leaders with the tools and strategies necessary to address challenges, improve leadership practices, and promote a culture of continuous learning and sustainable improvement (Damrongsiri et al., 2022; Gurr & Drysdale, 2020).

This study contributes to understanding professional educational leadership by: (1) identifying the competencies required for effective and sustainable leadership, (2) analyzing strategies and methods to develop these competencies, and (3) assessing the impact of professional development programs on leadership effectiveness, institutional performance, and alignment with SDGs. The findings provide practical insights for educational institutions in Thailand to strengthen leadership practices and achieve sustainable educational outcomes in line with SDG 4 (Quality Education) and related goals.

Objectives:

1. To examine the competencies required for professional educational leadership that promote sustainable education and support the achievement of the Sustainable Development Goals (SDGs).
2. To develop the strategies and methods for developing these competencies in ways that foster long-term sustainable leadership practices in educational institutions.
3. To implement and evaluate of the Leadership Development of professional development programs on the effectiveness of educational leadership in enhancing sustainability, institutional performance, and alignment with SDGs.

Scope of the Study

1.1 Content Scope

The study focuses on the key competencies of professional educational leaders that promote sustainable education.

It examines strategies and methods for developing these competencies, including workshops, mentorship, collaborative learning communities, and reflective practice.

The study also investigates the impact of professional development programs on leadership effectiveness, institutional performance, and alignment with the SDGs.

1.2 Geographical Scope

The research is conducted in Thailand, focusing on educational institutions that represent the local context.

Both schools and higher education institutions are included.

1.3 Time Scope

Data is drawn from studies and practices between **2019 and 2024** to reflect the current context of professional educational leadership development.

Conceptual Framework

Linking to SDGs and AIM & Scope

Main Concept:



Professional educational leadership is a key factor in achieving **sustainable education**, directly supporting the SDGs:

SDG 4: Quality Education – enhancing education quality

SDG 8: Decent Work and Economic Growth – improving human resource management and skills
SDG 17: Partnerships for the Goals – building networks and collaborations in education

Components of the Conceptual Framework:

Leader Competencies (Input): Strategic Vision, Emotional Intelligence, Decision-Making, Communication, Inspirational Leadership

Development Strategies (Process): Workshops, Mentorship, Collaborative Learning Communities, Reflective Practice

Outcomes (Output/Impact): Enhanced Leadership Skills, Improved Institutional Performance, Sustainable Education Practices, Alignment with SDGs

Connection to AIM & Scope:

Aim: To develop and evaluate effective professional educational leadership models that support SDGs in the Thai context.

Scope: Covers the analysis of leader competencies, development strategies, and the impact of professional development programs on sustainable education.

2. LITERATURE REVIEW

1. Concept of Professional Educational Leadership

Professional educational leadership involves guiding schools and institutions toward excellence through vision, decision-making, and interpersonal skills (Bush, 2020). Recent studies emphasize transformational and instructional leadership as key approaches to foster innovation, teacher development, and sustainable educational practices (Hallinger, 2023). In Thailand, leaders face unique challenges related to hierarchical structures and policy constraints, requiring tailored competency development (Khlaissang & Pongpanich, 2023).

2. Sustainable Education

Sustainable education aims to balance quality learning with long-term societal, economic, and environmental outcomes (United Nations, 2020). It emphasizes inclusivity, lifelong learning, and alignment with SDGs, particularly SDG 4 (Quality Education) and SDG 8 (Decent Work) (Fullan, 2019; Li, Chen, & Zhang, 2022). Evidence from Thai schools highlights the importance of integrating sustainability principles into curricula and institutional practices to promote enduring educational benefits (Zhang & Wang, 2023).

3. Linking Leadership Development to SDGs

Leadership development enhances the capacity of educational leaders to implement sustainable practices aligned with SDGs. Effective programs strengthen strategic vision, ethical decision-making, and collaborative skills, which in turn improve institutional sustainability (Al-Rasheed, Smith, & Khan, 2021). Studies show that linking leadership competencies with SDG-focused goals increases teacher engagement, student achievement, and organizational performance (Li, Chen, & Zhang, 2022).

4. Strategies for Developing Sustainable Educational Leadership

Various strategies support the development of professional leaders, including workshops, mentorship, reflective practice, and collaborative learning communities (Mousavi & Bagheri, 2021). Innovative approaches, such as online platforms and digital communities, enhance accessibility and scalability. Evidence indicates that tailored programs addressing local context and institutional needs are most effective in promoting sustainable leadership practices (Day, Gu, & Sammons, 2022).

5. Challenges and Barriers in Leadership Development

Despite their importance, leadership development programs often encounter obstacles such as limited resources, structural constraints, and cultural barriers (Day, Gu, & Sammons, 2022; Khlaissang & Pongpanich, 2023). In higher education, bureaucratic procedures and insufficient autonomy hinder the adoption of sustainable leadership practices (Mousavi & Bagheri, 2021). Addressing these challenges requires targeted training, systemic support, and policy alignment to enable effective professional development.

6. Impact of Leadership on Institutional Sustainability

Effective leadership positively influences institutional sustainability by fostering innovation, ethical practices, and collaboration (Al-Rasheed, Smith, & Khan, 2021; Li, Chen, & Zhang, 2022). Leaders who implement sustainable practices enhance teacher engagement, student outcomes, and alignment with SDGs (Zhang & Wang, 2023). Evidence from Thailand and Asia highlights that professional leadership serves as a catalyst for embedding sustainability into educational strategies, culture, and institutional performance.

Summary

In summary, the literature emphasizes that professional educational leadership is essential for enhancing school performance and student outcomes. Integrating sustainable education principles and aligning leadership practices with **SDGs** ensures that



educational institutions contribute to long-term societal development. Developing leaders through targeted professional development programs strengthens their capacity to implement sustainable practices and achieve both institutional and global educational goals.

Methodology

1. Research Design

This study employs a qualitative research design to explore how professional educational leadership in Thailand develops competencies, strategies, and practices that promote sustainable education and advance the Sustainable Development Goals (SDGs). The qualitative approach allows an in-depth understanding of leadership competencies, development strategies, and the impact of professional development on leaders' effectiveness in fostering sustainable practices within educational institutions.

2. Participants

Participants included educational leaders from **primary, secondary, and tertiary institutions**, including principals, vice-principals, department heads, and other administrative personnel. Purposive sampling was used to select individuals with at least **five years of leadership experience** and demonstrated engagement in initiatives related to **sustainable education and SDG-related practices**. This ensured participants had substantial practical insights into professional educational leadership aligned with global sustainability goals.

3. Research Tools

Multiple qualitative methods were employed to gather comprehensive data on professional educational leadership and its contribution to sustainable education and SDGs:

In-depth Interviews – Semi-structured interviews explored leadership competencies, experiences, strategies for promoting sustainable education, and alignment with SDG initiatives.

Document Analysis – Relevant documents, including school policies, leadership development program reports, curricula, and strategic plans, were analyzed to examine institutional approaches to leadership and sustainability.

Observations – Conducted in selected schools to capture real-world leadership practices, including decision-making processes, collaborative activities, and strategies that promote sustainable educational outcomes.

Reflective Journals – Some leaders maintained journals or portfolios documenting professional development experiences, application of leadership competencies, and sustainability initiatives.

Case Studies – Detailed case studies of exemplary educational leaders illustrated effective practices, competencies, and approaches to integrating sustainability and SDGs.

4. Data Collection

Data collection was conducted in four main steps to ensure a comprehensive understanding of professional educational leadership and its contribution to sustainable education and the Sustainable Development Goals (SDGs).

Step1: Exploring the competencies required for professional educational leadership (Objective 1). This step focused on identifying and understanding the key competencies required for professional educational leadership that promote sustainable education and support SDGs. Semi-structured in-depth interviews were conducted with educational leaders, including principals, vice-principals, and department heads from primary, secondary, and tertiary institutions.

Purpose: To explore leadership competencies across multiple dimensions, such as strategic vision, emotional intelligence, communication, inspirational leadership, ethical decision-making, and knowledge of sustainability principles.

Procedure: Participants were asked to describe their leadership experiences, challenges, and examples of effective practices that enhance sustainability and align with SDGs. Questions encouraged detailed accounts and reflection on personal growth and leadership impact.

Duration: Each interview lasted 45–60 minutes and was audio-recorded with informed consent.

Outcome: Collected rich qualitative data revealing the diverse competencies, behaviors, and traits of professional educational leaders essential for sustainable education.

Step 2: Developing Strategies and Methods for Leadership Competencies (Objective 2)
This step focused on the design and development of strategies and methods to enhance leadership competencies identified in Step 1, aiming to foster sustainable educational leadership aligned with SDGs.

Purpose: To collaboratively generate, refine, and validate feasible strategies and practical methods for developing professional educational leadership competencies.

Participants: Educational leaders including principals, vice-principals, department heads, and senior administrators from primary, secondary, and tertiary institutions. Participants were selected purposively based on leadership experience and involvement in sustainability initiatives.

Procedure:

Focus Group Discussions: Groups of 4–6 leaders discussed potential strategies, shared successful practices, and identified



challenges in developing leadership competencies. Leaders evaluated which approaches could be effective in promoting sustainability and aligning with SDGs.

Idea Generation and Validation: Participants proposed specific **strategies** (e.g., structured workshops, mentorship programs, collaborative learning communities, reflective practice) and **methods** (e.g., action learning projects, scenario-based exercises, peer feedback) to develop competencies in practice.

Consensus Building: Through facilitated discussions, participants prioritized strategies and methods most suitable for their institutions, considering feasibility, resources, and alignment with SDGs.

Duration: Each focus group session lasted approximately 90 minutes, and discussions were audio-recorded with consent for subsequent thematic analysis.

Outcome: Collected qualitative data provided a comprehensive set of **practical strategies and methods** that could be implemented in pilot programs (Objective 3) to strengthen professional educational leadership and support sustainable education initiatives.

Step 3: Implementation of Leadership Development Strategies (Objective 3)

This step focused on **applying the strategies and methods developed in Step 2** in a real-world pilot program to evaluate their impact on leadership effectiveness and sustainable educational practices.

Purpose: To implement selected leadership development strategies and methods with educational leaders and assess their effectiveness in enhancing competencies, institutional performance, and alignment with SDGs.

Participants:

15–20 educational leaders, including principals, vice-principals, department heads, and senior administrators from primary, secondary, and tertiary institutions. Participants were purposively selected based on leadership experience (minimum 5 years) and willingness to engage in sustainability-focused professional development.

Procedure:

Pilot Program Design: An 8–12-week program was structured, integrating strategies and methods identified in Step 2, such as workshops, mentoring sessions, collaborative learning projects, scenario-based exercises, and reflective practice.

Implementation Activities:

Workshops: Focused on strategic vision, communication, decision-making, and sustainable leadership principles.

Mentoring Sessions: Each leader paired with an experienced mentor to guide the application of competencies in school settings. **Collaborative Learning Projects:** Leaders formed small groups to plan and execute SDG-aligned initiatives within their institutions.

Reflective Practice: Participants maintained journals to document experiences, challenges, and personal growth during implementation. **Monitoring:** Researchers conducted structured observations of leadership behaviors during workshops, team projects, and school-based initiatives to record competency application, staff engagement, and evidence of sustainable practices.

Follow-up Interviews and Focus Groups: After completing the pilot program, participants were interviewed individually and in focus groups to share reflections on skill development, challenges faced, and the impact on institutional practices and culture.

Duration: The pilot program lasted 8–12 weeks, with multiple sessions each week for workshops, mentoring, and collaborative projects. Observations and interviews were conducted throughout and immediately after the program.

Outcome: This step generated comprehensive data on the effectiveness of the implemented **strategies and methods**, including improvements in leadership competencies, staff engagement, institutional sustainability practices, and alignment with SDGs. The data also provided insights into which strategies were most effective in practical school contexts.

Step 4: Evaluation of Leadership Development Implementation (Objective 3)

This step focused on **assessing the effectiveness of the pilot leadership development program** (Step 3) in enhancing professional educational leadership competencies, promoting sustainable practices, and aligning institutional initiatives with SDGs.

Purpose: To evaluate the impact of implemented strategies and methods on leaders' competencies, institutional performance, staff engagement, and sustainable education outcomes.

Participants for Evaluation:

Primary participants: The 15–20 educational leaders who completed the pilot program. These participants were purposively selected based on leadership experience (minimum 5 years) and active involvement in the pilot program.

Secondary participants: Selected staff members (5–10 per institution) and teachers who interacted closely with participating leaders, to provide additional perspectives on changes in leadership behavior, staff engagement, and institutional practices.

Evaluation Methods:



Observations: Structured observations of leaders during school activities, workshops, and SDG-related projects to assess the application of newly developed competencies, leadership behaviors, and influence on staff participation.

In-depth Interviews and Focus Groups:

Leaders: Reflected on personal growth, confidence in leadership, and challenges faced during implementation.

Staff: Provided feedback on leaders' effectiveness, collaboration, and promotion of sustainable practices.

Duration: 45–60 minutes for individual interviews; 90 minutes for focus groups.

Reflective Journals: Leaders' journals were analyzed to identify patterns in competency application, problem-solving strategies, and lessons learned during the pilot program.

Document Analysis: Reviewed school action plans, SDG-related initiatives, and reports developed during the pilot to evaluate institutional changes and alignment with SDG objectives.

Evaluation Indicators:

Leadership Competencies: Improvement in strategic vision, emotional intelligence, communication, decision-making, and sustainability knowledge.

Institutional Performance: Implementation of SDG-aligned projects, enhanced teamwork, and measurable outcomes of sustainability initiatives.

Staff Engagement: Level of participation, motivation, and collaborative practices observed among staff.

Cultural Change: Evidence of institutional adoption of sustainable practices and a culture oriented toward SDG achievement.

Outcome:

The evaluation generated rich qualitative data to determine the **effectiveness of the pilot strategies and methods**. It provided insights into which leadership development approaches were most successful, how competencies translated into practical behaviors, and the broader impact on institutional performance and sustainability initiatives. These findings informed recommendations for future scaling of leadership development programs.

Data collection period

The data for this study were collected between **June to December 2024** through in-depth interviews, focus group discussions, and participatory meetings with educational administrators and teachers in Thailand.

5. Data Analysis

Data were analyzed using **thematic analysis**, with steps including:

Data Familiarization – Reading transcripts, documents, and observation notes repeatedly to gain a holistic understanding.

Initial Coding – Identifying key phrases, ideas, and patterns related to competencies, strategies, and SDG implementation.

Theme Development – Grouping codes into broader themes representing leadership competencies, development strategies, and sustainability impact.

Reviewing and Refining Themes – Ensuring themes accurately reflect data and address research objectives.

Defining and Naming Themes – Clearly articulating each theme and its relevance to sustainable professional educational leadership.

6. Trustworthiness

The study ensured credibility and reliability through:

Triangulation – Combining interviews, document analysis, and observations.

Member Checking – Verifying interpretations with participants.

Peer Debriefing – Reducing researcher bias.

Thick Description – Providing detailed contextual understanding of leadership practices in sustainable education.

7. Ethical Considerations

Ethical approval was obtained from relevant authorities. Participants were provided with informed consent forms, assuring voluntary participation, confidentiality, and the right to withdraw at any time.

8. Data Interpretation

Interpreted data focused on how professional educational leadership contributes to sustainable education and the attainment of SDGs:

Leadership Competencies – Strategic vision, emotional intelligence, communication, inspirational leadership, and decision-making in fostering sustainable school practices.

Development Strategies – Professional development workshops, mentorship programs, collaborative learning communities, and reflective practices that enhance sustainable leadership capacities.



Impact on Sustainability and SDGs – How professional development influences leaders’ effectiveness in promoting long-term educational improvements, inclusive practices, and alignment with SDGs, particularly **SDG 4 (Quality Education)** and **SDG 8 (Decent Work and Economic Growth)**.

Triangulating interviews, document analysis, and observations provided a robust understanding of how professional development initiatives cultivate leaders capable of implementing sustainable educational practices and contributing to broader global goals.

Results

The results indicate that successful educational leaders possess a clear vision for their institutions, demonstrate resilience in overcoming challenges, and are committed to ongoing professional development. Professional development programs focusing on strategic planning, emotional intelligence, and communication skills significantly enhance leadership effectiveness. Mentorship and coaching are also crucial in providing support and guidance to emerging leaders.

The research results are arranged according to the following objectives:

Objective 1: to examine the competencies required for professional educational leadership that promote sustainable education and support the achievement of the Sustainable Development Goals (SDGs)

The first objective focused on identifying the core competencies required for professional educational leaders to promote sustainable education and integrate SDG-related initiatives. Interviews, focus group discussions, observations, and document analysis revealed that effective leadership encompasses multiple dimensions, each with specific leadership indicators that guide practice. Leaders emphasized the need to combine strategic, interpersonal, ethical, and sustainability-oriented competencies to drive institutional improvements.

1. Strategic Leadership

Indicators: Ability to set long-term vision, align institutional goals with SDGs, develop sustainable plans, and monitor progress.

Participant Quote:

“I always align our school development plan with SDG 4 and ensure every project contributes to long-term sustainability.” (Principal, Secondary School)

Observation: Leaders clearly communicate school visions during staff meetings and link annual objectives to SDG targets.

2. Emotional and Interpersonal Competence

Indicators: Managing own and others’ emotions, conflict resolution, fostering collaboration, and maintaining positive relationships with staff, students, and community.

Participant Quote:

“When disagreements arise, I listen carefully to understand different perspectives and find common ground.” (Vice-Principal, Primary School)

Observation: Collaborative decision-making and team-building activities are actively facilitated.

3. Communication Skills

Indicators: Clear, transparent, and motivating communication; ability to convey goals, expectations, and SDG relevance to staff and stakeholders.

Participant Quote:

“I make sure teachers understand how their work contributes to the SDGs and the school’s sustainability goals.” (Department Head, Tertiary)

Observation: Leaders use newsletters, announcements, and meetings to consistently emphasize sustainability priorities.

4. Inspirational and Transformational Leadership

Indicators: Motivating and engaging staff, modeling ethical and sustainable practices, encouraging innovation, and fostering a shared vision for sustainability.

Participant Quote:

“I try to inspire my teachers by showing how their projects impact the community and students’ future.” (Principal, Secondary School)

Observation: Teachers actively participate in SDG-related initiatives and propose new sustainability projects.

5. Ethical Decision-Making and Accountability

Indicators: Making informed, fair, and SDG-aligned decisions, prioritizing social, environmental, and educational responsibilities, and maintaining transparency.

Participant Quote:

“Before approving any program, I check if it aligns with ethical and sustainability principles.” (Administrator, Tertiary)



Observation: Leaders consult stakeholders and refer to SDG indicators when approving programs or allocating resources.

6. Sustainability Knowledge and Innovation

Indicators: Understanding sustainable education concepts, applying innovative practices, and integrating SDG goals into school management and curriculum.

Participant Quote:

"I try to implement innovative projects that teach students about sustainability and the SDGs." (Vice-Principal, Secondary)

Observation: Schools adopt new programs on environmental awareness, community engagement, and social responsibility.

Summary:

The findings reveal that professional educational leadership for sustainable education requires a **multi-dimensional competency framework**: strategic leadership, emotional/interpersonal competence, communication skills, inspirational leadership, ethical decision-making, and sustainability knowledge. Each dimension is associated with measurable indicators that guide leaders in aligning institutional practices with SDGs, fostering staff engagement, and implementing innovative and sustainable initiatives.

Objective 2: To develop strategies and methods for developing leadership competencies in ways that foster long-term sustainable leadership practices in educational institutions

The second objective aimed to **develop strategies and methods** to enhance the leadership competencies identified in Objective 1, focusing on sustainable education and alignment with SDGs. The findings emerged from **focus group discussions, observations of leadership practices, and document reviews**

2.1 Strategies for Developing Leadership Competencies

Structured Professional Development Programs

Leaders participate in workshops, seminars, and formal training sessions designed to enhance SDG knowledge, leadership skills, and sustainability understanding.

Participant Quote:

"Workshops helped me understand how to integrate SDGs into daily school activities and plan long-term initiatives." (Vice-Principal, Secondary)

Observation: Leaders actively engage in scenario-based exercises and group discussions, demonstrating understanding of sustainable practices.

Mentorship and Coaching

Experienced leaders guide emerging leaders, providing advice, feedback, and practical guidance on implementing sustainable projects.

Participant Quote:

"My mentor guided me step by step in developing sustainability initiatives that align with the school's vision." (Principal, Tertiary)

Observation: Mentors observed giving constructive feedback, sharing best practices, and facilitating reflection sessions.

Collaborative Learning Communities

Peer networks and cross-school collaborations encourage leaders to share experiences, ideas, and solutions for sustainable education challenges.

Participant Quote:

"Collaborating with other schools helped us create joint sustainability projects and exchange ideas on implementing SDGs effectively." (Department Head, Primary)

Observation: Leaders participate in planning meetings, workshops, and joint problem-solving sessions.

Reflective Practice

Leaders maintain journals, portfolios, or logs to critically analyze their decisions, leadership actions, and their impact on sustainability and SDGs.

Participant Quote:

"Reflecting on my daily decisions helps me identify improvements and ensures my leadership aligns with sustainability goals." (Administrator, Secondary)

Observation: Leaders use reflections to adjust strategies and improve institutional practices continuously.

2.2 Methods for Developing Leadership Competencies

Experiential Learning

Leaders engage in hands-on projects, simulations, or real-world initiatives related to SDGs and sustainable school management.



Participant Quote:

"By participating directly in community and environmental projects, I learned practical skills to implement sustainability at school." (Principal, Secondary)

Observation: Active involvement in sustainability programs strengthens problem-solving and project management skills.

Feedback and Assessment

Leaders receive structured feedback from peers, mentors, and supervisors on their decision-making, project implementation, and leadership behaviors.

Participant Quote:

"Regular feedback helps me improve my approach and ensures that our SDG initiatives are effective." (Vice-Principal, Tertiary)

Observation: Feedback sessions are documented and used to plan improvements and professional growth.

Action Learning Projects

Leaders initiate and implement school-based sustainability projects to apply competencies in real contexts.

Participant Quote:

"Leading a green school initiative allowed me to practice my leadership skills and observe the impact on students and teachers." (Department Head, Primary)

Observation: Projects demonstrate integration of knowledge, skills, and SDG-focused strategies in real practice.

Workshops and Peer Discussions

Leaders participate in scenario-based exercises, role-playing, and collaborative problem-solving to develop critical thinking, decision-making, and innovation.

Participant Quote:

"Role-playing exercises in workshops taught me to handle complex situations sustainably." (Administrator, Secondary)

Observation: Leaders actively engage in discussions, generate solutions collaboratively, and reflect on outcomes.

Summary:

Leadership competencies for sustainable education are strengthened through **strategic approaches**, including structured programs, mentorship, collaborative learning, and reflective practice, and **practical methods**, such as experiential learning, feedback mechanisms, action learning projects, and workshops. These strategies and methods enable leaders to translate knowledge into practice, foster a culture of sustainability, and ensure alignment with SDGs across institutional operations.

Outcomes:

The strategies and methods were feasible, context-specific, and adaptable across different educational levels (primary, secondary, tertiary).

Participants reported increased awareness of how to develop and apply leadership competencies to support sustainable education initiatives.

The data provided a comprehensive blueprint of leadership development strategies and methods to be piloted in Objective 3.

SDG Alignment:

SDG 4 (Quality Education): Enhancing leadership skills to improve teaching and learning outcomes.

SDG 8 (Decent Work & Economic Growth): Promoting effective leadership and institutional management.

SDG 12 (Responsible Consumption & Production): Integrating sustainability practices in school projects.

Results of Objective 3: to Implement and Evaluate Leadership Development Strategies

The third objective aimed to implement the leadership development strategies and methods developed in Objective 2 and evaluate their impact on leadership competencies, institutional performance, and alignment with SDGs.

1. Pilot Implementation:

Participants: The pilot program involved 18 educational leaders, including principals, vice-principals, and department heads from primary, secondary, and tertiary institutions. These participants were purposively selected based on at least 5 years of leadership experience and active engagement in sustainability-related initiatives.

Procedure:

The program lasted 10 weeks, integrating workshops, mentorship sessions, collaborative projects, scenario-based exercises, and reflective practice.

Leaders applied the strategies and methods in their own schools, leading SDG-aligned initiatives, such as student sustainability projects, green campus activities, and community learning programs.

Structured observations were conducted by researchers during workshops, collaborative projects, and school-based activities



to monitor competency application in practice.

Participant Reflection: Leaders maintained reflective journals documenting challenges, strategies applied, personal growth, and outcomes of implemented initiatives.

Example quote:

“Applying the mentorship strategies helped me communicate sustainability goals more clearly to my staff” (Participant L5).

2. Evaluation of Leadership Competencies:

Evaluators: The evaluation involved three groups:

Self-assessment by the leaders through reflective journals.

Peer assessment from other participating leaders within collaborative learning groups.

Staff evaluation: 5–10 staff members per institution provided feedback on leaders’ effectiveness, communication, decision-making, and motivational behaviors.

Methods:

1. Structured observation checklists: Researchers scored leaders’ competencies during workshops and SDG-related projects based on pre-defined indicators.

2. Semi-structured interviews and focus groups: Explored leaders’ perceived growth, challenges, and observed changes in staff behavior and institutional practices.

3. Document analysis: Reviewed school action plans, project reports, and SDG-related initiatives implemented during the pilot program.

Competency Indicators Evaluated:

Strategic Vision: Ability to plan and implement SDG-aligned initiatives.

Emotional Intelligence: Effective communication, empathy, and conflict resolution.

Inspirational Leadership: Motivation of staff and students toward sustainability goals.

Ethical Decision-Making: Alignment of decisions with institutional values and SDGs.

Sustainability Knowledge: Application of sustainable practices in school operations and projects.

3. Key Findings:

Leaders demonstrated significant improvement in strategic vision, communication, and decision-making skills.

Staff reported higher engagement, motivation, and collaboration in SDG-related projects.

Institutional performance improved through implementation of practical sustainability initiatives, such as waste management programs and curriculum integration of SDG projects.

Reflective journals indicated increased self-awareness and identification of areas for continuous improvement.

Pilot implementation confirmed that the strategies and methods developed in Objective 2 were **practical, effective, and scalable**.

4. SDG Alignment:

SDG 4 (Quality Education): Improved leadership enhanced teaching, learning, and educational planning.

SDG 8 (Decent Work & Economic Growth): Leaders promoted professional growth and effective institutional management.

SDG 12 (Responsible Consumption & Production) & SDG 13 (Climate Action): Leaders implemented sustainable initiatives within schools.

The Implementation and Evaluation of Leadership Development Strategies are summarized in Table 1.

Table 1: Implementation and Evaluation of Leadership Development Strategies

Leadership Competency	Strategies / Methods Applied	Outcomes / Observed Changes	Participant Quotes	SDG Alignment
Strategic Vision	Workshops, scenario-based exercises, and action learning projects	Leaders improved ability to plan and execute SDG-aligned initiatives; measurable improvement in school-based sustainability projects	“Through the scenario exercises, I can foresee challenges and plan sustainable actions effectively” (L3)	SDG 4, SDG 8



Leadership Competency	Strategies / Methods Applied	Outcomes / Observed Changes	Participant Quotes	SDG Alignment
Emotional Intelligence	Mentorship, peer feedback, reflective journals	Enhanced communication, empathy, and conflict resolution; better staff relationships and engagement	“Mentoring sessions helped me understand staff perspectives and communicate more effectively” (L5)	SDG 4, SDG 8
Inspirational Leadership	Collaborative learning communities, micro-teaching	Increased staff motivation and participation in SDG-related projects; improved teamwork	“I feel more confident inspiring my staff to take part in sustainability initiatives” (L7)	SDG 4, SDG 12
Ethical Decision-Making	Action learning projects, reflective practice	Decisions aligned with sustainability principles and institutional values; consistent application in projects	“Reflecting on my decisions made me more aware of ethical implications in sustainability planning” (L12)	SDG 4, SDG 12
Sustainability Knowledge	Workshops, SDG-focused projects, and mentoring	Leaders applied sustainable practices in school operations, integrated SDG projects into curriculum	“Implementing a waste management project taught me practical ways to embed sustainability in school routines” (L9)	SDG 12, SDG 13

Results Overview

The findings of this study are presented according to the three research objectives. Objective 1 explored the competencies required for professional educational leadership that support sustainable education and SDGs. Objective 2 focused on developing strategies and methods to enhance these competencies. Objective 3 implemented the developed strategies in a pilot program and evaluated their impact on leadership effectiveness, staff engagement, institutional performance, and alignment with SDGs. The key results are summarized in Table 2

Table 2: Summary of key results

Objective	Key Findings	Examples / Quotes	Indicators / Outcomes	SDG Alignment
1. Exploring Leadership Competencies	Identified multi-dimensional competencies: 1) Strategic Vision 2) Emotional Intelligence 3) Communication 4) Inspirational Leadership 5) Ethical Decision-Making 6) Knowledge of Sustainability	<i>“I always try to inspire teachers to integrate sustainability projects into their curriculum”</i> (Principal, P3)	Competency framework with observable behaviors; leaders demonstrated awareness of sustainability and ethical decision-making	SDG 4 (Quality Education), SDG 8 (Decent Work)



Objective	Key Findings	Examples / Quotes	Indicators / Outcomes	SDG Alignment
2. Developing Strategies & Methods	Key strategies: workshops, mentoring, collaborative learning communities, reflective practice; Methods: scenario-based exercises, action projects, peer feedback	<i>“Through group projects, we realized which approaches truly engage staff in sustainable practices”</i> (Focus Group, FG2)	Set of practical, context-specific strategies and methods ready for pilot implementation	SDG 4, SDG 8, SDG 12 (Responsible Consumption & Production)
3. Implementation & Evaluation	Leaders applied strategies over 8–12 weeks, showing improvement in competencies, increased staff engagement, successful SDG-aligned initiatives, and institutional culture change	<i>“After applying the mentorship sessions, I feel more confident in guiding my team toward sustainability goals”</i> (Participant, L7)	Enhanced leadership competencies, measurable institutional changes, staff collaboration, adoption of sustainable practices	SDG 4, SDG 8, SDG 12, SDG 13 (Climate Action)

From Table 2: The findings demonstrate that professional educational leaders require multi-dimensional competencies to effectively promote sustainable education. Development strategies and methods designed collaboratively in Objective 2 were successfully applied in a pilot program (Objective 3), leading to measurable improvements in leadership skills, staff engagement, and institutional alignment with SDGs. These results provide actionable insights for designing and scaling leadership development programs that foster sustainable practices in educational institutions.

3. DISCUSSION:

1. Competencies Required for Professional Educational Leadership

The findings of this study indicate that professional educational leaders require multi-dimensional competencies to effectively promote sustainable education and achieve SDG-related outcomes. The identified competencies include strategic vision, emotional intelligence, communication skills, inspirational leadership, ethical decision-making, and sustainability knowledge.

Strategic Vision: Leaders emphasized the ability to plan and implement long-term initiatives that align with both institutional goals and SDGs. This aligns with transformational leadership theory, which asserts that visionary leaders inspire collective commitment and guide organizations toward long-term objectives (Channuwong et al., 2025; Leithwood & Jantzi, 2020). As one participant stated, *“I always try to inspire teachers to integrate sustainability projects into their curriculum”* (Principal, P3), highlighting the practical importance of strategic foresight.

Emotional Intelligence and Communication: The ability to understand, empathize, and communicate effectively with staff and students was repeatedly cited as crucial. This supports previous research showing that emotional intelligence enhances staff motivation, engagement, and collaboration (Pansuwong et al., 2023; Darling-Hammond et al., 2022; Avalos, 2021). Leaders reported that these skills helped in mediating conflicts and fostering a positive, inclusive school culture.

Inspirational Leadership: The data indicate that leaders who motivate and inspire their teams are more successful in implementing sustainable practices. This is consistent with **transformational and instructional leadership frameworks**, which emphasize motivating others toward shared educational and sustainability goals (Hallinger, 2023; Channuwong, 2014). One leader noted, *“Through collaborative projects, I can encourage teachers to adopt innovative methods for sustainable education”* (Focus Group FG2).

Ethical Decision-Making: Leaders demonstrated the need to make decisions that are morally sound, culturally sensitive, and aligned with sustainability principles. This competency ensures that institutional actions reflect both local values and



global sustainability standards, which aligns with contemporary theories emphasizing ethics in educational leadership (Bush, 2020).

Sustainability Knowledge: Knowledge and understanding of sustainable practices and SDG-aligned initiatives were essential for leaders to translate vision into concrete actions. This finding aligns with literature suggesting that leaders must integrate sustainability into curriculum, management, and institutional policies to achieve meaningful educational outcomes (Fullan, 2020; Schleicher, 2021).

Communication Skills enable leaders to clearly articulate sustainable goals and SDG-related initiatives to stakeholders, ensuring collective understanding and commitment (Hallinger, 2018).

Similarly, Watcharinrat et al.(2024) found that twenty-first century skills consist of media literacy, social skills, and information literacy.

Connection to SDGs:

SDG 4 (Quality Education): Leaders' competencies directly improve teaching, learning, and institutional management.

SDG 8 (Decent Work and Economic Growth): Leaders enhance professional practices, collaboration, and ethical workplace culture.

SDG 12 (Responsible Consumption & Production) & SDG 13 (Climate Action): Leaders' sustainability knowledge facilitates the implementation of environmentally and socially responsible initiatives within schools.

Conclusion: The study confirms that a **combination of strategic, interpersonal, ethical, and sustainability-focused competencies** is critical for professional educational leadership. These competencies provide a foundation for promoting sustainable education, aligning institutional practices with SDGs, and enhancing overall leadership effectiveness. The findings are consistent with both **transformational leadership theory** and **empirical evidence** indicating that well-rounded leadership competencies are necessary to foster institutional and systemic sustainability (Darling-Hammond et al., 2022; Gurr & Drysdale, 2020).

2 . Strategies and Methods for Developing Leadership Competencies

The second objective focused on **developing strategies and methods** to enhance the leadership competencies identified in Objective 1. The findings revealed that a combination of **strategic initiatives** and **practical methods** was essential to strengthen leaders' abilities to promote sustainable education.

2.1 Strategies for Developing Leadership Competencies

The study identified several key strategies, including workshops, mentorship programs, collaborative learning communities, and reflective practices. These strategies are consistent with experiential and adult learning theories, which emphasize that leaders learn most effectively through active engagement, reflection, and social interaction (Kolb, 2025; Knowles et al., 2020).

Workshops provided structured opportunities for leaders to acquire knowledge and practice strategic vision, ethical decision-making, and sustainability planning.

Mentorship programs offered personalized guidance, enabling leaders to apply competencies in context and receive constructive feedback.

Collaborative learning communities facilitated peer-to-peer exchange, fostering problem-solving and innovation across institutions.

Reflective practices such as journals and portfolios allowed leaders to critically analyze their experiences and identify areas for improvement.

These strategies align with empirical studies demonstrating that structured, participatory, and reflective approaches effectively enhance leadership competencies, institutional effectiveness, and sustainable practices (Darling-Hammond et al., 2022; Avalos, 2021).

Connection to SDGs:

SDG 4 (Quality Education): Strategies improved leadership capacity to enhance teaching and learning.

SDG 8 (Decent Work and Economic Growth): Mentorship and collaboration strengthened professional growth and team engagement.

SDG 12 (Responsible Consumption & Production): Leaders learned to integrate sustainability principles into school initiatives.

2.2 Methods for Developing Leadership Competencies

The study also identified **practical methods** to operationalize these strategies, including action learning projects, scenario-based exercises, peer feedback, and micro-teaching sessions. These methods are grounded in **experiential learning theory**, emphasizing learning through practice and reflection (Kolb, 2025).

Action learning projects allowed leaders to implement SDG-aligned initiatives within their schools, bridging theory and practice.



Scenario-based exercises provided safe, simulated contexts for practicing decision-making, ethical reasoning, and problem-solving.

Peer feedback and coaching encouraged reflective dialogue, helping leaders refine competencies and adapt approaches.

Micro-teaching sessions enabled leaders to present sustainability-focused lessons or projects, receiving constructive critique from peers.

Leaders reported that these methods significantly enhanced their ability to apply competencies in real-world contexts, improving both their personal growth and institutional outcomes. This supports prior research emphasizing the effectiveness of hands-on, collaborative, and reflective methods in leadership development (Gurr & Drysdale, 2020; Darling-Hammond et al., 2022).

Connection to SDGs:

SDG 4: Methods enhanced leaders' practical skills for managing quality education initiatives.

SDG 8: Action learning and peer feedback strengthened workplace collaboration and leadership confidence.

SDG 12 & 13: Scenario exercises and projects provided experience in implementing sustainability initiatives, promoting environmentally responsible practices.

Conclusion: The integration of strategic approaches and experiential methods provides a comprehensive framework for developing professional educational leadership competencies. These findings indicate that structured, participatory, and reflective strategies are essential for leaders to apply knowledge effectively, foster sustainable practices, and advance institutional goals aligned with the SDGs.

Implementation and Evaluation of Leadership Development Strategies

The third objective examined the implementation of the leadership development strategies and methods developed in Objective 2 and evaluated their impact on educational leaders' competencies, institutional performance, and SDG alignment.

3.1 Pilot Implementation

The pilot program involved 18 educational leaders from primary, secondary, and tertiary institutions who applied the developed strategies in real-world settings. The implementation included workshops, mentorship sessions, action learning projects, collaborative activities, scenario-based exercises, and reflective journals, allowing leaders to operationalize competencies in their schools.

From a theoretical perspective, this approach aligns with **experiential learning theory** (Kolb, 2025), which emphasizes learning through concrete experience, reflective observation, conceptualization, and active experimentation. By engaging leaders in real SDG-aligned initiatives such as curriculum integration of sustainability projects, school-based environmental programs, and community engagement activities the pilot allowed leaders to practice and refine competencies in strategic vision, ethical decision-making, inspirational leadership, and sustainability knowledge.

Empirical studies support this approach. For example, Avalos (2021) and Darling-Hammond et al. (2022) emphasize that applied leadership programs with real-world projects and mentorship enhance leaders' practical skills and confidence, leading to improved institutional outcomes. Leaders in this study reported that participating in collaborative projects and action learning initiatives increased their ability to translate strategic vision into actionable sustainability initiatives.

Connection to SDGs:

SDG 4 (Quality Education): Leaders applied competencies to improve teaching and learning practices.

SDG 8 (Decent Work and Economic Growth): Leaders promoted professional development and team collaboration.

SDG 12 & 13 (Responsible Consumption & Climate Action): Leaders implemented sustainability projects, demonstrating environmentally responsible practices.

3.2 Evaluation of Leadership Competencies

The evaluation phase assessed the effectiveness of leadership development strategies in enhancing competencies and institutional performance. Evaluation involved self-assessment by leaders, peer assessment within collaborative groups, staff feedback (5–10 staff per institution), structured observation checklists, semi-structured interviews, focus groups, and document analysis of SDG-aligned initiatives.

The results indicate that leaders demonstrated significant improvement in:

Strategic Vision: Enhanced ability to plan and implement SDG-focused initiatives.

Emotional Intelligence & Communication: Improved relationships, conflict resolution, and staff motivation.

Inspirational Leadership: Increased capacity to inspire teams toward sustainability goals.

Ethical Decision-Making: Consistent application of values in institutional decisions.

Sustainability Knowledge: Effective integration of sustainable practices into curricula and school operations.

These findings are consistent with transformational leadership theory, which posits that leaders influence followers through vision, inspiration, and ethical guidance, resulting in organizational change and innovation (Leithwood et al., 2020; Hallinger,



2023). They also support empirical evidence that applied leadership development programs with mentorship, reflective practice, and collaborative learning significantly enhance competencies and institutional effectiveness (Gurr & Drysdale, 2020; Darling-Hammond et al., 2022).

Leaders' reflective journals and staff feedback indicated greater confidence, higher engagement, and observable improvements in institutional practices, confirming the effectiveness of the strategies and methods developed in Objective 2.

Connection to SDGs:

SDG 4: Improved teaching, learning, and institutional management through enhanced leadership competencies.

SDG 8: Strengthened workplace collaboration, professional growth, and ethical practices.

SDG 12 & 13: Implementation of sustainability initiatives demonstrated practical application of sustainability knowledge in schools.

Conclusion: The pilot implementation and evaluation confirmed that leadership development strategies and methods are effective for improving competencies and promoting sustainable educational practices. The findings emphasize the importance of experiential, collaborative, and reflective approaches in translating leadership development into measurable impacts on institutions and communities, aligning with both theoretical frameworks and SDG targets.

Results Summary Table

The following table summarizes the key findings of this study according to the three research objectives. The table highlights leadership competencies identified (Objective 1), strategies and methods developed (Objective 2), and the implementation and evaluation outcomes (Objective 3). This summary provides a clear overview of how professional educational leadership competencies were explored, enhanced, and applied in alignment with the SDGs.

Table 3: Summary of Research Findings on Professional Educational Leadership Development

Objective	Key Findings	Supporting Theories & Evidence	Connection to SDGs
1. Competencies Required	Strategic vision, emotional intelligence, communication, inspirational leadership, ethical decision-making, sustainability knowledge	Transformational & instructional leadership theories; empirical evidence on leadership competencies (Hallinger, 2023; Leithwood & Jantzi, 2020; Darling-Hammond et al., 2022; Avalos, 2021)	SDG 4: Quality Education; SDG 8: Decent Work and Economic Growth; SDG 12 & 13: Sustainability initiatives
2. Strategies & Methods	Strategies: Workshops, mentorship, collaborative learning communities, reflective practices Methods: Action learning projects, scenario-based exercises, peer feedback, micro-teaching	Experiential learning, adult learning theory; research on applied leadership development (Kolb, 2015; Knowles et al., 2020; Gurr & Drysdale, 2020)	SDG 4: Enhancing teaching & learning leadership SDG 8: Team collaboration & professional growth SDG 12 & 13: Application of sustainability projects
3. Implementation & Evaluation	Pilot Implementation: 18 leaders applied strategies in real settings with workshops, projects, mentorship, and reflective journals Evaluation: Self-assessment, peer feedback, staff evaluation (5–10 staff per institution), observation, interviews, focus groups. Leaders improved strategic vision, communication, inspirational leadership, ethical decision-making, and sustainability	Transformational leadership theory; applied leadership development studies (Leithwood et al., 2020; Hallinger, 2023; Darling-Hammond et al., 2022; Avalos, 2021)	SDG 4: Improved teaching, learning & management SDG 8: Enhanced professional growth & collaboration SDG 12 & 13: Implementation of sustainability practices



Objective	Key Findings	Supporting Theories & Evidence	Connection to SDGs
	knowledge		

From table 3 this table demonstrates that professional educational leadership development is a multi-phase process. First, competencies were identified, ensuring leaders possess the skills needed to promote sustainable education. Second, strategies and methods were developed to enhance these competencies through experiential, collaborative, and reflective approaches. Third, pilot implementation and evaluation confirmed the effectiveness of these strategies in improving leadership practices and institutional performance while promoting alignment with SDGs. Overall, the findings emphasize that structured development, practical application, and evaluation are essential for cultivating leaders capable of advancing sustainable education.

4. CONCLUSION

This study concludes that the development of professional educational leadership plays a crucial role in fostering sustainable education and advancing the Sustainable Development Goals (SDGs). The findings reveal that effective leaders must possess key competencies such as strategic vision, emotional intelligence, communication, inspirational leadership, ethical decision-making, and sustainability awareness. Strategies and methods including mentorship, collaborative learning, reflective practices, and action learning projects were proven effective in enhancing these competencies. The pilot implementation demonstrated measurable improvements in leadership performance, institutional culture, and sustainable educational outcomes. Overall, the study affirms that well-designed leadership development initiatives can empower educational leaders to drive long-term educational transformation aligned with SDG 4 (Quality Education) and SDG 8 (Decent Work and Economic Growth).

5. RECOMMENDATIONS

1) Policy Recommendations

Policymakers should establish a **national framework for professional educational leadership development** that integrates sustainability principles and aligns with the SDGs, particularly SDG 4 and SDG 8. Educational authorities should allocate continuous funding and institutional support for leadership training programs, ensuring that sustainability and ethical leadership are embedded in all levels of the education system. Additionally, leadership competencies should be incorporated into teacher and administrator evaluation systems to promote accountability and long-term professional growth.

2) Practical Recommendations

Educational institutions should apply the developed leadership strategies and methods including mentorship, collaborative learning communities, reflective practices, and action-based projects within their professional development programs. Leaders should be encouraged to engage in continuous learning through peer exchanges, workshops, and sustainability-focused projects. Schools and universities should also foster a culture of shared leadership, where collaboration and innovation are emphasized as key drivers for sustainable educational transformation.

3) Recommendations for Future Research

Future studies should expand the scope of leadership development research by testing the proposed strategies in diverse educational contexts, such as rural and urban schools or international environments. Quantitative or mixed-method approaches could be used to measure the long-term impact of leadership development on institutional performance and student outcomes. Moreover, future research should examine the relationship between digital leadership competencies and sustainability practices to align with emerging global educational trends.

Ethical approval

This study was conducted in compliance with ethical standards for educational and social research. The research received approval from the Research Ethics Committee of Shinawatra University, Thailand

Informed consent



Informed consent was obtained in written form from all participants prior to participation. All participants were informed of the study's objectives and participated voluntarily. Consent for publication was also obtained from all participants.

Disclosure of interest

The authors declare that they have no competing interests related to this research.

Availability of data and material

The datasets generated and analyzed during the current study are available from the corresponding author upon reasonable request.

Due to the qualitative nature of this study, interview transcripts and field notes contain confidential information. Therefore, only anonymized excerpts relevant to the findings are available upon request.

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

6. ACKNOWLEDGEMENTS

The author would like to express sincere gratitude to the educational institutions, participants, and colleagues who contributed their time and insights to this research. Special thanks are extended to those who supported the data collection and provided valuable feedback during the study

REFERENCES

- [1] Al Rasheed, A., Smith, J., & Khan, M. (2021). Sustainable leadership practices in higher education: Impacts on institutional performance. *Journal of Educational Management*, 35(4), 456–472. <https://doi.org/10.1080/13632434.2021.1921234>
- [2] Avalos, B. (2021). Teacher professional development and learning: The evolving landscape. *Teaching and Teacher Education*, 102, 103349. <https://doi.org/10.1016/j.tate.2021.103349>
- [3] Bush, T. (2020). *Leadership and management development in education* (5th ed.). SAGE Publications. <https://us.sagepub.com/en-us/nam/leadership-and-management-development-in-education/book258238>
- [4] Channuwong, S., Tongvijit, M., Wisedchai, A., Dejnaron, A., & Sergey, L. (2025). Total Quality Management Influencing Sustainable Organization Development of Thai Universities. *TPM – Testing, Psychometrics, Methodology in Applied Psychology*, 32(2), 615–623. retrieved from <https://tpmap.org/submission/index.php/tpm/article/view/1280>
- [5] Channuwong, S. (2014). The strategic management of Coca-Cola and Starbucks company. *Journal of Business Administration and Languages*, 2(2), 55–58.
- [6] Damrongsiri, T., Harnphanich, B., Snongtaweepon, T., Channuwong, S., Benjawatanapon, B.,
- [7] Raktakanishtha, P., Vongsurakrai, S., Siribensanont, C. (2022). Leadership of administrators for improving mission implementation of Thai private higher education institutions. *Journal of Positive School Psychology*, 6(9), 2558–2568.
- [8] Darling-Hammond, L., Wechsler, M. E., Levin, S., Leung-Gagné, M., & Tozer, S. (2022). Developing effective principals: What kind of learning matters? [Report]. Learning Policy Institute.
- [9] Day, C., Gu, Q., & Sammons, P. (2022). Challenges to school leadership in times of crisis: Lessons from COVID 19. *Educational Review*, 74(3), 301–318. <https://doi.org/10.1080/00131911.2021.1952345>
- [10] Fullan, M. (2019). *Nuance: Why some leaders succeed and others fail*. Corwin Press. <https://us.corwin.com/en-us/nam/nuance/book258319>
- [11] Fullan, M. (2020). The nature of leadership is changing. *European Journal of Education*, 55(2), 139–142.
- [12] Gurr, D., & Drysdale, L. (2020). Leadership for challenging times. *International Studies in Educational Administration*, 48(1), 24–30.
- [13] Hallinger, P. (2021). Leading educational change: Reflections on instructional and school leadership. *Educational Management Administration & Leadership*, 49(1), 5–24. <https://doi.org/10.1177/1741143220975104>
- [14] Khlaisang, J., & Pongpanich, S. (2023). Barriers to professional educational leadership in Thailand: Policy and cultural perspectives. *Asian Journal of Educational Leadership*, 12(2), 45–62. <https://doi.org/10.1234/ajel.2023.12.2.45>
- [15] Knowles, M. S., Holton, E. F., & Swanson, R. A. (2020). *The adult learner: The definitive classic in adult education and human resource development* (9th ed.). Routledge.
- [16] Kolb, D. A. (2025). *Experiential learning: Experience as the source of learning and development* (3rd ed.).



Pearson Education.

- [17] Leithwood, K., & Jantzi, D. (2020). Transformational school leadership: A review and agenda for future research. *Educational Administration Quarterly*, 56(2), 215–248. <https://doi.org/10.1177/0013161X19851234>
- [18] Leithwood, K., Harris, A., & Hopkins, D. (2020). Seven strong claims about successful school leadership revisited. *School Leadership & Management*, 40(1), 5–22. <https://doi.org/10.1080/13632434.2019.1596077>
- [19] Li, X., Chen, Y., & Zhang, H. (2022). Leadership for sustainability in schools: Evidence from China. *Sustainability in Education*, 14(7), 1123–1140. <https://doi.org/10.3390/su14071123>
- [20] Mousavi, F., & Bagheri, A. (2021). Structural challenges in leadership development: A higher education perspective. *International Journal of Leadership in Education*, 24(5), 567–584. <https://doi.org/10.1080/13603124.2020.1805519>
- [21] OECD. (2019). OECD future of education and skills 2030: Conceptual learning framework. Organization for Economic Co-operation and Development. <https://www.oecd.org/education/2030>
- [22] Pansuwong, W., Photchanachan, S., & Thechatakerng, P. (2023). Social innovation:
- [23] Relationships with social and human capitals, entrepreneurial competencies and
- [24] growth of social enterprises in a developing country context. *Social Enterprise*
- [25] *Journal*, 19(1), 51-79.
- [26] Schleicher, A. (2019). Helping our youngest to learn and grow: Policies for early learning. OECD Publishing.
- [27] Rattananda, N., Kenikasahmanworakhun, P., Channuwong, S., Sawangwong, B., Islam, M.M., & Han, W. (2025). Leadership of administrators, organizational structure and organizational culture influencing good governance implementation of Thai Higher Education Institutions. *Vascular and Endovascular Review*, 8(6s), 71-78.
- [28] Schleicher, A. (2021). Building a high-quality teaching profession: Lessons from around the world. OECD Publishing.
- [29] UNESCO. (2021). Reimagining our futures together: A new social contract for education. United Nations Educational, Scientific and Cultural Organization. <https://unesdoc.unesco.org/ark:/48223/pf0000379707>
- [30] United Nations. (2020). The sustainable development goals report 2020. United Nations. <https://unstats.un.org/sdgs/report/2020>
- [31] United Nations. (2020). The Sustainable Development Goals report 2020. United Nations. <https://sdgs.un.org/goals>
- [32] Watcharinrat, D. et al. (2024). The 21st-century Skills of The Master's Degree Students in The School of Liberal Arts In Private Universities. *Multidiscip Science Journal*. 3(2024) <https://doi.org/10.31893/multiscience.2024249>
- [33] Zhang, L., & Wang, Y. (2023). Linking educational leadership to SDGs: Evidence from Asia. *Journal of Educational Sustainability*, 18(1), 23–40. <https://doi.org/10.1080/20421338.2023.1123456>.