



# International Journal of Advanced Research in Future Ready Learning and Education

Journal homepage:  
<https://karyailham.com.my/index.php/frle>  
ISSN: 2821-2800



## Leading Beyond the Conventional: Creative Leadership Driving School Innovation and Organisational Learning in Malaysia

Tee Rui Jie<sup>1,\*</sup>, Kenny Cheah Soon Lee<sup>1</sup>, Muhammad Faizal A. Ghani<sup>1</sup>, Tee Ying Qin<sup>2</sup>

<sup>1</sup> Department of Educational Management Planning and Policy, Faculty of Education, University Malaya, 50603 Kuala Lumpur, Malaysia

<sup>2</sup> Department of Early Childhood Education, Faculty of Human Development, Sultan Idris Education University, 35900 Perak, Malaysia

### ARTICLE INFO

#### Article history:

Received 17 September 2025

Received in revised form 14 October 2025

Accepted 1 November 2025

Available online 13 November 2025

#### Keywords:

Creative leadership; educational change; Malaysian education; organisational learning; school innovativeness; transformation

### ABSTRACT

This study investigates how creative leadership enables school innovativeness and organisational learning within the Malaysian education context. Using a qualitative multi-case study design, the research explores leadership practices across three schools, drawing on interviews, open-ended questionnaires, observations and artefacts. It involved interviews with two school leaders and two teachers from each school, questionnaires completed by seven subject teachers per school and observations conducted across three schools in three separate lessons. Data were gathered using thematic analysis, allowing patterns to emerge from the participants' experiences and perspectives. Guided by Sternberg's WICS model and Lewin's Force Field Theory, the study finds that visionary and courageous principals foster inclusive cultures of innovation through distributed leadership, flexible pedagogy and emotional intelligence. Key themes show creative leadership empowers teachers through decentralised decision-making, collaborative problem-solving and reflective organisational learning, all contributing to school innovativeness and successful school transformation. Despite systemic barriers such as policy rigidity, resistance to change and limited resources, creative leadership emerged as a vital force in navigating complexity and promoting resilience. The study contributes to theory by positioning creative leadership as a holistic, context-responsive model integrating emotional, cognitive and strategic dimensions of change. Practical and policy implications include leadership training programmes focused on adaptability, emotional intelligence and innovation management, along with curriculum reforms promoting creative pedagogies and professional collaboration. Future research should examine leadership adaptability and professional learning as key drivers of educational innovation across diverse contexts.

## 1. Introduction

### 1.1 Background of Study

Our society is undergoing rapid transformation due to globalisation, technological advances and the effects of COVID-19, which have increased complexity and uncertainty across sectors, including

\* Corresponding author.

E-mail address: [ruijietee123@gmail.com](mailto:ruijietee123@gmail.com)

<https://doi.org/10.37934/frle.41.1.1130>

education [1,2]. Research indicates that the pandemic exposed structural limitations, compelling schools to adopt remote learning and reassess traditional assumptions about leadership, pedagogy and organisation [3,4]. Consequently, scholars argue that schools must undergo radical transformation to keep pace with accelerating societal change and to maintain relevance in an evolving educational landscape [5].

To address these challenges, education systems are increasingly urged to cultivate 21<sup>st</sup> century skills such as creativity, adaptability and critical thinking [6]. Developing these skills enable learners to navigate an increasingly volatile world [7] by acquiring future-oriented competencies that align with both global and local educational contexts [8]. In response, schools are encouraged to adopt agile and inclusive approaches to navigate technological and societal change effectively [9]. Furthermore, scholars suggest that traditional hierarchical leadership models are insufficient for achieving organisational adaptability [10]. Instead, effective leaders are expected to demonstrate creativity and collaboration [11] as well as empathy and vision [12], thereby fostering cultures of innovation and organisational learning [13].

In Malaysia, leadership remains constrained by centralised governance and exam-focused accountability [14]. Despite reforms promoting autonomy and professional development [15], opportunities for innovation remain limited [16]. Hence, school leaders continue to face considerable challenges in fostering creative and innovative cultures [17]. This research investigates how creative leadership is implemented by principals in the Malaysian schools and how it contributes to fostering innovation and organisational learning. Using a qualitative multi-case study approach, the study aims to examine the experiences, strategies and challenges encountered by school leaders as they navigate the demands of creative leadership. In doing so, it addresses an important gap in the literature and provides practical insights into how Malaysian schools can transition towards more innovative and future-ready models of leadership.

## *1.2 Literature Review*

### *1.2.1 Creative leadership*

Creative leadership refers to the ability to envision, generate, and implement original yet effective ideas that drive meaningful organisational change, particularly within education. Unlike traditional hierarchical models, it has been described as integrating wisdom, intelligence, and creativity to achieve sustainable transformation [18], while also encompassing adaptability, collaboration, risk-taking, and the capacity to foster creativity in others [19]. Rooted in emotional intelligence and reflective practice [20], creative leadership promotes teacher autonomy, professional growth, and innovation [21], including the integration of digital tools and interdisciplinary approaches [22]. Moreover, it has been shown to foster collaboration and empowerment [23], with creativity recognised as the foundation for developing broader classroom competencies [24]. Ultimately, creative leadership transforms schools into adaptive learning organisations through shared decision-making and a sustained focus on human potential [25].

### *1.2.2 Organisational learning*

Organisational learning (OL) enhances a school's capacity to adapt and innovate through knowledge creation, sharing and institutionalisation at individual, group and institutional levels [26,27]. OL involves four key processes: intuiting, interpreting, integrating and institutionalising insights to embed learning across the organisation [28]. In schools, OL supports collaborative cultures, flexible pedagogy and continuous improvement. This is achieved when leaders build trust

and shared vision [29], establish psychological safety that encourages experimentation [30] and embrace open innovation mindsets which drive digital transformation and collective growth [31].

### *1.2.3 School innovativeness*

School innovativeness involves not only introducing new pedagogies, technologies and organisational processes but also creatively reinterpreting existing practices [32]. Principals play a central role in driving such innovation by fostering collaboration, trust and shared ownership among staff, thereby enhancing overall school improvement [33]. When teachers are empowered, they help build positive innovation climates that promote engagement and professional growth [34], while supportive environments further strengthen teacher efficacy and confidence [35]. Innovative schools are distinguished by pedagogical practices that nurture critical and creative thinking through exploratory and problem-solving approaches [36], adopt flexible, student-centred methods that enhance adaptability [37] and maintain progress through collective teacher collaboration and reflective practice [38].

### *1.2.4 Malaysian educational context*

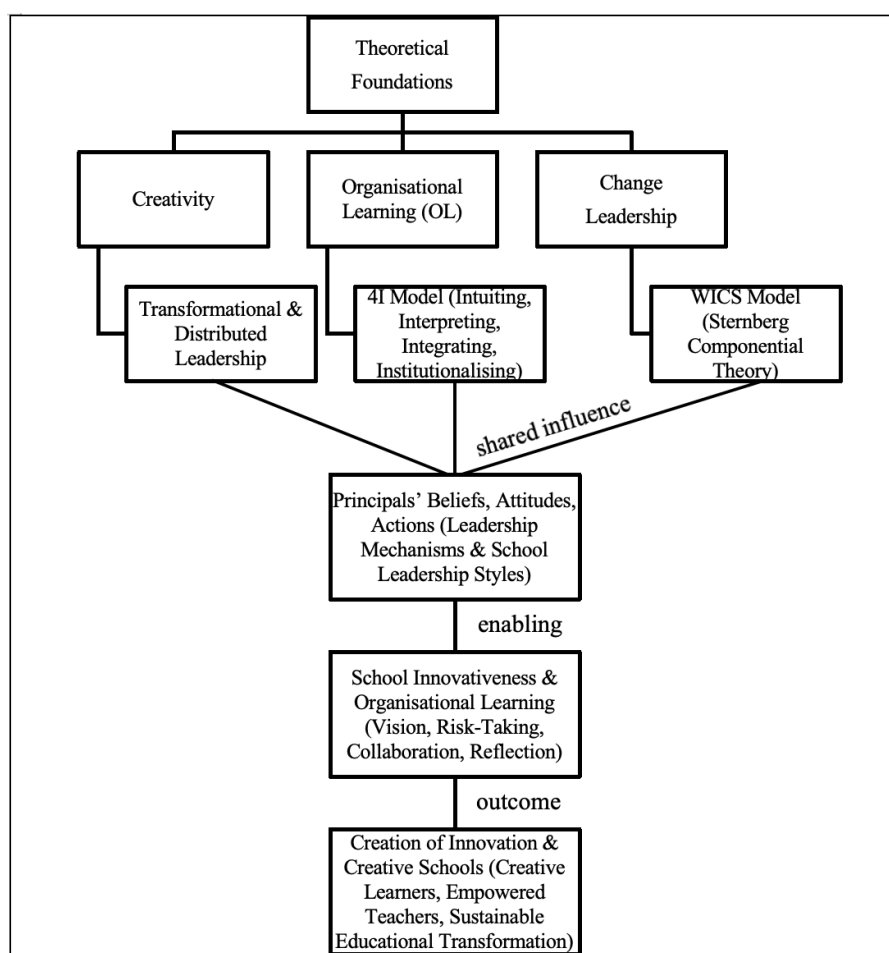
The Malaysian education system remains highly centralised, with top-down decision-making, strong accountability and an emphasis on examination performance. Although the Malaysia Education Blueprint 2013–2025 promotes innovation and autonomy, rigid structures and standardised assessments continue to limit school-level creativity [39,40]. Prescriptive professional development further restricts teachers' ability to respond to changing educational needs [41]. The COVID-19 pandemic exposed these weaknesses, as schools had to adopt digital tools and remote learning that required greater flexibility [42]. In this context, principals' digital leadership became vital for supporting instructional adaptation and maintaining learning continuity [43], while adaptive leadership—centred on responsiveness, innovation and community engagement—enhanced organisational resilience [44].

Despite growing recognition of the importance of creative leadership, organisational learning and school innovativeness, there is limited empirical evidence on how these concepts are enacted and interconnected within Malaysian schools. Most existing studies focus on theoretical models or Western contexts, offering little insight into how principals practise creative leadership amid centralised governance and exam-oriented cultures. This highlights the need for contextually grounded research that explores how school leaders foster innovation and organisational learning within these constraints. Accordingly, this study investigates how creative leadership is implemented in Malaysian schools and how it contributes to building more adaptive and future-ready educational environments. Advancing creative leadership in Malaysia therefore requires distributed, context-sensitive approaches supported by professional development that nurtures innovation and inclusivity.

## *1.3 Theoretical Framework*

This study draws on Sternberg's WICS framework and Lewin's Force Field Theory to examine how creative leadership fosters innovation and organisational learning in schools. Creative leadership entails generating original yet relevant ideas, guiding purposeful change and inspiring collective innovation. Sternberg's WICS model situates leadership at the intersection of Wisdom, Intelligence and Creativity, balancing visionary thinking, ethical judgement and practical implementation [45].

Lewin's Force Field Theory complements this by framing change as the interplay between driving forces that promote progress and restraining forces that maintain the status quo, with principals strengthening enablers such as trust and collaboration while addressing barriers like rigid policies and limited resources [46]. Research on change leadership shows that transformational leadership inspires collective purpose and drives improvement [47,48], while distributed leadership fosters shared responsibility and agency within schools [49]. Studies on organisational learning highlight how knowledge sharing and reflective practice promote innovation and adaptability [50], and research on creativity emphasises the importance of intrinsic motivation in sustaining creative performance [51]. This integrated framework explains how schools become adaptive, innovative and future-ready as shown in Figure 1 below.



**Fig. 1.** Theoretical framework of creative leadership

In light of the reviewed literature, it is evident that while creative leadership has gained increasing recognition as a transformative force in education globally, research on its application and impact within the Malaysian school context remains limited and fragmented. Most existing studies have focused on specific regions, school types or single perspectives—often relying solely on teachers' or principals' views—resulting in a lack of comprehensive understanding of how creative leadership is practised and experienced across different school settings. Moreover, there remains a gap between theoretical discussions on creative leadership and its practical implementation in everyday school management, teaching and learning. This study therefore seeks to address these gaps by exploring how school principals enact creative leadership to foster innovation, professional growth and collaborative cultures within Malaysian schools. The research is significant as it contributes empirical

evidence to an underexplored area, offering insights that may guide educational leaders, policymakers and teacher development programmes towards cultivating more creative, adaptive and future-ready schools in Malaysia. Ultimately, the main objective of this research is to investigate how creative leadership is implemented by school principals to develop innovative schools and to examine its influence on teachers' and students' creativity within the Malaysian educational context.

## **2. Methodology**

### ***2.1 Research Paradigm and Design***

This study was guided by Lincoln and Guba's interpretive paradigm, which views reality as socially constructed and best understood through participants lived experiences [52]. Such a paradigm privileges insider perspectives, allowing the researcher to explore how participants interpret creative leadership in context. A qualitative approach was therefore appropriate for examining the complex social processes within schools [53,54]. Employing a multi-case study design, the research combined phenomenological interviews, observations, open-ended questionnaires and the collection of artefacts, generating comparative insights into leadership practices across three schools.

### ***2.2 Participants and Sampling***

Three schools in Malaysia were selected: an international school in Negeri Sembilan (School A), a government school in Perak (School B) and an international school in Kuala Lumpur (School C). This diversity allowed exploration across varied educational contexts. Sampling was purposive and snowball in nature, focusing on schools known for innovation and flexibility [55]. Participants included 12 school leaders and teachers interviewed, alongside 21 teachers who completed open-ended questionnaires. School leaders were defined as deputy principals or heads of departments, providing close perspectives on principals' leadership. Individuals recognised for openness, resilience and innovation were prioritised [56].

### ***2.3 Data Collection and Analysis***

Data were gathered between May and August 2023. Semi-structured interviews elicited detailed accounts of leadership, while questionnaires captured wider teacher perspectives. Observations and artefacts enriched contextual understanding. Data collection continued until saturation was reached. Analysis employed thematic coding, following grounded theory techniques of open, axial and selective coding, supported by ATLAS.ti. Constant comparison and memo-writing refined categories, while triangulation enhanced validity.

### ***2.4 Trustworthiness and Ethics***

This study ensured validity and reliability through accurate procedures, consistent findings and triangulation of interviews, observations, questionnaires and artefacts. Member checking and peer review reduced bias and enhanced credibility. Prolonged engagement, data saturation and rich descriptions strengthened validity and transferability. Ethical standards were upheld with UMREC approval, site access from principals and informed consent. Participation was voluntary, anonymous and withdrawal allowed. Data were securely stored, pseudonymised and scheduled for deletion after completion.

### 3. Findings

The study demonstrates how creative leadership fosters innovation in Malaysian schools. Drawing on interviews, questionnaires, observations and artefacts, it identifies leadership definitions, roles, strategies and challenges. Findings highlight supportive environments, varied pedagogies and effective communication, showing creative leadership's central role in cultivating innovation, empowering teachers and enhancing student learning.

#### 3.1 Interview Analysis

Across Schools A, B and C, creative leadership was widely understood as involving innovation, originality and the courage to take risks. In School A, creativity was defined as generating new knowledge and challenging conventions; in School B, it centred on forward-thinking approaches that make learning meaningful; and in School C, it emphasised experimentation and openness to new ideas. School leaders viewed creativity as a driver of institutional and societal progress, while teachers interpreted it more practically, linking it to classroom engagement, autonomy and adaptive teaching.

**Table 1**  
Summary of interview analysis

Subtopics	Main Themes	School Leaders' Perspective	Teachers' Perspective
<b>Definition of creative leadership</b>	Innovative vision, courageous leadership, impactful progress	Challenge norms, foster innovation, promote societal advancement	Focus on practical pedagogy, engagement and innovation
<b>Characteristics of creative leaders</b>	Visionary communication, resilience & organisation, collaboration	Inspire vision, manage change, build trust and openness	Value clear direction, structure and motivational support
<b>Role of principal</b>	Strategic direction, trust & inclusion, holistic culture	Visionary, empowering mentors and change agents	Appreciate empowerment, communication, daily guidance
<b>Strategies and implementation</b>	Dynamic pedagogy, inclusive practices, collaborative growth	Promote tech, risk-taking, curriculum flexibility, feedback	Implement autonomy-driven, differentiated, inclusive learning
<b>Perception: Working with creative leader</b>	Inspirational climate, collective success, well-being	Model integrity, foster well-being, enhance morale	Feel heard, valued, and emotionally supported
<b>Perception towards creative leadership</b>	Transformation, innovation & inclusivity, societal empowerment	Guide change, create space for experimentation	Report better practices, student outcomes, teacher autonomy
<b>Feasibility/effectiveness of strategies</b>	Collaboration & communication, learning culture, student responsibility	Encourage trust, align goals, promote mutual growth	Stronger ties, inclusive spaces, mutual growth
<b>Impacts of creative leadership</b>	Teaching innovation, cultural shift, empowerment	Foster growth mindset, safe environment, creativity	Deliver exploratory, real-world, student-focused lessons
<b>Issues and challenges</b>	Cultural resistance, systemic constraints, pressure & fear	Highlight resistance, societal conformity, systemic limits	Struggle with workload, fear of judgement, curriculum pressure

The characteristics and roles of creative leaders were consistently described as visionary, communicative, and collaborative. In School A, leaders inspired innovation through questioning and flexibility; in School B, authenticity and trust were central; and in School C, confidence and transparency characterised leadership. Principals across the schools acted as strategic guides, mentors and change agents who promoted open communication, inclusivity and holistic development. Teachers viewed these qualities as empowering, fostering teamwork, respect and a positive learning culture.

In terms of implementation, creative leadership was enacted through innovative pedagogy and inclusive, student-centred practices. School A prioritised experiential and technology-enhanced learning; School B adopted 21st-century pedagogies and encouraged student voice; and School C emphasised collaboration, diversity and reflection. These approaches enhanced creativity, motivation, and school-wide collaboration. Despite these successes, several challenges persisted: School A struggled with traditional “spoon-feeding” habits and limited resources, School B faced workload and cultural resistance and School C contended with exam-oriented and parental pressures. Overall, while contextual barriers remained, creative leadership across all three schools fostered innovation, inclusivity, and a culture of empowerment that enhanced both teaching and learning.

In short, the interview responses gathered from the school leaders and teachers were analysed into different sub-codes which are then categorised into 9 subtopics. They are then summarised into 3 main themes for each subtopic. Table 1 above shows the summary of the interview analysis.

### *3.2 Open-ended Questionnaires Analysis*

#### *3.2.1 Perceptions on creative leadership*

Teachers across all three schools described creative leadership as a multifaceted construct involving innovation, adaptability, empowerment and the cultivation of a supportive, inclusive culture. In School A, it was seen as moving beyond traditional approaches to generate practical solutions, adapting ideas to local contexts and anticipating challenges. Teachers highlighted the importance of a shared vision, open communication and inspiring others through autonomy and emotional support. In School B, creative leadership was linked to practical innovation, risk-taking and responsiveness to dynamic contexts, with principals fostering diverse perspectives, inclusive decision-making and psychological safety. School C emphasised nurturing talent, encouraging idea-sharing and modelling creative behaviours, with principals actively listening, valuing diverse viewpoints and inspiring trust, confidence and motivation through empowerment and equitable delegation.

#### *3.2.2 School development*

Creative leadership was regarded as essential for shaping collaborative, inclusive and innovative learning environments. In School A, it encouraged experimentation, teamwork and risk-taking, supported by technology integration, varied teaching strategies and student-centred approaches. A positive climate grounded in recognition, fairness and emotional support sustained motivation and growth. In School B, it promoted curriculum flexibility, student ownership and holistic learning addressing academic, social and emotional needs, fostering autonomy and resilience. School C emphasised student independence, collaboration and active learning through flexible environments, open-ended questioning and project-based activities, while involving parents and the community to strengthen shared ownership.

### 3.2.3 Issues and challenges

Teachers identified barriers including systemic rigidity, exam-focused curricula, resource constraints and resistance to change. School A noted workload pressures, limited planning time and fear of failure. School B cited large classes, uneven leadership support, limited training, inadequate digital tools and cultural norms favouring exams over experimentation. School C highlighted hierarchical structures, fixed mindsets, time pressures and insufficient infrastructure or professional development, weakening shared vision and momentum.

### 3.2.4 Application in context

Despite constraints, practical strategies supported creative leadership. School A employed in-house training, professional learning communities PLCs, collaborative decision-making and supportive leadership.

**Table 2**

Summary of open-ended questionnaire analysis

Sections	Main Themes	School A	School B	School C
<b>Perceptions on creative leadership</b>	Innovation, adaptability, empowerment	Emphasised practical innovation, contextual adaptability, shared vision, autonomy and emotional support.	Linked to risk-taking, inclusive decision-making, psychological safety and support for diverse perspectives.	Focused on nurturing talent, embracing diversity of thought, trust-building, equitable delegation and calculated risk-taking.
<b>School development</b>	Learning culture and student growth	Promoted experimentation, teamwork, tech integration and student-centred approaches. Positive climate grounded in emotional support.	Encouraged flexible curriculum, student ownership and holistic learning. Supported autonomy and self-directed learning.	Fostered independence, active learning, collaboration and community engagement through project-based learning and parental involvement.
<b>Issues and challenges</b>	Systemic constraints and resistance	Faced issues like workload, limited planning time, lack of funding/support and fear of failure.	Challenges included large class sizes, inadequate digital tools, inconsistent support and exam-centric culture.	Identified hierarchical barriers, fixed mindsets, time pressure, lack of infrastructure and poor communication as obstacles.
<b>Application in context</b>	Strategies and practical enactment	Implemented PLCs, collaborative decision-making, open communication and leadership modelling. Created a supportive, non-toxic school culture.	Emphasised CPD, mentoring, team-based learning, curriculum relevance and inclusive dialogue in a respectful and empowering environment.	Applied flexible teaching, student-led projects, digital tools, higher-order thinking strategies and collaborative initiatives to build trust and innovation.



School B emphasised continuous professional development (CPD), mentoring, team-based learning and real-world curriculum relevance. School C integrated flexible practices, student-led projects and digital tools, fostering growth mindsets, higher-order thinking and collaborative, trust-based learning environments.

To sum up, the open-ended questionnaire used in this study was divided into 4 sections and all the responses collected from the different subject teachers from all 3 schools were coded and categorised into themes. The themes were then merged into main themes which is shown in table 2 above.

### *3.3 Observation Analysis*

#### *3.3.1 School A*

The classroom observation of a Science lesson in School A demonstrated effective pedagogical practices across lesson stages. The teacher skillfully employed multimedia resources, hands-on experiments and collaborative activities to enhance students' engagement and participation in the classroom. Set induction stimulated students' curiosity through visual aids, while the presentation phase accommodated diverse learning styles. The activities conducted in the practice phase emphasised experiential learning, with science experiments promoting active knowledge application. Production phase fostered autonomy through structured group work, developing both subject understanding and teamwork skills. The lesson concluded with higher-order thinking exercises to consolidate learning. Overall, the teacher showed adaptability in pacing instruction and modifying explanations based on student responses. Clear communication and differentiated strategies-maintained engagement while catering to varied abilities, creating a balanced learning environment that combined curriculum delivery with creative exploration.

#### *3.3.2 School B*

Classroom observation in School B's English lesson demonstrated highly effective, multi-sensory teaching approaches. The teacher skilfully engaged students through an interactive set induction using a calendar and song, followed by the presentation phase incorporating a guessing game, pair work and a hands-on practice activity (i.e., a Christmas-themed treasure hunt). The production phase fostered creativity through an art and craft session, while poetic recitation as a class provided a meaningful closure. The lesson consistently employed visual, auditory and kinesthetics strategies to accommodate diverse learners, with clear instructions ensuring smooth implementation. These methods created an energetic yet structured learning environment where students actively participated, made personal connections to the material and developed language skills through relevant, enjoyable activities that maintained high motivation throughout.

#### *3.3.3 School C*

The Geography lesson on deforestation at School C exemplified exemplary teaching practices through its well-structured phases. The set induction effectively engaged students using contrasting images and "Think-Pair-Share" discussions. The presentation phase incorporated digital research via iPads, fostering independent inquiry and critical thinking about deforestation causes. Students then consolidated knowledge through individual mind-mapping activities during practice. The production phase transitioned to collaborative poster creation, promoting environmental advocacy and teamwork. The lesson concluded with a documentary screening and reflective discussion, connecting

classroom learning to real-world applications. Throughout, the teacher skilfully blended visual, auditory and kinesthetics approaches while maintaining clear communication and adaptability to different learning styles.

**Table 3**  
Summary of observation analysis

School	Subject observed	Teaching strategies	Learning approaches, outcomes and environment
School A	Science	<ul style="list-style-type: none"> <li>- Multimedia and visual aids for set induction</li> <li>- Hands-on experiments</li> <li>- Collaborative group activities</li> <li>- Higher-order thinking exercises</li> </ul>	<ul style="list-style-type: none"> <li>- Experiential learning</li> <li>- Differentiated instruction</li> <li>- Structured group work</li> <li>- Responsive pacing and explanations</li> <li>- Active student engagement</li> <li>- Development of subject mastery and teamwork</li> <li>- Clear communication and adaptability created a balanced environment fostering creative exploration alongside curriculum goals</li> </ul>
School B	English	<ul style="list-style-type: none"> <li>- Calendar and song for interactive set induction</li> <li>- Guessing game and pair work</li> <li>- Themed treasure hunt for practice</li> <li>- Art &amp; craft for production</li> <li>- Poetic recitation for closure</li> </ul>	<ul style="list-style-type: none"> <li>- Multi-sensory (visual, auditory, kinesthetic) approach</li> <li>- Creative expression</li> <li>- Personal connections to content</li> <li>- Highly motivated students</li> <li>- Structured yet energetic learning environment</li> <li>- Clear, consistent instructions ensured inclusivity and active participation</li> </ul>
School C	Geography	<ul style="list-style-type: none"> <li>- Contrasting images and Think-Pair-Share in set induction</li> <li>- Use of iPads for digital research</li> <li>- Mind-mapping for practice</li> <li>- Poster creation in production</li> <li>- Documentary viewing and reflection for closure</li> </ul>	<ul style="list-style-type: none"> <li>- Inquiry-based learning</li> <li>- Critical thinking and advocacy</li> <li>- Collaborative and independent tasks</li> <li>- Multi-modal delivery</li> <li>- Deepened real-world understanding</li> <li>- Engaged students through autonomy and environmental relevance</li> <li>- Inclusive, reflective and student-centred learning culture</li> </ul>

Observations were carried out to gain deep insights into the existence and application of creative leadership in the teaching and learning processes as described above. The summary of the observations conducted in the three selected schools is shown in Table 3 above.

### 3.4 Artefact Analysis

Photographic artefacts from Schools A, B, and C illustrated how creative leadership was embedded in both physical and pedagogical design. The four key themes which are: collaborative learning spaces, visual celebration of creativity, integration of technology and holistic student development show that creative leadership actively shaped school culture and learning practices.

Across the schools, classroom and shared spaces encouraged interaction, critical thinking and collaboration through flexible layouts and student-centred arrangements. Visual displays of student work and thematic exhibits celebrated achievement and made learning visible, transforming corridors and classrooms into vibrant learning galleries. Technology was also seamlessly integrated, with smartboards, multimedia tools, and digital resources supporting interactivity, innovation, and digital literacy.

Holistic student development further reflected leadership that valued emotional and social growth alongside academic success. Creative spaces, experiential learning, and extracurricular initiatives promoted well-being and self-expression. Collectively, the artefacts revealed purposeful, inclusive environments where creative leadership translated into tangible practices that empowered both teachers and students.

These artefacts act as additional evidence through pictures and descriptions of the different venues in the three schools. They were able to support and enrich the qualitative findings of the study on creative leadership. The summary of the artifacts collected from all three schools are tabulated in the table below.

**Table 4**  
Summary of artefact analysis

Themes	School A	School B	School C
<b>Collaborative learning spaces</b>	Group seating, discussion corners and multipurpose rooms to encourage peer engagement and critical thinking.	Adaptive designs in classrooms and libraries facilitated a variety of learning tasks and flexible instruction.	Student-centred space arrangements promoted agency and collaboration, reflecting interactive and inclusive pedagogy.
<b>Visual celebration of creativity</b>	Display of student work, thematic charts and public recognition of achievement reinforced learning and confidence.	Creative displays celebrated students' effort and encouraged self-expression, contributing to a vibrant and affirming environment.	Classrooms and corridors were designed as learning galleries to showcase creativity, stimulate pride, and support expression.
<b>Integration of technology</b>	Use of smartboards and classroom computers for interactive and engaging instruction.	Multimedia tools embedded in teaching supported 21st-century skills and enhanced lesson delivery.	Digital resources facilitated project-based learning and digital literacy, demonstrating leadership committed to innovation and adaptability.
<b>Holistic student development</b>	Dedicated rooms for art and music supported students' emotional, social and creative growth.	Hands-on activities such as cooking and design tasks promoted experiential, real-world learning.	Sports facilities, play areas and extracurriculars supported physical and emotional well-being and holistic development.

### **3.5 Triangulation**

The study employed methodological triangulation to validate findings on creative leadership, integrating interviews, questionnaires, observations and artefacts. Consistent themes emerged across methods, with innovation, adaptability and student-centred approaches identified as core leadership traits. Interview accounts of pedagogical strategies were corroborated by classroom observations, while questionnaires confirmed widespread recognition of creative leadership's impact. Artefacts, such as collaborative classroom layouts and technology use, provided tangible evidence of these practices. Triangulation also revealed shared challenges, including resistance to change and resource constraints. This convergence demonstrated how leadership philosophies translated into practice, ensuring findings accurately reflect the complexities of creative leadership in schools.

## **4. Discussion**

This study examined the ways in which creative leadership shaped the development of innovative school environments through the perspectives of school leaders and teachers. Drawing on qualitative data, the findings aimed to: (1) examine teachers' and (2) school leaders' views on creative leadership approaches; understand how such leadership fostered school innovation according to (3) teachers and (4) leaders; (5) identify obstacles in executing creative initiatives; and (6) formulate a conceptual model for creative leadership development.

### **4.1 Perceptions of Creative Leadership**

This study demonstrated how teachers and school leaders perceived creative leadership as a transformative approach vital for fostering innovation, adaptability and inclusive learning. Across all three schools, creative leadership was understood as a multifaceted practice combining visionary thinking, courageous action and collaborative empowerment to address contemporary challenges. Principals promoted "thinking beyond the norm" and "turning ideas into reality", while teachers valued environments that encouraged problem-solving and risk-taking. These perceptions resonated with transformational leadership theory [57] and distributed leadership models [58], particularly in cultivating psychological safety for experimentation alongside strategic direction.

Courageous leadership emerged as especially significant in post-pandemic contexts, with effective principals described as authentic, resilient and willing to embrace failure as part of learning. This quality, evident in School A's positive reinforcement and School C's role-modelling, reinforced arguments by Mutch [59] and Harris and Jones [60] on the value of adaptive, emotionally intelligent leadership during disruption. Visionary communication also proved central, with teachers highlighting the importance of leaders who set clear goals while enabling dialogue, aligning with Hargreaves and Fullan's notion of "coherence-making" [61].

Transformative outcomes were strongest where leadership empowered teachers through professional development, autonomy and collaboration, facilitating interdisciplinary, differentiated and technology-enhanced practices that advanced inclusion and student engagement. Importantly, participants in School C linked creative leadership to broader community development, reflecting equity-centred innovation [62] and collective agency [58].

Figure 2 below shows the overview of teachers' and school leaders' perceptions of creative leadership practices in all the 3 schools.



**Fig. 2.** Overview of perceptions of creative leadership practices

#### 4.2 Perceptions on the Impact on Innovative School Development

This section demonstrated how teachers and school leaders perceived creative leadership as a catalyst for educational innovation across six interconnected dimensions. Findings revealed that such leadership reshaped teaching and learning ecosystems by advancing progressive pedagogies, inclusive practices and organisational growth. At the pedagogical level, creative leadership enabled a paradigm shift from traditional instruction to student-centred approaches. Teachers reported implementing project-based learning, differentiated instruction and digital tools, while leaders emphasised authentic assessments over standardised testing. These practices aligned with educational paradigms that prioritise higher-order thinking skills and digital literacy [63], reflecting the adaptive principles of situational leadership [64].

Creative leadership also cultivated inclusive ecosystems that valued diversity and student voice. Learning environments were designed with flexible spaces, differentiated support and community-connected projects, consistent with universal design for learning principles [65] and inclusive education frameworks [66]. Initiatives such as School A's community mapping and School C's community-engaged projects operationalised inclusion as both pedagogy and institutional ethos. A culture of continuous improvement was fostered through collaborative professional development, reflective practices and innovation cycles. School B's action research and School C's cross-departmental learning communities exemplified Senge's notion of learning organisations [67]. Parallel to this, collaborative professionalism emerged as significant, with networks of mentoring, peer observation and community partnerships strengthening professional capital [68] and extending distributed leadership [49].

Relational trust was identified as foundational, with emotionally intelligent leaders modelling vulnerability, active listening and recognition, thereby creating psychological safety for experimentation [69]. Finally, creative leadership integrated academic excellence with wellbeing and character education, reflecting global reform agendas that define student success holistically [54]. Theoretically, the study synthesised transformational, distributed and instructional leadership, while practically offering evidence-based strategies for cultivating sustainable innovation cultures in 21st-century schools.

Figure 3 below shows the overview of teachers' and school leaders' perceptions of creative leadership practices in all the 3 schools.



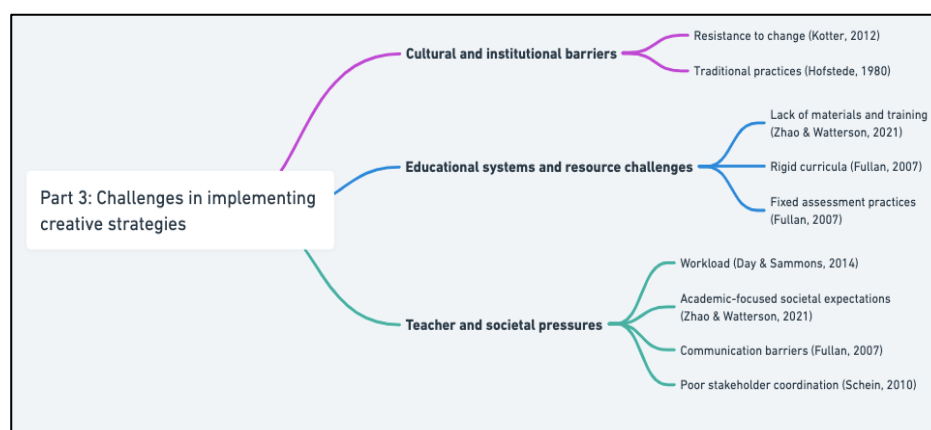
**Fig. 3.** Overview of perceptions of creative leadership facilitation on the development of innovative schools

### 4.3 Challenges in Implementing Creative Leadership

The implementation of creative leadership in schools was constrained by three interrelated categories of challenges: cultural-institutional barriers, systemic-resource constraints and teacher-societal pressures. Cultural resistance, rooted in entrenched norms and traditional mindsets, impeded innovation across all three schools. Teachers of BM, MT and ART in particular resisted pedagogical changes, reflecting Schein's view of organisational inertia and Hofstede's cultural dimensions theory, where high uncertainty avoidance fostered reluctance to adopt new approaches [70]. Principals applied transformational leadership strategies to gradually shift institutional cultures [71], though this proved arduous given the embedded traditions.

Systemic rigidity and resource limitations also hindered creative practice. Standardised curricula and assessment regimes in Schools A and B constrained pedagogical flexibility, echoing Fullan's critique of the accountability–innovation tension [72]. Material deficiencies, including limited technological tools and professional learning opportunities, further created implementation gaps. The Malaysia Education Blueprint (2013–2025) acknowledged these challenges, calling for reforms that reconcile accountability with creativity.

Finally, teacher workload and societal expectations presented barriers. Administrative burdens curtailed experimentation [73], while societal prioritisation of exam performance over creativity, particularly evident in ENG and ART subjects, disincentivised innovation. Bronfenbrenner's ecological framework contextualised how these macro-level pressures permeated schools, underscoring the need for leadership strategies that integrate cultural change, resource provision and policy reform.



**Fig. 4.** Overview of the issues and challenges in implementing creative Strategies

#### 4.4 Conceptual Model

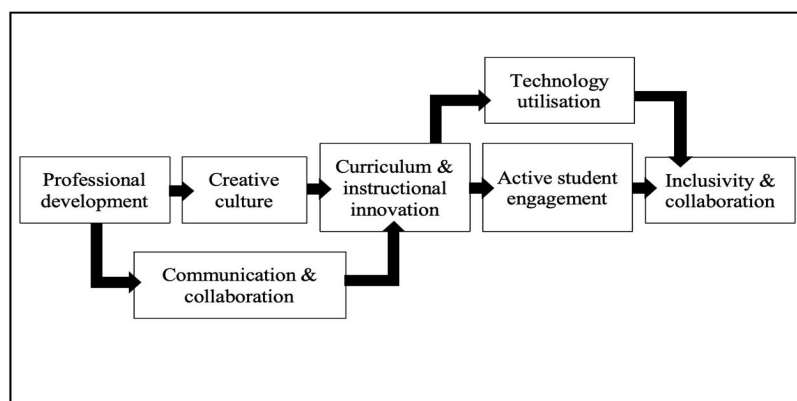
This study proposed an integrated conceptual model of creative leadership in schools, comprising seven interlocking components designed to foster innovation while addressing systemic challenges. Grounded in empirical evidence from multiple case studies, the framework provides a structured yet flexible roadmap for cultivating creative educational environments as shown in Figure 5 below.

At its foundation, the model emphasises continuous professional development through targeted training, mentorship and collaborative learning structures. These initiatives address competency gaps while promoting reflective practice, aligning with research on teacher agency and professional capital [74]. Technology integration featured prominently, recognising digital pedagogy as a catalyst for innovation and a means of mitigating resource limitations.

A creative organisational culture was identified as central, with practices institutionalised to celebrate innovation, incorporate student voice and create psychological safety for experimentation [69]. Drawing on ecological systems theory, the model positioned schools as dynamic mesosystems in which micro-level interactions collectively shape institutional culture. Communication emerged as a critical enabler, with professional learning communities and digital platforms supporting interdisciplinary collaboration, reflecting principles of distributed leadership [49].

Pedagogically, the model foregrounded curriculum and instructional innovation through project- and inquiry-based learning that transcends disciplinary boundaries, with authentic performance assessments prioritising higher-order thinking skills [6]. Technology was framed as transformative, advocating immersive tools and AI-powered platforms to personalise learning for diverse and multilingual learners, echoing evidence on technology's role in inclusive pedagogy [75].

Student engagement was promoted through experiential, student-led and community-connected projects that enhanced cognitive and non-cognitive outcomes [76]. Inclusivity was embedded across all dimensions, with differentiated instruction, universal design for learning and community partnerships addressing equity gaps while leveraging diversity as a resource for innovation [77]. Theoretically, the model synthesised transformational, distributed and organisational learning perspectives, while practically offering schools a pathway towards systemic, context-responsive change.



**Fig. 5.** Conceptualised model for creative leadership

## 5. Implications and Recommendations

This study advances the discourse on educational leadership by positioning creative leadership as a dynamic, contextually responsive construct [78] that integrates emotional intelligence, cultural sensitivity and community engagement into leadership theories [79]. Practically, it shows that creative leadership fosters inclusive, adaptive and innovative school cultures through distributed approaches [80], effective time management and collaboration, supported by professional development and flexible, risk-friendly environments. At the policy level, reforms should explicitly support creative leadership through adequate funding, professional learning and curricular flexibility [81], while reducing bureaucracy and valuing innovation. Future research should adopt longitudinal designs to assess impacts on academic, emotional and critical outcomes [82], comparative designs to examine cultural applicability and explore digital technologies. Overall, creative leadership emerges not merely as a style but as an educational philosophy that cultivates resilience, curiosity and adaptability in preparing future-ready, socially conscious citizens.

## 6. Conclusion

In conclusion, the findings from this study suggest that creative leadership can transform schools by moving beyond rote learning and rigid curricula to meet the demands of a rapidly changing world. In the Malaysian context, the school principals demonstrated this through distributed decision-making, emotional intelligence and collaborative problem-solving, which fostered innovation, inclusivity and adaptability among teachers. These practices empowered teachers to act as facilitators, fostering collaborative and inquiry-based learning while embedding critical thinking, communication and problem-solving into everyday practice. While the findings offer valuable insights, this study is limited to three schools and shaped by contextual factors such as policy constraints and resource availability. Future research could explore how creative leadership may be integrated in leadership training and professional development and how educational policies can better support adaptive, innovative practices in schools. Ultimately, creative leadership emerges as a context-responsive philosophy that prepares future-ready, socially conscious citizens capable of navigating complexity and contributing meaningfully to society.

## Acknowledgement

The authors would like to express sincere gratitude to University of Malaya for providing the necessary support and resources for this research. Special thanks are extended to Dr. Kenny Cheah, AP. Dr. Faizal and Dr Tee Ying Qin for their valuable insights and contributions. The constructive



feedback from the reviewers and editors is also deeply appreciated, as it helped improve the clarity and quality of this article. This research was not funded by any grant.

### Conflict of Interest Statement

The authors declare that there is no conflict of interest regarding the publication of this paper. No financial support, grants, or other forms of compensation were received that could have influenced the outcomes of this work. The research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

### Author Contributions Statement

The main author was responsible for conducting the research, data collection, analysis, and drafting of the manuscript. The corresponding authors reviewed the work, provided constructive feedback, made amendments and offered valuable suggestions to improve the overall quality, coherence and clarity of the write-up. All authors contributed to manuscript revision, read and approved the final version.

### Data Availability Statement

All data generated or analysed during this study are included in this published article. Additional datasets are available from the corresponding author upon reasonable request. Where applicable, publicly available datasets used in the study are cited in the references.

### Ethics Statement

This study was conducted in accordance with the ethical standards of the University of Malaya's Research Ethics Committee (UMREC). Ethical approval was obtained where required and informed consent was obtained from all participants involved in the research.

### References

- [1] Lee, J., and R. Hargraves. 2024. "Agile Education Systems in the Post-Pandemic World." *Educational Review* 76(2): 145–161.
- [2] Ministry of Education. 2025. *Strategic Education Blueprint (2025–2035)*. Putrajaya: Ministry of Education.
- [3] UNICEF. 2020. "What Will a Return to School During the COVID-19 Pandemic Look Like?" *UNICEF*, August 24, 2020. <https://www.unicef.org/coronavirus/what-will-return-school-during-covid-19-pandemic-look>
- [4] Barreras, A. 2025. *Educators in the Age of AI: Building Future-Ready Schools*. World Economic Forum.
- [5] Zhao, Yong, and Jim Watterston. "The changes we need: Education post COVID-19." *Journal of educational change* 22, no. 1 (2021): 3-12. <https://doi.org/10.1007/s10833-021-09417-3>
- [6] OECD. 2018. *The Future of Education and Skills: Education 2030 – The Future We Want*. Paris: OECD Publishing.
- [7] Anderson, M., and L. Wu. 2024. *Reimagining Learning for a Volatile Future: Education and Adaptability*. Cambridge: Cambridge Education Press.
- [8] Tan, C., and J. Roberts. 2025. *Future Competencies for Learners: Global and Local Perspectives*. New York: Routledge.
- [9] Wong, K., and S. Pillai. 2024. "Leadership for Inclusive Innovation in Malaysian Education." *International Journal of Educational Leadership* 42(1): 22–37.
- [10] Uhl-Bien, Mary, and Michael Arena. "Leadership for organizational adaptability: A theoretical synthesis and integrative framework." *The leadership quarterly* 29, no. 1 (2018): 89-104. <https://doi.org/10.101>
- [11] Harris, A., and M. Jones. 2022. "School Leadership and Education System Reform: Recalibrating Shared Responsibility." *School Leadership & Management* 42(2): 109–126. <https://doi.org/10.1080/13632434.2022.2064626>
- [12] Henebery, B. 2025. "The Top Professional Development Trends for School Leaders in 2025." *The Educator Online*. <https://www.theeducatoronline.com/k12/news/the-top-professional-development-trends-forschool-leaders-in2025/286447>

- [13] Alene, A. A., A. A. Mekonen, and Y. M. Belay. 2025. "Secondary School Principals' Adaptive Leadership Practices and Educational Quality." *International Journal of Educational Practice* 6(1): 25–40.
- [14] Ministry of Education. 2013. *Malaysia Education Blueprint 2013–2025*. Putrajaya: Kementerian Pelajaran Malaysia.
- [15] Bakar, Abu Yazid Abu. "Fulfilling the Aspirations of Malaysia education Blueprint 2013-2025: Issues and Challenges." *Journal for Re Attache Therapy and Developmental Diversities* (2023): 13-17.
- [16] Aai Sheau Yean, S. S. A. R., and U. K. B. M. Salleh. 2024. "Techno-Optimism of Malaysia Education Blueprint (2013–2025) and Its Effect on the Local Sustainability Education Narrative." *STEM Education* 4(3): 199–221. <https://doi.org/10.3934/steme.2024013>
- [17] Yusof, N. A., M. M. Nor, and N. S. Saad. 2021. "School Leaders' Challenges in Promoting a Creative Culture: A Malaysian Perspective." *Journal of Educational Leadership* 9(2): 51–63.
- [18] Sternberg, Robert J. "The WICS model of organizational leadership." (2005).
- [19] Puccio, G., M. Murdock, and M. Mance. 2011. *Creative Leadership: Skills That Drive Change*. 2nd ed. Thousand Oaks, CA: Sage.
- [20] Darling-Hammond, L., M. E. Hyler, and M. Gardner. 2017. *Effective Teacher Professional Development*. Learning Policy Institute. <https://doi.org/10.54300/122.311>
- [21] Jiang, Mingdi, Jing Zhang, and Muhammad Zulqarnain Arshad. "Cultivating a creative ecosystem: the role of inclusive leadership in educational success." *Acta Psychologica* 257 (2025): 105076. <https://doi.org/10.1016/j.actpsy.2025.105076>
- [22] Ahmadi, Niluphar, and Maud Besançon. "Creativity as a stepping stone towards developing other competencies in classrooms." *Education Research International* 2017, no. 1 (2017): 1357456. <https://doi.org/10.1155/2017/1357456>
- [23] Krein, U. 2025. "The Transformative Impact of Technology-Enhanced Leadership in Contemporary Education." *Educational Technology & Society* 28(1): 123–137.
- [24] Eyal, Ori, and Guy Roth. "Principals' leadership and teachers' motivation: Self-determination theory analysis." *Journal of educational administration* 49, no. 3 (2011): 256-275.. <https://doi.org/10.1108/09578231111129055>
- [25] Robinson, Ken, and Lou Aronica. *Creative schools: Revolutionizing education from the ground up*. Penguin UK, 2015.
- [26] Crossan, Mary M., Henry W. Lane, and Roderick E. White. "An organizational learning framework: From intuition to institution." *Academy of management review* 24, no. 3 (1999): 522-537. <https://doi.org/10.2307/259140>
- [27] Trevisan, Laís Viera, Walter Leal Filho, and Eugênio Ávila Pedrozo. "Transformative organisational learning for sustainability in higher education: A literature review and an international multi-case study." *Journal of Cleaner Production* 447 (2024): 141634. <https://doi.org/10.1016/j.jclepro.2024.141634>
- [28] Wodnik, Breanna K., Meena Andiappan, Erica Di Ruggiero, and James V. Lavery. "The 6I model: an expanded 4I framework to conceptualise interorganisational learning in the global health sector." *BMJ open* 14, no. 5 (2024): e083830. <https://doi.org/10.1136/bmjopen-2023-083830>
- [29] Fullan, M. 2011. *Change Leader*. San Francisco, CA: Jossey-Bass.
- [30] Leithwood, Kenneth, Sarah Patten, and Doris Jantzi. "Testing a conception of how school leadership influences student learning." *Educational administration quarterly* 46, no. 5 (2010): 671-706. <https://doi.org/10.1177/0013161X10377347>
- [31] Witthöft, Jasmin, Burak Aydin, and Marcus Pietsch. "Leading digital innovation in schools: The role of the open innovation mindset." *Journal of Research on Technology in Education* (2024): 1-20. <https://doi.org/10.1080/15391523.2024.2398528>
- [32] Rogers, E. M. 2003. *Diffusion of Innovations*. 5th ed. New York: Free Press.
- [33] Kenayathulla, Husaina Banu, Muhammad Faizal A. Ghani, and Norfariza Mohd Radzi. "Enhancing quality appointment, preparation and support system for Malaysian principals." *Education Sciences* 14, no. 6 (2024): 659. <https://doi.org/10.3390/educsci14060659>
- [34] Mokhlis, Safiek, and Abdul Hakim Abdullah. "The impact of teacher empowerment on schools' innovation climate." *Journal of Education and Learning (EduLearn)* 19, no. 1 (2025): 322-329. <https://doi.org/10.11591/edulearn.v19i1.21633>
- [35] Chong, Wan Har, Robert M. Klassen, Vivien S. Huan, Isabella Wong, and Allison Diane Kates. "The relationships among school types, teacher efficacy beliefs, and academic climate: Perspective from Asian middle schools." *The Journal of Educational Research* 103, no. 3 (2010): 183-190. <https://doi.org/10.1080/00220670903382954>
- [36] Trilling, Bernie, and Charles Fadel. *21st century skills: Learning for life in our times*. John Wiley & Sons, 2009.
- [37] Syariff M. Fuad, D. R., K. Musa, M. R. Yusof, B. Swart, T. P. Dew, K. M. Goh, and A. R. Abdullah. 2025. "Validation of Principal's Innovation Leadership Scale Using Factor Analysis in Malaysian School Context." *International Journal of Evaluation and Research in Education* 14(3): 1790–1803. <https://doi.org/10.11591/ijere.v14i3.30397>

- [38] Mateo, Joan, Joan Estruch, Francesc Ranchal, and Carme Amorós. "A description and reflection on the different stages of the evaluative cycle of the educational innovation." *Journal of the World Federation of Associations of Teacher Education* 1 (2016): 132-144.
- [39] Tahir, Lokman, Mohd Shafie Rosli, Aede Hatib Musta'mal, and Abdul Rahim Abdul Rahman. "Nurturing teachers' creativity: Exploring leadership roles and constraints." *Thinking Skills and Creativity* 54 (2024): 101662. <https://doi.org/10.1016/j.tsc.2024.101662>
- [40] Khan, Alla, Norhaslinda Hassan, and Liying Cheng. "Investigating the contextual factors mediating washback effects of a learning-oriented English language assessment in Malaysia." *Language Testing in Asia* 15, no. 1 (2025): 20. <https://doi.org/10.1186/s40468-025-00359-8>
- [41] Osman, R., A. Zakaria, and M. Mansor. 2024. "Transforming Malaysian Teacher Agency through Continuous Professional Development." *International Journal of Education, Psychology and Counseling* 9(3): 101–113. <https://doi.org/10.35631/IJEP.954039>
- [42] Hamzah, N. Hafiza, M. Khalid M. Nasir, and Jamalullail Abdul Wahab. "The Effects of Principals' Digital Leadership on Teachers' Digital Teaching during the COVID-19 Pandemic in Malaysia." *Journal of Education and E-Learning Research* 8, no. 2 (2021): 216-221. <https://doi.org/10.20448/journal.509.2021.82.216.221>
- [43] Hamzaha, Nur Hafiza, Intan Marfarrina Omarb, and Norfariza Mohd Radzic. "Expert Consensus on Digital Leadership Competencies for School Principals in Malaysia: A Fuzzy Delphi Approach." *Management Research* 13, no. 2 (2024): 92-103. <https://doi.org/10.37134/mrj.vol13.2.8.2024>
- [44] Chughtai, Muhammad Salman, Fauzia Syed, Saima Naseer, and Nuria Chinchilla. "Role of adaptive leadership in learning organizations to boost organizational innovations with change self-efficacy." *Current Psychology* 43, no. 33 (2024): 27262-27281. <https://doi.org/10.1007/s12144-023-04669-z>
- [45] Sternberg, Robert J. "A systems model of leadership: WICS." *American Psychologist* 62, no. 1 (2007): 34. <https://doi.org/10.1037/0003-066X.62.1.34>
- [46] Pajares, M. Frank. "Teachers' beliefs and educational research: Cleaning up a messy construct." *Review of educational research* 62, no. 3 (1992): 307-332.. <https://doi.org/10.3102/00346543062003307>
- [47] Burns, J. M. 1978. *Leadership*. New York: Harper & Row.
- [48] Bass, B. M. 1985. *Leadership and Performance Beyond Expectations*. New York: Free Press.
- [49] Harris, Alma. "Distributed leadership: Friend or foe?." *Educational Management Administration & Leadership* 41, no. 5 (2013): 545-554. <https://doi.org/10.1177/1741143213497635>
- [50] Chiva, Ricardo, Pervez Ghauri, and Joaquín Alegre. "Organizational learning, innovation and internationalization: A complex system model." *British Journal of Management* 25, no. 4 (2014): 687-705. <https://doi.org/10.1111/1467-8551.12026>
- [51] Amabile, Teresa M. "Motivating creativity in organizations: On doing what you love and loving what you do." *California management review* 40, no. 1 (1997): 39-58.. <https://doi.org/10.2307/41165921>
- [52] Lincoln, Yvonna S. *Naturalistic inquiry*. Vol. 75. sage, 1985. [https://doi.org/10.1016/0147-1767\(85\)90062-8](https://doi.org/10.1016/0147-1767(85)90062-8)
- [53] Merriam, S. B. 2009. *Qualitative Research: A Guide to Design and Implementation*. San Francisco: Jossey-Bass.
- [54] Creswell, J. W., and C. N. Poth. 2021. *Qualitative Inquiry and Research Design: Choosing among Five Approaches*. 4th ed. Thousand Oaks, CA: Sage.
- [55] Patton, M. Q. 2015. *Qualitative Research & Evaluation Methods: Integrating Theory and Practice*. 4th ed. Thousand Oaks, CA: Sage.
- [56] Gardner, H. 1993. *Frames of Mind: The Theory of Multiple Intelligences*. New York: Basic Books.
- [57] Bass, Bernard M. "From transactional to transformational leadership: Learning to share the vision." *Organizational dynamics* 18, no. 3 (1990): 19-31. [https://doi.org/10.1016/0090-2616\(90\)90061-5](https://doi.org/10.1016/0090-2616(90)90061-5)
- [58] Spillane, J. P. 2005. "Distributed Leadership." *The Educational Forum* 69(2): 143–150. <https://doi.org/10.1080/00131720508984678>
- [59] Muttch, C. 2021. "Leading Schools in Times of Crisis: Lessons from the COVID-19 Pandemic." *International Studies in Educational Administration* 49(1): 11–23.
- [60] Harris, Alma, and Michelle Jones. "COVID 19–school leadership in disruptive times." *School leadership & management* 40, no. 4 (2020): 243-247. <https://doi.org/10.1080/13632434.2020.1811479>
- [61] Hargreaves, A., and M. Fullan. 2020. *Leading Professional Learning: Tools to Connect Systemic and School Innovation*. Bloomington, IN: Solution Tree Press.
- [62] Azorín, Cecilia, Alma Harris, and Michelle Jones. "Taking a distributed perspective on leading professional learning networks." *School Leadership & Management* 40, no. 2-3 (2020): 111-127. <https://doi.org/10.1080/13632434.2019.1647418>
- [63] Lai, C.-L., and G.-J. Hwang. 2021. "A Review of Research on Technology-Assisted School-Based STEM Education." *Computers & Education* 168: 104212. <https://doi.org/10.1016/j.compedu.2021.104212>
- [64] Northouse, P. G. 2018. *Leadership: Theory and Practice*. 8th ed. Thousand Oaks, CA: Sage.

- [65] Meyer, A., D. H. Rose, and D. Gordon. 2014. *Universal Design for Learning: Theory and Practice*. Wakefield, MA: CAST Professional Publishing.
- [66] Florian, L., and J. Spratt. 2020. "Enacting Inclusion: A Framework for Interrogating Inclusive Practice." *European Journal of Special Needs Education* 35(1): 5–19.
- [67] Senge, P. M. 2006. *The Fifth Discipline: The Art and Practice of the Learning Organization*. Rev. ed. New York: Doubleday/Currency.
- [68] Hargreaves, A., and M. Fullan. 2012. *Professional Capital: Transforming Teaching in Every School*. New York: Teachers College Press.
- [69] Edmondson, A. C. 2019. *The Fearless Organization: Creating Psychological Safety in the Workplace for Learning, Innovation, and Growth*. Hoboken, NJ: Wiley.
- [70] Schein, E. H. 2010. *Organisational Culture and Leadership*. 4th ed. San Francisco: John Wiley & Sons.
- [71] Bass, Bernard M., and Ronald E. Riggio. *Transformational leadership*. Psychology press, 2006.  
<https://doi.org/10.4324/9781410617095>
- [72] Fullan, M. 2007. *The New Meaning of Educational Change*. 4th ed. New York: Teachers College Press.
- [73] Day, C., and P. Sammons. 2014. *Successful School Leadership*. Berkshire: Education Development Trust.
- [74] Aspfors, J., and G. Fransson. 2023. "Teacher Professional Development and Agency: Building Capacities for Sustained Pedagogical Change." *Teaching and Teacher Education* 126: 104016.
- [75] Lim, C. P., C. S. Chai, and J. Lee. 2023. "Transforming Pedagogy through Technology Integration: Lessons from Digitally Enhanced Learning Environments." *British Journal of Educational Technology* 54(2): 234–250.
- [76] Garcia, L. M., and M. T. Lo. 2023. "Redesigning Learning through Student Agency and Inquiry: Impacts on Engagement and Self-Directed Learning." *Journal of Educational Change* 24(1): 89–106.
- [77] Chan, C. Y., E. L. Low, and N. Idris. 2023. "Promoting Inclusive Education through Culturally Responsive Teaching Practices in Diverse Classrooms." *International Journal of Inclusive Education* 27(3): 312–329.
- [78] Leithwood, Kenneth, Alma Harris, and David Hopkins. "Seven strong claims about successful school leadership revisited." *School leadership & management* 40, no. 1 (2020): 5-22.  
<https://doi.org/10.1080/13632434.2019.1596077>
- [79] Leithwood, Kenneth, Jingping Sun, and Randall Schumacker. "How school leadership influences student learning: A test of "The four paths model"." *Educational Administration Quarterly* 56, no. 4 (2020): 570-599.  
<https://doi.org/10.1177/0013161X19878772>
- [80] Spillane, J. P. 2006. *Distributed Leadership*. San Francisco: Jossey-Bass.
- [81] OECD. 2019. *Schooling Redesigned: Towards Innovative Learning Systems*. 2nd ed. Paris: OECD Publishing.
- [82] Sternberg, Robert J. *Wisdom, intelligence, and creativity synthesized*. Cambridge University Press, 2003..  
<https://doi.org/10.1017/CBO9780511509612>