



Empowering Educational Leaders as Change Catalysts: Strategic Leadership Approaches in Vuca Spectrum

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Abstract

Educational institutions today operate within environments characterized by volatility, uncertainty, complexity, and ambiguity (VUCA), driven by rapid technological change, evolving policies, and large-scale societal disruptions such as pandemics and economic instability. These conditions challenge traditional models of school leadership and require educational leaders to function not merely as administrators but as change catalysts who can foster resilience, innovation, and organizational learning. This study examined how educational leaders in the Division of Sto. Tomas, Batangas adopt and enact strategic leadership approaches to navigate VUCA conditions, and how these practices influence perceived leadership effectiveness and school adaptability. A mixed-methods research design was employed, combining survey questionnaires and semi-structured interviews with 30 school leaders and 100 teachers from public secondary schools. Quantitative data assessed the extent of adoption and perceived effectiveness of transformational, distributed, adaptive, and instructional leadership approaches, while qualitative data explored leaders' lived experiences, challenges, and adaptive strategies in managing uncertainty. Descriptive and inferential statistical analyses were used alongside thematic analysis to integrate findings. Results revealed that transformational and distributed leadership were the most widely adopted and perceived as very effective in addressing VUCA challenges, while adaptive and instructional leadership were also considered effective. Significant differences in perceived leadership effectiveness were observed across age, educational attainment, and leadership position, suggesting that professional context and role influence leadership perceptions. Qualitative findings further illuminated three core themes: navigating uncertainty through rapid yet compassionate decision-making, leading through complexity by fostering collaboration and shared vision, and demonstrating emotional resilience through empathy, trust-building, and reflective practice. Leaders consistently viewed themselves as mentors who empower teachers, institutionalize organizational learning, and encourage innovation. Integrating the quantitative and qualitative findings led to the development of a Strategic Empowerment Framework emphasizing leadership development, organizational learning, and innovation with resilience. Despite limitations related to scope and self-reported data, the study offers practical implications for leadership development, policy formulation, and professional learning systems. Overall, the findings underscore that adaptive, emotionally intelligent, and collaborative leadership is essential for enabling schools to thrive within the evolving demands of VUCA educational and societal contexts.

Keywords: VUCA Environment, Educational Leadership, Transformational Leadership, Distributed Leadership, Organizational Resilience, Education and Society

1. Introduction

Educational systems in the 21st century operate amid rapid technological change, shifting policy demands, and global disruptions such as pandemics and economic instability. These conditions place schools within a volatile, uncertain, complex, and ambiguous (VUCA) environment, where traditional leadership models are increasingly insufficient. Educational leaders are therefore required to balance innovation with stability while addressing persistent challenges related to equity, access, and organizational sustainability. The central issue is not the existence of VUCA conditions, but how leaders respond to them. Without adaptive and forward-thinking leadership, schools risk functioning reactively rather than strategically. As such, educational leaders are increasingly expected to act as change catalysts, individuals who anticipate disruption, mobilize stakeholders, and guide institutions toward resilience and long-term improvement. Recent studies emphasize the importance of leadership competencies such as agility, collaboration, vision, and adaptive decision-making in VUCA contexts



(Estillore, 2022). Philippine-based research further suggests that collaborative leadership structures enhance teacher productivity and self-efficacy during periods of uncertainty. Theoretical literature likewise underscores the relevance of transformational and adaptive leadership, highlighting the role of innovation, systems thinking, and tolerance for ambiguity in sustaining institutional effectiveness. Applying these perspectives to the Division of Sto. Tomas, Batangas is particularly relevant. As a rapidly developing city with growing student populations and diverse educational needs, Sto. Tomas schools experience both the challenges and opportunities associated with VUCA environments. Although localized empirical studies remain limited, existing Philippine research demonstrates that professional development initiatives and transformational leadership practices strengthen trust, motivation, and adaptive capacity among educators. Despite these insights, notable research gaps persist. Few studies examine how school leaders in mid-sized Philippine cities enact VUCA leadership in daily practice or how local context, institutional history, and resource constraints shape adaptive leadership. Additionally, limited research investigates the sustainability of VUCA-responsive leadership practices or their long-term effects on student outcomes. Addressing these gaps through localized quantitative and qualitative inquiry is essential for developing context-responsive and transferable leadership frameworks. This study responds to these needs by examining how educational leaders in Sto. Tomas navigate VUCA conditions and how strategic leadership approaches empower them to function as change catalysts.

1.2 Statement of the Problem

This study examines how educational leaders can be empowered as change catalysts through strategic leadership approaches in navigating the VUCA spectrum. Specifically, it seeks to determine:

1. The demographic and professional profile of educational leaders.
2. The strategic leadership approaches commonly adopted in VUCA conditions.
3. The perceived effectiveness of these leadership approaches.
4. Differences in perceived effectiveness when grouped by demographic and professional profile.
5. The lived experiences and adaptive strategies of educational leaders in managing VUCA challenges.
6. How leaders view their role as change catalysts?
7. The strategic empowerment framework that can be developed based on the findings.

1.3 Hypothesis

H_0 : There is no significant difference in the effectiveness of transformational and distributed leadership approaches compared to traditional leadership approaches in navigating VUCA challenges.

1.4 Significance of the Study

- Educational Leaders: Provides insights into adaptive leadership strategies.
- Teachers: Promotes collaboration, innovation, and resilience.
- Policymakers: Informs leadership development and education policy.
- Future Researchers: Serves as a basis for further leadership studies in VUCA contexts.

1.5 Scope and Limitations

The study focuses on public secondary school leaders and teachers in the Division of Sto. Tomas, Batangas. It examines leadership practices, perceptions, and adaptive strategies. Limitations include purposive sampling and reliance on self-reported data, which may affect generalizability.



2. Methodology

2.1 Research Design

This study employed a mixed-method design focusing on surveys and interviews to gain a comprehensive understanding of leadership practices in VUCA environments.

2.2 Participants

Participants included 30 school leaders (principals, assistant principals, department heads) and 100 teachers from selected public secondary schools in the Department of Education (DepED) Division of Sto. Tomas.

2.3 Research Instrument

The researcher utilized a survey questionnaire to measure the leadership styles, adaptive strategies, and school resilience indicators. However, the interview guide questions are also used to gather deeper insights into challenges and innovative practices.

2.4 Data Collection

Data were collected through online and face-to-face surveys, followed by semi-structured interviews with selected participants. Ethical considerations such as confidentiality and informed consent were strictly observed.

2.5 Data Analysis

The quantitative data were analyzed using descriptive and inferential statistical methods to address the study's specific objectives:

1. Descriptive Statistics such as frequency, percentage, mean, and standard deviation were utilized to summarize and describe the demographic and professional profiles of the respondents, as well as their responses regarding the extent of adoption and perceived effectiveness of various leadership approaches (transformational, distributed, adaptive, and instructional) in navigating VUCA conditions.
2. Analysis of Variance (ANOVA) or t-test (depending on the number of groups) was employed to examine whether the perceived effectiveness of leadership approaches differs significantly when respondents are grouped according to their demographic and professional characteristics.
3. Data Familiarization used to transcribe interviews and written narratives were repeatedly read to gain a deep understanding of the participants' perspectives.
4. Initial Coding used for key phrases, words, and ideas were coded to identify meaningful data segments related to leadership practices, empowerment, and VUCA experiences.
5. Theme Generation the codes were organized into broader themes and sub-themes reflecting patterns.

3. Results and Discussion

Table 1. Demographic and Professional Profile of Respondents

Profile Variable	Category	Frequency (f)	Percentage (%)
Age	25-34 years old	36	27.7
	35-44 years old	44	33.8
	45 years old and above	32	24.6
	51 years old and above	18	13.8
Sex	Male	52	40.0
	Female	78	60.0
Civil Status	Single	46	35.4
	Married	84	64.6

Educational Attainment	Bachelor's Degree	59	45.4
	Master's Degree	58	44.6
	Doctorate Degree	13	10
Position/Designation	Principal	10	7.7
	Assistant Principal	8	6.2
	Department Head	12	9.2
	Teacher	100	76.9
Length of Service	1-5 years	33	25.4
	6-10 years	47	36.2
	11-15 years	30	23.1
	Above 15 years	20	15.4

Table 1 presents the demographic and professional profile of the respondents. Most participants fall within the 31-40 age range (33.8%), with 60.0% female and 64.6% married, indicating a professionally mature workforce. Nearly equal proportions hold bachelor's degree (45.4%) and master's degrees (44.6%), reflecting strong academic preparation. The majority of respondents are teachers (76.9%), while 23.1% occupy formal leadership positions. More than half of the participants (51.6%) have over six years of service, suggesting substantial professional experience. Collectively, these characteristics indicate a stable and competent educational workforce capable of responding to the demands of volatile and unpredictable educational environments. This findings aligns with Suryarati (2021), who reported that educators with higher academic qualifications and longer professional experience demonstrate stronger reflective decision-making, collaboration, and adaptive capacity key competencies for leadership effectiveness in VUCA contexts.

Table 2. Extent of Adoption of Strategic Leadership Approaches

Leadership Approach	Mean	SD	Verbal Interpretation
Transformational Leadership	4.35	0.58	Very Highly Adopted
Distributed Leadership	4.18	0.62	Highly Adopted
Adaptive Leadership	4.10	0.60	Highly Adopted
Instructional Leadership	3.98	0.72	Highly Adopted
Overall Mean	4.15		Highly Adopted

Table 2 presents the extent of adoption of strategic leadership approaches. Transformational leadership emerged as the most adapted approach (M=4.35, SD=0.58; Very Highly Adopted), followed by distributed leadership (M=4.18, SD=0.62; Highly Adopted) Adaptive leadership (M=4.10, SD=0.60) and instructional leadership (M=3.98, SD=0.72) ranked lower but remained highly adopted. These results indicate that educational leaders prioritize vision-driven and collaborative practices while maintaining responsiveness to uncertainty. The predominance of transformational leadership supports previous findings emphasizing its role in enhancing teacher motivation, organizational commitment, and openness to innovation. Aboramadan (2020) notes that transformational leadership strengthens trust and shared purpose, enabling leaders to guide institutions effectively through volatile and ambiguous conditions. This leadership approach fosters collaboration, adaptability, and continuous learning core competencies for navigating VUCA environments.

Table 3. Perceived Effectiveness of Leadership Approaches

Leadership Approach	Mean	SD	Verbal Interpretation
Transformational Leadership	4.42	0.55	Very Effective
Distributed Leadership	4.25	0.63	Very Effective
Adaptive Leadership	4.18	0.61	Effective
Instructional Leadership	4.00	0.70	Effective
Overall Mean	4.21		Very Effective

Table 3 presents the perceived effectiveness of leadership approaches in managing VUCA challenges. Transformational leadership was rated a very effective (M=4.42), while distributed leadership was assessed also very effective (M=4.25). Adaptive leadership (M=4.18) and instructional leadership (M=4.00) were also rated as effective. The overall mean score (M=4.21) indicates that leadership



strategies are generally perceived as very effective in addressing current VUCA challenges. The strong ratings for transformational and distributed leadership underscore their critical role in enabling schools to adapt and perform effectively under uncertainty. This findings aligns with Nguyen et. al. (2021), who emphasize that these leadership approaches promote collaborative problem-solving, shared responsibility, and professional teamwork. While transformational leadership motivates and inspires through shared vision, distributed leadership empowers educators through collective decision-making. Together, these complementary strategies enhance institutional resilience and sustain performance and innovation amid VUCA disruptions.

Table 4. Difference in Perceived Effectiveness by Profile Variable

Profile Variable	Computed Value	p-value	Decision	Interpretation
Age	2.15	0.041	Significant	Varying perceptions across age groups
Sex	1.23	0.228	Non-Significant	Same perception across sexes
Educational Attainment	3.02	0.018	Significant	Perception differ by educational level
Position/Designation	2.77	0.032	Significant	Role influences perception
Length of Service	1.45	0.212	Non-Significant	Similar perceptions regardless of tenure

Table 4 indicates significant differences in perceived leadership effectiveness when respondents are grouped according to age, educational attainment, and position, while no significant differences were found when grouped by gender or length of service. These results suggest that professional maturity, academic background, and leadership role significantly influence how leadership effectiveness is evaluated in VUCA contexts. In relation to the study hypothesis, the findings partially reject the null hypothesis, as differences in perceptions of leadership effectiveness exist across key demographic and professional variables. Respondents who are older, hold higher academic qualifications, or occupy leadership positions may possess broader experiential and theoretical perspectives, resulting in more critical or informed assessments of leadership strategies. Conversely, the absence of significant differences by gender and length of service indicates that leadership effectiveness is not influenced by these factors. These findings support Zembylas (2021), who emphasized that leadership perceptions vary according to professional roles and responsibilities, particularly in uncertain and complex environments. Overall, the results highlight the importance of contextual and role-based considerations in evaluating leadership effectiveness and reinforce the need for differentiated leadership development strategies in VUCA educational settings.

Table 5. Emergent Themes on Lived Experiences

Main Themes	Subthemes	Description/Illustrative Statement
Navigating Uncertainty	Crisis Communication, Decision Agility	"We must decide quickly without complete data but with compassion and trust."
Leading through Complexity	Collaboration and Shared Vision	"We engage our teachers to co-create solutions to unpredictable challenges"
Emotional Resilience	Empathy, Self-reflection	"I learned to stay calm and reassure my staff amid fear and confusion.)

Table 5 presents the qualitative findings on the lived experiences of educational leaders in navigating VUCA conditions. Three major themes emerged: navigating uncertainty, leading through complexity, and emotional resilience. These themes reflect leaders' ability to make timely decisions with compassion, engage stakeholders in collaboration problem-solving, and maintain emotional stability during periods of disruption. The findings emphasize that effective leadership in VUCA contexts extends beyond technical management skills and relies heavily on relational and emotional competencies. Leaders who demonstrate composure, empathy, clear communication, and shared vision are better able to sustain trust and morale within their organizations. This aligns with Leithwood et al. (2021), who found that emotionally intelligent and collaborative leadership practices significantly enhance organizational resilience and staff-well-being, particularly during crises such as the COVID-19 pandemic. Overall, the



results highlight in VUCA environments as a human-centered and adaptive process grounded in empathy, trust, and collective purpose.

Table 6. Themes on Leadership as Change Catalyst

Themes	Illustrative Statements	Implication
Empowering Teachers	"I see myself as a mentor who nurtures confidence among my team."	Leadership empowerment drives teacher engagement
Building Organizational Learning	"We document best practices and share them school-wide."	Continuous learning fosters adaptive culture
Promoting Innovation	"We experiment with new teaching models and embrace digital tools."	Innovative leadership enhances VUCA readiness

Table 6 highlights that educational leaders view themselves as active agents of change. Respondents emphasized their role in empowering teachers, fostering organizational learning, and promoting innovation to sustain school improvement in VUCA environments. As mentor, leaders build teacher confidence, support professional growth, and encourage experimentation with new pedagogical approaches and educational technologies. The findings further indicate that empowering leadership practices and reflective processes enhance both organizational performance and resilience. This aligns with Harris and Jones (2020), who noted that imaginative and empowering leadership strengthens teacher agency, professional collaboration, and adaptive capacity in challenging educational contexts. Overall, the results suggest that effective leaders do not merely manage change but enable others to lead and innovate, positioning schools for continuous improvement and future readiness.

Table 7. Proposed Strategic Empowerment Framework

Core Dimension	Key Strategies	Derived from Findings
Leadership Development	Continuous training in adaptive and transformational leadership	High Adoption, Empowerment themes
Organizational Learning	Knowledge sharing, mentoring, reflection sessions	Collaboration and learning
Innovation and Resilience	Encourage experimentation, technology integration, flexible policies	Effectiveness ratings, Innovation insights

Table 7 presents the Strategic Empowerment Framework, which emphasizes three interconnected components: leadership development, organizational learning, and innovation and resilience. Together, these elements strengthen educational leaders' capacity to navigate volatile, uncertain, complex, and ambiguous (VUCA) environments. Continuous professional development in transformational and adaptive leadership prepares leaders to respond to rapid change while inspiring collective action toward shared goals. The framework also highlights the importance of collaborative organizational learning through mentoring, reflection, and knowledge sharing, which enhances collective adaptability. In addition, the promotion of innovation, effective use of digital technologies, and flexible policy implementation support institutional resilience during periods of uncertainty. These findings align with Berkovich and Eyal (2021), who argued that empowerment-based leadership frameworks grounded in continuous learning and innovation enhance leaders' self-efficacy, adaptability, and collaborative competence. Overall, the framework supports the transformation of schools into resilient learning organizations capable of managing complex educational challenges.

4. Summary of Findings, Conclusions, and Recommendations

4.1 Summary of Findings

The findings indicate that the respondents are predominantly mid-career, academically qualified, and professionally experienced, providing a strong foundation for leadership in complex educational settings. Transformational leadership emerged as the most frequently adopted approach (M=4.35), followed by distributed (M=4.18) adaptive (M=4.10), and instructional leadership (M=3.98), reflecting leaders' emphasis on collaboration, shared vision, and empowerment in VUCA contexts. Overall, leadership strategies were perceived as high effective (M=4.21), with transformational (M=4.42) and



distributed leadership ($M=4.25$) rated very effective. Significant differences in perceived leadership effectiveness were found across age, educational attainment, and position, but not across gender or length of service, suggesting that professional maturity and leadership role influence leadership evaluation. Qualitative findings revealed three dominant themes: navigating uncertainty, leading through complexity and emotional resilience, highlighting the importance of empathy collaboration, and adaptive decision-making. Educational leaders viewed themselves as change catalysts, emphasizing teacher empowerment, organizational learning, and innovation, which informed the development of a Strategic Empowerment Framework integrating leadership development, organizational learning, innovation, and resilience to strengthen leadership effectiveness in VUCA environments.

4.2 Conclusions

The study concludes that educational leaders in the Division of Sto. Tomas are academically prepared and professionally experienced, providing a strong foundation for managing complex and uncertain school environments. Transformational and distributed leadership emerged as the most prevalent and effective approaches, highlighting the importance of collaboration, shared vision, and empowerment in navigating VUCA conditions. Leadership effectiveness was influenced by age, educational attainment, and position, underscoring the role of professional maturity in leadership judgment. The findings further emphasize the human dimension of leadership particularly emotional intelligence, empathy, and communication as critical to sustaining trust and morale during periods of disruption. Overall, fostering organizational learning, innovation, and teacher empowerment enhances institutional resilience, while the Strategic Empowerment Framework offers a practical model for strengthening leadership capacity and supporting continuous professional development in VUCA educational contexts

4.3 Recommendations

Educational institutions and the Department of Education should implement comprehensive leadership development programs emphasizing transformational, adaptive, and distributed leadership to strengthen leaders' capacity to manage VUCA conditions. School divisions are encouraged to support continuing professional education through scholarships, leadership seminars, and research mentorships to enhance academic and leadership competencies. Leadership evaluation and mentoring systems should be institutionalized to support succession planning and sustained leadership growth. Schools should also foster a culture of collaboration and organizational learning through reflective practices, teamwork, and cross-departmental initiatives. In addition, providing emotional resilience training and psychosocial support is essential to help leaders manage stress and uncertainty. Educational institutions should adopt flexible and innovation-oriented policies that encourage experimentation and the integration of new pedagogies and technologies. Finally, the Strategic Empowerment Framework should be adopted as a guide for leadership development, performance assessment, and professional learning communities to cultivate empowered, resilient, and future-ready educational leaders in VUCA environments.

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