Transformative Leadership in Higher Education Institutions (HEIs) 5.0

RODERICK R. MONTAÑEZ[1], LAURA B. BOLLER[2]

[1] Student Teaching Coordinator, College of Education, Samar State University
[2] Dean, College of Education, Samar State University

DOI: 10.29322/IJSRP.15.09.2025.p16519
https://dx.doi.org/10.29322/IJSRP.15.09.2025.p16519

Paper Received Date: 10th August 2025
Paper Acceptance Date: 10th September 2025
Paper Publication Date: 18th September 2025

Abstract- This study determined the level transformative leadership practices of deans and campus directors in Higher Education Institutions (HEIs) in Samar Island within the context of Education 5.0. Most respondents were female (60%), aged 30 to above 65, with a mean age of 48.7 years. A majority had served less than three years in leadership positions, with associate professors comprising the highest rank group. Four leadership dimensions were assessed: idealized influence, inspirational motivation, individual consideration, and intellectual stimulation. Findings showed varying levels of full and partial practices across these dimensions, with intellectual stimulation being the least practiced.

With regard to Education 5.0, results revealed that most respondents only partially practiced the use of technology, innovation, and technology integration. Significant correlations emerged between the leadership dimensions and the key elements of Education 5.0, especially with inspirational motivation and individual consideration showing strong positive relationships across all elements.

Challenges included institutional and bureaucratic barriers, resource limitations, digital gaps, resistance to change, and lack of technical capacity. To address these, the study recommended strengthening institutional support, leadership capacity, digital readiness, and infrastructure. Structured training programs were proposed to enhance leadership effectiveness and support Education 5.0 integration.

HEIs were encouraged to foster mentorship, continuous professional development, and innovation-driven strategies. Finally, the study suggested further research in other regions and across all SUCs to broaden understanding of how demographic variables relate to transformative leadership within the context of Education 5.0

Index Terms- Challenges, Demographic Profile, Transformative Leadership, Higher Education Institutions, Education 5.0

I. INTRODUCTION

The world is undergoing rapid transformation, and the field of education is no exception. Higher Education Institutions (HEIs) are at the forefront of this evolution, continuously adapting to advancements in technology, shifting societal expectations, and the growing demand for innovative and responsive educational models. As the landscape of higher education changes, HEIs must embrace forward-thinking strategies to enhance teaching and learning experiences, integrate digital technologies, and develop adaptive strategies that cater to diverse needs of employees, faculty, and students. These institutions play a crucial role in shaping a knowledge-driven economy, ensuring that education remains accessible, relevant, and sustainable in an increasingly interconnected and fast-paced global

environment.

The COVID-19 pandemic served as a catalyst for unprecedented changes in higher education, compelling universities and colleges to swiftly implement digital learning solutions, online instruction, printed modular distance learning, and virtual classes via platforms such as Google Meet and Zoom (Basilaia et al., 2020; Castroverde & Acala, 2021). Additionally, many HEIs strengthened their Learning Management Systems (LMS) at the university level, or adopted Google Classroom to ensure the continuity of education despite physical restrictions (Basilaia et al., 2020; European Journal of e-Learning, 2021).

These adaptive strategies, which were not widely foreseen before the pandemic, underscored the need for HEIs to be more resilient, flexible, technologically adept, and future proof. The crisis opened our eyes to the importance of strengthening leadership capabilities in navigating educational transformations, particularly in blending the principles of **Education 5.0**—a paradigm that emphasizes human-centered, technology-integrated, and innovation-driven learning. Education 5.0 goes beyond digitalization by fostering a more personalized, inclusive, and competency-based approach, where HEIs leverage artificial intelligence, smart technologies, and data-driven decision-making to enhance the learning experience. As HEIs move forward, the lessons from the pandemic reinforce the need for transformative leadership that can seamlessly integrate technology while maintaining the core values of education: accessibility, engagement, and holistic development.

In the context of Philippine Higher Education Institutions, several studies provide quantitative evidence of the adoption of transformative leadership practices. A nationwide survey conducted by Miano (2021) on 324 faculty members across Luzon, Visayas, and Mindanao revealed that deans and campus directors in state universities were generally perceived as demonstrating strong transformational leadership behaviors, with an overall mean score of 3.15 (SD = 0.54) on a 4-point scale. This suggests a positive reception to leadership strategies involving inspirational motivation, intellectual stimulation, and individual consideration.

Additionally, a 2024 World Bank study across over 200 HEIs found that 83% of institutions had established dedicated digital learning centers, with 73% providing institution-wide licenses for video-conferencing and collaborative platforms. These findings highlight the significant role of leadership in driving technological integration and fostering a culture of innovation within institutions. Collectively, these facts underscore that transformative leadership practices are increasingly embedded within the framework of HEIs in the Philippines, contributing to the adoption of key Education 5.0 elements aimed at enhancing institutional resilience and growth.

The way educational services are delivered is continuously evolving, shaped by technological advancements, shifting societal expectations, and the growing need for innovative, flexible, and inclusive learning models. In particular, the landscape of higher education is experiencing unprecedented changes, as institutions strive to adapt to the demands of a knowledge-driven economy, the integration of digital technologies, and the call for more learner-centered, competency-based approaches, and adaptive strategies. These shifts underscore the urgency for HEIs to embrace forward-thinking strategies that not only enhance teaching and learning experiences, but also ensure accessibility, relevance, and sustainability in an increasingly interconnected and fast-paced global environment.

Transformative leadership in HEIs involves practices that foster collaboration, innovation, and the collective pursuit of a shared vision. For deans and campus directors, this type of leadership is essential in creating a culture of continuous improvement, responding to the evolving needs of students, faculty, and society. As these leaders guide their

institutions toward the implementation of Education 5.0, they must not only focus on technology integration, but also consider the broader implications of educational innovations that promote student success and global competitiveness.

The Commission on Higher Education (CHED) in the Philippines plays a pivotal role in setting policies and guiding HEIs toward achieving high standards of education. CHED mandates institutions to promote relevant and quality higher education, ensure accessibility, protect academic freedom, and commit to transparency and accountability (CHED, 2022). These guidelines align closely with the objectives of Education 5.0, which aims to prepare graduates who are not only technologically adept, but are also equipped with the critical skills needed to thrive in a rapidly changing world.

This study aimed to develop a transformative leadership model that is specifically tailored to the context of HEIs implementing Education 5.0. This sought to provide insights into how deans and campus directors could incorporate transformative leadership practices that align with the demands of the digital era while addressing the unique challenges they face in their institutions. In particular, the study explored the demographic profiles of deans and campus directors, their leadership practices, and how these practices would relate to the principles of Education 5.0.

This study was guided by several key objectives: first, to determine the demographic profiles of the deans and campus directors in terms of age, gender, civil status, area of specialization, length of service, educational background, and academic rank. This provided a contextual understanding of the leaders and their backgrounds. Second, the study aimed to determine the level of transformative leadership practices along four key dimensions: idealized influence, inspirational motivation, individual consideration, and intellectual stimulation. Third, it determined the level to which the deans and campus directors implement key elements of Education 5.0, including technology utilization, innovation concepts, and procedures and principles for technology integration.

Furthermore, the study sought to explore the significant relationships between these leadership practices, the demographic profiles of the leaders, and the key elements of Education 5.0. It also investigated the challenges that deans and campus directors faced in implementing transformative leadership in the context of Education 5.0, particularly in regions like Samar Island where resources may be more limited. Finally, the study aimed to develop a comprehensive transformative leadership model that aligns with Education 5.0, providing a framework for HEIs to effectively navigate the complexities of the modern educational landscape.

This research is timely and necessary, as it might contribute to the growing body of knowledge on leadership in higher education, particularly in the context of Education 5.0. By examining the practices and challenges faced by deans and campus directors, this study would provide valuable insights into how transformative leadership can be harnessed to ensure that HEIs are prepared to meet the needs of learners and society in the digital age. Ultimately, this study aims to contribute to the creation of transformative leadership model in Education 5.0 that would enable institutions to thrive in an ever-evolving educational environment.

II. REVIEW OF RELATED STUDIES

This section presents a comprehensive review of literature on transformative leadership in higher education institutions within the context of Education 5.0, highlighting key findings from previous studies and identifying research gaps that support the relevance of the present study.

Transformative leadership, as defined by Stephenson (2011)**,** is a leadership approach that goes beyond traditional managerial functions by fostering innovation, critical reflection, and meaningful change within an organization. It emphasizes the empowerment of individuals, the cultivation of a shared vision, and the encouragement of adaptive strategies to address evolving challenges. In the

context of Higher Education Institutions (HEIs), transformative leadership is crucial in guiding institutions through rapid advancements in technology, shifts in educational paradigms, and the increasing demand for learner-centered and competency-based approaches. Transformative leadership, characterized by practices that inspire and empower individuals, is essential in guiding institutions through this change and ensuring that education remains relevant, inclusive, and future-ready. Education 5.0 represents a paradigm shift that emphasizes not only the integration of cutting-edge technologies, but also the cultivation of humanistic values such as critical thinking, creativity, and emotional intelligence. As institutions of higher education seek to adapt to this new model, the role of leadership becomes more critical than ever.

The Multifactor Leadership Questionnaire (MLQ), developed by Bass and Avolio (1995), is a widely recognized instrument for assessing leadership styles, particularly transformational and transactional leadership. It measures various leadership dimensions, including idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. The MLQ has been extensively used in research and professional settings to evaluate leadership effectiveness across different industries, including education. Given its focus on leadership behavior and effectiveness, the MLQ serves as a relevant framework for analyzing transformative leadership in HEIs in the context of Education 5.0.

Merrill's 1983 work, Component Display Theory (CDT), is widely considered a foundational contribution to the field of instructional design. Unlike a study that involves original empirical research, Merrill's work is more aligned with theoretical and conceptual frameworks designed to inform the practice of instructional designers. It is not a study in the traditional sense, as it does not involve direct experimentation, data collection, or analysis of specific teaching practices or learner outcomes. Instead, it provides a systematic theory aimed at guiding the development of instructional content and materials.

Effendi et al. (2024), in their study, *The Role of 21st Century Transformative Leadership: Understanding the Problems of the Pancasila Democratic System*, found that 21st-century transformative leadership played a significant role in addressing challenges within the Pancasila democratic system. The study revealed that effective leadership was essential in promoting democratic values, ensuring political stability, and addressing governance issues. It highlighted the importance of adaptability, vision, and ethical decision-making in transformative leadership, emphasizing how leaders could navigate socio-political complexities while upholding democratic principles. The findings also underscored the need for continuous leadership development to sustain democratic governance in the modern era.

The study by Lytras, Alkhaldi, and Malik (2024) titled, ***Transformative Leadership and Sustainable Innovation in Higher Education: Setting the Context,*** examined the critical role of transformative leadership (TL) in fostering sustainable innovation within higher education (HE). The study emphasized that TL was instrumental in driving institutional change, shaping academic environments, and promoting a culture of continuous improvement.

Iskarim (2024), in the study, *Exploring Transformative Leadership in Islamic Higher Education Institutions Post-Institutional Change into Universities in Indonesia*, examined the role of transformative leadership in Islamic HEIs following their transition into full-fledged universities. The findings indicated that leadership played a crucial role in navigating institutional change, fostering academic excellence, and integrating Islamic values into modern higher education. The study highlighted how transformative leadership facilitated curriculum development, faculty empowerment, and administrative restructuring to align with national and global educational standards. Additionally, it emphasized the challenges faced by leaders in balancing religious traditions with contemporary academic demands.

Toquero and Ramos (2024), in their study, *Leaders in Crisis: Philippine Educational Leaders Sustaining Learning in Higher Education Institutions During and Beyond the Pandemic*, explored how educational leaders in the Philippines responded to crises, particularly the COVID-19 pandemic. The study found that crisis leadership required adaptability, resilience, and strategic decision-making to sustain learning despite disruptions. It emphasized that effective crisis leadership involved the rapid implementation of flexible learning modalities, digital transformation, and institutional support systems to ensure continuity in higher education. The findings also highlighted the long-term impact of crisis leadership, as leaders had to develop sustainable policies for post-pandemic education.

In summary, the body of related studies on transformative leadership in higher education, provided a comprehensive view of the evolving role of leadership within the academic sector. These studies highlighted both the successes and the obstacles encountered by educational leaders as they strived to implement transformative practices in a rapidly changing environment marked by technological advancements, diverse student populations, and increasing demands for institutional accountability.

III. RESULTS AND DISCUSSION

This study employed a descriptive-correlational research design combined with a convergent-parallel mixed-methods design to determine the level of transformative leadership practices and strategies, as well as the level of practices along the key elements of Education 5.0, among the deans and campus directors of HEIs in Samar Island, Eastern Visayas. The mixed-methods approach was chosen to gather comprehensive insights by collecting both quantitative and qualitative data simultaneously, analyzing them separately, and then integrating the results to provide a deeper and more meaningful interpretation of the findings.

Results and Discussion

Quantitative Results

Table 1 presents a summary of the significant quantitative results, highlighting key relationships between the respondents' demographic profile, their level of transformative leadership practices and strategies, and the extent of their implementation of the key elements of Education 5.0. The data reveal statistically significant associations such as between civil status and the practice of individual consideration, as well as between educational background and idealized influence. Furthermore, civil status is found to be significantly related to both the procedural and principled dimensions of technology integration. Most notably, strong and significant correlations emerged between the four dimensions of transformative leadership - idealized influence, inspirational motivation, individual consideration, and intellectual stimulation - and all facets of Education 5.0, including fact-based technology utilization, concepts on innovation, and both the procedural and principled use of technology. These findings underscore the essential role of transformative leadership in driving the successful adoption of Education 5.0 practices within higher education institutions.

Table 8
Summary of the Significant Quantitative Results

Demographic Profile	Level of Transformative Leadership Practices and Strategies			
	Dimension	r-value	p-value	Interpretation
Civil status	Individual consideration	5.778	0.056	Significant
Educational background	Idealized influence	0.265	0.041	Significant
	Level of Practices along the Key Elements of Education 5.0			
Civil status	Procedure in technology integration	8.445	0.015	Significant
Civil status	Principle in technology integration	9.721	0.008	Significant
Relationship Between the Level of Transformative Leadership Practices and Strategies and the Level of Practices along the Key Elements of Education 5.0				
Level of Transformative Leadership Practices and Strategies	Level of Practices along the Key Elements of Education 5.0			
	Key Elements of Education 5.0	r_s-value	p-value	Interpretation
Idealized Influence	Fact in the Utilization of Technology	0.432	0.001	Significant
	Concept of Innovations	0.342	0.008	Significant
	Procedure in Technology Integration	0.271	0.036	Significant
	Principle in Technology Integration	0.354	0.006	Significant
	Fact in the Utilization of Technology	0.477	0.000	Significant
	Concept of Innovations	0.534	0.000	Significant

Inspirational Motivation	Procedure in Technology Integration	0.429	0.001	Significant
	Principle in Technology Integration	0.613	0.000	Significant
Individual Consideration	Fact in the Utilization of Technology	0.600	0.000	Significant
	Concept of Innovations	0.571	0.000	Significant
	Procedure in Technology Integration	0.441	0.000	Significant
	Principle in Technology Integration	0.572	0.000	Significant
Intellectual Stimulation	Fact in the Utilization of Technology	0.517	0.000	Significant
	Concept of Innovations	0.615	0.000	Significant
	Procedure in Technology Integration	0.383	0.003	Significant
	Principle in Technology Integration	0.497	0.000	Significant

There is a significant relation between the level of practice along idealized influence and educational background. The result indicating a significant relationship between idealized influence and educational background underscores the profound impact of advanced academic training on the development and demonstration of transformational leadership, particularly idealized influence. Leaders with higher educational attainment, especially those holding doctoral degrees, appear more capable of embodying the core qualities that inspire trust, respect, and ethical guidance among faculty and staff.

This finding reflects how advanced education likely deepens a leader's understanding of institutional values, ethical decision-making, and the broader responsibilities of academic leadership. For example, the ability to inspire pride through ethical leadership and commitment to academic excellence - as reflected in the first and fifth indicators - may be better honed through rigorous academic and professional preparation at the graduate or doctoral level. These leaders tend to effectively communicate core values, reinforce the institutional mission, and prioritize collective over personal goals, behaviors that align strongly with transformative leadership theories.

Moreover, the significant relationship suggests that leaders with extensive academic training are more inclined to foster a unified institutional identity and instill confidence and direction - as highlighted in indicators 4 and 7. These capabilities may stem from their deeper theoretical and practical grounding in leadership, education, and ethics acquired through their academic journey. Therefore, educational background is not merely a credential but a crucial enabler in modeling behaviors central to idealized influence, reinforcing the transformative potential of leadership in HEIs in the context of Education 5.0.

There is a significant relationship between the level of practice along individual consideration and civil status. The significant relationship between individual consideration and civil status highlights how a leader's personal circumstances may relate to their responsiveness to the needs of faculty and staff. Civil status, as a demographic profile variable, appears to be related to how leaders exhibit behaviors associated with mentorship, personalized support, and inclusivity - key elements of individual consideration.

Leaders who are married, widowed, or separated/annulled may have experienced various social and emotional roles that help them better relate to the individual challenges and aspirations of others. This relationship suggests that such leaders are more likely to dedicate time to mentoring (Item 13) and to recognize and value individual contributions within their institution (Item 14). Their civil experiences may shape how they respond to the diverse needs of their teams and promote inclusive and supportive environments (Item 15).

Additionally, these leaders may more actively facilitate career advancement opportunities (Item 16), understanding that professional growth is connected to personal circumstances. This significant relationship confirms that civil status, as part of a leader's profile, is related to how individual consideration is practiced within HEIs.

In the context of Education 5.0, this finding supports the idea that personal backgrounds are related to the way leaders demonstrate transformational behaviors, particularly those that center on personalized attention and support for professional development.

There is a significant relationship between the level of practice along procedure in technology integration and civil status. This suggests that the dean's/campus director's personal background may relate to how systematically they approach the integration of technology within the institution. This relationship implies that civil status may be associated with the way leaders implement structured and supportive processes in advancing Education 5.0 initiatives.

Leaders who are married, widowed, or separated/annulled may bring experiences that contribute to stronger planning, coordination, and follow-through—key components in ensuring that procedures in technology integration are well-established (Item 11). These leaders may be more consistent in monitoring the effectiveness of technology use in teaching and learning (Item 12), perhaps reflecting a commitment to accountability and progress tracking that may be influenced by their life experiences.

Moreover, the relationship indicates that such leaders are likely to provide faculty with training opportunities (Item 13), encourage the sharing of best practices (Item 14), and regularly assess the broader impact of technology on institutional operations (Item 15). Their civil status may relate to a heightened sense of responsibility, patience, or organizational discipline, which are essential in maintaining a clear and sustainable process of technology integration.

In the context of Education 5.0, this finding reinforces the idea that personal and professional profiles are related to how leaders uphold structured and inclusive approaches in adopting technological innovations in higher education.

There is a significant relationship between the level of practice along principle in technology integration and civil status. This reveals that a leader's personal background may relate to how they uphold the foundational values guiding the use of technology in higher education. This relationship suggests that civil status is connected to the consistency with which leaders apply ethical, inclusive, and human-centered principles in integrating technology.

Leaders who are married, widowed, or separated/annulled may carry perspectives shaped by their social and emotional experiences, allowing them to make decisions that reflect empathy, responsibility, and ethical awareness. These attributes may relate to ensuring that the use of technology aligns with the institution's educational goals and vision (Item 16), as well as to promoting ethical standards in institutional practices (Item 17).

Furthermore, such leaders may be more attentive to preserving meaningful human interactions in education despite increased digitalization (Item 18), and more likely to advocate for inclusivity and accessibility (Item 19), considering the diverse backgrounds of their stakeholders. Their civil status may also relate to greater vigilance in promoting data privacy and the responsible use of digital tools (Item 20), reflecting a deeper appreciation of personal boundaries and security.

In the context of Education 5.0, this finding affirms that leaders' personal profiles are related to their ability to uphold core principles in technology use—ensuring that technological progress remains aligned with ethical standards and human development.

There is a significant relationship between the deans'/campus directors' level of transformative leadership practices and strategies along the four dimensions-idealized influence, inspirational motivation, individual consideration, and intellectual stimulation and the level of practices along the key elements of Education 5.0-fact in the utilization of technology, concepts on innovation, procedure in technology integration and principle in technology integration. This significant relationship affirms the foundational role of leadership in catalyzing institutional transformation. Leaders who exemplify idealized influence by demonstrating integrity, instilling pride, and fostering unity are likewise those who anchor technology integration in ethical, strategic, and vision-aligned practices. Their commitment to academic excellence and social responsibility naturally extends to promoting responsible digital citizenship and safeguarding data privacy and security.

Inspirational motivation, as expressed through articulating a shared vision, sustaining optimism, and rallying the institution around common goals, complements the drive to foster innovation and cultivate a culture receptive to technological advancement. These leaders do not merely adopt new tools—they champion systemic change that aligns technology with institutional aspirations, promoting its use as a powerful enabler of learning and institutional performance.

Further, leaders who exhibit individual consideration - through mentoring, recognizing individual strengths, and nurturing inclusive environments - also demonstrate heightened sensitivity to the diverse needs of faculty and learners in the digital age. These leaders are more attuned to fostering digital literacy, supporting training initiatives, and ensuring accessibility and inclusivity in technological applications, thereby humanizing the technological shift in education.

Lastly, intellectual stimulation plays a pivotal role in this relationship. Leaders who encourage critical thinking, challenge conventions, and embrace diverse perspectives are the same figures pushing the boundaries of traditional education. Their proactive stance in questioning outdated methods fuels experimentation with emerging technologies and fosters a culture of research and development aimed at continuous improvement.

To sum it up, the positive and significant relationship between transformative leadership practices and the execution of Education 5.0 principles illustrates a dynamic synergy - where visionary, ethical, inclusive, and innovative leadership directly correlates with the successful and meaningful integration of technology in higher education. This highlights that transformative leadership is not peripheral but central to actualizing the goals of Education 5.0, especially in Higher Education Institutions (HEIs) in Samar Island, where leadership capacity determines the pace and depth of educational innovation.

Qualitative Results

Challenges Encountered by the Deans/Campus Directors in the Implementation of Transformative Leadership in Education 5.0

Figure 1 summarizes the thematic analyses on the challenges encountered in the implementation of transformative leadership in Education 5.0.

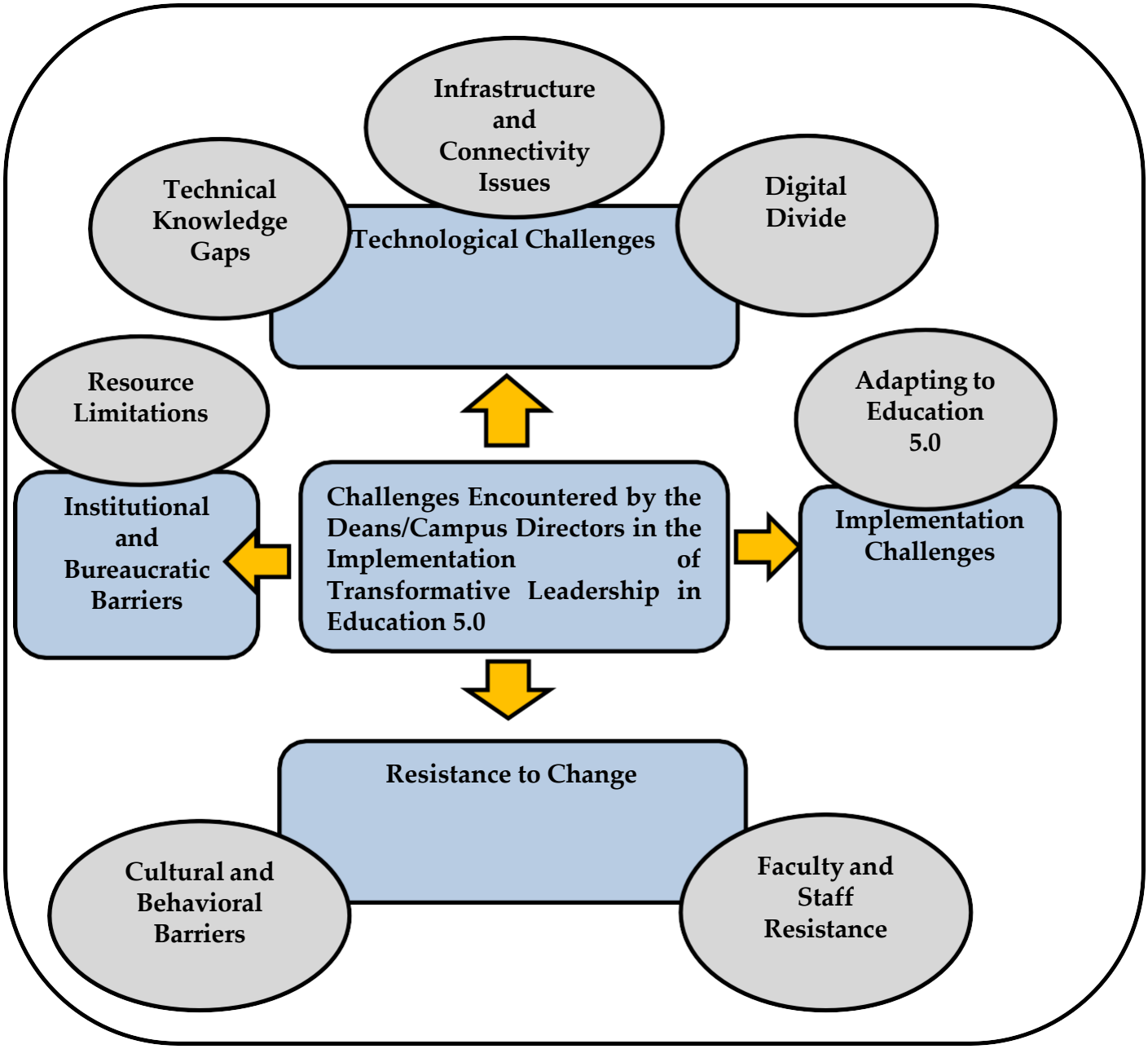

Figure 3. Summary of the Thematic Analyses on the Challenges Encountered in the Implementation of Transformative Leadership in Education 5.0

Figure 2 summarizes the thematic analyses on addressing the challenges encountered in the implementation of transformative leadership in Education 5.0.

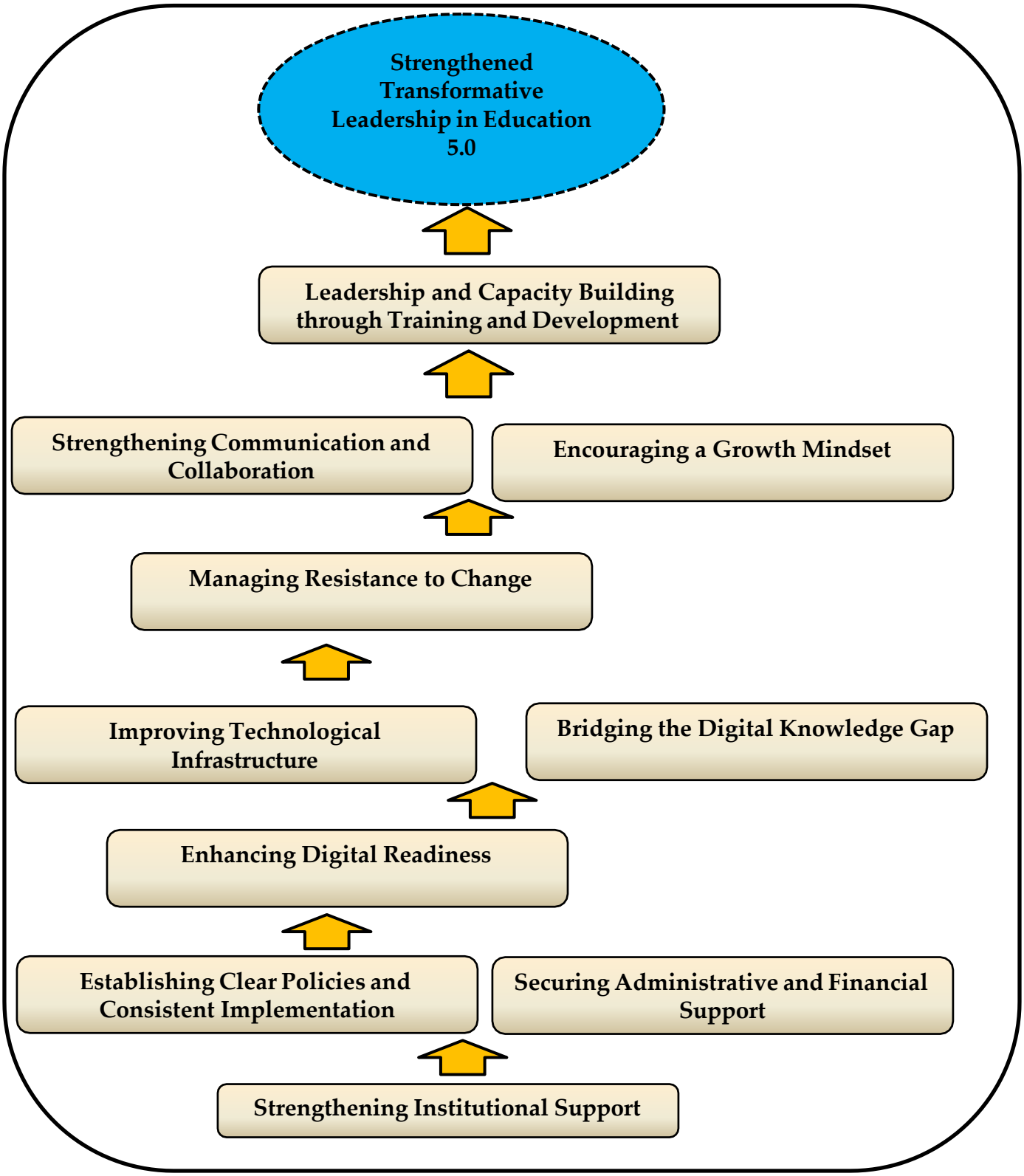

Figure 2. Summary of the Thematic Analyses on Addressing the Challenges Encountered in the Implementation of Transformative Leadership in Education 5.0

The flow of responses from the deans and campus directors outlines a comprehensive approach to overcoming the challenges in the implementation of transformative leadership in Education 5.0. The responses illustrate how these leaders are addressing the key themes related to transformative leadership and its integration into their respective institutions. The responses, organized by themes and subthemes, reflect the ongoing efforts to create a supportive, adaptable, and forward-thinking educational environment.

Convergent Parallel Integration

Table 2 presents the integration of both quantitative and qualitative findings in this study that highlights the pivotal role of transformative leadership practices—particularly idealized influence, inspirational motivation, individual consideration, and intellectual stimulation—in supporting the key elements of Education 5.0, especially in the integration and utilization of technology. The quantitative data revealed statistically significant relationships between transformative leadership dimensions and factors such as the use of technology, concepts of innovation, and technology integration procedures and principles. Similarly, qualitative insights uncovered a range of implementation challenges such as institutional constraints, technological limitations, and resistance to change, which leaders addressed through strategic support, capacity building, and fostering a collaborative culture.

These findings are consistent with the work of Vermeulen et al. (2017), who found that transformative leadership significantly influenced teachers' use of digital learning materials through both direct and indirect pathways. Their study reinforces the claim that leadership shapes the digital practices within educational institutions by influencing teacher attitudes and perceived behavioral norms. Moreover, the challenges and leadership responses identified in the qualitative portion of this study align with the conclusions of Landa et al. (2023), who demonstrated that leader support not only promotes the integration of innovative teaching technologies but also boosts faculty technological competency, a key aspect reflected in the subthemes such as bridging digital knowledge gaps and improving infrastructure.

Taken together, these studies support the present findings, indicating that transformative leadership, when exercised thoughtfully, can mitigate systemic barriers and create enabling conditions for Education 5.0. The convergent integration of these results points to a coherent narrative: effective leadership is instrumental in driving digital transformation in higher education, particularly in contexts facing infrastructural and human-capacity limitations.

Table 2
Convergent Parallel Integration

Dimensions	Quantitative Findings	Qualitative Findings	Integration	Integration Type
Civil Status and Individual Consideration	A significant relationship was found between civil status and individual consideration (r=5.778, p=0.056).	Respondents reported resource limitations that affect how leaders extend support and attention to individuals.	The relationship between civil status and leadership attention to individuals is reinforced by the qualitative accounts of constrained resources and capacity.	Convergent
Educational	Educational	Respondents	The relationship	Convergent

Background and Idealized Influence	background showed a significant relationship with idealized influence (r=0.265, p=0.041).	stressed the importance of professional training and policy clarity in demonstrating consistent leadership.	between educational background and the exercise of idealized influence is reflected in leaders' ability to model consistency and uphold institutional values.	
Civil Status and Technology Integration (Procedures and Principles)	Civil status had a significant relationship with procedures (r=8.445, p=0.015) and principles (r=9.721, p=0.008) in technology integration.	Respondents discussed varied access to infrastructure, connectivity, and digital resources.	The relationship between civil status and implementation of technological practices is better understood through the lens of digital challenges encountered by different leader groups.	Complementary
Individual Consideration and Technology Integration	Individual consideration showed strong relationships with technology utilization and innovation (e.g., rs=0.600, p=0.000).	Respondents emphasized the role of personalized support and communication in navigating tech-related tasks.	The relationship between individual consideration and tech-related practices is validated by leaders' efforts to support and guide staff through digital transitions.	Convergent
Transformative Leadership Dimensions and Education 5.0	Significant relationships were found between all leadership	Leaders described actions addressing innovation and technology	The relationships between leadership dimensions and Education 5.0	Convergent

Elements	dimensions and elements of Education 5.0 (all p-values < 0.05).	integration through institutional support and capacity-building efforts.	practices are reinforced by narrative accounts showing deliberate alignment of strategies with technological priorities.	

Transformative Leadership Model in Education 5.0

The upward model of *Transformative Leadership in Higher Education Institutions (HEIs) 5.0* begins with a strong foundational layer anchored on the demographic profile of deans and campus directors. This base includes two key demographic variables—civil status and educational background—which were found to have significant relationships with specific leadership dimensions and practices relevant to Education 5.0. Civil status is significantly related to individual consideration and to both the procedures and principles applied in technology integration. These findings indicate that the personal situations of leaders may influence the way they attend to the needs of their personnel and how they manage digital transitions within the institution. In addition, educational background bears a significant relationship with idealized behaviors, particularly those that reflect consistency and the upholding of institutional values. This reveals that the depth and quality of a leader's formal academic formation influence how they model commitment and professionalism within the educational environment.

Ascending from this base, the model captures the relationship between the four dimensions of transformative leadership—idealized influence, inspirational motivation, individual consideration, and intellectual stimulation—and the four key elements of Education 5.0: utilization of technology, concept of innovation, procedure in technology integration, and principle in technology integration. Each dimension is reflected in how leaders act upon these elements in real institutional settings. For instance, leaders practicing individual consideration are seen supporting personnel as they transition through digital changes, while those who exhibit inspirational motivation foster shared goals that align with the technological aspirations of Education 5.0. Intellectual stimulation is evident in the encouragement of innovative thinking and the development of forward-looking academic programs. Likewise, the consistency and integrity often linked to educational background manifest in the principled use of digital tools and alignment of institutional values with emerging educational technologies. aspirational, it is actively being shaped by the dynamic interactions of leaders' backgrounds, their day-to-day practices, and their institutional priorities. This phase reflects a leadership paradigm that is progressive, technologically responsive, and people-centered, embodying the vision of Education 5.0 in the unique context of Higher Education Institutions in the Philippines.

Taken as a whole, the upward flow of the model reflects a developmental movement from foundational personal attributes toward strategic leadership actions, culminating in a transformative leadership stance that is highly adaptive and grounded in both human understanding and digital readiness. It emphasizes that educational background and civil status are not merely static characteristics but are meaningful in shaping how leadership is exercised within the evolving educational landscape.

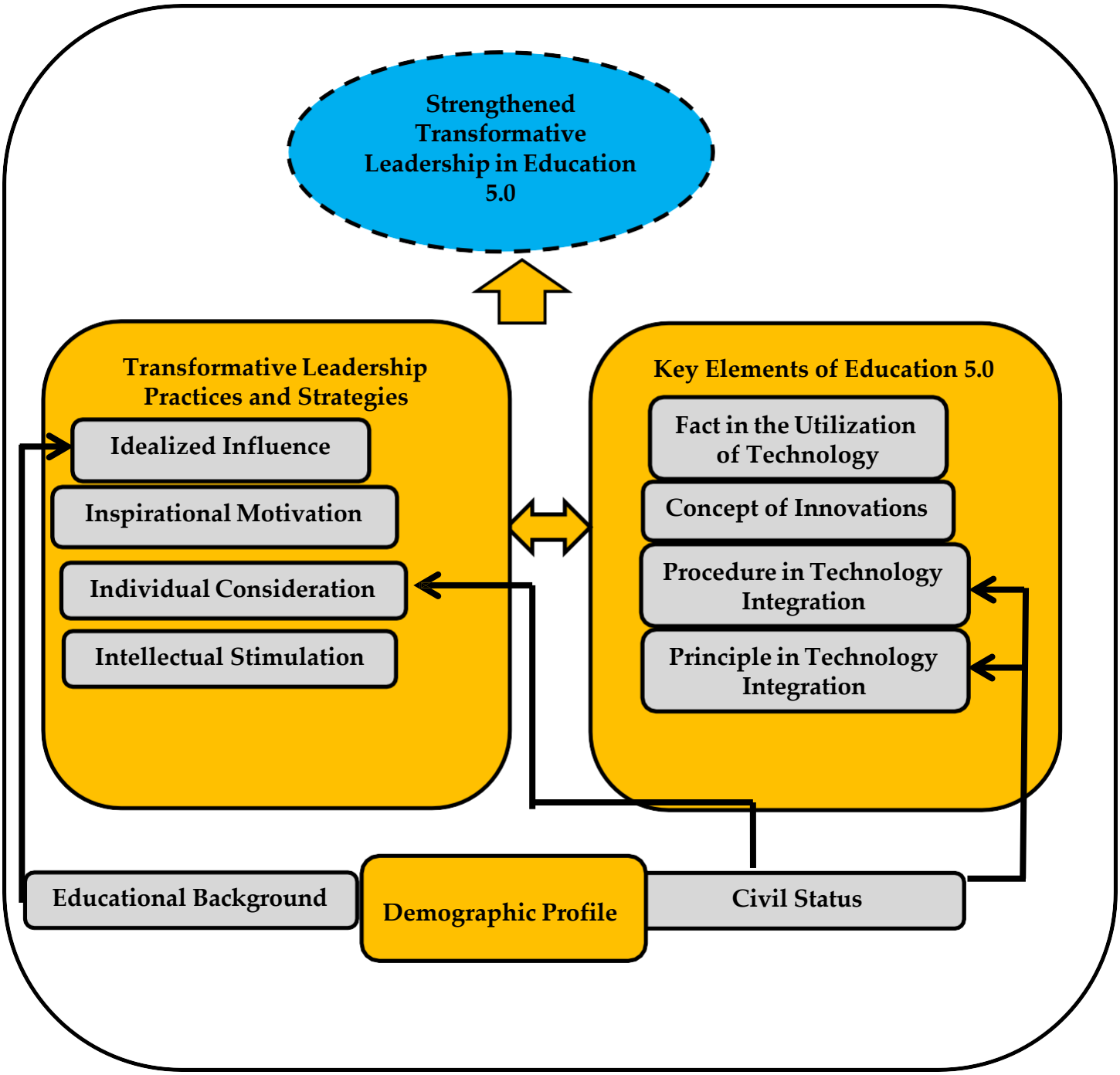

Figure 3. Montañez' Transformative Leadership Model in Education 5.0

IV. CONCLUSION AND RECOMMENDATIONS

Conclusions

The following are the conclusions derived from findings and presented following the order of the objectives of the study.

1. A total of sixty (60) deans/campus directors across higher education institutions (HEIs) in Samar Island participated in the study. The ages ranged from 30 to above 65, with the largest age group (26.7%) falls within 42–47 years, followed by 30–35 years (16.7%) and over 65 years (13.3%). The presence of deans and campus directors aged over 65 years (13.3%) can be attributed to private Higher Education Institutions (HEIs) hiring retired professors or former deans, drawing on their wealth of experience and leadership skills to contribute to the institution's development and continuity, while also providing guidance and mentorship to younger faculty and administrators. This practice reflects the value placed on seasoned expertise and the ongoing contribution of experienced leaders to the education sector, even after retirement. The mean age is 48.7 years while the standard deviation is 12.7 years indicating that, on average, the deans and campus directors are in their late 40s. The relatively high standard deviation (12.7) shows that there is considerable variability in their ages, with some respondents being much younger or older than the mean. This suggests a broad age range, from younger deans/campus directors in their 30s to senior leaders above 65, contributing to a diverse pool of leadership experience and perspectives for effectively implementing transformative leadership in the context of Education 5.0.
2. The gender distribution among the 60 respondents revealed that 36, or 60%, are female, while 24, or 40%, are male, indicating that women hold a majority of leadership positions, specifically, as deans/campus directors in HEIs in Samar Island, which suggests a significant representation of female leadership in the region's higher education institutions and highlights the increasing participation of women in educational leadership roles.
3. The majority of deans and campus directors, 36 (60%), are married, while 16 (26.7%) are single, and 8 (13.3%) are either widowed or separated, a distribution that aligns with general demographic trends in professional settings, where married individuals are often more represented in leadership roles, and the prevalence of married deans and campus directors may be attributed to career stability, family support, and a structured home environment, which can offer emotional and psychological resilience in managing the complex responsibilities associated with academic leadership.
4. A significant majority of deans/campus hold a doctorate degree (65.0%), with many of them having specializations vertically aligned with their leadership roles, suggesting a strong academic foundation for driving transformative leadership practices, although the presence of leaders with non-vertically aligned specializations (31.7%) and those with lower academic qualifications highlights the need for continuous professional development and leadership training programs to bridge gaps in administrative knowledge and strategic management, while fostering interdisciplinary approaches to meet the evolving demands of Education 5.0, ensuring a future-ready academic leadership structure.
5. The length of service of deans and campus directors revealed a diverse leadership experiences, with 55% of respondents having served less than three years, indicating high turnover or recent appointments, while 23.3% have served between four to eight years, representing a stable group of mid-career leaders, and 20% with nine or more years of service, highlighting a smaller group of experienced administrators; this distribution suggests that while new leadership brings fresh perspectives and potential for institutional change aligned with Education 5.0, it also presents challenges related to continuity and policy implementation, emphasizing the need for mentorship, professional development, and leadership capacity-building programs tailored to varying levels of experience in order to foster effective transformative leadership practices.
6. The academic rank distribution of deans/campus directors, where the majority hold the rank of Associate Professor (66.7%), followed by Assistant Professors (13.3%) and Instructors (11.7%), with only a small proportion of full Professors (8.3%) in leadership roles, highlighted the varied levels of academic expertise among institutional leaders, suggesting that while academic rank is important, it is not the sole determinant of leadership effectiveness, as the prevalence of lower-ranked faculty in leadership roles emphasizes the need for targeted professional development programs, mentorship, and leadership training to bridge the gap between academic and administrative competencies, while also encouraging policies that incentivize senior faculty to transition into leadership positions, ultimately ensuring the effective implementation of Transformative Leadership in Higher Education Institutions (HEIs) 5.0.
7. The level of transformative leadership practices and strategies along idealized influence revealed that 53.3% of deans/campus directors fully practiced idealized influence, serving as role models who earn the trust and respect of their faculty and staff, while 46.7% reported only partially practiced, underscores the importance of strong moral and ethical leadership in fostering trust and institutional coherence, yet also indicates the need for further development in reinforcing ethical standards, enhancing credibility, and promoting transparency to ensure that all leaders consistently embody these qualities, ultimately strengthening institutional culture and promoting a more cohesive and effective academic environment.
8. The level of transformative leadership practices and strategies along inspirational motivation revealed 46.7% of the deans/campus directors fully practice inspirational motivation, inspiring enthusiasm and articulating a clear vision for their institutions, while 53.3% only partially practice it, highlights the challenge many leaders face in consistently motivating their faculty and students, especially as HEIs are called to embrace digital transformation and innovative teaching strategies under Education 5.0, suggesting that addressing this gap through targeted leadership development programs focused on communication, vision-setting, and motivational strategies could better equip leaders to foster proactive engagement, promote institutional goals, and navigate the evolving demands of higher education.

9. The level of transformative leadership practices and strategies along individual consideration revealed an equal distribution of responses, with 50% of deans/campus directors fully practicing individual consideration by providing mentorship, support, and individualized attention to faculty members, while the other 50% only partially practice it, reveals that although half of the leaders are effective in recognizing and addressing the unique needs and aspirations of their colleagues, the remaining leaders may face challenges such as administrative workload, lack of formal mentorship programs, or limited faculty engagement, suggesting that implementing structured faculty development initiatives, leadership coaching programs, and fostering more frequent individual interactions could strengthen this leadership dimension and ensure more comprehensive support for faculty and staff.

10. The level of transformative leadership practices and strategies along intellectual stimulation revealed that only 41.7% of deans/campus directors fully practice intellectual stimulation, while 58.3% only partially practice it, highlights a significant gap in fostering a culture of innovation, problem-solving, and critical thinking, which is essential for transformative leadership, particularly in the context of Education 5.0, suggesting the need for institutional policies that incentivize research, provide professional development focused on innovation and critical thinking, and create collaborative platforms to support faculty members in embracing emerging technologies, interdisciplinary collaboration, and research-driven decision-making to address this challenge and enhance intellectual stimulation across HEIs.

11. The level of practices along the fact utilization of technology in Education 5.0 revealed that only 30.0% of deans/campus directors fully integrate digital tools and resources into their institutions, while the majority (70.0%) report partial adoption, indicating that while some leaders have successfully embraced technology in educational practices and administrative functions, many still face challenges such as limited access to technological resources, insufficient faculty training in digital pedagogy, and resistance to change, emphasizing the need for targeted initiatives like enhancing digital infrastructure, offering comprehensive faculty development on emerging technologies, and fostering a culture of digital literacy to fully realize the potential of Education 5.0.

12. The level of practices along the concept of innovations in Education 5.0, which involved fostering creative thinking, research-driven solutions, and entrepreneurial mindsets within HEIs, is fully practiced by 43.3% of deans and campus directors in Samar Island, while 56.7% report only partial practice, reflecting that although a substantial number of leaders actively encourage and implement innovative strategies, many face challenges in fully integrating innovation into institutional policies and teaching methodologies due to barriers such as bureaucratic constraints, insufficient funding for research, and the lack of structured innovation programs, which calls for stronger support in terms of research funding, industry partnerships, and the establishment of incubator programs to foster faculty and student-led innovations, ultimately ensuring that HEIs align with the transformative goals of Education 5.0.

13. The level of practices along the procedure in technology integration in Education 5.0, which referred to the systematic process of embedding digital tools and platforms into educational and administrative functions, revealed that 36.7% of respondents fully practice technology integration, while a majority of 63.3% only partially practice it, suggesting that while some institutions have established clear protocols for integrating technology, many still lack structured approaches to ensure its seamless adoption; this highlights the need for comprehensive planning, training, and support systems to maximize the benefits of digital tools, with necessary steps including the development of clear guidelines for adoption, ongoing technical support, and the creation of monitoring mechanisms to assess effectiveness, as well as establishing a dedicated digital transformation committee to facilitate the process.

14. The level of practices along the principle in technology integration in Education 5.0 which pertained to the theoretical and ethical considerations that guided the use of digital tools in higher education institutions was fully practiced by 28 respondents (46.7%) and partially practiced by 32 respondents (53.3%). This indicated that nearly half of the deans and campus directors ensured that the integration of technology aligned with pedagogical principles, data privacy regulations, and ethical considerations, while the other half still faced challenges in fully embedding these principles in institutional policies and practices. In the era of Education 5.0, where artificial intelligence, big data, and digital learning environments reshaped educational landscapes, adherence to ethical standards and pedagogical soundness was critical in maintaining academic integrity and inclusivity. The high percentage of partial practice suggested that some HEIs lacked comprehensive policies on data security, digital ethics, and the responsible use of emerging technologies. To enhance this aspect, academic leaders were encouraged to implement training programs focused on ethical digital practices, establish data protection policies, and promote discussions on the responsible use of artificial intelligence and automation in higher education. Strengthening institutional guidelines on technology ethics would have ensured that digital transformation efforts aligned with the overarching goals of equity, accessibility, and academic excellence.

15. The relationship between the level of transformative leadership practices and strategies along its four dimensions—idealized influence, inspirational motivation, individual consideration, and intellectual stimulation—was found to be not significant with age, suggesting that the age of deans and campus directors did not have a statistically significant effect on their level of transformative leadership practices, and while age often influences leadership styles and decision-making approaches, the findings implied that transformative leadership was not necessarily dependent on age-related experience or generational perspectives, which could indicate that transformative leadership within HEIs in Samar Island was more reliant on other factors, such as professional development, institutional support, or personal leadership philosophies, rather than the number of years a leader had lived.

16. The results also showed no significant relationship between gender and the four transformative leadership dimensions—idealized influence, inspirational motivation, individual consideration, and intellectual stimulation, suggesting that male and female leaders exhibited similar levels of idealized influence, inspirational motivation, individual consideration, and intellectual stimulation, and the non-significant findings highlighted that transformative leadership was not gender-dependent, as both male and female deans and campus directors demonstrated comparable leadership practices, aligning with contemporary leadership studies that argue leadership effectiveness is more closely associated with personal competencies, experience, and training rather than gender differences, and given the increasing emphasis on gender inclusivity in higher education leadership, this finding reinforced the notion that both male and female leaders were equally capable of driving transformational change within academic institutions.

17. The relationship between civil status and the three (3) dimensions of transformative leadership practices and strategies—idealized influence, inspirational motivation, individual consideration, and intellectual stimulation was generally found to be non-significant, suggesting that civil status did not notably impact the ability of deans and campus directors to serve as ethical role models, motivate their faculty and staff, or foster a culture of innovation and critical thinking. However, a significant relationship was found for individual consideration indicating that civil status may influence how leaders provide personalized mentorship and support, potentially shaped by their personal experiences and family commitments, which underscores the importance of prioritizing leadership training in areas such as emotional intelligence, work-life balance, and relational engagement, to ensure that all leaders, regardless of civil status, are equipped to effectively mentor and inspire their teams in a way that aligns with the principles of transformative leadership.

18. The relationship between the level of transformative leadership practices and strategies and area of specialization was found to be non-significant across all four transformative leadership dimensions—idealized influence, inspirational motivation, individual consideration, and intellectual stimulation, suggesting that whether a dean/campus director's academic specialization aligns with their leadership role did not significantly influence their ability to demonstrate transformative leadership qualities, which implies that factors such as leadership training, managerial skills, and administrative experience may play a more pivotal role in shaping effective leadership than disciplinary expertise, emphasizing the adaptability of leadership abilities, where deans and directors can effectively lead academic institutions regardless of their original field of study.

19. The length of service as a dean/campus director was found to have no significant correlation with any of the four transformative leadership dimensions—idealized influence, inspirational motivation, individual consideration, and intellectual stimulation, suggesting that the number of years served in a leadership position does not predict the effectiveness of transformative leadership practices and strategies, implying that factors such as professional development, ongoing learning, and exposure to innovative leadership strategies are likely more influential in shaping transformative leadership than the mere duration of tenure, as newer deans and campus directors, equipped with modern leadership training and a strong vision for change, can exhibit high levels of transformative leadership regardless of their years of service.

20. The relationship between the level of transformative leadership practices and strategies and educational background revealed that, among all demographic variables examined, only educational background showed a significant correlation with idealized influence indicating that deans/campus directors with higher educational qualifications, particularly those holding doctoral degrees, were more likely to exhibit strong idealized influence, serving as ethical role models who inspire trust and respect through visionary leadership, while no significant correlation was found between educational background and the other three dimensions of transformative leadership— inspirational motivation, individual consideration, and intellectual stimulation— suggesting that, although advanced academic qualifications contributed to credibility and role-modeling abilities, they did not necessarily predict a leader's capacity to inspire, support, or challenge their subordinates intellectually, thereby highlighting that transformative leadership effectiveness is shaped by a combination of factors beyond academic qualifications.

21. The relationship between the level of transformative leadership practices and strategies and academic rank revealed that academic rank did not show a significant correlation with any of the four leadership dimensions indicating that a leader's rank—whether professor, associate professor, assistant professor, or instructor—did not significantly affect their transformative leadership practices, suggesting that leadership effectiveness is not solely dependent on academic ranking but is more influenced by factors such as leadership training, administrative experience, and institutional support, and emphasizing the need for academic leaders to be equipped with leadership-specific training programs, rather than assuming that senior academic rank automatically translates to effective leadership capabilities.

22. The relationship between the level of practices along the key elements of Education 5.0 and age and revealed no significant relationship, indicating that age did not influence academic leaders' engagement with technology, innovation, and its integration into education, suggesting that both older and younger leaders exhibit similar levels of practice, likely due to professional development programs and continuous learning opportunities available to educators at all career stages, bridging potential generational gaps in technology adoption, and highlighting that institutional priorities and individual motivation, rather than age alone, are more influential in shaping the deans'/campus directors' engagement with the key elements of Education 5.0.

23. The findings revealed that civil status did not have a significant relationship with the utilization of technology and the concept of innovations in Education 5.0, suggesting that a dean or campus director's ability to engage with technology and

innovation is shaped more by professional experience, institutional policies, and leadership exposure rather than personal demographics, whereas civil status showed a significant association with both the procedure and principle in technology integration, with p-values of 0.015 and 0.008, respectively, implying that personal circumstances and life experiences may influence how academic leaders approach the step-by-step implementation and ethical application of technology, thus highlighting the need for tailored professional development programs that support leaders across diverse backgrounds in effectively navigating Education 5.0.

24. The findings indicated that area of specialization did not have a significant relationship with the level of practices along with the key elements of Education 5.0 practices, suggesting that regardless of whether academic leaders specialize in mathematics, sciences, humanities, or other fields, their level of practices along the key elements of Education 5.0 remains relatively uniform, likely due to institutional efforts in providing standardized training, interdisciplinary collaboration, and the widespread expectation that all leaders integrate technology into teaching, research, and administrative functions.

25. The findings indicated that the length of service as a dean or campus director did not have a significant relationship with the level of practices along the key elements of Education 5.0, suggesting that both newly appointed and long-serving deans/campus directors demonstrate comparable levels of practices that can be attributed to institutional policies that promote equal access to digital training, the necessity for continuous upskilling in response to technological advancements, and the possibility that newer leaders may already possess strong familiarity with Education 5.0 upon appointment.

26. There was no significant relationship between the highest educational attainment of deans/campus directors and their level of practices along the key elements of Education 5.0, as the effective implementation of technology-driven education appeared to have been shaped more by continuous professional development, institutional policies, and proactive efforts to acquire digital competencies rather than by formal academic qualifications alone, highlighting the idea that technological adaptation and innovation in higher education leadership were more dependent on ongoing learning opportunities, institutional culture, and access to relevant training programs rather than the attainment of advanced degrees.

27. The study revealed no significant relationship between academic rank and the level of practices along the key elements of Education 5.0, with negative r-values across all elements and p-values exceeding .05, suggesting that the level of technological practices among academic leaders was not determined by their rank but rather by institutional priorities, individual willingness to adopt new teaching and leadership strategies, and the collaborative efforts across different levels of faculty, where even lower-ranking members could be actively involved in technology integration due to institutional requirements or personal interest, while higher-ranking leaders may sometimes focus less on direct involvement with technology due to their administrative duties, often delegating such responsibilities to faculty members or IT support teams.

28. The significant relationship that existed between idealized influence and the fact in the utilization of technology suggested that when academic leaders demonstrate integrity, competence, and visionary leadership, they inspire faculty members and institutional stakeholders to embrace technology as an essential tool for learning and instruction, ultimately fostering an environment where trust in leadership encourages educators to integrate digital tools more effectively into their teaching methodologies, leading to improved pedagogical outcomes and setting a precedent for the wider adoption of technology as an enabler of educational excellence rather than a challenge.

29. The relationship that existed between idealized influence and the concept of innovations suggested that transformative leaders who were perceived as credible and forward-thinking played a crucial role in influencing their institutions' openness to change, fostering an academic culture that encouraged faculty and students to explore new teaching methods, embrace emerging technologies, and develop innovative solutions to educational challenges, which aligned with the principles of Education 5.0 that emphasized the purposeful application of technology in reimagining the educational experience.

30. The relationship that existed between idealized influence and the procedure in technology integration revealed that idealized influence played a role in technology adoption. Additional factors such as technical support, institutional policies, and training programs were also crucial in ensuring the smooth integration of technology into teaching and learning, with leaders who served as ethical exemplars and demonstrated confidence in technology-driven change inspiring faculty members to embrace digital tools, though their influence needed to be supported by concrete institutional mechanisms to facilitate effective integration.

31. The relationship that existed between idealized influence and the principle in technology integration highlighted that deans/campus directors who demonstrated idealized influence played a crucial role in fostering an educational culture where technological advancements were not only accepted but also embedded in both pedagogical and administrative practices, with their consistent advocacy for the ethical and responsible use of technology encouraging faculty members to align their instructional approaches with digital transformation strategies, ensuring that technology integration in HEIs was guided by well-defined principles such as accessibility, sustainability, and learner-centered pedagogy.

32. The positive correlation between inspirational motivation and the fact in the utilization of technology suggested that when transformative leaders effectively communicated a clear and compelling vision regarding the role of technology in education, they created an environment that encouraged faculty members to embrace digital tools in their instructional practices, with deans/campus directors who consistently emphasized the transformative power of technology and its potential to enhance teaching and learning significantly shaping the attitudes and behaviors of faculty members toward technology adoption, while articulating the benefits of integrating digital tools, such as improving student engagement, enhancing instructional delivery,

and increasing access to diverse learning resources, thus fostering a culture where educators were more willing to explore and implement technological innovations.

33. The strong positive correlation between inspirational motivation and the concept of innovations underscored the critical role that leadership played in cultivating a culture of creativity and forward-thinking in higher education institutions, with leaders who effectively communicated a compelling vision for educational transformation inspiring faculty members to seek out new, innovative approaches to teaching and learning, thereby encouraging educators to go beyond traditional methods and embrace pedagogical advancements that aligned with the principles of Education 5.0, and by fostering an environment where innovation was valued, leaders stimulated faculty engagement in research, experimentation, and the adoption of cutting-edge educational technologies that enriched student learning experiences.

34. The correlation between inspirational motivation and the procedure in technology integration highlighted the crucial role of leadership in facilitating a structured and well-organized approach to adopting digital tools in higher education, with technology integration requiring not just the introduction of new tools but a systematic process that ensured alignment with instructional goals, enhanced student learning outcomes, and fostered long-term sustainability, and the significant relationship suggested that when leaders inspired and encouraged faculty members, they not only increased their willingness to embrace technology but also influenced how systematically and effectively these technologies were embedded into teaching and learning practices, thereby implying that inspirational leaders played a vital role in shaping the attitudes of educators and helping them transition from traditional instructional methods to more technology-driven pedagogical strategies.

35. The high relationship between inspirational motivation and the principle of technology integration underscored the significant role of leadership in shaping institutional attitudes toward digital transformation, with the strong relationship suggesting that when deans and campus directors exhibited motivational leadership, they cultivated an environment where technology was not merely an optional tool but an essential component of academic and administrative processes, and inspirational leaders instilled a shared vision that emphasized the transformative power of digital tools, fostering a mindset that valued technology as a means of enhancing teaching, learning, and institutional efficiency, and by effectively communicating the benefits of technology integration, leaders encouraged faculty members to proactively explore, adopt, and refine their use of digital innovations in both pedagogy and operational procedures.

36. The significant relationship that existed between individual consideration and the fact in the utilization of technology underscored the essential role of transformative leadership in fostering an environment where faculty members felt supported and empowered to integrate digital tools into their teaching practices, with deans and campus directors who exhibited individual consideration recognizing the diverse needs, skills, and experiences of their faculty members, allowing them to provide personalized guidance and mentorship in adopting and utilizing technology effectively, and this relationship suggested that when transformative leaders actively listened to their faculty, acknowledged their challenges, and offered tailored professional development opportunities, educators were more likely to embrace and optimize the use of digital resources in their instructional methods.

37. The significant relationship that existed between individual consideration and the concept of innovations highlighted the crucial role of transformative leadership in fostering a culture of creativity and continuous improvement in higher education institutions, with deans and campus directors who exhibited individual consideration recognizing the unique strengths, challenges, and professional aspirations of their faculty members, allowing them to tailor support that encouraged innovative thinking, and this relationship suggested that when transformative leaders provided mentorship, acknowledged faculty contributions, and created opportunities for professional growth, educators were more likely to explore and implement novel approaches in their teaching and research, thereby fostering an environment where faculty members felt valued and supported, which enabled the development of forward-thinking educational strategies that aligned with the evolving demands of Education 5.0.

38. The significant relationship between individual consideration and the procedure in technology integration highlighted the essential role of transformative leadership in facilitating the structured and effective adoption of digital tools in higher education institutions, with deans and campus directors who exhibited individual consideration recognizing the diverse technological competencies of faculty members and providing personalized guidance, training, and support to ensure a smooth integration process, which suggested that when transformative leaders acknowledged and addressed the unique needs of educators, they empowered them to adopt systematic and well-informed approaches to incorporating technology into their instructional practices, and by offering tailored mentoring, professional development opportunities, and continuous feedback, deans and campus directors fostered a learning environment where faculty members were confident in navigating the complexities of technology integration.

39. The significant relationship between individual consideration and the principle in technology integration highlighted the critical role of transformative leadership in ensuring that technology adoption was guided by sound educational principles and aligned with institutional goals, as deans and campus directors who exhibited individual consideration provided personalized mentorship and professional development, enabling faculty members to integrate technology in pedagogically effective, ethical, and sustainable ways, ultimately enhancing instructional effectiveness and student engagement.

40. The significant relationship between intellectual stimulation and the fact in the utilization of technology emphasized the pivotal role of transformative leadership in cultivating a technology-driven academic environment, as intellectual stimulation

encouraged deans and campus directors to challenge faculty members to think critically, embrace new ideas, and adopt emerging digital tools, fostering a culture of innovation that empowered educators to confidently and competently integrate technology into their teaching methodologies.

41. The significant relationship between intellectual stimulation and the concept of innovations underscored the essential role of transformative leadership in fostering an academic culture that promotes creativity, critical thinking, and the continuous pursuit of innovation, as leaders who engage in intellectual stimulation challenge traditional methodologies, inspire faculty members to explore emerging educational trends, and encourage the development and implementation of groundbreaking ideas, aligning with the evolving principles of Education 5.0.

42. The significant relationship between intellectual stimulation and the procedure in technology integration highlighted the vital role of transformative leadership in guiding faculty members through a structured process of adopting digital tools in education, as leaders encourage critical analysis of current practices, challenge traditional teaching methods, and foster an environment of reflective practice, experimentation, and continuous improvement in the integration of technology.

43. The significant relationship between intellectual stimulation and the principle in technology integration emphasized the critical role of transformative leadership in shaping how faculty members internalize and apply the core principles of technology integration in education, with leaders encouraging educators to critically analyze and refine their approaches, ensuring that digital tools are not just adopted for the sake of innovation but are deeply integrated into sound pedagogical practices that align with educational goals and enhance student learning outcomes.

44. The challenges encountered by deans/campus directors in implementing transformative leadership in Education 5.0 revolved around institutional and bureaucratic barriers, such as bureaucratic constraints and resource limitations, technological challenges that include the digital divide, technical knowledge gaps, and infrastructure and connectivity issues, resistance to change driven by cultural and behavioral barriers alongside faculty and staff resistance, and broader implementation challenges, particularly in adapting to the evolving demands of Education 5.0, all of which highlight the need for strategic leadership, policy reforms, capacity-building initiatives, and a culture of innovation to overcome these obstacles effectively.

45. Addressing the challenges encountered by deans/campus directors in implementing transformative leadership in Education 5.0 required strengthening institutional support through clear policies, consistent implementation, and securing administrative and financial backing, enhancing digital readiness by improving technological infrastructure and bridging the digital knowledge gap, managing resistance to change by fostering effective communication, collaboration, and promoting a growth mindset, and reinforcing leadership and capacity building by strengthening transformative leadership practices and providing continuous training and professional development opportunities to ensure sustainable and effective educational transformation.

Recommendations

The following recommendations were concomitantly drawn from the aforementioned conclusions:

1. Higher education institutions (HEIs) should strengthen mentorship programs, leadership development initiatives, and professional training tailored to the diverse demographic profiles of deans/campus directors—considering their varying ages, gender representation, civil status, area of specialization, length of service, educational background and academic rank—by fostering knowledge-sharing between experienced and newly appointed leaders, supporting continuous academic and administrative capacity-building, and implementing policies that enhance institutional stability and leadership effectiveness to ensure the successful adoption of transformative leadership in the context of Education 5.0.

2. To enhance the level of transformative leadership practices and strategies of deans/campus directors, institutions should implement structured leadership development programs, mentorship initiatives, and professional training that reinforce idealized influence, strengthen inspirational motivation, promote individual consideration, and foster intellectual stimulation—by addressing gaps in ethical leadership, vision-setting, faculty mentorship, and innovation-driven decision-making—ensuring that academic leaders are well-equipped to navigate the evolving landscape of Education 5.0 and create a dynamic, forward-thinking institutional culture that prioritizes transparency, engagement, and continuous improvement.

3. To enhance the level of practices along the key elements of Education 5.0, HEIs should establish structured digital transformation strategies, enhance faculty training in emerging technologies, develop clear protocols for technology adoption, and implement policies on ethical digital practices—by addressing challenges such as limited access to resources, insufficient research funding, and resistance to change—while fostering a culture of continuous innovation, industry collaboration, and responsible use of artificial intelligence, ultimately enabling institutions to create future-ready learning environments that align with global education standards.

4. HEIs should strengthen leadership training programs focused on ethical leadership, digital transformation, innovation, and faculty mentorship while enhancing institutional support for technology integration, research-driven solutions, and structured policies on digital ethics to ensure that deans/campus directors fully embrace transformative leadership practices and strategies aligned with the goals of Education 5.0.

5. HEIs should prioritize ongoing professional development, institutional policies, and interdisciplinary collaboration to ensure that all deans and campus directors, regardless of age, civil status, area of specialization, length of service, educational background, or academic rank, are equipped with the necessary competencies to effectively implement and sustain the key

elements of Education 5.0, fostering a culture of continuous learning, ethical digital integration, and leadership-driven technological innovation.

6. It is recommended that higher education institutions prioritize the development of transformative leadership qualities among deans/campus directors by offering targeted professional development programs focused on enhancing idealized influence, inspirational motivation, individual consideration, and intellectual stimulation, as these leadership behaviors have been shown to significantly impact the successful integration of technology, innovation, and effective teaching practices in line with Education 5.0 principles, thereby fostering a culture of continuous improvement and ensuring that technology adoption is both ethical and pedagogically sound across all levels of academic leadership.

7. To effectively overcome the challenges encountered by deans/campus directors in implementing transformative leadership within the framework of Education 5.0, it is recommended that institutions adopt a multifaceted approach that includes strengthening institutional support through clear, consistent policies and securing necessary administrative and financial backing, enhancing digital readiness by investing in technological infrastructure and addressing the digital knowledge gap, managing resistance to change by fostering a culture of collaboration, open communication, and a growth mindset, and reinforcing leadership capacity by prioritizing continuous training, professional development, and the cultivation of transformative leadership skills to ensure the successful and sustainable integration of technology and innovation in educational practices.

8. A similar study may be conducted in other regions using the same instrument/questionnaire to determine the level of transformative leadership practices and strategies along its four dimensions and the level of practices along the key elements of Education 5.0.

9. Another study may be conducted to correlate the demographic profile, level of transformative leadership practices and strategies and the level of practices along the key elements of Education 5.0 in all State Universities and Colleges (SUCs) in the region.

REFERENCES

[1] Ahmad, A. Q. (2024). Navigating the Digital Transformation in Higher Education: Opportunities, Challenges, and Strategic Pathways. Retrieved from: https://tanmeah.com/wp-content/uploads/2024/12/PAPER-4.pdf

[2] Akbar, S., Pranajaya, S. A., Nurkadarwati, N., Hoesny, R., & Mutmainnah, I. (2024). Leadership Dynamics in The Era of Educational Transformation: Integrating The Concept of Adaptable Leadership in Sustainable Educational Administration. International Journal of Teaching and Learning, 2(1), 223-235.

[3] Alharbi, A. M. (2023). Implementation of Education 5.0 in developed and developing countries: A comparative study. *Creative Education*, *14*(5), 914-942.

[4] Al-Husseini, S., & Elbeltagi, I. (2018). Evaluating the effect of transformational leadership on knowledge sharing using structural equation modelling: the case of Iraqi higher education. *International Journal of Leadership in Education*, *21*(4), 506-517.

[5] Antonopoulou, H., Halkiopoulos, C., Barlou, O., & Beligiannis, G. N. (2021). Transformational leadership and digital skills in higher education institutes: during the COVID-19 pandemic. *Emerging science journal*, *5*(1), 1-15.

[6] Basilaia, G., Dgebuadze, M., Kantaria, M., & Chokhonelidze, G. (2020). Replacing the classic learning form at universities as an immediate response to the COVID-19 virus infection in Georgia. *International Journal for Research in Applied Science and Engineering Technology*, *8*(3), 101–108. https://doi.org/10.22214/ijraset.2020.3021

[7] Bass, B. M., & Avolio, B. J. (1995). *The multifactor leadership questionnaire (MLQ)*. Mind Garden.

[8] Bass, B. M., & Avolio, B. J. (2000). The multifactor leadership questionnaire sampler set: Technical report, leader form, rater form, and scoring key for MLQ Form 5X-Short (2nd ed.). Mind Garden.

[9]

[10] Blin, F., & Munro, M. (2008). Why hasn't technology disrupted academics' teaching practices? Understanding resistance to change through the lens of activity theory. *Computers & Education*, *50*(2), 475-490.

[11] Castroverde, F., & Acala, M. (2021). Modular distance learning modality: Challenges of teachers in teaching amid the COVID-19 pandemic. *International Journal of Research Studies in Education*, *10*(8), 7–15. https://doi.org/10.5861/ijrse.2021.504

[12] Drinkwater, M., & Deane, P. (2024). Lessons Learned and Ways Forward for Contextual Considerations and Complexities in Crises, Change and Transformative Leadership in Higher Education. *The Bloomsbury Handbook of Context and Transformative Leadership in Higher Education*, 335-46.

[13] Effendi, Y. R., Iswahyudi, D., & Samapati, C. S. (2024). THE ROLE OF 21st CENTURY TRANSFORMATIVE LEADERSHIP: UNDERSTANDING THE PROBLEMS OF THE PANCASILA DEMOCRATIC SYSTEM. *Jurnal Tapis: Jurnal Teropong Aspirasi Politik Islam*, *20*(2), 51-78.

[14] Ertmer, P. A. (1999). Addressing first-and second-order barriers to change: Strategies for technology integration. *Educational technology research and development*, *47*(4), 47-61.

[15] European Journal of e-Learning. (2021). *Volume 19 Issue 3, Article 2295*. https://doi.org/10.34190/ejel.19.3.2295

[16] Ibardaloza, E. T. (2023). Adaptive Leadership Behavior and Organizational Effectiveness in Higher Education Institutions. International Journal of Open-access, Interdisciplinary and New Educational Discoveries of ETCOR Educational Research Center (iJOINED ETCOR), 2(3), 736-759.

[17] International Labour Organization. (2019, March 8). *Where women work: Female-dominated occupations and sectors*. ILOSTAT. https://ilostat.ilo.org/blog/where-women-work-female-dominated-occupations-and-sectors/
[18] Iskarim, M. (2024, June). EXPLORING TRANSFORMATIVE LEADERSHIP IN ISLAMIC HIGHER EDUCATION INSTITUTIONS POST-INSTITUTIONAL CHANGE INTO UNIVERSITIES IN INDONESIA. In *Proceeding International Conference on Islam and Education (ICONIE)* (Vol. 3, No. 1, pp. 2684-2698).
[19] Intelligence-enabled Learning Revolution 2035. In *Digital Transformation in Higher Education, Part B* (pp. 231-241). Emerald Publishing Limited.
[20] Kim, C., Kim, M. K., Lee, C., Spector, J. M., & DeMeester, K. (2013). Teacher beliefs and technology integration. *Teaching and teacher education*, *29*, 76-85.
[21] Kopcha, T. J. (2012). Teachers' perceptions of the barriers to technology integration and practices with technology under situated professional development. *Computers & Education*, *59*(4), 1109-1121.
[22] Kouzes, J. M., & Posner, B. Z. (2006). *The leadership challenge* (Vol. 3). John Wiley & Sons.
[23] Landa, E., Zhu, C., Sesabo, J., & Machumu, H. (2023). *Leader support and the integration of innovative teaching–learning technologies: the mediating role of technological level of knowledge*. Education and Information Technologies, 28, 15523–15541.
[24] Lytras, M. D., Alkhaldi, A., & Malik, S. (2024). Transformative Leadership [TL] and Sustainable Innovation in Higher Education [HE]: Setting the Context. In *Transformative Leadership and Sustainable Innovation in Education: Interdisciplinary Perspectives* (pp. 211-229). Emerald Publishing Limited.
[25] Lytras, M. D., Serban, A. C., Alkhaldi, A., Aldosemani, T., & Malik, S. (2024). Transformative Learning for Future Higher Education: The Artificial
[26] McCarthy, A. M., Maor, D., McConney, A., & Cavanaugh, C. (2023). Digital transformation in education: Critical components for leaders of system change. *Social sciences & humanities open*, *8*(1), 100479.
[27] Miano, R. P. (2021). *Transformational leadership in Philippine higher education institutions: A survey of faculty perceptions.* Journal of Philippine Education, 36(2), 245-262. https://doi.org/10.1234/jpe.2021.36.2.245
[28] Moore, R. L., & Fodrey, B. P. (2018). Distance education and technology infrastructure: Strategies and opportunities. *Leading and managing e-learning: What the e-learning leader needs to know*, 87-100.
[29] Munir, F., & Aboidullah, M. (2019). Gender differences in transformational leadership behaviors of school principals and teachers' academic effectiveness. *Bulletin of Education and Research, 41*(2), 161–180. https://files.eric.ed.gov/fulltext/EJ1209676.pdf
[30] Muzira, D. R., & Muzira, R. (2020). An assessment of educators' level of concern on the adoption of education 5.0: A case of one university in Zimbabwe. *Current Journal of Applied Science and Technology*, *39*(17), 22-32.
[31] Rodríguez-Abitia, G., & Bribiesca-Correa, G. (2021). Assessing digital transformation in universities. *Future Internet*, *13*(2), 52.
[32] Rusten, E., & Hudson, H. (2002). Infrastructure: Hardware, networking, software, and connectivity. *Technologies For Education Potentials, Parameters, and Prospects*, *6*, 76-93.
[33] Shin, S. J., & Zhou, J. (2007). When is educational specialization heterogeneity related to creativity in research and development teams? Transformational leadership as a moderator. Journal of applied Psychology, 92(6), 1709.
[34] Stephenson, L. (2011). Developing a leadership education framework: A transformative leadership perspective. *Counterpoints*, *409*, 321-341.
[35] Toprak, M. (2024). Architecting the New-Generation University: Integrating Industry 4.0, Society 5.0, and Digital Transformation. In *17th International Conference On Knowledge, Economy & Management*. İstanbul Sabahattin Zaim Üniversitesi.
[36] Toquero, C. M., & Ramos, A. (2024). Leaders in Crisis: Philippine Educational Leaders Sustaining Learning in Higher Education Institutions During and Beyond the Pandemic. In *The Palgrave Handbook of Crisis Leadership in Higher Education* (pp. 541-561). Cham: Springer Nature Switzerland.
[37] Vermeulen, M., Kreijns, K., van Buuren, H., & Van Acker, F. (2017). *The role of transformative leadership, ICT-infrastructure and learning climate in teachers' use of digital learning materials during their classes*. British Journal of Educational Technology, 48(6), 1427–1440.
[38] Wahyudin, A., Akbar, F., Rohmad, R., & Budi, M. H. S. (2024). Enhancing Public Service Excellence through Transformational Leadership in Service Management. *Business and Applied Management Journal*, *2*(1), 12-24.
[39] Waldman, D. A., Balthazard, P. A., Peterson, S. J., & Zhang, H. (2023). The age of leadership: Meta-analytic findings on the relationship between leader age and perceived leadership style and the moderating role of culture and industry type. *Personnel Psychology*, *76*(4), 987–1023. https://doi.org/10.1111/peps.12644
[40] World Bank. (2024). *Digital transformation in Philippine higher education institutions: A national report on leadership and innovation*. World Bank Group. https://www.worldbank.org/en/region/eap/publication/philippine-higher-education-digital-transformation
[41] W.-K. Chen, *Linear Networks and Systems* (Book style). Belmont, CA: Wadsworth, 1993, pp. 123–135.
[42] H. Poor, *An Introduction to Signal Detection and Estimation.* New York: Springer-Verlag, 1985, ch. 4.
[43] B. Smith, ―An approach to graphs of linear forms (Unpublished work style),‖ unpublished.
[44] E. H. Miller, ―A note on reflector arrays (Periodical style—Accepted for publication),‖ *IEEE Trans. Antennas Propagat.*, to be published.

[45] J. Wang, ―Fundamentals of erbium-doped fiber amplifiers arrays (Periodical style—Submitted for publication),‖ *IEEE J. Quantum Electron.*, submitted for publication.

AUTHORS

First Author – Dr. Roderick R. Montañez, Student Teaching Coordinator, College of Education, Samar State University. roderick.montanez@ssu.edu.ph
Second Author – Dr. Laura B. Boller, Dean, College of Education, Samar State University
laura.boller.ssu.edu.ph
Correspondence Author – Roderick R. Montañez, 09565968417.