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Strategic and Creative Thinking Competencies Among School Principals

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This study investigated the importance and predictors of strategic and creative thinking competences among 164 public school principals in the Philippines, highlighting their critical role in effective school leadership in the context of 21st-century education. As schools grow more dynamic and face new demands, leaders are now expected to do more than just react; they need to stay ahead of the curve, think creatively, and guide their communities through change. Using a cross-sectional survey and a hybrid research instrument composed of items from the studies of Fisher (2011), Teboul (2015), and DuBrin (2023), the study assessed school principals' levels of strategic and creative thinking competences. Results show that the majority of respondents demonstrate a competent level in both areas. However, certain dimensions, particularly systemic and innovative thinking under strategic competence, and originality under creative competence that require focused development. A significant positive correlation was found between strategic and creative thinking, indicating that the two competences are interdependent and mutually reinforcing. This interrelationship emphasizes the need for integrated leadership training that develops both analytical and innovative capacities. The findings suggest that strengthening these thinking competences is essential for school improvement planning, problem-solving, and decision-making. This research has important implications for educational policy and leadership development in Philippine basic education. By identifying specific areas for growth and highlighting the link between strategic and creative competencies, the study offers practical insights for the design.

Keywords. Strategic Thinking Competence, Creative Thinking Competence, School Leadership

The contemporary society is described as functioning in times of turbulence and great change. The COVID-19 pandemic has challenged

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the international community and even the schools. Hence, there must be a strategy to be used every day to communicate ideas around plans as well as anticipating or forecasting the future (Bratton, 2023; Yalçın, 2021). The changes brought about by disruptive technologies, ASEAN Integration, industrialization, globalization, and the changing character of 21st-century learners necessitate a call for our school principals to enhance their skills and competence in the planning process (Park & Lee, 2023; Yirci & Demir, 2019).

A school principal plays a vital role in guiding both the daily operations and the teaching practices within a school or group of schools, ensuring that both administrative tasks and educational goals are effectively managed (Çoban et al., 2019). Given these responsibilities, it is essential for school principals to possess the right set of skills and competencies that enable them to adapt and succeed in dynamic and often challenging educational settings. This calls for a reimagining of leadership training programs to prioritize equity and responsiveness to diverse school needs (Young et al., 2021). As outlined in the Department of Education (DepEd) Order No. 24, s. 2020—also known as the National Adoption and Implementation of the Philippine Professional Standards for School Heads—school principals are expected to demonstrate strategic leadership by effectively overseeing school operations and managing resources. They are also tasked with prioritizing instructional quality, fostering professional growth, and cultivating strong partnerships through innovative leadership practices (Balcı, 2021; Zhang et al., 2020).

In relation, the education sector revolves in a constantly changing world, with rapid competition, and is very dynamic and complex (Organisation for Economic Co-operation and Development [OECD], 2023). Knowing the very complex role of school principals in dealing with the day-to-day operations of schools, they usually encounter problems or challenges in the school planning process (Bozkurt et al., 2019). Considering that planning pervades all other managerial functions, however, before it can be done, those who are involved in planning must have a thorough knowledge of the immediate needs of the institution in the educational context; thus, the necessity of having strategic and creative thinking competencies must be a prerequisite in crafting the school improvement plan (Lucas et al., 2023). Undeniably, some school principals failed to implement these policies properly as stipulated in the said plan because of the difficulties or challenges they encounter in the implementation stage of a policy-making process (Lazo, 2011).

Despite these intentions, studies have shown that the implementation of School Improvement Plans (SIPs) often falls short

due to limited strategic foresight, fragmented stakeholder engagement, and inconsistencies in contextual application (Bernardo at al., 2020; UNESCO, 2021). As such, the development and execution of SIPs require school leaders to possess both strategic and creative thinking skills. Strategic thinking enables principals to anticipate and plan for future challenges, while creative thinking facilitates innovative and adaptive solutions tailored to diverse school environments (Mumford & Todd, 2019; OECD, 2023). These cognitive competencies are essential for navigating complex educational demands and ensuring that school improvement efforts are both sustainable and locally relevant. In accordance with the global shift toward decentralization and participatory governance in education, The Philippine Department of Education (DepEd) 2023, advocates for a collaborative leadership approach through the implementation of School-Based Management (SBM), in line with the provisions of the Governance of Basic Education Act of 2001 (Republic Act No. 9155). This framework encourages the active involvement of school stakeholders in decision-making to enhance accountability, transparency, and overall school performance. Central to this approach is the role of school principals in leading the formulation of the School Improvement Plan (SIP), a three-year, evidence-informed roadmap that outlines targeted interventions aligned with learner needs and contextual realities (DepEd, 2015; SEAMEO INNOTECH, 2020). The SIP is intended to be results-based, child-centered, and developed in collaboration with community stakeholders.

A School Improvement Plan (SIP) is a strategic and adaptive planning tool that empowers schools to address proactively emerging educational challenges while setting a clear trajectory towards sustainable growth. It acts as a blueprint for implementing programs, projects, and activities (PPAs) that align with both local needs and global competencies (Bernardo et al., 2020; OECD, 2023). This study is anchored on Transformational Leadership Theory along with Strategic Thinking Theory and Creative Leadership Theory. These theoretical lenses collectively explain the cognitive, behavioral, and leadership competencies essential for school principals to effectively lead school improvement efforts through the development and implementation of the SIP.

Transformational Leadership Theory (Bass & Riggio, 2006) provides the behavioral foundation for understanding how school leaders inspire and motivate others toward meaningful change. When principals embody transformational leadership, they are more likely to empower stakeholders, foster a collaborative school culture, and create conditions conducive to innovation, all of which enhance the

implementation and impact of the SIP. Another is Strategic Thinking Theory (Liedtka, 1998) which emphasizes a forward-looking, adaptive, and systems-oriented approach to planning and decision-making. In the context of this paper, principals' ability to think strategically allows for more relevant, responsive, and sustainable SIPs that go beyond compliance and address the evolving needs of learners and communities. Lastly, Creative Leadership Theory (Mumford & Todd, 2019) underscores the value of cognitive flexibility, originality, and openness to new ideas in leadership practice. In crafting and leading SIPs, creative thinking enables principals to reframe issues, envision novel interventions, and adapt strategies based on the unique realities of their school communities.

In the Philippine basic education system, school principals play an essential role in ensuring quality education by fostering environments conducive to effective learning (Department of Education [DepEd], 2022; Southeast Asian Ministers of Education Organization Regional Center for Educational Innovation and Technology [SEAMEO INNOTECH], 2020). To navigate the complex challenges of school leadership, they must demonstrate strong strategic and creative thinking competences, which are crucial for crafting and implementing School Improvement Plans (SIPs) aligned with the Basic Education Development Plan 2030 (DepEd, 2022). These competences empower principals to synchronize school goals with national education priorities, overcome resource constraints, enhance curriculum delivery, and cultivate professional learning communities (Llego, 2023; UNESCO, 2021). Amid growing pressures from curriculum reforms, technological shifts, and increasing learner diversity, the demand for adaptive and innovative school leadership has intensified (Mateo & Nucum, 2021; World Bank, 2023). Despite their vital role, limited empirical studies have examined the predictors of strategic and creative thinking among Filipino school leaders. Gaining insight into these factors is imperative to support principals' well-being, professional growth, and the creation of inclusive, resilient, and learner-centered educational ecosystems (Bernardo et al., 2020).

More than a compliance document, the SIP is a dynamic mechanism that fosters innovation and contextual responsiveness, especially in uncertain or rapidly changing environments. In this context, creative leadership becomes indispensable. Recent literature highlights that effective school leaders exhibit high levels of resilience, cognitive flexibility, and a drive to challenge the status quo—traits strongly associated with creativity (Mumford & Todd, 2019). Creative leaders are not only committed to their goals but also

find intellectual engagement in solving complex problems through unconventional and forward-thinking approaches (DuBrin, 2023). Creativity and leadership are thus mutually reinforcing: while leaders offer innovative solutions, they must also cultivate a space where teamwork and collaboration, experimentation, and shared creativity thrive (Karwowski & Lebuda, 2020; OECD, 2023). When these conditions are met, schools are better equipped to generate sustainable and transformative improvements.

With the growing demand of a more flexible school leadership, this study explored the overall strategic and creative thinking competences of the school principals. Moreover, this study aimed to address the gap by identifying the critical predictors of strategic and creative thinking competences, ultimately contributing to more effective school leadership and improved educational outcomes.

Specifically, the present study sought to answer the following objectives: (1) to find out the level of school principals' strategic thinking and creative thinking competences; (2) To identify the significant relationship between the strategic and creative thinking competences of school principals; and (3) to determine the significant predictor from the specific demographic variables and dimensions of school principals' strategic and creative thinking competences.

Method

Research Design

This study employed a quantitative research design through a cross-sectional survey approach, utilizing a structured questionnaire to gather data. The instrument was distributed to a selected group of school principals within a specific school's division in the Philippines, aiming to capture a snapshot of their perspectives and experiences at a particular point. This cross-sectional study gathered data at a single point, using specific variables to explore school principals' views and experiences. Cross-sectional studies are widely utilized in developmental psychology but are also vital in other domains such as Social Science and Education. They are classified as descriptive rather than causal or relational research; therefore, they cannot be utilized to determine the cause of an illness. Researchers acquire information from a community but do not change the variables (Cherry, 2023).

Sample

Participants from both elementary and secondary levels were selected using random sampling. The total participants in the findings

of the study were 164 public school principals from both elementary and secondary levels in a school's division. An analysis of the respondents' demographics indicates that 68.3% of the 164 school principals surveyed are female, while 31.7% are male. With regard to age, 63.4% of the respondents are 50 years or older, and 36.6% fall within the 30-49 years age range. The length of service in government indicates that 70.1% of the respondents have served for 21 years or more, 28% have 7-12 years of service, and 7.9% have less than a year of service. The length of service as a principal show that 70.1% have held their position for 21 years or more, 28% for 11-20 years, and 1.8% for 10 years or less.

The school category distribution reveals that 65.2% of the principals lead elementary schools, while 34.8% are managing secondary schools. In terms of educational attainment, 31.7% have a Master's degree with additional units, 18.9% hold a Doctorate degree, and 28% have completed a full Master's degree. Regarding training, 57.3% have attended more than six training programs, 12.8% have attended 5-6, 17.7% have attended 3-4, and 12.2% have participated in 1-2 programs. Additionally, 87.8% of the respondents have attended leadership courses, while 12.2% have not. Finally, 74.4% of the principals hold permanent or Plantilla positions, while 25.6% are designated.

Measures

Demographic Information Questionnaire

Based on the professional standards for school heads and from the study of Dubrin (2023) on leadership research, the demographic information questionnaire was used to collect and record participants' demographic data, including sex, age, length of service, school category, educational attainment, number of relevant trainings, participation in leadership courses, and their status as school principals. This data was used for profiling and further validation of the study's findings.

Strategic Thinking Competence Tool (STCT)

The STCT tool, developed by Teboul (2015), includes 15 statements designed to measure perceptions, with responses rated on a 5-point Likert scale—ranging from 1 for *"strongly disagree*" to 5 for "*strongly agree*." Each dimension of strategic thinking was

represented by specific survey items: market-oriented (items 1, 9, 11, 13), vision-oriented (items 4, 5, 6, 14), systematic (items 7, 8, 10, 15), and innovative (items 2, 3, 12). With a strong reliability score of Cronbach's alpha at .88, the tool was utilized to measure how well school principals demonstrate strategic thinking competence.

Creative Thinking Competence Tool (CTCT)

The CTCT, developed by Fisher (2011), is made up of 20 items and uses a distinct response scale ranging from 5 for "*true*," to 1 for "*false*." The survey items were grouped according to dimensions of creative competence: fluency (items 7, 12, 13, 17, 18), flexibility (items 6, 8, 9, 16, 19), originality (items 1, 3, 4, 14, 20), and elaboration (items 2, 5, 10, 11, 15). With a high reliability score of Cronbach's alpha at .87, this was used to measure creative thinking competence.

Procedure

Observing ethical research protocols, the researcher explained to the participants through the consent form the real purpose of the study and their cooperation by honestly answering the questions on the demographic information questionnaire. Their strategic and creative thinking competences are vital while assuring them that their answers were treated with utmost confidentiality. In addition, the ethical considerations and protection of participants and adherence to the Philippine Data Privacy Act of 2012 were strictly observed. This involved securing the informed consent from the participants, providing them opportunity to know their rights and privileges, and knowing their autonomy to withdraw anytime. It was also highlighted by the researcher that the participants' data or shared information will not identify them or the school they are affiliated with. All data was protected and entered into a computer with codes and nobody has the access to this data.

Results

As such, the research utilized a parametric test. Descriptive statistics in the study were analyzed using mean, standard deviation, frequency count, and percentage to summarize and interpret the data effectively. Multiple Regressions and Pearson's correlation were used for inferential statistics.

Based on the results, school principals exhibit a competent level of thinking across both strategic and creative domains (M = 3.72, SD = 0.49). Specifically, their overall strategic thinking competence was rated as competent (M = 3.93, SD = 0.69). In the various dimensions of strategic thinking, they were rated competent in the market-oriented (M = 4.42, SD = 0.52) and vision-oriented (M = 4.36, SD = 0.63) aspects. However, their competence was assessed as "moderately competent" in the systemic (M = 3.47, SD = 0.98) and innovative (M = 3.46, SD = 1.18) dimensions of strategic thinking. When assessed for creative thinking competence, school principals were rated as "competent" overall (M = 3.60, SD = 0.55). In the specific dimensions of fluency, flexibility, and originality, they were also rated competent with scores of (M = 4.13, SD = 0.60), (M = 3.62, SD = 0.67), and (M = 3.52, SD = 0.72), respectively. However, in terms of elaboration, their creative thinking ability was rated as moderately competent (M = 3.13, SD = 0.77).

Pearson correlation analysis showed a moderate positive relationship between the variables strategic thinking and creative thinking competence among school principals (r = 0.31, $p < .01$). According to conventional benchmarks in the social sciences, a correlation coefficient of .31 indicates a moderate effect size, suggesting that principals who demonstrate stronger strategic thinking skills are moderately more likely to exhibit higher degree of creative thinking competence. This statistically significant result suggests providing evidence that the relationship is not due to mere chance given the sample size. However, while the relationship is meaningful, it is not strong and should be interpreted as indicating a noticeable but not substantial association between the two constructs. Despite the statistical significance of the correlation, the hypothesis was rejected, potentially because it posited a stronger or different nature of relationship than what was found. This finding, as shown in Table 1, highlights the complexity of cognitive competencies in leadership roles and the importance of considering both statistical and practical significance in interpreting results.

Regarding the strategic thinking competence, no meaningful predictions were found in the demographic profile of school principals indicated in Table 1.

Table 1: *Regression Analysis of Demographic Variables in Predicting Strategic Thinking Competence*

Model	*B*	*SE*	*β*	*t*	*p*
Criterion Variable: Strategic Thinking Competence					
Constant	5.83	.60		9.76	.00
Sex	-.32	.11	-.21	-2.94	.00
Age	-.01	.14	-.01	-.09	.93
Length of Service	.06	.04	.14	1.46	.15
School Category	-.41	.12	-.29	-3.36	.00
Length of Service	-.13	.14	-.09	-.94	.35
Highest Educational Attainment	.01	.05	.02	.21	.83
Training Attended	-.04	.05	-.07	-.82	.42
Attended Leadership Course	-.35	.18	-.17	-1.99	.04
Status as Principal	-.06	.14	-.04	-.40	.69

The age, length of service as a principal, length of service as a government employee, graduate degree, and number of related trainings attended as a school principal, and status as a principal indicated that these variables are not found significant predictors of strategic thinking competence among school principals. Meanwhile, the strategic thinking competence of school principals was significantly predicted by other demographic factors, including sex, school category, and attendance at leadership courses. These results show that sex, school category, and attendance at leadership courses were significant predictor variables. The demographic profile of school principals did not yield any significant predictions for the Strategic Thinking Competence.

The results of the regression analysis indicated that variables such as sex, age, length of service as a principal, school category, length of service as a government employee, graduate degree, number of related trainings attended as school principals, attendance at leadership courses, and status as a principal were not predictors of strategic thinking competence of school principals.

Multiple linear regression tests, illustrated in Table 2, were employed to ascertain whether the creative thinking competence of school principals were predictive of their strategic thinking competence. In a linear relationship, these tests were performed to find predictor factors for the change of a dependent variable. This indicated that the predictor variable—strategic thinking competence—had been included in the regression model at the significance level.

Table 2: *Regression Analysis for Dimensions of Creative Thinking Competence on Strategic Thinking Competence*

	B	*SE*	*β*	*t*	*p*
Model	Criterion variable: Creative Thinking Competence				
(Constant)	3.00	.36		8.38	.00
Flexibility	.09	.10	.097	0.95	.35
Elaboration	.08	.11	.076	0.68	.50
Originality	.36	.07	.396	4.81	.00
Fluency	-.19	.11	-.166	-1.80	.07

The results indicate that the school principals' strategic thinking competence was significantly predicted by originality. However, as shown in Table 2, other aspects of creative thinking—such as fluency, elaboration, and flexibility—did not significantly predict their strategic thinking competence. The strategic thinking competence dimensions, such as systemic, market-oriented, innovative, and vision-oriented, were not predictors of the creative thinking competence of school principals.

Table 3: *Regression Analysis for Dimensions of Strategic Thinking Competence on Creative Thinking Competence*

Model	*B*	*SE*	*β*	*t*	*p*
	Criterion variable: Creative Thinking Competence				
Constant	2.46	.40		6.18	.00
Systemic	.13	.07	.23	1.81	.07
Market-Oriented	.17	.10	.16	1.72	.09
Innovative	.01	.06	.02	.14	.89
Vision-Oriented	-.02	.09	-.02	-.19	.85

In Table 3, the dimensions of strategic thinking competence, the data analysis results showed that there were not significant predictors of creative thinking competence: systemic, market-oriented, innovative, and vision-oriented were included in the regression model. On the other hand, the dimensions of strategic thinking competence were not predictors of the creative thinking competence of school principals.

Discussion

The findings are significant for school improvement planning in the Philippine basic education system, where strategic and creative thinking are essential for developing data-driven and innovative plans that address learning gaps. Research indicates that educational leaders with strong strategic competence are more effective in designing improvement plans aligned with their schools' needs (Young et al.,

2021). The results suggest that principals' systemic and innovative thinking need further development to create a more holistic School Improvement Plan (SIP), which should include problem-solving and forward-looking innovation to foster school-wide growth. This involves the dimensions of strategic thinking such as market- oriented, vision-oriented, systemic, and innovative. Alongside these are the dimensions of creative thinking like fluency, elaboration, flexibility, and originality.

According to Transformational Leadership Theory (TLT), empowering individuals, fostering creativity, and encouraging adaptability to drive organizational success should be emphasized. Contextualizing this into the relationship between strategic and creative thinking competences of school principals, school principals with a high level of strategic thinking competence demonstrated high levels of creative thinking competence. In contrast, school principals with a low level of strategic thinking competence showed low levels of creative thinking competence. The Pearson correlation analysis indicated a significant positive relationship between school principals' strategic and creative thinking competencies, suggesting that higher strategic thinking is associated with stronger creative thinking skills. This means that school principals with higher degrees of strategic thinking competence also exhibit higher degrees of creative thinking competence. Such a correlation emphasizes the importance of fostering both cognitive domains in school leaders, as both are necessary for effective planning and implementation of a School Improvement Plan (SIP). This interconnectedness highlights the need for leadership training programs that simultaneously develop strategic and creative thinking in the context of Philippine basic education. Research by Kumkale (2022) supports this notion, emphasizing that leadership requires thinking creatively in complex situations while aligning with strategic goals. This study reinforces the idea that school principals need to be visionary and innovative to navigate the challenges of school improvement and create professional learning communities that promote student achievement.

Given that the coefficients in the regression model were negative, it can be interpreted that male school principals, those working in elementary schools, and those who attended leadership courses exhibited higher levels of strategic thinking competence. Regression analysis revealed that demographic factors like sex, school category (elementary vs. secondary), and participation in leadership training were significant predictors of strategic thinking competence. Notably, principals who had attended leadership courses demonstrated higher levels of strategic thinking competence. This suggests that

professional development programs targeting leadership skills can significantly influence a principal's ability to think strategically. Meanwhile, age, length of service, and educational attainment did not show any significant influence. Using the lens of TLT, school principals should prioritize inspiring and motivating their team to work toward a common goal by fostering personal growth and professional development among their staff. These findings are particularly relevant in the Philippine basic education system, where the Department of Education 2015, mandates school principals to spearhead the development of the School Improvement Plan (SIP), as outlined in DepEd Order No. 44, s. 2015, also known as the Guidelines on the Enhanced School Improvement Planning Process. Leadership training, especially in strategic planning, can empower principals to craft SIPs more aligned with their school's vision and needs. This highlights the importance of investing in continuous leadership development programs to ensure school principals possess the necessary skills to lead school improvement initiatives effectively.

The regression analysis also indicates that school principals who demonstrate originality in their creative thinking are more likely to have strong strategic thinking abilities. Originality, which involves generating new ideas and perspectives, is essential for developing innovative school management and planning strategies. In relation to the School Improvement Plan in Philippine basic education, the ability to think originally is critical for crafting unique and practical solutions to persistent problems (Lucas et al., 2023). Original thinking allows principals to design strategies beyond conventional approaches, leading to more dynamic and responsive SIPs. As research on educational innovation suggests, schools that embrace originality in leadership are more successful in achieving long-term improvements (Huang et al., 2022). The study's results underscore the need for fostering originality in school leadership, particularly in the context of school improvement planning. When viewed through the lens of the leadership theory mentioned, intellectual stimulation encourages leaders to promote creativity, innovation, and critical thinking. It motivates followers to challenge existing assumptions and consider new perspectives and solutions. Furthermore, the regression analysis showed that no strategic thinking dimensions that are systemic, market-oriented, innovative, or vision-oriented significantly influenced creative thinking competence. While systemic and market-oriented thinking showed slight positive influences, with no difference was found. This suggests that while strategic thinking is essential, it does not necessarily drive creative thinking abilities among school principals. For the Philippine basic education context, this finding

suggests that although strategic planning is a core component of the SIP, it must be complemented by creative thinking. The SIP process involves identifying and solving current issues and envisioning new and innovative ways to address future challenges. To develop well-rounded leaders, schools must emphasize both strategic and creative thinking in their leadership training programs (Park & Lee, 2023). Through the lens of TLT, key transformational leadership aspects should be established in the context of school principals such as idealized influence (charisma), intellectual stimulation, individualized consideration and inspirational motivation. Effective SIPs will likely emerge when school principals can balance strategic planning with creative problem-solving. In essence, transformative leadership among school principals is about creating positive and lasting change by empowering individuals and fostering a culture of growth and collaboration.

Limitations and Suggestions

While this study highlights quantitative data in understanding the relationships of creative and strategic competences, it is limited to the context of school principals in the Philippines, particularly in Western Visayas, but other school heads may use this as a source of insights for their respective schools in the basic education and even in the higher education. Given that this is a cross-sectional study, it only captured the responses through a one-shot survey related to the demographics of the respondents and their creative and strategic thinking competences. Lastly, this study only focused its discussion through the theoretical lens of Strategic Thinking Theory, Transformational Leadership Theory, and Creative Leadership Theory. Other factors and predictors related to effective school leadership were not exhaustively discussed in this study.

Even though this study tried to comprehensively determine the importance of creative and strategic competences in school leadership through parametric data, it is also vital for other researchers to explore a larger sample size across the various regions of the Philippines to enhance the generalizability of the study among school principals. In terms of the methodology, it is recommended that further studies may be done using purposive samples to capture qualitative data that would enrich the findings from cross-sectional research. Lastly, it is suggested that researchers may work with stakeholders and other agencies that may build a more consultative, community-based leadership that nurtures a culturally responsive approach in Philippine schools, considering its archipelagic landscape.

Implications and Conclusion

The study's findings showed that school principals demonstrate competent level for/of strategic and creative thinking competences. Considering the importance of basic understanding that before they write they have to think ideally about the future outcome of the planning process. The results further corroborate Scaffold's idea (2005) that preparing a written strategic plan should be considered the middle step in a process that begins with strategic thinking and concludes with strategic actions. Creative leaders tend to have a positive self-image without being mindlessly confident. One of the hallmarks of effective principals is embracing change and being creative to find alternatives in every challenge they experience in school operations. Creativity is considered a higher-level form of learning that engages a well-coordinated blend of mindset, skills, and cognitive abilities, allowing individuals to generate original ideas and innovative solutions. This is somehow prevalent among our school principals as they were trained to perform the task ahead. In addition, according to them it also happens when they have the confidence to make mistakes. From this view, school principals must be open to change and embrace something new. Having a competent level of creative thinking doesn't mean we have to be complacent. There are still chances to be very qualified as we embrace our doors for innovation. However, going into detail, the results further show that school principals got 'moderately competent' for both systemic and innovative dimensions under strategic thinking. It can be deciphered from the result that school principals need to improve their ability to assess situations and make data-driven decisions. Furthermore, critically, school principals must deepen their ability to generate new and original ideas, and to think outside the box, and develop novel solutions as being demanded in the school improvement planning process. It is also interesting to note that in all dimensions under creative thinking competence, school principals got a "competent level" except in "originality" dimension. This highlights the importance of continuous improvement in the dimensions of systemic innovation and originality among school principals in dealing with the daily operation of schools.

References

Balcı, A. (2021). Professionalization of school administration. *International Journal of Leadership Studies: Theory and Practice*, *4*(2), 62-78. https://doi.org/10.52848/ijls.880112

Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership* (2nd ed.). Lawrence Erlbaum Associates.

Bernardo, A. B. I., Salanga, M. G. C., & Aguas, J. M. (2020). Transformational leadership and well-being of school leaders: Evidence from the Philippines. *Asia Pacific Education Review, 21*(2), 197-208.

Bozkurt, S., Çoban, Ö., & Kan, A. (2019). Developing an educational administrators' 21st century skills scale: Study of validity and reliability. *Kastamonu Education Journal*, *27*(3), 1059-1071. https://files.eric.ed.gov/fulltext/EJ1253409.pdf

Bratton, J. (Ed.). (2023). *Organizational leadership* (2nd ed.). SAGE Publications. https://doi.org/10.4038/cbj.v14i1.152

Cherry, K. (2023, March 27). Correlation studies in psychology research. *Very well mind*. https://www.verywellmind.com/correlational-research-2795774

Çoban, Ö., Özdemir, S., & Pisapia, J. (2019). Top managers' organizational change management capacity and their strategic leadership levels at Ministry of National Education. *Eurasian Journal of Educational Research*, *19*(81), 129-146.

Department of Education. (2022). *Basic Education Development Plan 2030*. https://www.deped.gov.ph

Department of Education. (2023). *Philippine professional standards for school heads: Strengthening instructional and organizational leadership*. https://www.deped.gov.ph

Department of Education. (2015). *DepEd Order No. 44, s. 2015: Guidelines on the Enhanced School Improvement Planning (SIP)*. https://www.deped. gov.ph/2015/06/04/do-44-s-2015-guidelines-on-the-enh anced-school-improvement-planning/

DuBrin, A. J. (2023). *Leadership: Research findings, practice, and skills* (10th ed.). Cengage Learning. ISBN 9780357716175

Fisher, T. (2011, January 11). *Creative thinking*. Education Week Teacher. https://www.edweek.org/teaching-learning/opinion-creative-thinking/2011 /01

Huang, Z., Sindakis, S., Aggarwal, S., & Thomas, L. (2022). The role of leadership in collective creativity and innovation: Examining academic research and development environments. *Frontiers in Psychology*, *13*, 1060412. https://doi.org/10.3389/fpsyg.2022.1060412

Karwowski, M., & Lebuda, I. (2020). *Parents' creative self-concept and creative activity as predictors of family lifestyle*. *International Journal of Environmental Research and Public Health*, *17*(24), 9558. https://doi.org/1 0.3390/ijerph17249558

Kumkale, İ. (2022). Strategic leadership. In *Organizational Mastery: The impact of strategic leadership and organizational ambidexterity on organizational agility*, (pp. 23-36). Springer Nature. https://doi.org/10.1007 /978-981-16-7582-9_2

Lazo, R. S. (2011). *Principles and procedures of public administration in the Philippines*. Rex Book Store.

Liedtka, J. M. (1998). Strategic thinking: Can it be taught? *Long Range Planning*, *31*(1), 120-129.

Llego, M. A. (2023). School leadership in the new normal: Practices and challenges in Philippine public schools. *Philippine Journal of Educational Leadership*, *1*(1), 55-68.

Lucas, B., Spencer, E., Stoll, L., Fisher-Naylor, D., Richards, N., James, S., & Milne, K. (2023). *Creative thinking in schools: A leadership playbook*. Crown House Publishing Ltd. https://books.google.com.ph/books?id=L3LFEAAAQBAJ

Mateo, J., & Nucum, T. (2021). Strategic leadership practices of school principals in addressing pandemic-induced learning gaps. *Journal of Educational Management and Development Studies*, *1*(2), 45-58.

Mumford, M. D., & Todd, E. M. (2019). *Creativity and innovation in organizations*. Routledge. https://doi.org/10.4324/9781315192598

Organisation for Economic Co-operation and Development. (2023). *PISA 2022 results (Volume I): The state of learning and equity in education*. OECD Publishing. https://doi.org/10.1787/53f23881-en

Park, W., & Lee, H. K. (2023). Creative integration of design thinking and strategic thinking in a design education framework. *Creativity Studies*, *14*(1), 160-174. https://doi.org/10.3846/cs.2021.13700

Republic Act No. 9155 (2001). *Governance of Basic Education Act of 2001*. Republic of the Philippines.

Scaffold, G. (2005). *Strategic planning: Leadership through vision*. Evangel Publishing House.

SEAMEO INNOTECH. (2020). *Leading and managing schools in the 21st century: A regional study on school heads' competencies*. https://www.seameo-innotech.org

Teboul, L. (2015). Strategic thinking competencies and their impact on strategic flexibility. *International Journal of Academic Research in Business and Social Sciences*, *7*(7), 357-365.

UNESCO. (2021). *Reimagining our futures together: A new social contract for education*. UNESCO. https://unesdoc.unesco.org

World Bank. (2023). *Improving learning outcomes in the Philippines: The role of school leadership and teacher support systems*. World Bank. https://www.worldbank.org

Yalçın, M. (2021). *Emotional labour and effective leadership*. İKSAD Yayınevi.

Yirci, R., & Demir, C. (2019). Examining teachers' perceptions of school principals' team leadership skills in terms of various variables. *International Journal of Field Education*, *5*(2), 165-184. https://doi.org/10. 32570/ijofe.650874

Young, M. D., O'Doherty, A., & Cunningham, K. M. (2021). *Redesigning educational leadership preparation for equity: Strategies for innovation and improvement*. Routledge. https://doi.org/10.4324/9781003130970

Zhang, Q., Siribanpitak, P., & Charoenkul, N. (2020). Creative leadership strategies for primary school principals to promote teachers' creativity in Guangxi, China. *Kasetsart Journal of Social Sciences*, *41*(2), 275-281. https://doi.org/10.58837/CHULA.EDUCU.48.4.6

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