



CORRELATING DECISION-MAKING AND SYSTEMS APPROACH TO INSTRUCTIONAL CHANGE FOR QUALITATIVE HIGHER EDUCATION OUTCOMES

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Article DOI: <https://doi.org/10.36713/epra31212>
DOI No: 10.36713/epra31212

ABSTRACT

This study investigates the relationship between influential decision-making factors and the implementation of a systems approach to instructional change across select private higher education institutions in Pagadian City during the Second Semester of School Year 2020–2021. Utilizing a descriptive-correlational research design, data were gathered from 41 school leaders, including principals, deans, department heads, and board directors, and 184 classroom teachers representing Southern Mindanao Colleges, Pagadian Capitol College, Zamboanga Del Sur Maritime Institute of Technology, Eastern Mindanao College of Technology, and Medina College. The research evaluates five decision-making variables (past experiences, cognitive biases, escalation of commitment, individual differences, and personal relevance) against four stages of instructional change (assessing program relevance, planning improvements, implementing modifications, and evaluating outcomes). Statistical analysis employing t-tests and z-tests was conducted to identify significant relationships and variations across these metrics. Ultimately, the study seeks to optimize qualitative educational outcomes by fostering creativity and interdependence among academic stakeholders, offering practical frameworks for institutional decision-makers to manage sustainable instructional growth in various administrative contexts.

KEYWORDS: Decision-Making Factors, Systems Approach, Instructional Change, Higher Education.

1. INTRODUCTION

In modern higher education, institutional adaptability heavily relies on the strategic cognitive frameworks of administrative and faculty decision-makers. Recent literature emphasizes that individual decision-making in academic leadership is significantly shaped by cognitive biases, past experiences, and personal relevance, which collectively influence how institutional policies are framed and executed (Kaspi & Venkatraman, 2023; Pérez Lavandera et al., 2026). When educational leaders encounter dynamic environmental challenges, their choices often reflect behavioral tendencies, such as escalation of commitment or reliance on historical paradigms, that determine whether instructional interventions succeed or stall (Akgunduz & Topalsan, 2026). Recognizing these psychological and contextual drivers allows private higher education institutions to better understand the internal factors that directly dictate strategic direction and administrative responsiveness.

To translate individual decision-making into sustainable institutional growth, educational systems increasingly adopt structured operational frameworks to guide curriculum development and pedagogical adaptation. A systems approach to instructional change establishes a holistic structure, encompassing program assessment, strategic planning, targeted implementation, and comprehensive evaluation, that directly aligns administrative choices with qualitative educational standards (Makki et al., 2023). By viewing academic change through an interconnected lens, institutional leaders can mitigate cognitive biases, streamline faculty collaboration, and optimize resource allocation across departmental boundaries (Elsawah et al., 2021). Ultimately, integrating influential decision-making variables with systematic instructional

methodologies provides a cohesive framework for higher education institutions to foster innovation, elevate teaching practices, and enhance qualitative outcomes across diverse academic contexts.

2. OBJECTIVES OF THE STUDY

- 2.1. To determine the level of influential decision-making factors among select private higher education institutions in Pagadian City in terms of past experiences, cognitive biases, escalation of commitment, individual differences, and personal relevance.
- 2.2. To assess the level of the systems approach to instructional change among select private higher education institutions in Pagadian City in terms of assessing program relevance, planning program improvements, implementation of selected program improvements, and evaluation of program change.
- 2.3. To determine whether significant differences exist between the perceptions of school leaders and teachers regarding influential decision-making factors and the systems approach to instructional change.
- 2.4. To examine the relationship between influential decision-making factors and the systems approach to instructional change among select private higher education institutions in Pagadian City.

3. METHODOLOGY

This study employed a quantitative, descriptive-correlational research design to examine the relationship between influential decision-making factors and the implementation of a systems approach to instructional change among select private higher education institutions in Pagadian



City during the Second Semester of School Year 2020–2021. The target population comprised 41 school leaders (including principals, deans, department heads, and board directors) and 184 classroom teachers drawn from Southern Mindanao Colleges, Pagadian Capitol College, Zamboanga Del Sur Maritime Institute of Technology, Eastern Mindanao College of Technology, and Medina College. Data were collected using structured survey instruments evaluating decision-making dimensions, past experiences, cognitive biases, escalation of commitment, individual differences, and personal relevance,

alongside systems-driven instructional phases: assessing program relevance, planning improvements, implementing modifications, and evaluating change. Inferential statistical analysis was conducted using independent samples t-tests to assess variations in decision-making variables and z-tests to evaluate differences in systems approach practices across participant groups, while Pearson's r correlation analysis was utilized to determine the significance of the relationship between the two primary sets of variables.

4. RESULTS AND DISCUSSION

Table 1: Level of Influential Decision-Making Factors

Evaluates the degree to which decision-making variables impact administrative choices.

Variable / Indicator	Mean	Standard Deviation	Verbal Interpretation
1. Past Experiences	4.25	0.48	High Impact / Highly Practiced
2. Cognitive Biases	3.42	0.61	Moderate Impact / Moderately Practiced
3. Escalation of Commitment	3.18	0.55	Moderate Impact / Moderately Practiced
4. Individual Differences	3.95	0.52	High Impact / Highly Practiced
5. Personal Relevance	4.38	0.44	High Impact / Highly Practiced
Overall Mean	3.84	0.52	High Impact / Highly Practiced

The results in Table 1 reveal that overall, decision-making factors exert a high impact ($M = 3.84$, $SD = 0.52$) on administrative and faculty choices within private higher education institutions. Personal Relevance ($M = 4.38$) and Past Experiences ($M = 4.25$) scored highest, indicating that academic stakeholders rely heavily on subjective engagement and historical outcomes when formulating choices. This finding aligns with research by Kaspi and Venkatraman (2023), who noted that institutional decision-makers are most inclined to adopt strategic initiatives when the perceived relevance directly intersects with their professional identity and previous successes. Similarly, Pérez Lavandera et al. (2026) argued that past institutional outcomes create cognitive baselines that

dictate future leadership trajectories. Conversely, Cognitive Biases ($M = 3.42$) and Escalation of Commitment ($M = 3.18$) recorded moderate levels. Akgunduz and Topalsan (2026) observed that while cognitive biases and sunk-cost fallacies persist in higher education environments, structured administrative oversight often moderates their potential negative impact on policy formulation. Finally, Individual Differences ($M = 3.95$) demonstrated a high impact, reinforcing findings by Taherdoost and Madanchian (2023) that demographic, cognitive, and experiential variations significantly diversify decision-making styles within administrative units.

Table 2: Level of Systems Approach to Instructional Change

Evaluates the implementation level across the four stages of instructional adaptation.

Systems Approach Stage	Mean	Standard Deviation	Verbal Interpretation
1. Assessing Program Relevance	4.30	0.45	Highly Implemented
2. Planning Program Improvements	4.22	0.49	Highly Implemented
3. Implementation of Selected Program Improvements	4.15	0.51	Highly Implemented
4. Evaluation of Program Change	4.08	0.53	Highly Implemented
Overall Mean	4.19	0.50	Highly Implemented

The data presented in Table 2 demonstrate that the systems approach to instructional change is highly implemented ($M = 4.19$, $SD = 0.50$) across the studied institutions. The highest-rated phase was Assessing Program Relevance ($M = 4.30$), followed closely by Planning Program Improvements ($M = 4.22$). Makki et al. (2023) highlighted that thorough diagnostic assessments of academic programs serve as the vital foundation for quality assurance and continuous curriculum improvement. The strong emphasis on planning echoes work by Elsawah et al. (2021), who demonstrated that

systematic, multi-criteria planning mitigates systemic bottlenecks before classroom deployment. Implementation of Selected Improvements ($M = 4.15$) and Evaluation of Program Change ($M = 4.08$) were likewise highly practiced, indicating that institutions systematically carry out planned interventions through completion. This operational loop supports findings by Gading (2024), who emphasized that closed-loop educational systems, where evaluation directly informs subsequent curriculum iterations, achieve superior instructional fidelity and institutional agility over time.



Table 3: Significant Differences in Perceptions Between School Leaders and Teachers

Category / Variable Set	Statistical Test	Computed Value	Critical Value	p-value	Decision on H ₀	Interpretation
Influential Decision-Making Factors	\$t\$-test	1.84	1.97	0.067	Fail to Reject	No Significant Difference
Systems Approach to Instructional Change	\$z\$-test	1.52	1.96	0.128	Fail to Reject	No Significant Difference

Table 3 indicates no statistically significant difference between the perceptions of school leaders ($N = 41$) and classroom teachers ($N = 184$) regarding either Influential Decision-Making Factors ($t = 1.84$, $p = 0.067$) or the Systems Approach to Instructional Change ($z = 1.52$, $p = 0.128$). The failure to reject the null hypothesis at the 0.05 significance level reflects strong alignment between management and teaching personnel. These results parallel findings by Ahmad and Hamid (2021), who observed that participatory governance structures

foster shared mental models across administrative and teaching tiers. Furthermore, Jiang and Nair (2025) found that when academic institutions maintain transparent communication, perception gaps regarding instructional leadership and operational priorities decrease significantly. Khan (2024) similarly noted that collaborative school climates align leadership expectations with teacher experiences, preventing administrative-faculty friction during major instructional transitions.

Table 4: Relationship Between Decision-Making Factors and Systems Approach to Instructional Change

Correlates influential decision-making variables with systems-driven instructional change.

Variables Correlated	Pearson r	p-value	Decision on H ₀	Interpretation / Relationship
Decision-Making Factors Systems Approach to Instructional Change	0.68	< 0.001	Reject H ₀	Strong Positive & Significant Correlation

Table 4 displays a strong, positive, and statistically significant correlation between influential decision-making factors and the systems approach to instructional change ($r = 0.68$, $p < 0.001$). This leads to the rejection of the null hypothesis, demonstrating that key decision-making variables directly drive systematic instructional modification. This substantial relationship confirms the theoretical framework proposed by Leithwood et al. (2020), who established that executive decision-making capabilities directly dictate the depth and efficiency of structural educational reform. Furthermore, Hallam et al. (2023) emphasized that when decision-makers effectively manage personal biases and draw constructively from past experience, institutions adopt more structured and resilient curriculum planning frameworks. Ultimately, this strong correlation aligns with Kaspi and Venkatraman (2023), who concluded that individual leader decision-making and systemic institutional processes are deeply interdependent mechanisms necessary for achieving long-term qualitative academic success.

5. IMPLICATIONS FOR PRACTICE

The strong empirical correlation between decision-making variables and the systems approach to instructional change underscores the need for private higher education institutions to institutionalize structured administrative decision-support frameworks. Institutional leaders should minimize reliance on subjective cognitive biases or irrational escalation of commitment by implementing standardized, data-informed protocols when proposing or executing academic reforms. Professional development initiatives for administrators, deans, and department heads must emphasize reflexive decision-making skills, leveraging past instructional experiences and personal relevance to design targeted, needs-driven curriculum interventions. By building leadership capacity around critical decision mechanics, academic

institutions can establish a proactive organizational culture that consistently aligns executive intent with classroom reality.

Furthermore, operationalizing the systems approach requires private higher education institutions to maintain robust, closed-loop feedback mechanisms across all phases of instructional modification. Educational leaders and faculty members must actively participate in joint diagnostic assessments, multi-criteria program planning, and continuous post-implementation evaluations to sustain qualitative educational standards. Because administrators and teachers demonstrate strong perceptual alignment regarding systemic change, institutional policy should formalize collaborative governance models and shared instructional supervision practices. Fostering interdepartmental interdependence and creative problem-solving across all stages of curriculum reform ensures that instructional adaptations remain adaptable, sustainable, and directly responsive to evolving learner needs.

6. CONCLUSION

This study demonstrates that decision-making dynamics and the systems approach to instructional change are deeply interconnected mechanisms driving qualitative academic success in private higher education institutions. The findings confirm that while institutional stakeholders share a unified perception of leadership and operational practices, the effectiveness of systemic instructional updates heavily depends on how administrative decision-makers manage cognitive drivers, past experiences, and contextual relevance. By integrating structured, data-driven decision processes with comprehensive, closed-loop system phases, encompassing assessment, planning, implementation, and evaluation, higher education leaders can eliminate operational bottlenecks, strengthen faculty-administrator synergy, and cultivate a resilient educational environment that continuously delivers high-quality instruction.



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