



DATA-DRIVEN LEADERSHIP: LEVERAGING MULTI-SOURCE EVALUATION FOR SCHOOL IMPROVEMENT

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ABSTRACT

This study examined data-driven leadership based on multi-source evaluation for school improvement at World Citi Colleges. A quantitative descriptive-correlational research design was used, involving thirty (30) deans and program heads from the Antipolo, Quezon City, and Guimba campuses. A unified researcher-made questionnaire was utilized as the instrument. Descriptive statistics were used to describe the demography and data-driven decision-making based on multi-source evaluation, while Spearman rank-order correlation tested the relationship between these two. Results revealed that the demography of the respondents predominantly belonged to the 25–34 age group, was relatively balanced in terms of sex, specialized in diverse fields – specifically allied health – with 2–5 years of leadership service and engaged in 11–20 relevant trainings. The results also indicated that the respondent's data-driven decision-making based on multi-source evaluation was utilized to a very great extent, with school organization and community extension receiving the highest average mean, followed by recognition, contracts, and promotion, teaching performance, and student progress. Accordingly, results showed that there was no significant relationship between the demographic profile of the respondents and their data-driven decision-making, as all computed p -values were greater than 0.05 and correlation coefficients ranged from $\rho = -0.293$ to $\rho = 0.321$, indicating a very weak association, thereby accepting the null hypothesis. Based on the findings, a school improvement plan was proposed, recommending that World Citi Colleges institutionalize a Standardized Feedback and Monitoring Framework, Data-Guided Instructional Communication Enhancement Program, Faculty Advanced Learning and Certification Program, Data-Based Organizational Alignment Framework, and Data-Driven Community Extension Planning and Evaluation Framework. Future research may examine the development of school leaders' decision-making and the impact of data-driven practices on student learning outcomes and institutional performance using qualitative and longitudinal approaches, with organizational culture, leadership style, technological readiness, and data literacy as stronger predictors of effective data-driven decision-making.

KEYWORDS: *Data-based organizational alignment, data-driven decision-making, educational leadership, monitoring system, multi-source evaluation, school improvement plan, standardized feedback.*

INTRODUCTION

Data-driven decision-making (DDDM) is broadly known as a significant practice among educational leaders as it adheres to maintaining transparency, efficiency, and reliance on evidentiary data in making administrative decisions. Filipino school leaders have progressively adopted this practice in response to growing demands for accountability, systematic monitoring of school performance, and the continuous enhancement of programs and services in both public and private institutions. Secreto (2025) explained that DDDM is a systematic approach to making informed and strategic decisions through the careful use and analysis of relevant data. This approach emphasizes organized data collection, regular monitoring, and appropriate sharing of information to guide administrative actions. Through this process, school leaders are able to base their decisions on actual conditions rather than assumptions, making their actions more responsive to the needs of the institution. Allan (2023) described data-driven decision-making as a leadership approach that helps school administrators gain meaningful insights to guide decisions in instruction, personnel management, and overall school operations.

Modern studies note that a leader's data-driven decision effectively depends on the data literacy of the educator and the culturally proven collaborative practices exercised within the school community (Coburn & Turner, 2021;

Jimerson & Wayman, 2021). In the Philippines, Secreto (2025) pointed out that data-driven leadership has become greatly important in making a noticeable leap in the performance of the school while simultaneously improving student success when progress is regularly monitored. Furthermore, studies among tertiary institutions in the Philippines show a growing emphasis on the utilization of data analytics in education. A study at La Consolacion University of the Philippines reported that data-informed leadership positively influenced decision-making processes and educational management practices, emphasizing components such as data collection, collaborative decision-making, accountability, and continuous improvement. This study was anchored on the Data-Driven Decision-Making (DDDM) Theory developed by Mandinach, Honey, and Light (2006). The theory posits that data become meaningful only when they are systematically interpreted, analyzed, and synthesized within a specific organizational context.

Despite the positive developments in educational research, much of this undertaking remains centered on government-funded institutions where evaluation systems are more formally institutionalized. In private schools, where evaluation practices may be less standardized, there is a need to further examine and refine how multi-source evaluation tools—including students' evaluation, peer-to-peer feedback, classroom observation, and Human Resource personnel



evaluation—can be leveraged by school administrations in making informed decisions.

Objectives

This study sought to determine the implications of multi-source evaluation utilized by school leaders in making a data-driven decision for school improvement. Specifically, it aimed to:

1. Describe the demographic profile of the respondents;
2. Describe the respondents' data-driven decision-making based on multi-source evaluation in terms of student progress, teaching performance, recognition, contracts and promotion, school organization, and community extension;
3. Determine if there is a significant relationship between the demographic profile and data-driven decision-making;
4. Propose a school improvement plan based on the findings.

METHODOLOGY

Research Design

To ensure a rigorous and transparent approach to this study, the methodology was carefully structured to align with the research objectives, utilizing a quantitative descriptive-correlational research design. This design was selected because it allows for both the systematic description of the respondents' demographic profiles and the detailed evaluation of their data-driven decision-making (DDDM) practices, while simultaneously enabling the statistical examination of the relationship between these two sets of variables through the correlational component.

Locale and Sampling

The research was conducted across the three campuses of World Citi Colleges—specifically the Antipolo, Guimba, and Quezon City branches—providing a multi-site perspective that ensures the findings are representative of the institution's diverse academic leadership environment. The study population consisted of thirty (30) deans and program heads, who were selected using purposive sampling to ensure that all participants possessed the necessary expertise, specifically requiring a minimum of two years of managerial experience to qualify for the study. This selection criteria ensured that the data gathered reflected the insights of individuals actively engaged in the administrative decision-making processes of the college.

Instrumentation

The instrumentation utilized was a researcher-made survey questionnaire designed to capture multi-dimensional data, organized into three distinct parts: the demographic profile, the data-driven decision-making assessment, and the perceived actionable school improvement indicators. To maintain high standards of research integrity, the instrument

employed a four-point Likert scale for the DDDM section and underwent a thorough review process by a designated research panel and school administrators. Furthermore, to ensure the internal consistency and reliability of the questionnaire, Cronbach's Alpha was calculated, providing a statistical guarantee that the instrument consistently measured the intended constructs.

Data Gathering Procedure

The data gathering procedure was conducted with strict adherence to academic protocols, beginning with formal approval from the Research Ethics Committee (REC) and the issuance of an Ethics Certificate. Once authorized, informed consent was obtained from all thirty participants, ensuring their voluntary participation and understanding of the study's purpose. Data collection was facilitated through both printed and online platforms to accommodate the geographical distribution of the campuses and the busy schedules of the academic leaders involved.

Data Analysis

Once gathered, the data were analyzed using appropriate statistical treatments to ensure precision in the findings: frequency and percentage distribution were utilized to summarize the demographic profiles; weighted means were calculated to interpret the extent of DDDM practices across different categories; and the Spearman rank-order correlation was employed to test for significant relationships between the demographics and decision-making practices. Finally, the entire study was governed by stringent ethical considerations, maintaining full compliance with the Data Privacy Act of 2012 (Republic Act No. 10173). Throughout the duration of the research, the confidentiality of the participants and the anonymity of their individual responses were protected, ensuring that the results were reported with the highest level of professional and institutional integrity.

RESULTS AND DISCUSSION

This chapter presents, analyzes, and interprets the data gathered to answer the problem relative to the study, "Data-Driven Leadership: Leveraging Multi-Source Evaluation for School Improvement."

1. Demographic Profile of the Respondents

Table 1 shows that most respondents belong to the 25–34 age group (56.7%), while the least are 55 years and above (6.7%). These findings suggest that younger professionals comprise a significant portion of the leadership group. Their greater representation may reflect a higher level of openness to innovation and data-driven practices, which aligns with the observation of Campos-García and Zúñiga-Vicente (2022) that younger leaders tend to adopt more collaborative approaches in carrying out leadership responsibilities. The smaller group of more experienced leaders may contribute support through their accumulated knowledge and experience.



Table 1. Demographic profile of the respondents in terms of age

Age	f	%
25– 34 Years Old	17	56.7
35 – 44 Years Old	4	13.3
45 – 54 Years Old	7	23.3
55 years old and above	2	6.7
Total	30	100.0

Table 2 indicates that most respondents are male (53.3%), while females represent a slightly smaller portion (46.7%). This fairly balanced representation suggests that leadership positions at World Citi Colleges are inclusive and

not substantially influenced by sex. This finding supports literature suggesting that leadership effectiveness is not dependent on gender, but rather on competencies and professional practices.

Table 2. Demographic profile of the respondents in terms of sex

Sex	f	%
Male	16	53.3
Female	14	46.7
Total	30	100.0

Table 3 shows that the highest number of respondents come from Allied Health (30%), while the least come from Communication/English (3.3%). This variation suggests that leadership is concentrated in certain program areas while maintaining diversity across academic disciplines, indicating

that decision-making is influenced by multiple academic perspectives. This is consistent with Aquino and Afalla (2021), who emphasized that leadership effectiveness extends beyond specialization and relies on broader management and instructional competencies.

Table 3. Demographic profile of the respondents in terms of field of specialization

Field of Specialization	f	%
Allied Health	9	30.0
Business	4	13.3
Communication/English	1	3.3
Criminology	2	6.7
Education	6	20.0
Hospitality / Tourism	5	16.7
Information Technology (IT)	3	10.0
Total	30	100.0

Table 4 shows that most respondents have 2–5 years of service (66.7%). While this indicates that most respondents are in the early stages of their leadership roles, Grissom et al.

(2021) explained that years of service is not a single determinant of leadership effectiveness, which is instead measured by skills and practical application.

Table 4. Demographic profile of the respondents in terms of the years of service

Years of Service	f	%
2 – 5 years	20	66.7
6 – 10 years	7	23.3
11 – 15 years	3	10.0
Total	30	100.0

Table 5 indicates that most respondents (46.7%) attended between 11 and 20 trainings. This demonstrates a commitment to professional growth. However, Wang et al.

(2024) emphasized that the value of training is measured by how effectively the acquired knowledge is applied in practice rather than the quantity of programs attended.



Table 5. Demographic profile of the respondents in terms of the number of relevant trainings

Number of Trainings	f	%
1 – 10	4	13.3
11 – 20	14	46.7
21 – 30	4	13.3
More than 31	8	26.7
Total	30	100.0

2. Data-Driven Decision Making

The data-driven decision making (DDDM) of respondents based on multi-source evaluation was analyzed across five domains. Results consistently show that deans and program heads utilize multi-source evaluation to a "Very Great Extent." This is consistent with Mandinach and Gummer (2020) and Schildkamp (2021), who emphasized that effective decision making relies on the meaningful use of diverse data.

Students' Progress

Table 6 shows an overall mean of 3.713 ("Very Great Extent"). The highest-rated indicator, "engaged with a variety of assessment methods" (3.767), implies that school heads prioritize diverse ways of measuring learning. The lower mean for adapting teaching strategies (3.667) suggests that while data are gathered effectively, there is room to improve consistency in translating these data into differentiated practices, as highlighted by Mandinach and Gummer (2020) and Rose (2025).

Table 6. Data-driven decision of the respondents based on multi-source evaluation in terms of the students' progress

Key Indicators	Mean	SD	Interpretation
1. Receive timely and constructive feedback	3.700	0.466	Very Great Extent
2. Engaged with a variety of assessment methods	3.767	0.430	Very Great Extent
3. Participate in lessons connecting to goals	3.733	0.450	Very Great Extent
4. Adapts teaching strategies	3.667	0.547	Very Great Extent
5. Experience teaching approaches matching style	3.700	0.535	Very Great Extent
Average	3.713		Very Great Extent

Teaching Performance

Table 7 shows an overall mean of 3.827. The high ratings reflect the institution's focus on teaching quality,

consistent with OECD (2025) and Darling-Hammond et al. (2020) regarding evidence-based practice.

Table 7. Data-driven decision of the respondents based on multi-source evaluation in terms of faculty teaching performance

Key Indicators	Mean	SD	Interpretation
1. Demonstrates mastery of subject matter	3.833	0.379	Very Great Extent
2. Utilizes innovative teaching strategies	3.800	0.407	Very Great Extent
3. Maintains classroom discipline	3.833	0.461	Very Great Extent
4. Communicates clearly and effectively	3.867	0.346	Very Great Extent
5. Shows professionalism	3.800	0.407	Very Great Extent
Average	3.827		Very Great Extent

Personnel Recognition, Contracts, and Promotion

Table 8 shows an average mean of 3.847. High ratings in peer/superior commendation and policy compliance emphasize that recognition and accountability are central to

decision-making. This supports findings by Popova et al. (2022) and DepEd (2020) that structured development contributes to improved performance.

Table 8. Data-driven decision of the respondents based on multi-source evaluation in terms of personnel's recognition, contracts, and promotion

Indicator Statements	Mean	SD	Interpretation
1. Participates in professional development	3.800	0.407	Very Great Extent
2. Produces and presents research	3.867	0.434	Very Great Extent
3. Commended by peers/superiors	3.867	0.346	Very Great Extent
4. Demonstrates leadership/initiative	3.833	0.379	Very Great Extent
5. Complies with institutional policies	3.867	0.346	Very Great Extent
Average	3.847		Very Great Extent



School Organization and Community Extension

Tables 9 and 10 show average means of 3.867. These high scores suggest that organizational collaboration and stakeholder engagement are highly prioritized. These results

align with Datnow and Park (2020) and Schildkamp (2021), confirming that collaboration and multi-source evaluation enhance school improvement planning.

Table 9. Data-driven decision of the respondents based on multi-source evaluation in terms of school organization

Indicator Statements	Mean	SD	Interpretation
1. Collaborates effectively	3.967	0.183	Very Great Extent
2. Participates in institutional planning	3.833	0.379	Very Great Extent
3. Demonstrates commitment to values	3.867	0.346	Very Great Extent
4. Manages resources responsibly	3.833	0.379	Very Great Extent
5. Maintains professional appearance	3.833	0.379	Very Great Extent
Average	3.867		Very Great Extent

Table 10. Data-driven decision of the respondents based on multi-source evaluation in terms of school's community extension

Indicator Statements	Mean	SD	Interpretation
1. Participates in community outreach	3.900	0.305	Very Great Extent
2. Applies professional expertise	3.833	0.379	Very Great Extent
3. Encourages student involvement	3.900	0.305	Very Great Extent
4. Demonstrates cultural sensitivity	3.933	0.254	Very Great Extent
5. Contributes to planning/evaluation	3.767	0.430	Very Great Extent
Average	3.867		Very Great Extent

3. Relationship Between Demographic Profile and DDDM

Table 11 shows no significant relationship between demographic profile and DDDM, as all p-values were > 0.05.

This confirms that decision-making is competency-based rather than influenced by personal characteristics. This supports findings by Kauts et al. (2021) and Burton (2021) that leadership effectiveness is not bound by age, sex, or tenure.

Table 11. Summary table of the significant relationship between the demographic profile and the data-driven decision of the respondents based on multi-source evaluation

Demographic profile	Multi-source evaluation basis	Correlation Coefficient (ρ)	p-value	Decision
Age	Student Progress	0.138	0.466	Not Significant
	Teacher Performance	0.030	0.876	Not Significant
	Recognition/Promotion	0.054	0.778	Not Significant
	School Organization	-0.170	0.370	Not Significant
	Community Extension	-0.228	0.225	Not Significant
Sex	Student Progress	0.130	0.495	Not Significant
	Teacher Performance	0.085	0.657	Not Significant
	Recognition/Promotion	0.321	0.084	Not Significant
	School Organization	0.054	0.778	Not Significant
	Community Extension	-0.019	0.920	Not Significant
Specialization	Student Progress	-0.044	0.816	Not Significant
	Teacher Performance	0.182	0.335	Not Significant
	Recognition/Promotion	0.081	0.672	Not Significant
	School Organization	-0.159	0.401	Not Significant
	Community Extension	-0.293	0.116	Not Significant
Years of Service	Student Progress	-0.153	0.421	Not Significant
	Teacher Performance	0.116	0.524	Not Significant
	Recognition/Promotion	0.210	0.264	Not Significant
	School Organization	-0.202	0.284	Not Significant
	Community Extension	-0.163	0.389	Not Significant
Training	Student Progress	-0.205	0.277	Not Significant
	Teacher Performance	0.050	0.794	Not Significant
	Recognition/Promotion	0.057	0.764	Not Significant
	School Organization	-0.024	0.900	Not Significant
	Community Extension	-0.134	0.481	Not Significant



4. Proposed School Improvement Plan

These plans align with Mandinach and Gummer (2020) and Datnow and Park (2020), who noted that data-driven action leads to strategic, responsive institutional improvements.

Table 12-13 reflects a strong agreement among respondents (average mean of 3.880) regarding actionable indicators for improving student progress, with the design of a feedback system receiving the highest rating (3.967). Table 13

proposes the institutionalization of a Standardized Feedback System (SFS) and adaptive teaching strategies. This focus on feedback is vital, as effective decision-making leads to strategic and responsive institutional improvements. Strengthening these systems ensures that instructional practices are directly informed by student data, which is essential for continuous monitoring of learning outcomes.

Table 12. Respondent's Perceived Plan for School Improvement in terms of students' progress

Actionable School Improvement Indicator	Mean	SD	Interpretation
1. Design feedback system	3.967	0.183	Strongly Agree
2. Implement diverse assessment tools	3.867	0.346	Strongly Agree
3. Align lesson plans with objectives	3.867	0.346	Strongly Agree
4. Develop adaptive teaching strategies	3.833	0.379	Strongly Agree
5. Create student self-monitoring framework	3.867	0.346	Strongly Agree
Average	3.880		Strongly Agree

Table 13. Institutionalized standardized feedback system (SFS) and adaptive teaching strategies

Key Result Area	Objectives	Strategies
Students' Progress	Ensure data-driven responses; Adjust practice based on records	Institutionalize SFS; Conduct feedback cycles; Faculty training

Table 14-15 shows a strong agreement (average mean of 3.900) on strategies to enhance teaching performance, particularly in communication (3.967). Table 15 proposes a Data-Guided Instructional Communication Enhancement and Professional Conduct Program. This aligns with evidence-

based practices where systematic use of classroom observations and student feedback data supports clearer instruction. By integrating professional conduct indicators into performance reviews, the institution can ensure that faculty development is both targeted and data-driven

Table 14. Respondent's perceived plan for school improvement in terms of teaching performance

Actionable School Improvement Indicator	Mean	SD	Interpretation
1. Integrate current trends/research	3.867	0.346	Strongly Agree
2. Adopt innovative teaching methods	3.900	0.305	Strongly Agree
3. Establish classroom norms	3.933	0.365	Strongly Agree
4. Enhance communication techniques	3.967	0.183	Strongly Agree
5. Promote professional conduct	3.833	0.379	Strongly Agree
Average	3.900		Strongly Agree

Table 15. Data-guided instructional communication enhancement and professional conduct program

Key Result Area	Objectives	Strategies
Teaching Performance	Identify effective practices; Enhance professional conduct	Communication workshops; Integrate conduct indicators into evaluation

Table 16 indicates strong agreement (average mean of 3.907) on personnel development, with the mandate for further study engagement receiving the highest rating (3.967). Table 17 outlines a Faculty Advanced Learning and Certification Program to increase engagement in graduate studies and

strengthen research dissemination. Supporting faculty in these areas, and linking research outputs to promotion systems, ensures that professional growth directly contributes to institutional credibility and instructional quality

Table 16. Respondent's perceived plan for school improvement in terms of recognition, contracts, and promotion

Actionable School Improvement Indicator	Mean	SD	Interpretation
1. Delegate for research presentation	3.833	0.379	Strongly Agree
2. Mandate further study engagement	3.967	0.183	Strongly Agree
3. Establish recognition system	3.900	0.305	Strongly Agree
4. Develop leadership pathways	3.900	0.305	Strongly Agree
5. Maintain professional standards	3.933	0.254	Strongly Agree
Average	3.907		Strongly Agree



Table 17. Faculty advanced learning and certification program

Key Result Area	Objectives	Strategies
Personnel Development	Increase engagement in studies; Strengthen research dissemination	Institutionalize learning program; Link research to promotion

Table 18 shows strong agreement (average mean of 3.833) on indicators for school organization, with mission and vision alignment rated highest (3.867). Table 19 proposes a Data-Based Organizational Alignment Framework to improve resource management and interdepartmental collaboration. By

aligning departmental KPIs with institutional goals through regular, data-driven planning meetings, the institution can ensure that operations remain coherent and efficient. This systematic monitoring and adjustment process is a key component of sustaining institutional effectiveness.

Table 18. Respondent's perceived plan for school improvement in terms of school organization

Actionable School Improvement Indicator	Mean	SD	Interpretation
1. Foster collaboration	3.800	0.407	Strongly Agree
2. Engage in curriculum development	3.867	0.436	Strongly Agree
3. Promote alignment with mission/vision	3.867	0.434	Strongly Agree
4. Optimize resource management	3.800	0.407	Strongly Agree
5. Maintain professional standards	3.833	0.379	Strongly Agree
Average	3.833		Strongly Agree

Table 19. Data-based organizational alignment framework and improved resource management

Key Result Area	Objectives	Strategies
School Organization	Ensure mission alignment; Improve resource management	Data-driven planning; Align KPIs; Cross-department meetings

Table 20 reflects strong agreement (average mean of 3.833) on improving community extension programs. Table 21 proposes a Data-Driven Community Extension Planning and Evaluation Framework, which focuses on structured proposals, service learning, and rigorous monitoring and evaluation

(M&E) cycles. Institutionalizing these frameworks ensures that outreach programs are planned, implemented, and evaluated based on measurable outcomes, thereby enhancing their impact and relevance to the community.

Table 20. Respondent's perceived plan for school improvement in terms of school extension

Actionable School Improvement Indicator	Mean	SD	Interpretation
1. Organize faculty-led outreach	3.767	0.430	Strongly Agree
2. Apply expertise to challenges	3.867	0.346	Strongly Agree
3. Facilitate student involvement	3.833	0.379	Strongly Agree
4. Ensure cultural sensitivity	3.833	0.379	Strongly Agree
5. Develop/evaluate projects with impact	3.867	0.346	Strongly Agree
Average	3.833		Strongly Agree

Table 21. Proposed school improvement plan: data-driven community extension planning and evaluation framework

Key Result Area	Objectives	Strategies
Community Extension	Institutionalize extension framework; Strengthen engagement	Structured proposals; Integrate service learning; M&E cycles

CONCLUSION AND RECOMMENDATIONS

The study concludes that leadership growth is fundamentally driven by continuous learning and professional competence rather than demographic factors, as age, sex, specialization, years of experience, and training did not serve as determinants of effective leadership. While the deans and program heads at World Citi Colleges have cultivated a strong culture of evidence-based leadership by utilizing multi-source evaluation to a great extent, there is a clear imperative to pivot toward more targeted, student-centered interventions to ensure that data utilization translates into improved learner outcomes. The lack of a significant relationship between demographic profiles and decision-making practices reinforces the

understanding that data-driven leadership is a competency-based skill set that can be developed through responsive institutional systems, support, and training. Finally, while the proposed school improvement indicators were strongly validated, the path to sustainable institutional advancement lies in the consistent implementation, structured planning, and rigorous evaluation of these frameworks across all administrative domains.

To further these goals, it is recommended that the Vice President for Academic Affairs prioritize mentoring and coaching initiatives to bolster leadership competence, particularly for administrators in the early stages of their careers. Furthermore, the institution should institutionalize its



multi-source evaluation systems—especially in school organization and community extension—while strengthening alignment with national standards such as DepEd’s RPMS/PPST and CHED’s OBE to ensure rigorous quality assurance. Administrators are encouraged to adopt a standardized, competency-based leadership framework that prioritizes data literacy, analytical skills, and artificial intelligence integration, while simultaneously implementing the proposed programs for student progress, instructional communication, faculty certification, and organizational alignment. To deepen the understanding of these practices, future researchers are encouraged to explore variables beyond demographics, such as organizational culture and technological readiness, and to employ qualitative approaches like case studies or longitudinal designs to examine the long-term impact of data-driven decision-making on student learning outcomes and overall institutional efficiency.

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