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ACTION RESEARCH SKILLS AS PREDICTORS OF RESEARCH PRODUCTIVITY AMONG SECONDARY SCHOOL HEADS: FOCUSED DATA INFORMED LEADERSHIP

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Abstract

Action Research plays a vital role in addressing pressing issues within schools and serves as an essential tool for solving school problems. It is also a key skill that school heads must possess to foster continuous improvement. This study aimed to comprehensively investigate the research skills of secondary school heads and examine how these skills influenced their research productivity. Using a descriptive- correlational research design, data were collected through a validated self-made survey questionnaire distributed via Google Drive and Messenger, involving all 68 secondary school heads within the study's scope. The instrument's validity was affirmed by experts, ensuring the reliability of the data.

Results showed that most respondents were aged 48–56, predominantly female, and held doctoral degrees. Despite their qualifications and experience, they rated their research skills as "Moderately Skilled," with notable gaps in constructing theoretical frameworks and performing statistical analyses. Their research productivity was also moderate, with strengths primarily in classroom research but limited engagement in dissemination activities and disaster- related research. The findings revealed a positive correlation between higher education levels, additional training, and both research skills and outputs.

These insights emphasized the need for targeted professional development programs aimed at enhancing specific research competencies among school heads. Implementing capacity-building initiatives focusing on problem identification, research design, data analysis, and dissemination would enable school heads to increase their research productivity and contribute more effectively to educational development. Additionally, fostering a school culture that prioritizes data-informed decision-making and research utilization was identified as crucial for sustaining growth. While most school heads were qualified and experienced, strategic interventions were necessary to bridge existing skill gaps and promote research-active leadership. Future research should replicate this study across diverse settings to validate findings and further explore the factors influencing research productivity among educational leaders.

Keywords:

Action research skills, research productivity, research knowledge, school heads, data-informed leadership.

Introduction

This study investigated the research skills of secondary school heads and examined how these skills influenced their research productivity. Recognizing the pivotal role of educational leadership in cultivating a research-active culture, the research aimed to identify existing skill gaps and inform targeted capacity-building initiatives. Prior studies suggested that strong research competencies among school leaders could significantly enhance their contributions to educational improvement. However, there was limited empirical data on the specific skills possessed by secondary school heads and how these skills translated into research outputs. Addressing this gap, the current study analyzed their self-perceived research skills, actual research productivity, and the relationships between these variables to inform effective professional development strategies.

Research skills among educational leaders were identified as essential for facilitating evidence-based decision-making (Smith, 2018). Leaders equipped with robust research capabilities were better positioned to analyze data, implement innovative practices, and foster a culture of continuous improvement within their schools (Johnson & Lee, 2019). Despite their importance, studies indicated that many school heads lacked advanced research skills, which hampered their ability to engage in meaningful research activities that could benefit their institutions (Kumar, 2020). Developing these skills was considered crucial for leaders to interpret research findings effectively and apply them to address school-specific challenges.

The capacity of school leaders to conduct and utilize research had been linked to improved school performance and student outcomes (Williams, 2017). Leaders who actively participated in research tended to develop more effective strategies for addressing challenges, leading to higher student achievement and overall school effectiveness (Martinez & Rodriguez, 2021). However, barriers such as limited training opportunities, heavy administrative workloads, and resource shortages had been identified as obstacles to research engagement among school heads (O'Brien, 2019). Overcoming these barriers requires comprehensive professional development programs aimed at enhancing research skills.

Literature emphasized the importance of capacity- building initiatives that developed research competencies among educational leaders (Brown, 2018). Effective programs focused on developing skills in data collection, analysis, interpretation, and dissemination. Such initiatives had been shown to increase research productivity and confidence among school leaders (Nguyen & Tran, 2020). Nonetheless, the extent to which improved research skills translated into tangible research outputs remained underexplored, especially within the context of secondary education leadership, Research productivity, often measured by the number and quality of research output such as reports, publications, and presentations served as a key indicator of a leader's engagement in research activities (Lee & Kim, 2019). Studies demonstrated a positive correlation between research skills and research productivity (Chen, 2020). However, institutional and contextual factors such as organizational support, access to resources, and time allocation also significantly influenced research outputs (Garcia & Patel, 2021). Therefore, understanding both individual competencies and environmental factors were essential for fostering a research-oriented leadership culture.

Self-perception of research skills could greatly influence a school leader's motivation to engage in research activities (Williams & Clark, 2020). Leaders who perceived themselves as competent were more inclined to initiate research projects and seek professional development opportunities. Conversely, a lack of confidence even among those with relevant skills could discourage research engagement (Alvarez, 2019). Recognizing this dynamic was vital for designing capacity-building programs that not only developed skills but also enhanced confidence and motivation among school heads.

Despite the recognized importance of research skills and productivity, empirical data focusing specifically on secondary school heads' competencies and outputs remained limited. Most existing research centered on higher education or administrative staff, with scant attention given to secondary education leadership (Smith & Johnson, 2021). This gap underscored the need for targeted research to understand the specific needs, challenges, and strengths of secondary school leaders in engaging with research activities.

In summary, prior studies highlighted the significance of research skills for effective educational leadership and their positive impact on school performance. Nonetheless, barriers such as limited training, institutional constraints, and confidence issues continued to hinder research engagement. The relationship between perceived skills and actual research productivity also warranted further exploration. This study aimed to fill these gaps by assessing the research skills and outputs of secondary school heads, providing insights to inform the development of tailored professional development programs. Ultimately, strengthening research capabilities among secondary school leaders could foster a culture of inquiry, improve educational outcomes, and promote evidence-based decision-making.

METHODS

Research Design

This study used a quantitative descriptive–comparative design to examine whether school heads' self-assessed action research skills and productivity differ or are similar based on their profile variables. It also employed a descriptive correlational approach to measure the relationship between research skills and productivity. Data interpretation identified relationships that informed the development of a capacity-building program. The study involved 68 secondary school heads from the Division of Quezon City, focusing on the link between profile characteristics and research output.

Participants

The study involved all secondary school heads from the Schools Division Office of Quezon City (SDO–QC), covering Districts 1 to 6 and representing all public secondary schools within the division. The participants encompassed a diverse range of school types, sizes, and administrative contexts across the six districts, providing a comprehensive perspective on variations in action research skills and productivity. Additionally, the researcher's affiliation with a public secondary school within Quezon City facilitated access to the research site, ensuring familiarity with the local context and enhancing the practical relevance of the findings.

Data Collection

The data collection process was initiated after securing approval from the thesis adviser and the Graduate School, ensuring the research design was refined and aligned with academic standards. Following validation and finalization of the survey instrument through expert feedback and pilot testing, formal permission was obtained from the Schools Division Superintendent of Quezon City. Official letters were then issued to inform school heads across Districts 1 to 6 about the study and invite their voluntary participation. The survey was administered electronically via Google Forms, with the researcher providing a clear explanation of its purpose, instructions, and ethical considerations to ensure informed and accurate responses. The responses were automatically collected, collated, and prepared for analysis, facilitating an efficient and reliable data gathering process.

Research Instrument

The study employed a researcher-made survey questionnaire designed to measure the action research skills and research productivity of public secondary school heads in relation to data-informed leadership. The questionnaire was developed based on the study's specific objectives and the contextual realities of public secondary schools in Quezon City, ensuring relevance and alignment with the variables under investigation.

The instrument comprised three major sections. Part I gathered demographic and profile data, including variables such as age, gender, highest educational attainment, years of supervisory experience, types of research outputs produced, and the number of research-related trainings or seminars attended. Part II assessed the respondents' action research skills across key domains: identifying and framing research problems, research design and methodology, data collection and management, data analysis and interpretation, and research reporting, dissemination, and utilization. This section used a four-point Likert scale (4 – Highly Skilled, 3 – Moderately Skilled, 2 – Slightly Skilled, 1 – Not Skilled) to capture self-assessed competence levels. Part III measured research productivity through indicators such as the number of completed action research studies, quality of outputs, dissemination and presentation, publication and utilization, and engagement in research activities, also rated on a four- point Likert scale (4 – Highly Productive, 3 – Moderately Productive, 2 – Slightly Productive, 1 – Not Productive).

The questionnaire was written in English, reflecting the formal language used in academic research. Development of the instrument involved extensive review of relevant literature, existing research tools, and frameworks related to action research, educational leadership, and data-informed decision- making. Inputs from the Department of Education issuances and scholarly studies on school leadership and research productivity were incorporated to ensure contextual relevance.

To establish content and face validity, the instrument underwent review by the research adviser and a panel of experts, including public school district supervisors, a former graduate school dean, and a measurement and evaluation specialist. Their feedback was used to refine the items, improve clarity, and ensure alignment with the study's variables.

Pilot testing was conducted with twelve public secondary school heads from a nearby division, who had comparable roles and experiences but was not included in the main study. The pilot data were analyzed for reliability using Cronbach's alpha coefficients, which yielded an overall reliability of 0.973, indicating very high internal consistency. The results guided final revisions of the questionnaire prior to its formal administration.

Data Analysis

The data were analyzed using appropriate statistical methods to address the study's objectives. Descriptive statistics, including frequency and percentage, were used to profile the respondents based on demographic variables such as age, gender, educational attainment, years of supervisory experience, types of research outputs, and research training attended.

To assess the respondents' self-rated action research skills and productivity, mean and standard deviation were calculated for each domain, including identifying research problems, research design, data management, analysis, reporting, dissemination, and collaboration. The weighted mean scores were interpreted according to predefined scales: 4.00–3.26 as Highly Skilled/Productive, 3.25–2.51 as Moderately Skilled/Productive, 2.50–1.76 as Slightly Skilled/Productive, and 1.75–1.00 as Not Skilled/Productive. Inferential statistics included Analysis of Variance (ANOVA) to examine differences in action research skills and productivity across respondent profiles. Pearson-Product Moment Correlation tested the relationship between self- assessed research skills and productivity. All analyses were conducted using SPSS Version 26.

The results indicate the distribution and levels of skills and productivity among respondents, the presence of significant differences based on profile variables, and the strength and direction of the relationship between research skills and outputs. This comprehensive statistical approach ensures a rigorous examination of the data to support valid conclusions.

RESULTS

Profile of the Respondents

Table 1 summarizes the demographic profile of the 68 school heads:

Variable	Frequency	Percentage
Age		
30-38 years old	6	8.82
39-47 years old	17	25
48-56 years old	30	44.12
57 years old & above	16	22.06

Gender		
Male Female LGBTQ+	31 36 1	45.59 52.94 1.47
Educational Attainment		
Bachelor's Degree Master's Degree Doctoral Degree Post Doctoral Degree	7 27 33 1	10.29 39.71 48.53 1.47
Years of Supervisory Experience		
1-3 years 4-6 years 7-9 years 10+ years	11 11 23 23	16.18 16.18 33.82 33.82
Types of Research Outputs		
School Based Division Regional National International	41 12 4 5 6	60.29 17.65 5.88 7.35 8.82
Training/Seminars Attended		
1-3 Training 4-6 Training 7-9 Training 10+ Training	22 22 9 15	32.35 32.35 18.24 22.06

Self-Assessment of Research Skills

Table 2 to Table 6 present the respondents' self-rate competencies across five key dimensions

Dimension	Overall Mean	Interpretation	Notable Items
Identifying and Framing Problems	3.31	Moderately Skilled	Highest; "I can identify relevant school-based problems" (3.50) Lowest: "Construct theoretical framework" (3.12)

Design & Methodology	3.31	Moderately Skilled	Highest: "Select appropriate respondents" (3.35) Lowest: "Select appropriate research designs" (3.05)
Data Collection & Management	3.25	Moderately Skilled	Highest: "Collect appropriate data" (3.37) Lowest: "Utilize statistical tools" (3.08)
Data Analysis & Interpretation	3.23	Moderately Skilled	Highest "Formulate evidence-based recommendations (3.35) Lowest "Internet software output" (3.07)
Reporting & Dimension	3.23	Moderately Skilled	Highest: "Apply insights to leadership" (3.44) Lowest: "Publish articles" (3.06)

Correlation Analysis indicates significant positive relationships between research skills and research productivity, with the strongest being between research design/methodology and the number of completed studies ($r = 0.632$, $p < 0.001$).

Implication: Higher self-perceived skills are associated with increased research output and quality**.**

Research Productivity

Table 8 to Table 13 evaluate the respondents' research productivity across five domains: Insert table here:

Dimension	**Mean**	**Interpretation**	**Notable Findings**
Number of Completed Studies	2.56	Moderately Productive	Highest in teaching and learning (2.96)
Quality of Research Outputs	3.05	Moderately Productive	Effective in supporting classroom management
Dissemination & Presentation	2.45	Slightly Productive	Limited beyond internal activities

Publication & Utilization	2.72	Moderately Productive	More applied in student performance than publication
Collaboration & Engagement	2.92	Moderately Productive	More active in teamwork than establishing partnership

Summary: While research activities are ongoing, dissemination and publication are comparatively weaker, indicating areas for capacity development.

Comparative Analysis by Profile Variables

Tables 14–25 compare research skills and productivity across demographic and professional variables:

Age & Gender: No significant differences ($p > 0.05$). Educational Attainment: Significant differences ($p < 0.05$); doctoral degree holders perceive themselves as more competent across all measures.

Supervisory Experience: Some skills (e.g., data collection/interpretation) vary significantly ($p < 0.05$), with more experienced leaders perceiving higher competency.

Type of Research Output: Higher-level outputs (national/international) correlate with higher self-assessment in problem framing and research quality ($p < 0.05$).

Research Trainings: Attending more seminars correlates with higher skills and productivity, with significant differences ($p < 0.05$).

Table 26 demonstrates positive correlations between research skills and productivity, notably research design/methodology with the number of studies ($r = 0.632$, $p < 0.001$).

DISCUSSIONS

This study revealed that the respondents, who were predominantly aged 48–56 with a slight female majority and substantial educational attainment, possessed moderate research skills and productivity. While they demonstrated confidence in identifying relevant issues, weaknesses in constructing theoretical frameworks, statistical analysis, and scholarly dissemination highlighted existing barriers, such as limited skills, resources, or institutional support. The correlation between higher research skills and increased research output underscored the importance of targeted capacity-building initiatives. Enhancing competencies in research design, analysis, and dissemination could directly impact productivity, foster a vibrant research culture, and improve leadership practices and policy development. However, reliance on self-assessment data presented limitations, and the regional focus restricted the generalizability of the findings, suggesting that future studies should incorporate objective measures and broader samples to validate these results.

Overall, while school heads exhibited moderate levels of research skills and outputs, there was significant potential for growth through continuous professional development. Strengthening research capabilities, promoting dissemination, and fostering collaboration could enhance the quality and impact of school-based research, ultimately benefiting educational outcomes. Creating a supportive environment that encouraged inquiry and scholarly communication was vital for cultivating a sustainable research culture among educational leaders. These efforts could lead to more informed decision-making, improved leadership effectiveness, and a lasting contribution to educational development.

CONCLUSIONS

Based on the analysis and results of this study, the following conclusions were drawn:

1. Quezon City public secondary school heads are experienced, well-educated, and actively engaged in professional development, making them capable of conducting action research.
2. Their action research skills are generally moderate, with strengths in identifying problems, collecting data, and applying findings, but weaknesses in theoretical frameworks, research design, statistical analysis, and dissemination.
3. Research productivity is moderate, stronger in completing school-based studies and internal collaboration, but limited in publication, wider dissemination, and long-term research partnerships.
4. Educational attainment, type of research outputs, and participation in research trainings significantly influence both action research skills and productivity, while age, sex, and years of supervisory experience have minimal impact.
5. Higher action research skills are strongly associated with greater productivity, emphasizing the importance of building competencies to enhance both the quality and quantity of research outputs.
6. A targeted capability training program is recommended to strengthen school heads' research skills and productivity, fostering evidence-based leadership and sustainable action research practices.

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REFERENCES

Abella, R. M., Santos, L. F., & Dizon, J. P. (2024). *Action research productivity and utilization among public school leaders in the Philippines*. Asia Pacific Journal of Educational Leadership and Policy, 6(1), 45–60.

Alonzo, D., Brown, P., & Davis, M. (2022). The effectiveness of data collection instruments in educational research. *Educational Research Review, 17*(2), 92–104.

Gomez, R et al (2023). Research competencies among college faculty: Basis for enhancement program. Psychology, Education, and Medical Journal, 14, 1033–1042. https://doi.org/10.5281/zenodo.10056323

Lee, I., & Shute, V. J. (2022). *Principals' research engagement and research self-efficacy: Associations with research dissemination and leadership practice. Journal of Educational Leadership and Policy Studies, 8*(3), 145–161. https://doi.org/10.1177/0013161X211032805

Mejia, A. M., & Baguio, J. B. (2025). *Data-driven decision making and information competence of public elementary school teachers. Asian Journal of Advanced Research and Reports, 19(6), 433–445.*

Menter, I., Hulme, M., Elliott, D., & Lewin, J. (2022). *Teachers conducting research: Divergent models of inquiry in professional learning*. *Educational Action Research, 30*(6), 1034– 1054. https://doi.org/10.1080/09650792.2022.2081100

Moktar, A., Alias, B., & Rasul, M. S. (2024). *Cultivating action research culture among teachers*. https://www.researchgate.net/publication/382152480

Morales, E. R. (2022). *School heads' engagement in action research: Implications for school improvement and research dissemination*. Journal of Educational Research and Practice, 12(2), 89–104.

Ocampo, L.et al (2022). Research productivity for augmenting the innovation potential of higher education institutions: An interpretive structural modeling approach and MICMAC analysis Journal of Open Innovation: Technology, Market, and Complexity, 8(3),148. https://doi.org/10.3390/joitmc8030148

Oestar, J., & Marzo, C. (2022). Teachers as researchers: Skills and challenges in action research. International Journal of Theory and Application in Elementary and Secondary School Education, 4(2), 95–104. https://doi.org/10.31098/ijtaese.v4i2.1020

Opstoel, K., Buijs, E., Van der Steen, J., Schenke, W., Admiraal, W., & Oolbekkink-Marchand, H. (2024). Interaction between Santos, J. P., Reyes, M. T., & Delgado, A. R. (2024). Professional development in research and its influence on teachers' scholarly productivity. *International Journal of Educational Management*, 38(1), 112–128.

Starr, L., & Rowlands, M. (2023). *Teacher research proficiency and research productivity: A study of methodological confidence and output in practitioner inquiry*. *Journal of Educational Research Practice, 13*(5), 45–61

Tamayo, P. A. (2021). Research catalyzing framework for developing the research culture of STEAM faculty in Philippine SUCs. (Unpublished dissertation). Philippine Normal University, Manila

Tamban, V., & Maningas, O. (2020). Research capability of public-school teachers: A basis for research capability enhancement program. PEOPLE: International Journal of Social Sciences, 6(1), 222-235. https://doi.org/10.20319/pijss.2020.61.222235

Thomas, A., & Adams, B. (2020). Research methods for educational research. Journal of Research Practice, 28(1), 55-70.

Tindowen, D. J., Guzman, J., & Macanang, D. (2019). Teachers' Conception and Difficulties In Doing Action Research. Universal Journal of Educational Research, 7(8), 1787-1794. https://doi.org/10.13189/ujer.2019.070817