

Innovative Strategies for Research Enhancement: A Simulacrum Approach Among Master Teachers in the Division of Cebu City

Glenn R. Andrin

<http://orcid.org/0000-0002-3008-5661> | drandringlenn@gmail.com

Dean Graduate Studies, St. Paul University Surigao, Surigao City, Philippines

Osias Kit T. Kilag

<https://orcid.org/0000-0003-0845-3373> | okkilag12@gmail.com

Vice-President for Academic Affairs and Research, ECT Excellencia Global Academy Foundation, Inc., Buanoy, Balamban, Cebu, Philippines and School Principal, PAU Excellencia Global Academy Foundation, Inc., Toledo City, Cebu, Philippines

Abstract

In the dynamic realm of 21st-century education, master teachers grapple with evolving challenges that demand a recalibration of their skillsets towards research and innovation. Despite their recognition as instructional experts, master teachers in the Division of Cebu City demonstrate a notable gap in research productivity. Acknowledging the pivotal role of research in education and discerning the existing gaps, this study delves into the creation of a simulacrum designed to amplify research efficiency among master teachers. Grounded in Systems Theory, the study endeavors to fashion a simulated model (simulacrum) that mirrors the intricate dynamics of the educational system. Drawing on the Technology Acceptance Model, the research scrutinizes the willingness of stakeholders, including teachers, administrators, and students, to embrace the simulacrum as an innovative catalyst for research enhancement. Conducted during the Academic Year 2023-2024, the study sets out to probe into the factors shaping research productivity among master teachers. Specific inquiries encompass teachers' self-assessment of research productivity, identification of significant predictors, exploration of experiences and practices fostering research productivity, and the design of a simulacrum for transformative enhancement. Employing a sequential explanatory design, which combines qualitative and quantitative methods, the study enlists the participation of fourteen master teachers from the Division of Cebu City. Data accrues through a survey questionnaire and in-depth interviews, with statistical tools such as descriptive statistics and multiple linear regression applied in analysis. Revelations from the study illuminate that master teachers positively evaluate their research productivity, with a focus on individual, institutional, and leadership characteristics. Key predictors identified include self-efficacy, recruitment processes, sufficient

work time, and critical leadership roles. The experiences and practices of highly productive master teachers pivot around active involvement in research-related Continuing Professional Development (CPD) activities, collaborative efforts, administrative support, and personal initiative in providing research resources. The proposed model envisions a comprehensive, multi-tiered approach that integrates capacity-building activities, collaboration and networking, administrative support, and strategic provision of research resources. The overarching goal is to empower master teachers to transcend into high-impact researchers, mentors, and facilitators, thereby elevating the overall teaching and learning process within the Division. In light of these findings, the study advocates for the establishment of mentoring programs by master teachers with high research productivity and encourages future extensions of research initiatives. It concludes that the evolving educational landscape necessitates master teachers to broaden their expertise to encompass research. The proposed simulacrum emerges as a strategic tool poised to address the existing gap in research productivity, offering a tangible roadmap for the Division of Cebu City to enhance teaching quality through the pursuit of research excellence.

Keywords: Simulacrum, Research Efficiency, Sequential-Explanatory Design, Department of Education, Cebu City, Philippines

Introduction

Quality education serves as a dynamic force driving societal change and progress, holding pivotal significance in the reshaping of communities (Morawska-Jancelewicz, 2022). Beyond its traditional role as a conduit for social advancement and economic development, education stands as a platform for cultivating intellect and values among diverse populations. In our swiftly evolving world, dominated by modern technology, the paramount importance of quality education cannot be overstated—it is the key to addressing contemporary needs and fostering human resource development on a global scale.

Amidst the ongoing global transformations, the former Secretary of the Department of Education (DepEd), Briones, articulates crucial strategies for modernizing and steering the education system towards embracing change and undergoing transformative processes. The Philippine education system is undergoing nuanced adjustments to align with the imperatives of globalization and internationalization (Eder, 2020). These changes pose formidable challenges, necessitating effective programs and policies across all educational tiers, from pre-elementary to post-tertiary. A significant transformative stride in this regard is the implementation of the K-12 Basic Education program, marking a profound shift in the educational landscape of the Philippines.

In this era, where the role of educators extends beyond mere knowledge transmission to the imparting of 21st-century skills, continuous assessment of teachers becomes imperative. The competence required for effective teaching transcends subject knowledge and skills; it demands the adept integration of psycho-social resources, encompassing a diverse array of skills and values, within specific contexts (Kilag, et al., 2023).

Master Teachers, who navigate multiple subjects and levels, undertake critical instructional, management, and research functions. Despite the importance of their research role, it remains an

underexplored facet, primarily attributed to perceived difficulty and technicality. Existing studies in the Philippines underscore a notable gap in understanding master teachers' research functions and productivity, emphasizing the urgent need for attention in this area (Daing & Mustapha, 2023).

Recognizing research as the linchpin for generating new knowledge, the Department of Education in the Philippines has embarked on initiatives to bolster research in basic education (DepEd Order No. 24, s. 2022). From the establishment of research funds to comprehensive policy development and the adoption of a research agenda, these efforts are geared toward fostering research competency among teachers, addressing the evolving needs of 21st-century learners.

To bridge the identified gaps and illuminate the factors influencing research productivity among master teachers, an in-depth investigation becomes imperative. This study is propelled by the development of a simulacrum designed to enhance research involvement and engagement among master teachers, aiming to contribute substantively to the discourse on this critical aspect of education in the Philippines.

Theoretical Background

In contemporary times, the role of educational research has burgeoned, becoming a linchpin in shaping policies, interventions, and practices that elevate the learning environment for students. However, the pursuit of research excellence encounters challenges, often constrained by limited resources and logistical complexities within public school systems. This study delves into the conceptualization and application of a simulacrum (Sauvagnargues, et al., 2018), a simulated model or system, as a strategic avenue to augment research efficiency within selected public schools in Cebu City. The theoretical underpinning of this investigation draws from the Systems Theory, asserting that an organization, such as a school system, is a multifaceted and interconnected system comprising interdependent components (Musser, 2007).

By conceptualizing and implementing a simulacrum, the aim is to fashion a microcosm that faithfully replicates the intricate dynamics inherent in the educational system. This simulacrum serves as a controlled experimental arena, facilitating in-depth analysis without disrupting the operational fabric of the actual school setting. This approach aligns with the fundamental tenets of Systems Theory, wherein the interplay of components within an organization is meticulously examined for a comprehensive understanding.

Drawing additional theoretical strength from the Technology Acceptance Model (TAM), the study scrutinizes the inclination of educational stakeholders—encompassing teachers, administrators, and students—to embrace the simulacrum as an innovative tool for augmenting research endeavors (Fathema, et al., 2015). TAM, a widely recognized framework, explores the perceived ease of use and perceived usefulness of technology, both pivotal factors influencing user acceptance and adoption. In the context of the simulacrum, this model becomes instrumental in gauging the willingness of stakeholders to integrate and engage with this innovative approach. Assessing the perceived ease of use considers the simplicity and accessibility of the simulacrum,

while evaluating the perceived usefulness delves into the tangible benefits and efficacy it offers in the realm of educational research.

The amalgamation of Systems Theory and the Technology Acceptance Model provides a robust theoretical foundation for understanding the complexities of introducing a simulacrum into the educational research landscape. Through this theoretical lens, the study aims to shed light on the intricate dynamics of educational systems, the potential impact of a simulacrum, and the factors influencing its acceptance among key stakeholders.

Research Questions:

In pursuit of the overarching goal to enhance research productivity among master teachers within the Division of Cebu City for the Academic Year 2023-2024, employing a sequential explanatory mixed design, the study endeavors to delve into the following specific research questions:

1. Self-Assessment of Research Productivity:
 - 1.1 How do master teachers evaluate their individual characteristics in relation to research productivity?
 - 1.2 In what ways do institutional characteristics impact master teachers' perceptions of their research productivity?
 - 1.3 How do leadership characteristics influence the self-assessment of research productivity among master teachers?
 - 1.4 To what extent does self-efficacy contribute to the perceived research productivity of master teachers?
2. What factors exert significant influence on the research productivity of master teachers?
3. What are the noteworthy experiences and practices employed by master teachers in the development and enhancement of their research productivity?
4. What innovative simulacrum can be formulated to effectively augment research productivity among master teachers?

Methodology

Design:

The study employs a sequential explanatory design, blending qualitative and quantitative research methods. The initial qualitative phase involves immersive observations and interviews to comprehend the nuanced contextual factors within selected public schools. Subsequently, the quantitative phase utilizes a simulacrum to collect data under controlled conditions. This design ensures a comprehensive grasp of the research context before introducing the innovative intervention. Anticipated outcomes include insights into the feasibility and acceptance of the simulacrum for research in public schools, identification of key variables influencing research efficiency, and recommendations for broader adoption in educational research contexts. The

theoretical underpinnings aim to contribute to innovative methodologies for enhancing research practices in educational settings.

Participants in the Study

Participants were selected based on the research questions, encompassing both qualitative and quantitative aspects. For the quantitative component, 14 master teachers from the Division of Cebu City were included based on predetermined criteria.

Data Collection Tools:

The study utilized two primary tools for data gathering: a survey questionnaire and in-depth interviews.

1. Survey Questionnaire: To assess teachers' self-perception of research productivity, a survey questionnaire adapted from various literature sources was employed. Prior to administration, the tool underwent validation by three experts and reliability testing, indicating high reliability.

2. In-Depth Interviews: Following participant identification, in-depth interviews were conducted to capture experiences and practices in research. Central guide questions, validated by educational leadership and management experts, guided the interviews.

Data Gathering Procedures

The data collection adhered to a systematic approach:

1. Permissions and Consents: Authorization was obtained from the Office of the Division's Superintendent of Cebu City, and informed consent was secured from participants before questionnaire distribution.

2. Survey Questionnaire Distribution and Collection: Questionnaires were personally distributed and collected, with data subsequently tallied and collated for analysis.

3. Statistical Analysis: Collected data were analyzed using SPSS. Descriptive statistics and multiple linear regression were employed to interpret teachers' assessments and identify significant predictors.

4. In-Depth Interviews: Following statistical analysis, in-depth interviews were conducted, lasting approximately one hour each, based on a guide sheet with predefined questions.

5. Ethical Considerations: Ethical considerations play a pivotal role in ensuring the integrity and trustworthiness of this study aimed at enhancing research productivity among master teachers in the Division of Cebu City. From the outset, participants were provided with comprehensive information about the study's purpose, procedures, potential risks, and benefits. Informed consent was obtained from each participant, emphasizing their voluntary participation and the right to withdraw at any stage without facing repercussions or loss of benefits.

Statistical Tools

SPSS was employed for data analysis, using the following statistical treatments:

1. Descriptive statistics, specifically weighted mean, characterized teachers' assessments of research productivity.

Range	Qualitative Description
3.50 – 4.00	Very Great Extent
2.50 – 3.49	Great Extent
1.50 – 2.49	Little Extent
1.00 – 1.49	No Extent

2. Multiple Linear Regression identified significant predictors of research productivity.

3. Creswell's seven steps of thematic analysis were utilized to analyze teachers' experiences and practices, involving raw data analysis, organizing data, reading through all data, coding, theme generation with descriptions, interrelating themes, and interpreting the meaning of themes and descriptions.

Results and Discussion

Summary Table on the Weighted Mean and Descriptive Interpretation of the Teacher's self-assessment of Research Productivity

Dimensions	Mean	Qualitative Description
Individual Characteristics	3.06	Great Extent
Institutional Characteristics	3.18	Great Extent
Leadership Characteristics	3.41	Great Extent
Self-Efficacy	3.22	Great Extent
Overall Mean	3.22	Great Extent

Table 1.5 provides a comprehensive overview of the weighted mean and descriptive analysis concerning teachers' self-assessment of research productivity, offering a weighted mean and descriptive interpretation across four dimensions: Individual Characteristics, Institutional Characteristics, Leadership Characteristics, and Self-Efficacy.

Teachers perceive their Individual Characteristics as significantly contributing to research productivity, as indicated by a mean score of 3.06 with a qualitative description of "Great Extent." This positive assessment suggests that teachers attribute their personal attributes, skills, and qualities as pivotal to their effectiveness as researchers.

In terms of Institutional Characteristics, with a mean score of 3.18 and a qualitative description of "Great Extent," teachers express a high level of confidence in the impact of institutional factors on research productivity. This implies that the overall environment, resources, and

support provided by institutions are perceived as favorable and conducive to productive research endeavors.

For Leadership Characteristics, the mean score of 3.41 and qualitative description of "Great Extent" indicate that teachers attribute a significant positive impact to leadership in enhancing research productivity. This recognition suggests that effective leadership within the educational context is acknowledged as a key factor influencing and elevating teachers' research activities.

In the dimension of Self-Efficacy, teachers demonstrate a strong belief in their capabilities, with a mean score of 3.22 and a qualitative description of "Great Extent." This confidence implies that teachers feel adept in initiating, conducting, and completing research activities, contributing positively to their overall research productivity.

The Overall Mean, reflecting an amalgamation of Individual, Institutional, and Leadership Characteristics along with Self-Efficacy, is 3.22, with a qualitative description of "Great Extent." This collective evaluation emphasizes the positive perception by teachers and suggests that these factors contribute to a conducive research culture, fostering what is seen as a high extent of research productivity among teachers.

Teachers consistently perceive their research productivity positively across these dimensions. The recurring "Great Extent" qualitative description underscores their confidence in the various elements contributing to their effectiveness as researchers within the educational context.

I. Predictors of Research Productivity among Master Teachers

Table 2. Predictors of Research Productivity among Master Teachers

Major Dimensions	Sub-Dimensions	B	t-value	P-value	Decision
Self-Efficacy	Self-Efficacy	.605	1.542	.133	Accept Ho
Individual Characteristics	Motivation	.239	.926	.361	Accept Ho
	Content Knowledge	-.056	-.174	.863	Accept Ho
	Basic and Advanced Research Skills	.173	.532	.598	Accept Ho
	Autonomy and Commitment	-.413	-1.727	.268	Accept Ho
	Recruitment	.914	2.158	.038*	Reject Ho
Institutional Characteristics	Clear Coordinating Goals	-1.173	-1.718	.095	Accept Ho
	Research Emphasis	-.239	-.581	.565	Accept Ho
	Culture	.301	.835	.410	Accept Ho
	Size	.491	1.667	.105	Accept

					Ho
	Positive Group Climate	-.152	-.415	.681	Accept Ho
	Mentoring	.880	1.499	.143	Accept Ho
	Communication with Professional Network	.799	1.806	.080	Accept Ho
	Resources	-.758	-1.594	.120	Accept Ho
	Sufficient Work Time	-.714	-1.872	.040*	Reject Ho
	Communication	.793	1.841	.075	Accept Ho
	Rewards	-.248	-.692	.494	Accept Ho
	Assertive Participative Government	-.438	-1.019	.316	Accept Ho
Leadership Characteristics	Scholar	-.254	-.847	.406	Accept Ho
	Research Oriented	.609	1.606	.118	Accept Ho
	Critical Leadership Roles	-1.155	-2.466	.019*	Reject Ho
	Participative Leader	.087	.249	.805	Accept Ho

**significant at .05 level*

Table 2 illuminates the predictors of research productivity among master teachers, unveiling noteworthy insights. The analysis challenges conventional wisdom, revealing that self-efficacy does not emerge as a predictor of research productivity, as evidenced by a probability value of .133, surpassing the .05 significance level. This contradicts prior studies asserting a substantial association between research productivity and teachers' self-efficacy (Overall, Deane & Peterson, 2011; Klassen & Usher, 2010; Hemmings & Kay, 2010).

Within the realm of individual characteristics, sub-dimensions including motivation, content knowledge, basic and advanced research skills, and autonomy and commitment are not identified as predictors of research productivity among master teachers, with probability values of .361, .863, .598, and .268, respectively. It is crucial to note that these outcomes deviate from previous research findings. While some studies emphasize the significant impact of motivation on research output (Bland et al., 2005), others, such as Hedjazi and Behravan (2011), found no correlation between motivation and research output using similar dimensions. Additionally, Hedjazi and Behravan (2011) identified autonomy and dedication, work habits, and originality as dimensions positively influencing research output, challenging the current study's findings. In contrast to Martinez, Floyd, and Erichsen (2011), they also observed positive connections between tenacity, discipline, work ethic, open-mindedness, patience, and research output.

Concerning institutional characteristics, most sub-dimensions, such as clear coordinating goals, research emphasis, culture, size, positive group climate, mentoring, communication with a professional network, resources, communication, rewards, and assertive participative government, are not deemed predictors of research productivity among teachers. Probability values ranging from .095 to .681 surpass the .05 level of significance. Institutional characteristics encompass the distinguishing features of an institution that either foster or discourage teachers from engaging in research. However, two sub-dimensions, recruitment and sufficient work time, emerge as predictors of research productivity with probability values of .038 and .040, respectively. These results suggest that the quality of the recruitment process in selecting master teachers within the Department of Education significantly influences their research productivity.

In the context of leadership characteristics, three sub-dimensions—scholar, research-oriented, and participative leader—are not identified as predictors of research productivity among master teachers, with probability values of .406, .118, and .805. Only the sub-dimension of critical leadership roles predicts research productivity. While limited research explores the impact of leadership on research productivity, existing evidence suggests a positive relationship between leadership and research performance (Sabharwal, 2013). Previous studies have shown that leadership qualities can significantly influence research output (Jung, 2012; Kilag, et al., 2023), a viewpoint supported by Koivunen (2003), who contend that leadership undeniably shapes an organization's research production. In this study, being a visionary school leader and maintaining a harmonious relationship with teachers through constructive feedback and suggestions emerge as critical factors in enhancing master teachers' research productivity.

II. Experiences and Practices of Master Teachers in Conducting Research

The examination of master teachers' profiles underscores a significant trend, revealing that a substantial portion has generated only one research output during their tenure in the role. This observation implies that, on average, their research productivity is relatively modest, as indicated by the limited number who have produced at least two research outputs. Specifically, the data highlights that only 14 master teachers fall into the category of being productive in terms of research output.

Further insights are gleaned from interviews, unveiling four predominant themes encapsulating the experiences and practices contributing to the research productivity of these master teachers:

a. Engagement in Research-Related CPD Activities

One prevalent practice among master teachers demonstrating a high level of research productivity is their active involvement in research-related Continuing Professional Development (CPD) activities. This encompasses participation in departmental capability building programs, research workshops, training sessions, and active engagement in research presentations and utilization events. CPD events focused on research offer a platform for interaction with professionals in the field, enabling them to stay informed and acquire new skills relevant to research practices (Kilag, et al., 2023). Statements from participants highlight their commitment to such activities and the impact on their research capabilities:

MT08: "I actively participate in various seminars and training sessions to enhance my research skills. This is one of my most effective practices because I've learned numerous techniques, making producing high-quality action researches less challenging."

MT10: "I ensure that I stay updated on different trends in research by attending local and national capability building programs."

Qualitative findings reveal that engagement in research-related CPD activities extends beyond traditional events, with some master teachers also participating in additional endeavors such as professional readings and watching educational videos on platforms like YouTube. This diversified engagement aligns with prior studies emphasizing the importance of continuous professional development for teachers to enhance their research skills and competence (Kilag, et al., 2023).

b. Collaboration and Networking

Continual collaboration and networking emerge as another crucial practice employed by master teachers to enhance their research productivity. They emphasize that establishing connections with fellow faculty members and engaging in research collaborations significantly contributes to cultivating a research-oriented culture. Successful researchers often build networks with like-minded academics, creating a platform for discussing their studies (Evans, et al., 2019). Participants express their views on this matter:

MT06: "I make sure to have extensive linkages, especially in the realm of research. This facilitates easy collaboration with researchers from diverse backgrounds globally."

MT11: "Networking is crucial in research. I've joined professional research organizations to stay updated on developments in the world of research."

Moreover, collaboration and networking offer master teachers the valuable opportunity to find mentors in an informal setting. Mentorship programs encourage senior faculty members with research expertise to share their knowledge with junior faculty members, enhancing their competence and skills in educational research.

MT06: "Through collaboration, I became a mentee to some teacher-researchers locally and globally. This engagement allowed me to receive consistent support whenever I needed assistance with my research."

MT11: "My research skills saw development and enhancement through collaboration. I gained mentors and even friends who played a pivotal role in helping me produce impactful research."

The findings underscore the positive impact of collaboration and linkages initiated by teachers and schools in fostering a conducive research climate, aligning with existing literature (Brownell, et al., 2011; Li, et al., 2015).

c. Administrative Support

The third theme revolves around the crucial role of school administration in fostering a positive research culture within the school. Both institutional and unit-level leaders are tasked with establishing clear research objectives and effectively communicating them to instill a research-oriented environment. Administrators are also advised to incorporate expectations regarding research and teaching in job descriptions. Participants express their sentiments on this matter:

MT12: "One of the most rewarding experiences in my research journey is the consistent support I received from my superiors and principal. Without their encouragement and motivation, producing high-quality research outputs would have been challenging."

MT05: "My school administrators are exceptional in terms of support. They consistently motivate me to engage in research, recognizing its critical importance for us teachers."

The study's results align with existing literature, emphasizing the consensus that school support significantly contributes to creating a positive research culture in educational institutions (Day, et al., 2016).

d. Personal Provision of Research Resources and Materials

Lastly, a theme that emerged as less prominent from the master teachers' responses is their initiative to procure research resources and materials independently. Some of them invested in various research software and applications to stay updated in the rapidly evolving field of research. This practice is notably common among teachers, particularly in public schools where resources are often limited (Banks, 2018). Participants share their perspectives:

MT05: "Due to budget constraints in our institution, I personally acquired several research resources and applications such as Turnitin, Quillbot, and Grammarly. I believe these tools are essential for my research endeavors."

MT08: "I used my own funds to purchase research materials since they were not available in our library. I acquired research books and journals to enhance my research skills."

These practices highlight the resilience and resourcefulness of master teachers in ensuring they have the necessary tools for productive research despite challenges in resource availability.

III. Proposed Simulacrum to Enhance the Research Productivity of Master Teachers

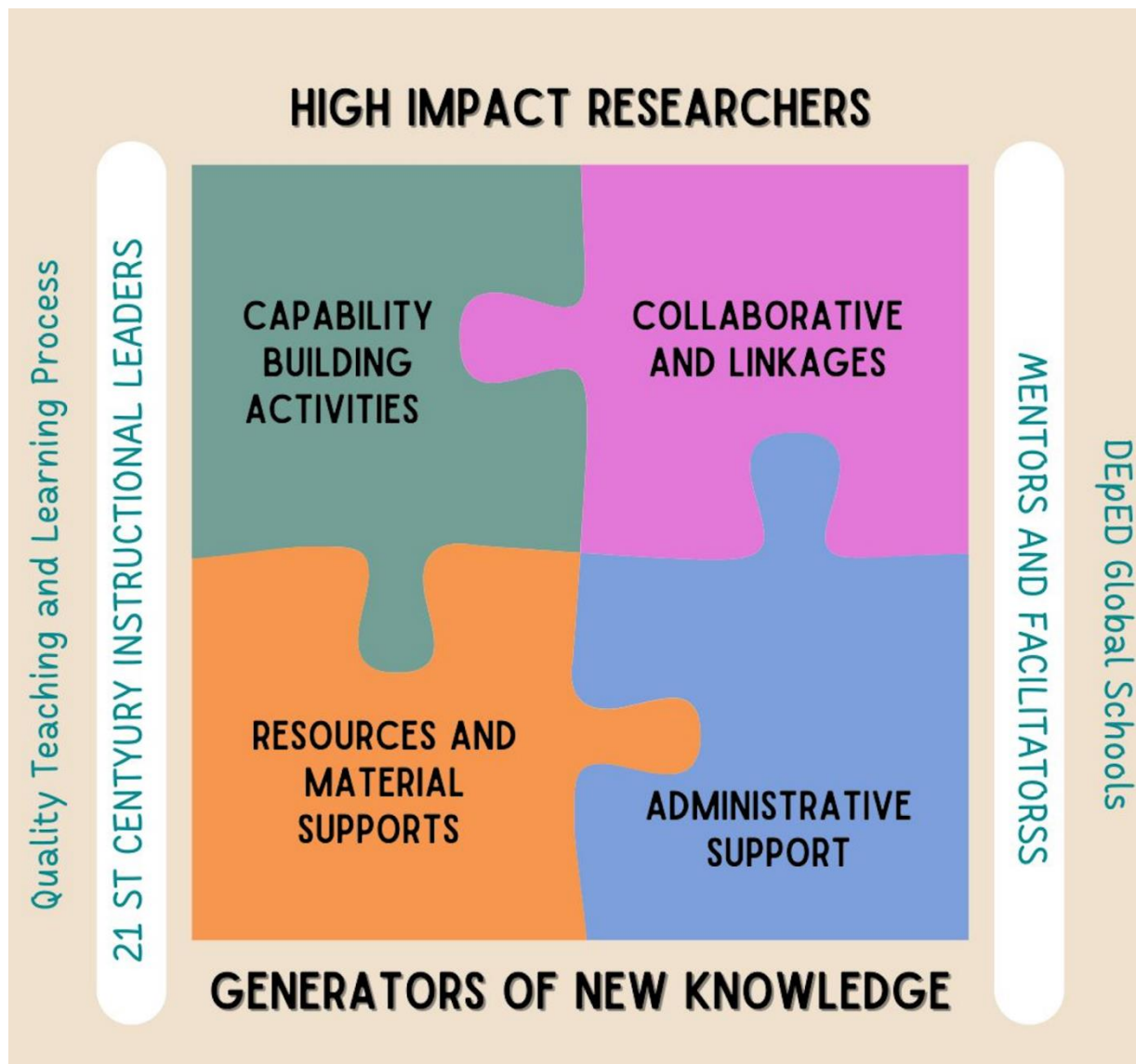


Figure 2. The Glenn Research Simulacrum

Figure 2 illustrates the suggested model designed to elevate the research efficiency of master teachers. This proposed simulacrum comprises four tiers. The central tier displays the program's name, while the Meso level encompasses various strategies that DepEd Cebu City can employ to enhance the research productivity of master teachers. These strategies encompass capacity-building activities, administrative support, collaboration and partnerships, as well as support for research resources and materials.

a. **Capacity Building Activities:** Master teachers will have opportunities to attend and participate in extensive and responsive research-related capacity building programs. These programs will focus on various trends in educational research, featuring experts from both local and international settings as facilitators.

b. Collaboration and Linkages: The DepEd-Division of Cebu City Research Council will spearhead networking and collaboration activities to promote a research culture in the division. Master teachers will explore partnerships with renowned researchers and have opportunities to join professional research organizations.

c. Administrative Support: The Division office and schools will be key partners for master teachers in conducting research. Effective mechanisms and interventions, including incentives and recognition, will be established to cater to the research needs of master teachers.

d. Research Resources and Materials Support: The Division will provide schools with sufficient resources and ICT applications for research needs. Research centers and laboratories will be established to meet the requirements of teachers.

Upon the realization of these strategies, four major effects among master teachers will emerge, reflecting the macro level of the framework:

a. High Impact Researchers: Master teachers in DepEd Cebu City will evolve into high impact researchers, championing BERF activities, publishing articles in high impact research journals, and presenting papers at various national and international research conferences. They will aim for high h-index and i-index in platforms like Google Scholar and Scopus.

b. Mentors and Facilitators: Master teachers will become mentors and facilitators of research for others in the Division. They will contribute to the implementation of a peer-tutoring program supervised by the Division Technical Working Group in Research. They will assist new and less research-productive master teachers in becoming educator-researchers. Master teachers will also serve as focal persons for research, sharing information and expertise in seminars and workshops.

c. Knowledge Generators: Master teachers will attain expertise in educational research, serving as knowledge generators. They will contribute to the Division by conducting departmental and institutional studies essential for decision-making and policy improvement. Additionally, they will play a role in developing a proposed Research Journal for the division.

d. 21st Century Instructional Leaders: As researchers, master teachers will base all their activities and initiatives on research, especially in pedagogical practices impacting the teaching and learning process. They will align with the demands of 21st-century learning, incorporating innovation and critical thinking.

Finally, at the transcendental level, the long-term effects of these strategies on the Division of Cebu City and its schools will include:

a. Center for Action Research in the Visayas Region: The Division will evolve into a hub for action research in the Visayas region.

b. Global Basic Education Schools: Schools within the division will gain recognition as global leaders in basic education.

c. **Interdisciplinary and Multi-disciplinary Educators:** Master teachers will become adept at interdisciplinary and multi-disciplinary approaches in education.

d. **Quality Teaching and Learning Process:** The overall teaching and learning process in the Division will be enhanced, ensuring quality education.

Recommendations

Building on the study's findings and conclusions, the following recommendations are put forth:

1. The Department of Education – Cebu City, particularly its Division Research Committee, should organize extensive and current research capability building programs tailored to the specific needs of master teachers. These programs should cover various aspects such as research conceptualization, methodology, research writing, and research utilization, with a focus on guiding master teachers in publishing their research in international peer-reviewed and refereed journals.

2. School research coordinators are encouraged to conduct a research-needs assessment that is responsive to the research needs, competence levels, and training requirements of master teachers. This assessment should serve as the foundation for their annual training and intervention programs in research and development.

3. School research coordinators should implement innovative and responsive research development programs that go beyond basic research seminars and DepEd-provided BERF offerings. This may include workshops on statistical analysis, training on research publication and presentation, and other specialized areas.

4. Before submission to the Department of Education – Division of Cebu City for review and potential implementation, the proposed simulacrum should undergo validation by experts. The use of a Delphi-technique study can be considered for this purpose.

5. Master teachers with high levels of research productivity could establish a mentoring program to assist those with lower levels of research productivity in enhancing their research competence and skills.

6. A potential extension of this study could involve conducting a phenomenological study to explore the lived experiences of master teachers in the context of their research activities.

7. Future researchers are encouraged to broaden the scope of the present study by including all teachers across all ranks, encompassing both elementary and secondary levels.

Conclusion

In the pursuit of enhancing research productivity among master teachers in the Division of Cebu City during the Academic Year 2023-2024, this comprehensive study delved into various facets

of the educational landscape. The investigation, framed within a sequential explanatory mixed design, aimed to unravel the factors influencing research productivity, explore master teachers' experiences and practices, and develop a simulacrum to augment research engagement. The synthesis of findings across dimensions provides a nuanced understanding of the challenges and opportunities inherent in fostering a robust research culture among master teachers.

The predictors of research productivity among master teachers were meticulously examined, revealing insightful nuances. While self-efficacy, individual characteristics, institutional characteristics, and leadership characteristics were scrutinized, the study identified the pivotal role of administrative support, specifically in terms of recruitment processes and ensuring sufficient work time. Additionally, critical leadership roles were identified as a significant predictor, underlining the importance of visionary leadership in shaping a conducive environment for research.

The exploration of master teachers' experiences and practices shed light on the multifaceted nature of their engagement with research. Noteworthy themes emerged, highlighting the impact of active participation in research-related Continuing Professional Development (CPD) activities, collaborative engagement, substantial administrative support, and the personal provision of research resources. These themes collectively underscore the diverse strategies employed by master teachers to navigate challenges and leverage opportunities for productive research.

In response to identified gaps and challenges, a simulacrum was devised as an innovative tool to enhance research engagement among master teachers. Grounded in the Systems Theory and guided by the Technology Acceptance Model, the simulacrum provides a controlled environment for experimentation and analysis without disrupting actual school operations. The theoretical underpinnings align with contemporary educational trends, emphasizing the importance of creating an ecosystem that supports and encourages research activities.

The implications of this study extend beyond the immediate context of the Division of Cebu City, resonating with broader considerations for educational institutions aiming to bolster research engagement among teaching faculty. The identified predictors of research productivity underscore the need for targeted interventions at the administrative and leadership levels, emphasizing the recruitment process and the allocation of sufficient time for research activities. The themes extracted from master teachers' experiences offer actionable insights for the development of professional development programs, collaboration initiatives, and administrative policies that foster a conducive research climate.

The simulacrum, as a proposed innovation, holds promise in providing a structured platform for research experimentation. Its potential to bridge the gap between theory and practice in a controlled setting suggests a pathway for future research interventions. Further exploration, refinement, and adaptation of the simulacrum are recommended to align with evolving educational landscapes and technological advancements.

Acknowledging the comprehensive nature of this study, it is imperative to highlight its limitations. The findings are context-specific to the Division of Cebu City, and generalizability to other educational contexts requires cautious consideration. The study's temporal scope,

constrained to the Academic Year 2023-2024, necessitates ongoing scrutiny to assess the sustainability and adaptability of the proposed simulacrum over time.

Future research endeavors may delve into longitudinal studies to gauge the long-term impact of administrative support and leadership characteristics on sustained research productivity. Additionally, exploring the scalability of the simulacrum across diverse educational settings and subject areas could provide valuable insights into its broader applicability.

This study has unraveled the intricate dynamics of research engagement among master teachers, laying the foundation for informed interventions and practices. The amalgamation of quantitative predictors, qualitative experiences, and an innovative simulacrum presents a holistic approach to addressing the multifaceted challenges and opportunities in the educational research landscape. As education continually evolves, the insights garnered from this study serve as a catalyst for ongoing dialogue, innovation, and concerted efforts to cultivate a research culture that empowers master teachers as impactful contributors to educational advancement. The journey towards enhanced research productivity is dynamic, and this study sets forth a trajectory for continued exploration and refinement in the ever-evolving field of educational research.

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