Upgrading Students' Research Capability in a Hybrid Learning Setting : A Results-Oriented Approach

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Abstract: This study focused on determining student-researchers' capabilities of graduate students in the master's program at Golden Gate Colleges, Batangas City, Philippines specifically targeting action and basic research. A mixed-methods approach was utilized, incorporating a checklist questionnaire to assess research proposal writing skills and the extent of expert collaboration in a hybrid learning environment. Additionally, a structured interview guide was employed to identify the challenges students face in online distance learning and their coping mechanisms. The sample comprised 68 graduate students during the second semester of SY 2023-2024. Quantitative data were analyzed using frequency counts, percentages, rankings, and weighted means, while qualitative data were examined through thematic analysis. The findings reveal that students generally feel capable of writing research proposals, presenting their research, and finalizing their work. Expert collaboration in hybrid learning environments was highly valued, particularly in research discussions, consultations, and proposal defenses. However, students reported significant challenges, including unstable internet connectivity and power interruptions, which disrupted their participation in online classes. To address these issues, students have developed adaptive strategies, such as improving internet connectivity and minimizing distractions. The research guide developed offers practical support for overcoming these research-related challenges. Recommendations include designing training modules to enhance mathematics teachers' capabilities and providing updated training guides to meet educators' needs. These measures aim to ensure teachers can effectively navigate educational changes and deliver high-quality instruction.

Keywords: research capability, hybrid learning setting, Results-Oriented Approach, graduate school students

I. INTRODUCTION

The education landscape is rapidly changing with the integration of technology and flexible learning environments, challenging traditional paradigms of student research capabilities. This research aims to explore and enhance the research capabilities of graduate school students in a hybrid learning setting. Titled "Upgrading Students' Research Capability in a Hybrid Learning Setting: A Results-Oriented Approach," the study seeks to understand how students engage with research methodologies, process information, and produce impactful research outcomes within the framework of hybrid learning.

Hybrid learning, a mix of in-person and online instruction, is increasingly prevalent in contemporary educational settings. This blend of traditional classroom experiences with digital resources offers students unique opportunities and challenges in developing their research capabilities. Understanding students' proficiency in conducting research, synthesizing information, and presenting findings is crucial for fostering academic excellence and preparing them for the complexities of the modern research landscape.

This research is particularly relevant given the transformative shift in educational modalities, as hybrid learning becomes a foundational aspect of the educational experience. The study is situated within the broader discourse on the evolving nature of education, where adaptability, digital literacy, and research acumen are integral components of a student's academic toolkit.

The study recognizes the need to recalibrate traditional approaches to assessing and enhancing research capabilities in the context of hybrid learning. By adopting a results-oriented approach, the study aims to not only gauge the proficiency of students in conducting research but also to identify actionable strategies that can uplift their capabilities.

Moreover, research skills are fundamental for success in various professional spheres, not just academically. Understanding how students' research capabilities can be upgraded in a hybrid learning setting has implications for their academic journey and future career trajectories. Despite efforts from professors, students still lack competencies in proposing good research, which this study aims to address.

This research is imperative to align educational practices with the evolving needs of graduate school students at the Golden Gate Colleges in a hybrid learning environment. By adopting a results-oriented approach, the study aims to contribute valuable insights that can inform educational strategies, curriculum development, and instructional methodologies aimed at enhancing students' research capabilities in this contemporary educational landscape.

This study seeks to identify and address the underlying factors inhibiting the optimal research capability of students in a hybrid learning environment, with the goal of proposing a results-oriented approach that can significantly improve the quality of research output and contribute to the advancement of student learning outcomes.

Specifically, this study sought to answer the following questions:

- 1. How do graduate school students assess their research capabilities in terms of:
 - 1.1 writing a research proposal,
 - 1.2 presenting output, and
 - 1.3 finalizing the research proposal?
- 2. To what extent can expert collaboration in a hybrid learning setting contribute to upgrading the quality of research output relative to:
 - 2.1 discussion of research learning content,
 - 2.2 consultations of research output; and
 - 2.3 individual interactions in research proposal defense?
- 3. What are the challenges encountered by graduate school students in a hybrid-learning setting?
- 4. What are the coping strategies adopted by them in writing their research proposals?
- 5. What additional recommendations can student researchers offer to upgrade their capabilities in completing their research papers?

II. RELATED LITERATURE

The literature on upgrading students' research capabilities in hybrid learning settings covers a range of topics including research skills enhancement, expert collaboration, proposal improvement, and challenges faced in hybrid learning environments.

Macaspac et al. (2014) identified a significant deficiency in teachers' engagement in action research, underscoring the need for improved research skills. Agatep and Villalobos (2020) highlighted a moderate perception of research capabilities and resource availability among participants, suggesting the need for targeted interventions. Bueno (2017) emphasized areas for improvement in faculty research proficiency, signaling the importance of ongoing

training. Hughes (2019) stressed the role of research-based learning in developing critical thinking skills, advocating for a progressive approach to research skill development.

Ramim and Lichvar (2014) highlighted the importance of expert feedback in refining survey instruments and understanding human factors in project management. Aryani et al. (2015) found that social networks significantly impact students' research capabilities, urging policymakers to prioritize education and expert monitoring in virtual domains. Muneeb et al. (2020) emphasized the positive influence of doctoral communities and networking on student productivity, advocating for stronger doctoral communities, while Alammary (2014) discussed blended learning benefits and challenges. Knight and Rowley (2020) presented an online tool for personalized reports, transforming workshops into targeted sessions. Recepoğlu (2013) explored how age affects teachers' perceptions of instructional practices in organizational learning.

Hughes (2019) identified three challenges in integrated research-based learning: conceptualizing research skill progression, recognizing skill accumulation, and establishing clear support systems. Bao (2020) recommended strategies to improve student concentration and engagement, including emergency preparedness, content segmentation, and effective use of online teaching tools. Rotas and Cahapay (2020) noted challenges such as unstable connectivity and inadequate resources. Rahiem (2020) highlighted technological disruptions, high internet costs, and material access issues. Hazaea et al. (2021) observed that the COVID-19 pandemic exacerbated proposal writing challenges due to the abrupt shift to online learning, leading to technological barriers and decreased student-teacher interaction. Dayagbil et al. (2021) emphasized the need for strategic scenario analyses and curriculum recalibration to maintain teaching continuity during the pandemic. Muppalla et al. (2023) highlighted the negative impacts of excessive screen time on social and emotional development. Nkhangweni Mahwasane and N.P. Mudzielwana (2016) advocated for improved information literacy and better access to library resources. Hodges et al. (2020) stressed flexibility and alternative technologies for maintaining educational continuity. Broadbent and Poon (2015) emphasized the importance of time management and organizational skills in online learning. Zulfikar (2016) and Wang and Yang (2012) argued that external support from peers and family enhances research proposal writing. Zulfikar also recommended consulting peers and mentors to understand research patterns and formulate problems effectively.

These studies collectively underscore the multi-faceted approach required to enhance research capabilities and navigate the complexities of hybrid learning environments. They highlight the need for targeted interventions, ongoing development, and strategic support to address the challenges and opportunities within hybrid education.

III. METHODOLOGY

Research Design

The methodology adopted for this research employs a mixed-method design, combining qualitative and quantitative approaches to comprehensively assess the research capabilities of graduate school students during the first semester of the school year 2023-2024. A total of 68 graduate school students were randomly selected using a quota sampling technique to ensure representation across diverse programs. For the quantitative component, a survey questionnaire was utilized, focusing on students' self-assessment of their capabilities in writing research proposals, presenting research output, and finalizing research proposals. Additionally, students' assessments of expert collaboration in a hybrid learning setting were gauged through the survey, specifically targeting the discussion of learning content, consultations of research output, and individual interactions in research proposal defense.

To complement the quantitative data, a qualitative dimension was incorporated using interviews conducted through Google Forms. This qualitative approach aimed to capture nuanced insights, with a specific focus on gathering additional recommendations from student researchers on how to upgrade their capabilities in completing research papers. The combination of quantitative survey data and qualitative interviews provides a comprehensive understanding of the research capabilities of graduate students, allowing for a rich exploration of their experiences and offering valuable insights for potential enhancements in the academic setting.

Subjects of the Study

The study involved 68 participants enrolled in ten distinct master's programs at Golden Gate Colleges, Batangas City, Philippines. The programs included are Master of Arts in Education (non-thesis), Master of Arts in Science Teaching, Master of Arts in English Teaching, Master of Arts in Mathematics, Master of Arts in Filipino, Master of Arts in MAPEH, Master of Arts in Social Studies, Master of Arts in Kindergarten, Master of Arts in Educational Management (thesis program), and Master of Arts in Technology and Livelihood Education. These participants were drawn from the entire population of students enrolled during the second semester of SY 2023-2024. A survey questionnaire was administered to all enrolled students. Additionally, purposive sampling was employed to select key informants for qualitative research. Criteria for selection included having at least one representative from each program and willingness to engage in focus group discussions to validate qualitative responses.

Data Gathering Instrument

The study made use of questionnaires and qualitative questions as instruments for gathering data.

1. Construction of Questionnaire

The survey questionnaire is divided into two sections that include respondents' assessments of their research capabilities in terms of writing the research proposal, presenting the research output, and finalizing the research proposal. The second segment addressed the assessment of the expert collaboration in terms of discussion of research learning content inputs, consultations of research outputs, and individual interactions in research proposal defense. The third part discusses the challenges of graduate school students in writing research proposals in a hybrid-learning setting and the coping strategies of graduate school students in writing their research tasks. To gather insights on topics linked to the study, books, journals, dissertations, and research competency were studied and considered during the creation and construction of the questionnaire and qualitative questions. The questionnaire's content was based on the problem statement. The researchers' actual experiences as graduate school professors enriched the questionnaire's design.

2. Validation of the questionnaire

The instruments were presented to the practitioners for content validation. Their suggestions in the revisions of the final draft were incorporated and being considered.

3. Scoring of questionnaire.

The responses on the questionnaire were measured through the number of respondents' answers on each item with a corresponding weight value; one as the lowest and four as the highest. Descriptive equivalents or verbal descriptions were listed for the interpretation of results.

The three sections used different rating scales for every category with a four-point scale.

Optio	n Scale Range	e Verbal Interpretation
4	3.50 - 4.49	Highly Capable /Strongly Agree/Very great extent
3	2.50 - 3.49	Capable/Agree/ Great extent
2	1.50 - 2.49	Slightly Capable / Disagree/Moderate extent
1	1.00 - 1.49	Not Capable / Strongly Disagree / Least extent

Data Gathering Procedure

The researcher asked for the approval of the Dean of the graduate schools at Golden Gate Colleges, Batangas City, Philippines before conducting the study. With permission granted, the administration of the questionnaire was done.

1. Administration of Questionnaire

The questionnaire was distributed to the master students in eight programs during the second semester of SY 2023-2024 who are enrolled in the Advanced Research Methodology class. After answering the questionnaire, the researcher immediately retrieved the questionnaire. The scores were computed and tabulated to assess the responses of the respondents on their research capabilities, extent of expert collaboration, challenges, and coping strategies in writing research proposals for action and basic research.

2. Data Analysis

Tabulated responses were analyzed using the following statistical tools: frequency counts to determine the number of responses for each item, ranking to determine the positional importance of responses, percentage to determine the magnitude of the frequency of the whole or total responses, weighted mean to determine the typicality of responses of the respondents on items that will be rated based on a scale of options and thematic analysis to determine the themes that emerge after soliciting the responses of the select study's participants.

IV. RESULTS AND DISCUSSION

1. Students' Assessment of their Research Capabilities

1.1. Writing the Research Proposal. Writing a research proposal involves the process of outlining and detailing a plan for a research project. It serves as a blueprint that communicates the objectives, methodology, and potential outcomes of the proposed research.

Table 1
Student's Assessment of their Capabilities in Writing the Research Proposal

In writing my research proposal, I am capable of	WM	VI	RANK
1. understanding the research problem	3.43	Capable	2
2. defining the research's purpose and justification	3.34	Capable	3
3. formulating literature review and synthesis-	3.11	Capable	6.5
4. creating research questions/hypotheses	3.03	Capable	8.5

5. choosing appropriate research design and methodology	3.03	Capable	8.5
6. ensuring clarity and coherence in proposal writing	2.97	Slightly Capable	10
7. following institutional format	3.04	Capable	5
8. selecting the applicable data collection techniques	3.54	Highly Capable	1
9. matching the correct treatment for data analysis and interpretation	3.11	Capable	6.5
10. writing and structuring the proposal	3.25	Capable	4
Composite Mean	3.19	Capable	

Table 1 shows graduate students' capabilities in writing their research proposals, the findings reveal a nuanced perspective based on the weighted mean (WM) scores. The highest-rated aspect, securing the top rank with a WM of 3.54 and being categorized as "Highly Capable," is the selection of applicable data collection techniques. This emphasizes a strong proficiency in choosing appropriate methods to gather relevant and reliable data. Following closely, understanding the research problem (WM: 3.43) and defining the research's purpose and justification (WM: 3.34) demonstrate a high level of capability, securing the second and third ranks, respectively. These results underscore the students' foundational understanding of the research context and the ability to articulate the significance of their proposed studies. The study conducted by Macaspac et al. (2014) identified pressing issues in the realm of research engagement among teachers. Over the period from 2010 to 2014, it was found that only two out of ten teachers were actively involved in research. Technical assistance activities uncovered a significant proficiency gap, with 90% of teachers lacking the necessary skills for conducting action research. A concerning shift was observed in 2015, as only 10% of teachers opted for individual action research rather than the collaborative approach, conflicting with mandated responsibilities and critical performance indicators. The study's gap analysis pinpointed the 90% deficiency in action research expertise as the most crucial and urgent concern.

However, certain areas, creating research questions/hypotheses and choosing appropriate research design and methodology share a rank (WM: 3.03), indicating an equally competent but perhaps evenly distributed proficiency across these dimensions. Ensuring clarity and coherence in proposal writing (WM: 2.97) ranks lowest and is labeled as "Slightly Capable," suggesting room for improvement in effectively communicating research intentions. In summary, while students demonstrate notable strengths in critical aspects of proposal writing, targeted enhancements in specific areas could contribute to an even more robust overall performance. The composite, a mean of 3.19, categorizes the overall capability as "Capable," indicating a generally commendable performance across various facets of research proposal writing.

1.2. Presenting the Research Output. Presenting the research output proposal refers to the plan for sharing the findings, results, and conclusions of a research project with relevant stakeholders. This proposal outlines the strategies, methods, and platforms that will be used to effectively communicate the research outcomes to the intended audience. It serves as a roadmap for how the research findings will be disseminated and presented in a clear, engaging, and impactful manner.

Table 2
Student's Assessment of their Capabilities in Presenting the Research Output

In presenting my research proposal, I am capable of	WM	VI	RANK
1. ensuring clarity and structure of presentation	3.34	Capable	7
2. employing powerful PowerPoint and video presentation	3.35	Capable	7
3. interacting with the invited panelists	3.49	Capable	3
4. responding to panelist's inquiries and comments	3.55	Highly Capable	2
5. exhibiting overall confidence	3.29	Capable	9
6. developing self-assurance and readiness	3.45	Capable	4
7. demonstrating assurance to the panelists	3.37	Capable	6
8. expressing concepts clearly	3.40	Capable	5
9. demonstrating mastery of the research paper	3.28	Capable	10
10. expressing optimism through remarks and recommendations	3.60	Highly Capable	1
Composite Mean	3.41	Capable	

In the assessment of graduate students' capabilities in presenting their research output, a nuanced picture emerges based on the weighted mean (WM) scores. The highest-rated aspect, securing the top rank with a WM of 3.60 and being deemed "Highly Capable," is the expression of optimism through remarks and recommendations. This suggests that students excel in conveying positivity and constructive insights during their presentations. Following closely, responding to panelists' inquiries and comments (WM: 3.55) is recognized as another area where students demonstrate a high level of capability, marked as "Highly Capable" and securing the second rank. Interacting with invited panelists (WM: 3.49) also stands out with a "Capable" rating, securing the third rank. This signifies the students' adeptness in engaging with the evaluative aspects of the presentation.

Meanwhile, ensuring clarity and structure of the presentation (WM: 3.34) and employing powerful PowerPoint and video presentations (WM: 3.35) both exhibit a "Capable" level of proficiency, securing the seventh rank. These competencies emphasize the importance of visual aids and organizational skills in effective presentation delivery.

The composite mean of 3.41 categorizes the overall capability as "Capable." While students generally exhibit commendable presentation skills, there is room for refinement in certain areas, such as expressing mastery of the research paper (WM: 3.28), which ranks tenth. In summary, the findings suggest that students excel in certain facets of presentation but may benefit from focused development to enhance specific aspects of their presentation capabilities. This is supported by the study conducted by Agatep and Villalobos (2020) found that participants perceived their abilities in crafting research proposals and producing publishable research papers to be "Moderately Capable." Additionally, the respondents perceived the availability of facilities, time, training, funding, other resources, and support

from the agency for research endeavors as "Moderately Available."

1.3. Finalizing the Research Proposal. Finalizing the research proposal refers to the process of completing and refining all components of the proposal to prepare it for submission, review, and approval. This stage is crucial for ensuring that the research proposal is well-structured, comprehensive, and aligned with the requirements and standards of the intended audience, such as funding agencies, academic institutions, or research review boards.

Table 3 on the next page reveals the assessment of graduate students' capabilities in finalizing their research proposals, the weighted mean (WM) scores highlight areas of strength and opportunities for improvement. Topping the ranks with a remarkable WM of 3.68, categorized as "Highly Capable," is the integration of comments and suggestions. This indicates a commendable ability to incorporate feedback, demonstrating a high level of responsiveness to constructive input. Following closely, accepting collaboration from others (WM: 3.63) secures the second rank and is also labeled as "Highly Capable," suggesting that students are adept at working collaboratively to refine their proposals. Additionally, editing and formatting as prescribed (WM: 3.59) and reviewing and revising important parts (WM: 3.55) both receive high rankings and are considered "Highly Capable," emphasizing proficiency in the detailed editing process.

Table 3
Student's Assessment of their Capabilities in Finalizing the Research Proposal

In finalizing my research proposal, I am capable of	WM	VI	RANK
1. integrating the comments and suggestions	3.68	Highly Capable	1
2. composing and arrangement of inputs	3.48	Capable	6
3. reviewing and revising important parts	3.55	Highly Capable	5
4. handling time management	3.25	Capable	10
5. examining the self-reflection after submission	3.33	Capable	9
6. accepting collaboration from others	3.63	Highly Capable	2
7. editing and formatting as prescribed	3.59	Highly Capable	3
8. finishing the paper editing	3.45	Capable	7
9. managing submissions and deadlines	3.40	Capable	8
10. assessing overall satisfaction	3.56	Highly Capable	4
Composite Mean	3.49	Capable	

Composing and arrangement of inputs (WM: 3.48) is considered "Capable" and ranks sixth, suggesting that while students exhibit competency in this area, there may be room for improvement in the organization of inputs. However, finishing paper editing (WM: 3.45) and time management (WM: 3.25) rank lower and are categorized as "Capable," signaling areas where students may consider refining their efficiency and attention to detail.

The composite mean of 3.49 categorizes the overall capability as "Capable," indicating a generally strong performance across various facets of finalizing research proposals. In summary, while students excel in several aspects of finalizing research proposals, continuous improvement in time management and organizational skills could contribute to an even more robust overall performance.

2. Students' Assessment on Extent of Expert Collaboration in a Hybrid Learning Setting

2.1 Discussion Research Learning Content Inputs. Discussion Research Learning Content Inputs" can be understood as the elements or components that contribute to the discourse, study, and educational materials related to a specific research topic or subject matter

Table 4
Student's Assessment on Expert Collaboration in Terms of Discussion Research
Learning Content Inputs

In improving the quality of my research output, the research learning content inputs of experts contribute	WM	VI	RANK
1. obtaining knowledge of research concepts, principles, and methodologies	3.57	Strongly Agree	2.5
2. learning the research topics, guiding principles, and techniques for writing the research report	3.57	Strongly Agree	2.5
3. expanding my knowledge and insights into the research context	3.55	Strongly Agree	4
4. understanding the parts of the research paper	3.63	Strongly Agree	1
5. applying the knowledge gained in preparing the research paper	3.54	Strongly Agree	5
Composite Mean	3.57	Strongly Agree	

In assessing graduate students' perceptions of expert collaboration in improving the quality of research output, the findings reveal a high level of agreement with the significant impact of expert inputs on research learning content. The weighted mean (WM) scores emphasize a shared sentiment among students. Topping the ranks with a WM of 3.63 and labeled as "Strongly Agree" is the understanding of the parts of the research paper. This suggests that expert collaboration plays a crucial role in providing clarity on the different components of a research paper, contributing to a comprehensive understanding. Following closely, obtaining knowledge of research concepts, principles, and methodologies (WM: 3.57) and learning the research topics, guiding principles, and techniques for writing the research report (WM: 3.57) share the second rank, also marked as "Strongly Agree." This highlights the significance of expert insights in shaping students' foundational understanding and practical skills in research writing. Expanding knowledge and insights into the research context (WM: 3.55) secures the fourth rank, further affirming the substantial role of expert collaboration in broadening students' perspectives. Applying the knowledge gained in preparing the research paper (WM: 3.54) completes the top five, marked as "Strongly Agree," indicating that students perceive a

direct link between expert input and the practical application of acquired knowledge in their research endeavors.

The composite mean of 3.57 reinforces the overall consensus among students, affirming a collective "Strongly Agree" sentiment regarding the positive influence of expert collaboration on the quality and depth of their research learning content. In summary, the findings underscore the invaluable role of expert collaboration in enriching students' understanding, guiding their writing process, and ultimately enhancing the quality of their research output. Hughes (2019) emphasized the essential role of research-based learning in equipping students with critical thinking skills, suggesting a need for a progressive and coherent approach to developing and assessing research skills as threshold concepts. These collective findings underscore the urgency and significance of enhancing research capabilities in the hybrid learning environment, emphasizing the need for targeted interventions and ongoing development initiatives to address these critical challenges and opportunities. Muneeb et al.'s (2020) research emphasizes the positive influence of doctoral community, network orientation, and academic and social networking on doctoral students' productivity, highlighting the need to strengthen doctoral communities to enhance research skills and competencies.

2.2. **Consultations of Research Output.** This refers to the process of seeking feedback, input, or advice from relevant stakeholders, experts, or peers regarding the findings, conclusions, and implications of a research study. This consultation process typically occurs after the completion of the research project and the generation of research output, such as a report, thesis, dissertation, or scholarly article.

Table 5 shows students' assessment of the impact of expert collaboration on the quality of research output through consultations, graduate students express a resounding "Strongly Agree" sentiment, as reflected in the weighted mean (WM) scores. Topping the ranks with a remarkable WM of 3.77 is the improvement of the research title and questions, indicating that consultations play a pivotal role in refining the fundamental elements of a research study. This suggests that expert insights significantly contribute to the precision and clarity of the research focus.

Table 5
Student's Assessment of Expert Collaboration in terms of Consultations of Research Output

In improving the quality of my research output, my consultations with experts contribute to	WM	VI	RAN K
1. improving my research title and questions	3.77	Strongly Agree	1
2. choosing the relevant and related literature aligned with the research study	3.60	Strongly Agree	4
3. refining and improving the methodology	3.63	Strongly Agree	3
4. crafting survey questions/ interview guide	3.50	Strongly Agree	5
5. implementing the feedback and recommendations provided by experts during consultations	3.70	Strongly Agree	2

Composite Mean	3.64	Strongly Agree	
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Following closely, the choice of relevant and related literature aligned with the research study (WM: 3.60) secures the fourth rank, also marked as "Strongly Agree." This underscores the valuable role of expert consultations in guiding students toward a comprehensive literature review that aligns with their research objectives. Refining and improving the methodology (WM: 3.63) occupies the third rank, emphasizing the substantial impact of expert input on the research design and execution. Crafting survey questions/interview guide (WM: 3.50) and implementing feedback and recommendations provided by experts during consultations (WM: 3.70) complete the top five, both marked as "Strongly Agree."

These findings underscore that expert consultations contribute significantly to the development of research instruments and the incorporation of valuable feedback into the research process. The composite mean of 3.64 reinforces an overall "Strongly Agree" stance, indicating a consistent perception among students regarding the transformative influence of expert collaboration on various aspects of their research output. In summary, the results highlight the instrumental role of expert consultations in shaping research titles, refining methodologies, selecting relevant literature, and implementing improvements, collectively enriching the overall quality of graduate students' research output. Ramim and Lichvar's (2014) study highlights the importance of expert input in refining survey instruments to assess effective collaboration in Systems Development projects, emphasizing the significance of expert feedback in enhancing understanding of human factors in project management.

2.3. **Interactions in Research Proposal Defense.** It refers to the communicative exchanges and discussions that take place during the formal presentation and defense of a research proposal before an academic or professional committee. This process is a critical milestone in the research journey, typically occurring as part of the evaluation and approval process for initiating a research project.

Table 6
Student's Assessment of Expert Collaboration through Individual
Interactions in Research Proposal Defense

In improving the quality of my research output, one-on-one interactions with experts contribute to	WM	VI	RANK
1. enlightenment on the research process	3.60	SA	4.5
2 identifying and addressing potential weaknesses or gaps in my research proposals	3.62	SA	3
3. refining and strengthening the research proposals	3.60	SA	4.5
4. clarity of my research output for continuous improvement	3.68	SA	2
5. incorporating feedback received during collaborative research proposal defense sessions	3.75	SA	1
Composite Mean	3.65		

Legend: Strongly Agree (SA), Agree (A), Disagree (DA), Strongly Disagree (SD)

The table above reveals an assessment of graduate school students on the impact of expert collaboration through individual interactions in research proposal defense, graduate students

express a strong consensus marked by a "Strongly Agree" sentiment, as reflected in the weighted mean (WM) scores. Topping the ranks with a WM of 3.75 and securing the first rank is the incorporation of feedback received during collaborative research proposal defense sessions. This underscores the transformative role of one-on-one interactions with experts in refining and enhancing research proposals based on constructive feedback. Identifying and addressing potential weaknesses or gaps in research proposals (WM: 3.62) secures the third rank, emphasizing the instrumental role of individual interactions in honing students' critical thinking skills and ensuring the robustness of their research designs. Enlightenment on the research process (WM: 3.60) and refining and strengthening research proposals (WM: 3.60) share the second rank, both marked as "Strongly Agree." These findings highlight the multifaceted contributions of expert collaboration, ranging from providing clarity on the research process to refining the substance and coherence of research proposals. The clarity of research output for continuous improvement (WM: 3.68) completes the top five, securing the second rank.

The composite mean of 3.65 underscores a consistent "Strongly Agree" perception among students, affirming the substantial and positive impact of individual interactions with experts in enhancing the quality of their research output. In summary, the findings indicate that one-on-one interactions play a pivotal role in fortifying research proposals, addressing potential weaknesses, and fostering continuous improvement in the overall quality of graduate students' research output. Aryani et al.'s (2015) findings underscore the statistically significant impact of social networks on students' research capabilities, calling for policymakers and practitioners to prioritize education and expert monitoring in virtual domains.

3. Challenges encountered in a hybrid learning setting

The identification of challenges experienced by the graduate school students in a hybridlearning setting was done by administering questions and confirming during the focus group discussion to selected graduate school students at Golden Gate Colleges, Batangas City, Philippines. The themes are based on the responses of the participants about the challenges they experience in writing research proposals. The themes represent the challenges while the subthemes refer to the initially supportive statements about the challenges encountered.

The challenges faced by graduate students in a hybrid-learning setting were identified through a focus group discussion at Golden Gate Colleges, Batangas City, Philippines. The analysis of most participants' responses highlighted recurring issues such as unstable internet connectivity and power interruptions, which critically impact students' ability to engage consistently in their online classes. One respondent noted, "The challenges that I experience in an online distance learning modality were unstable internet connection and a conducive learning environment when the meeting is ongoing because there are some cases that I hear noise from surroundings." These technological barriers disrupt learning, contributing to frustration and disengagement, which affects the overall educational experience. This aligns with Rotas and Cahapay (2020), who identify similar difficulties in remote learning, including unstable connectivity, inadequate resources, power interruptions, and a poor learning environment. In addition, According to Rahiem (2020), students' challenges in remote learning are technological disruption while studying, expensive internet costs, and difficulties in obtaining learning materials.

Furthermore, the lack of a conducive learning environment at home—characterized by background noise and various distractions—underscores the challenges students face in creating a focused and productive study space. This issue is compounded by the difficulty of balancing academic responsibilities with other commitments, such as work and household duties. The conflict between scheduled work activities and graduate school obligations

highlights a broader issue of time management and the need for more flexible learning schedules to accommodate students' diverse needs. One respondent noted, "For me, home environments may not always be conducive for learning, with distractions such as family members, pets, or household chores." Supporting this, Hazaea et al. (2021) indicate that the COVID-19 pandemic has intensified challenges in writing proposals due to the abrupt shift from face-to-face to online learning, which has led to technological barriers, reduced student-teacher interaction, and decreased motivation (Atmojo & Nugroho, 2020). Additionally, high internet costs and a noisy, disruptive home environment further complicate the learning experience (Rahiem, 2020).

"The challenges I encountered in online distance learning include limited interaction and difficulties in maintaining focus and motivation without the structure of a traditional classroom setting." The inability to effectively communicate with professors, combined with the limited face-to-face interaction, highlights the need for improved communication channels and support systems within the hybrid learning model. These issues emphasize the complexities of adapting to a hybrid learning environment and point to the necessity for targeted interventions, such as enhanced technological infrastructure, flexible scheduling, and supportive learning environments to meet the unique needs of graduate students. According to Dayagbil et al. (2021), maintaining teaching and learning continuity during the pandemic requires a thorough analysis of institutional parameters from the perspectives of stakeholders, including students, faculty, curriculum, and external partners. Higher education institutions need to conduct strategic scenario analyses and adapt by recalibrating curricula, enhancing faculty capabilities, and upgrading infrastructure to ensure effective teaching and learning amid and beyond the pandemic.

Responses from the focus group discussion reveal several significant challenges faced by some graduate students in a hybrid learning environment. Key issues include limited interaction and difficulties in maintaining focus and motivation due to the absence of the traditional classroom structure. While learning from home offers comfort, it also introduces distractions such as household chores, family members, and pets, which impede concentration. Balancing home responsibilities with academic and work duties further complicates the learning experience. Additionally, some students, particularly those who are educators, voiced concerns about the lack of opportunities to develop public speaking and classroom management skills online. These challenges highlight the need for strategies to enhance student engagement and focus on hybrid learning, as well as support systems to help students manage their multiple responsibilities effectively.

The focus group discussion with graduate students at Golden Gate Colleges highlights additional challenges in the hybrid-learning setting, particularly concerning health, accessibility, and self-discipline. Some respondents noted the negative health effects of prolonged screen time, such as headaches and eye strain, especially for those with pre-existing conditions like astigmatism. As mentioned by the respondent "The screen time though was given importance by our professor, with an online class from 7 to 4, it sometimes affects my medical conditions like I am having a headache after the class since I have a stigmatism." This underscores the importance of hybrid learning models addressing students' physical well-being by incorporating more frequent breaks, limiting screen time, and offering alternative learning methods to reduce health risks. Muppalla et al. (2023) support this, noting that excessive screen time can adversely affect social and emotional development, contribute to sleep disorders, and increase the risk of mental health issues like depression and anxiety.

Another significant challenge is accessing physical resources, such as libraries, particularly for students living far from campus. One respondent mentioned, "Aside from internet connection, it's hard when I need to go to the library in a face-to-face setup since it is far from our home." This highlights a gap in resource accessibility within hybrid learning

environments. Nkhangweni Mahwasane and N.P. Mudzielwana (2016) emphasizes the need for improved information literacy skills and better access to library resources. Enhancing online library services, providing remote access to essential materials, and offering logistical support could address these gaps effectively.

4. Coping Mechanism of Graduate School Students

The identification of coping mechanisms done by the graduate school students in a hybrid-learning setting to ensure completion of their research proposals was done by administering questions and confirming during the focus group discussion to selected graduate school students at Golden Gate Colleges, Batangas City, Philippines. The discussion revolved around the main question: *How did graduate school students cope with these challenges?*

The themes are based on the responses of the participants about the coping mechanism of graduate school students in writing research proposals. The themes represent their strategies in dealing with the research tasks while the subthemes refer to the initially supportive statements about their coping mechanism.

The responses from the focus group discussion revealed that the majority of the graduate school students at Golden Gate Colleges have developed adaptive strategies to overcome the challenges of hybrid learning, particularly in ensuring strong internet connectivity and minimizing distractions. "I always have data on my phone in case there's a power interruption or internet problem." Students frequently mentioned the importance of having backup plans, such as using mobile data when internet connectivity is unstable or seeking alternative locations like coffee shops to maintain a conducive learning environment. These proactive measures demonstrate resilience and a commitment to their education, even in the face of technological and environmental challenges. According to Hodges et al. (2020), the ability to quickly adapt to technological disruptions, such as by switching devices or seeking alternative internet sources, is crucial for maintaining continuity in online education. Furthermore, Gillis and Krull (2020) highlight the importance of creating a learning environment that minimizes distractions, which aligns with the students' use of noise-cancelling headphones and finding quieter study areas.

Some responses from the focus group discussion reflect the strong sense of responsibility and self-discipline among graduate school students at Golden Gate Colleges in managing the demands of hybrid learning. Students emphasized the importance of being hardworking, maintaining positivity, and staying focused on their goals as key strategies for success. "By looking at my goals and every day reminding myself, why I enrolled in Graduate school." responded a participant. The emphasis on preparation, such as ensuring a stable internet connection before class and reviewing lessons after disruptions, further underscores their proactive approach to learning. This commitment to responsibility aligns with the literature on self-regulated learning, which highlights the role of personal accountability in academic success. According to Broadbent and Poon (2015), students who engage in self-regulated learning strategies, such as goal setting, self-monitoring, and time management, are more likely to succeed in online and hybrid learning environments. These strategies enable students to navigate the unique challenges of hybrid learning, such as technological disruptions and the need for self-motivation, by taking ownership of their learning process.

The responses from a few students at Golden Gate Colleges illustrate a range of strategies employed to navigate the challenges of hybrid learning, particularly in managing time, balancing work and studies, and leveraging groupmate support and professor assistance. These students demonstrated resourcefulness by using mobile data as an alternative to Wi-Fi, scheduling tasks effectively, and communicating proactively with both classmates and professors to ensure continuous learning despite technical and scheduling difficulties.

The reliance on mobile data highlights the necessity of adaptability in the face of technological limitations, a theme echoed in the literature. "I went to different places such as coffee shops and continuously attended my class. Despite challenges, I need to learn because I know that I will benefit from this in the future." the respondent mentioned. For example, Hodges et al. (2020) emphasize the importance of flexibility and the use of alternative technologies to maintain educational continuity during disruptions. The students' proactive approach to managing their schedules and seeking out quiet spaces for study also aligns with Broadbent and Poon's (2015) findings that effective time management and organizational skills are critical for success in online learning environments.

Moreover, the importance of groupmate support and proactive communication with professors highlights the role of social and academic networks in mitigating the isolation often associated with hybrid learning. As one respondent noted, "Regularly scheduling virtual meet-ups with classmates and attending live sessions whenever possible also helped in building a more interactive learning environment, communicated proactively with my professors about connectivity challenges, ensuring they were aware and could accommodate any disruptions." This observation aligns with Zulfikar (2016) and Wang and Yang (2012), who argue that external support from friends and family can enhance motivation and effectiveness in writing research proposals. Students benefit from sharing references, discussing writing issues, and receiving feedback from peers. Providing spaces for collaborative conversations about research is crucial, as highlighted by Zulfikar, who recommends consulting peers and mentors to understand research patterns and formulate research problems. These insights emphasize the need for a multifaceted approach to hybrid learning, integrating time management, adaptability, social support, and effective communication to help students navigate the complexities of this learning model and achieve their academic objectives.

5. Recommendations can upgrade student researchers' capabilities

The video lessons that may be created for graduate school students are designed to be highly effective in upgrading students' capabilities in various research-related areas. These video lessons are meticulously crafted to be easy to use and understand, providing a step-by-step process to guide students through complex concepts and practical skills. The effectiveness of these video lessons is evident in their ability to enhance students' understanding and proficiency in research methodologies, data analysis techniques, academic writing, literature review, research ethics, and other essential aspects of conducting high-quality research.

The ease of use of these video lessons is emphasized through their accessibility online and offline, allowing students to access the content at their convenience. The video lessons are structured to accommodate different learning styles and preferences, ensuring that students can engage with the material in a manner that best suits their individual needs. Whether accessed online through a dedicated platform or downloaded for offline use, these video lessons are designed to be seamlessly integrated into students' learning experiences.

Furthermore, the video lessons are created with a focus on easy understanding, utilizing clear and concise explanations, practical demonstrations, and real-world examples to facilitate students' comprehension. The step-by-step approach employed in these video lessons ensures that students can follow along and apply the knowledge gained in their academic and research endeavors with confidence.

Overall, the video lessons created by researchers for graduate school students are tailored to be highly effective, easy to use, easy to understand, and structured with a step-by-step process to empower students to upgrade their capabilities and excel in their academic

V. CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of the study, the following conclusions are drawn:

- 1. The results indicate that most students consider themselves capable of writing research proposals, presenting research outputs, and finalizing their research work.
- 2. Respondents express strong agreement on the effectiveness of expert collaboration in hybrid learning environments, particularly in areas such as research content discussions, consultations for research outputs, and proposal defense interactions.
- 3. Most students face significant challenges in hybrid learning due to recurring issues with unstable internet connectivity and power interruptions, which critically impact their ability to participate actively and consistently in online classes.
- 4. The graduate school students at Golden Gate Colleges have effectively developed adaptive strategies to address the challenges of hybrid learning, focusing on maintaining strong internet connectivity and minimizing distractions.
- 5. The developed research guide by the researchers offers valuable support for graduate school students in overcoming their challenges related to writing research.

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