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Unpacking the Benefits of Team-Based Research in Vietnam: Perspectives from TESOL, EFL, FFL and Linguistics Scholars

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Abstract: This study investigates the benefits of formulating research teams within the context of Vietnam, focusing particularly on researchers specializing in Teaching English to Speakers of Other Languages (TESOL), English as a Foreign Language (EFL) teaching and learning, French as a Foreign Language (FFL) teaching and learning, and Language and Linguistics. Through semi-structured interviews with 12 researchers of varied experiences, Grounded Theory and thematic analysis were utilized to unravel key benefits. The findings reveal that team-based research offers advantages including enhanced knowledge sharing, skills diversification, improved decision-making, expanded research scope, access to greater resources, increased accountability, opportunities for leadership and teamwork skills, and more. The study underlines the immense potential of collaborative research in the Vietnamese context. The conclusions drawn emphasize the necessity for institutions to encourage and facilitate team-based research practices, offering important insights for policy formulation. While providing nuanced understanding of the Vietnamese research context, the study acknowledges limitations, including its narrow disciplinary focus and reliance on participant interviews. Recommendations for future research include exploring challenges within research teams, conducting cross-cultural and interdisciplinary studies, examining the impact of technology and leadership styles on team dynamics, and exploring the role of institutional support.

Keywords: *Benefits of team-based research, EFL, FFL, Linguistics Scholars, research teams, TESOL, Vietnam.*

Introduction

The pursuit of knowledge and innovation are essential elements that drive the growth of any nation. One of the effective methods for fostering this growth lies in the formation and operation of research teams. Across the world, research teams have proven to be indispensable in driving innovation, knowledge creation, and problem-solving, and have played a significant role in contributing to economic development (Gilson et al., 2015; Payne, 1990; Wageman et al., 2012). This study focuses on the specific context of Vietnam, a rapidly developing country with increasing emphasis on research and innovation (Hoai et al., 2022).

The composition of research teams usually includes a variety of individuals from diverse backgrounds and expertise. This multiplicity often fosters creativity and a range of perspectives that can effectively address complex issues and develop innovative solutions (Stephan et al., 2019). In the context of Vietnam, the idea of collaborative research is gaining popularity as the country aims to stimulate its academic, technological, and economic sectors (Lap & Thao, 2022). However, there is still a lack of comprehensive understanding about the unique advantages that can emerge in this specific cultural and economic setting.

This study aims to explore the benefits of research team formulation in Vietnam, providing a much-needed contribution to the literature. In this respect, this study seeks to answer the following research question: "*What are the perceived benefits of formulating a research team, as understood by Vietnamese researchers?*"

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By examining the factors that drive the successful creation and operation of these teams, the study intends to provide critical insights that can help maximize the potential of research teams in the country and beyond. It is expected to deepen comprehension of research team dynamics in Vietnam and provide strategies to amplify their contribution to the nation's knowledge economy and global development. It thereby holds significant relevance for academic institutions, governmental entities, and private sectors engaged in research and development, both within Vietnam and beyond. The anticipated insights are poised to shape future strategies and policies.

Literature Review

The Importance of Research Teams

Research teams have become indispensable to scientific, academic, and technological advancement globally. Aprile et al. (2021) and Wuchty et al. (2007) emphasize the significance of teamwork in research, with findings indicating that teams, rather than individual researchers, are more likely to produce high-impact research. Additionally, Lee and Bozeman (2005) and Ivanov et al. (2021) highlight the importance of research collaboration as it fosters interdisciplinary work, which often results in significant breakthroughs.

Also, the benefits of forming research teams have been found in the previous studies. Cummings and Kiesler (2005) show that diversity in a team can foster innovative solutions, given the different perspectives and expertise brought to the table. Similarly, Rhoten and Pfirman (2007) suggest that interdisciplinary research teams tend to produce higher quality work due to the integration of different knowledge domains. Ho et al. (2022), specific to the Vietnamese context, demonstrate that research teams have played a significant role in boosting the nation's technological advancement. This underscores the benefits of formulating research teams, particularly in rapidly developing economies. Moreover, in the specific context of Vietnam, a shift has been noted in governmental policy and prioritization concerning the development of research and development (R&D) teams. As illuminated by N. Nguyen and Tran (2018) and H. T. L. Nguyen (2020), recent years have witnessed an increased emphasis by the Vietnamese government on nurturing and promoting R&D teams across various academic and industrial sectors. This change in policy direction underscores a growing recognition of the role that R&D teams play in fostering a culture of innovation, technological advancement, and intellectual exploration. It is increasingly understood that these teams, with their varied skills and collective expertise, can accelerate the pace of research, leading to more robust and diverse outcomes. Moreover, this emphasis on R&D teams is not isolated to the realm of scientific discovery but extends to economic prosperity as well. The focus on strengthening R&D teams of the government aligns with its broader objective of driving economic growth. By encouraging innovation and research, these teams contribute to the creation of new industries, the transformation of existing ones, and the overall advancement of the nation's knowledge economy.

However, it is essential to consider the challenges and potential drawbacks that team-based research might entail. For instance, Bear and Woolley (2011) highlighted that while diversity can foster innovative solutions, it can also lead to conflicts due to varied backgrounds and differences in perspectives. This could further lead to communication barriers, which can hinder the progress of research. Furthermore, Hansen et al. (2019) pointed out that assembling interdisciplinary teams might initially involve high costs, both in terms of finances and time, as team members strive to understand and adapt to different disciplinary jargons and methodologies. There can also be issues related to credit allocation in team-based research, where individual contributions might get overshadowed in larger teams, potentially demotivating members (Larivière et al., 2015). Moreover, specific to rapidly developing economies like Vietnam, there is a risk of over-relying on R&D teams, thereby overlooking individual-based innovations. It might also be challenging to maintain the quality of research in large teams due to administrative and coordination challenges.

Theoretical Frameworks Underpinning the Study

Social Interdependence Theory (SIT). SIT is based on the premise that the way in which work is structured between individuals (interdependently or independently) significantly impacts the dynamics of a group (Johnson & Johnson, 2008). This theory can help explain how relationships within research teams affect the team's overall function and productivity. It suggests that positive interdependence (mutual dependence among group members) leads to promotive interactions where individuals encourage and facilitate each other's efforts to complete tasks. Negative interdependence (dependence that leads to competition), on the other hand, results in contrient interactions, where individuals discourage each other's efforts. The SIT may provide insights into the interpersonal dynamics and collaborative efficacy of research teams in Vietnam.

Transactive Memory System Theory (TMST). TMST deals with how groups collectively encode, store, and retrieve knowledge (Wegner, 1987). This theory posits that effective teams develop a "group memory", a shared system for encoding, storing, and retrieving information, which is more effective and efficient than that of any individual member. It suggests that, in research teams, individuals tend to specialize in different areas and rely on each other for knowledge outside their own area of expertise. The efficiency and effectiveness of this system can have significant implications for the productivity and innovation capacity of research teams. It may help explain how expertise is distributed and utilized within Vietnamese research teams, impacting their performance.

Social Network Theory (SNT). The Social Network Theory, with its emphasis on the roles and relationships between individuals within a network, provides a valuable perspective for understanding the dynamics of research teams (Daly, 2010). It postulates that the ties and connections among individuals in a network (in this case, a research team) significantly influence the actions, behaviors, and outcomes of the entire group. The inclusion of this theory enriches the analysis of the benefits of formulating research teams, allowing us to consider not just the individual actions, but also the group dynamics and their impact on the research process.

Methodology

Research Design

This study adopts a qualitative research design to gain a deep understanding of the benefits involved in formulating a research team in Vietnam. It employs a phenomenological approach, seeking to understand the lived experiences of individuals who are part of research teams (Cypress, 2018). Additionally, this qualitative study was structured utilizing Grounded Theory (GT), with the objective of establishing a foundational understanding of the benefits associated with the formulation of a research team. Developed by Glaser and Strauss (2017), GT is a systematic methodology that operates inductively, allowing theories to emerge from the data rather than testing preconceived hypotheses. GT is particularly suitable for this study since it encourages the exploration of complex social processes, such as the functioning of research teams. By using this framework, this study aims to generate a theory that is 'grounded' in the data, thus providing an in-depth understanding of the dynamics of research teams in the Vietnamese context.

Participants

The participants of this study consisted of 12 researchers with specialization in the areas of Teaching English to Speakers of Other Languages (TESOL), English as a Foreign Language (EFL) teaching and learning, French as a Foreign Language (FFL) teaching and learning, and Language and Linguistics. These individuals were selected based on their extensive involvement and experiences in research teams, providing them with the necessary insights to contribute to the study.

The participants have varying levels of experience, ranging from early career researchers to seasoned academics, which allows for a breadth of perspectives. They have been part of research teams at different stages of their careers and have been involved in various capacities, providing a rich and diverse data set. Table 1 displays the information of the participants.

Table 1. Demographic Data of Participants

Participant ID	Area of Specialization	Experience in Research (years)	Role in Research Teams
P1	TESOL	5	Junior Researcher
P2	EFL Teaching & Learning	10	Project Lead
P3	Language & Linguistics	15	Senior Researcher
P4	TESOL	20	Project Lead
P5	FFL Teaching & Learning	7	Junior Researcher
P6	Language & Linguistics	25	Senior Researcher
P7	FFL Teaching & Learning	10	Junior Researcher
P8	EFL Teaching & Learning	15	Project Lead
P9	Language & Linguistics	3	Junior Researcher
P10	TESOL	12	Senior Researcher
P11	EFL Teaching & Learning	20	Project Lead
P12	Language & Linguistics	7	Junior Researcher

It should be mentioned that "Junior Researchers" denote researchers who are generally involved in executing the tasks decided by the team, while "Senior Researchers" are individuals with more authority and experience who guide the research direction. "Project Leads" are the researchers responsible for overseeing the project, making major decisions, and ensuring the team's productivity and progress.

The researchers were drawn from multiple institutions across Vietnam, thus ensuring a wide geographical representation. It is important to note that each participant's experience is influenced by their unique personal and institutional contexts. Therefore, the experiences are not expected to be universally applicable but to provide a holistic understanding of the research team formulation.

Before conducting the interviews, each participant was provided with an informed consent form detailing the purpose of the study, their role as participants, the nature of their involvement, the expected duration of their participation, potential risks (if any) involved, and the confidentiality measures in place to protect their identities and responses. Participants were assured that they could withdraw from the study at any point and would be provided with a proper procedure for withdrawal, without any punishment. They were also informed that their participation was voluntary, and refusal to participate would not affect their professional standing. Additionally, they were apprised of their rights to

access the results of the research and were given contact information for the study's principal investigator in case they had any questions or concerns. Given the focus of the study, it was critical to ensure that participants had adequate experience working within research teams. It was also essential to ensure that participants were comfortable with sharing their experiences without fear of reprisal or harm. To maintain the integrity of their responses, all data collected was stored in a secured and encrypted format, accessible only to the primary research team. The assurance of confidentiality and the use of pseudonyms in the report helped facilitate open and honest discussions. Lastly, the study was mindful of potential language barriers. While all participants were proficient in English due to their areas of expertise, Vietnamese as their mother tongue was used to ensure clarity and comprehension during the interview process to avoid any misunderstandings or misinterpretations and to ensure that the informed consent process was thoroughly understood by all participants (Creswell, 2012).

Data Collection

The primary method for data collection in this study was through semi-structured interviews. This method was chosen due to its flexibility, allowing participants to discuss their experiences and perspectives freely, thereby capturing rich, detailed data. Before the actual data collection, a pilot interview activity was conducted with the participation of three researchers drawn from the same pool as the official participants. These pilot interviews were useful to test the interview guide, refine the questions, and ensure that they were culturally sensitive and appropriate to the Vietnamese context. Sample interview questions included: "Can you describe your experience as a member of a research team?", "What do you perceive to be the benefits of working in a research team?", and "What challenges have you faced when working in a research team?"

The interviews were conducted in Vietnamese to ensure that participants could express their views comfortably and accurately. Each interview lasted approximately 60 minutes. Interviews were audio-recorded with the consent of the participants, and field notes were taken during and immediately after each interview to capture non-verbal cues and the interviewee's reflections. All interviews were conducted in a private and quiet location chosen by the participant, which fostered a safe and comfortable environment for sharing. The participants were encouraged to speak freely and were assured that there were no right or wrong answers. This created an atmosphere of trust and respect, which was conducive to honest discussions.

After each interview, the recordings were transcribed verbatim. The transcriptions were then translated into English by a professional translator. To ensure the precision and cultural accuracy of the translations, they were reviewed by an expert in the field of translation. Participants were given the opportunity to review and confirm the accuracy of the transcriptions and translations, ensuring that their views were accurately captured, a process known as "member checking."

Data Analysis

For data analysis, this study employed a them-based analysis approach, which involves identifying, analyzing, and reporting themes within the data (Braun et al., 2023). This approach allowed for a rich, detailed, and complex account of the data. To ensure the reliability of the analysis, the process of thematic analysis was executed in the following steps and involved multiple mechanisms for cross-checking and verification. The first step involved immersing in the data to become familiar with its depth and breadth. This was achieved through reading and re-reading the interview transcriptions and field notes, as well as listening to the audio-recordings. The aim was to gain a preliminary understanding of the participants' experiences, views, and the context of their narratives. After familiarization, the data was systematically coded. Coding involves highlighting sections of the data that appear interesting or significant and assigning a descriptive label. Both inductive (arising from the data) and deductive (deriving from the study's objectives and research questions) codes were used. During this coding phase, a second researcher independently coded a subset of the data to establish inter-coder reliability. Any discrepancies between coders were discussed and resolved to ensure consistency. Following coding, potential themes were identified. This was an iterative process that involved sorting the different codes into potential themes and sub-themes, examining how they combine to form an overarching theme. Mind maps and thematic maps were used to visualize the connections between different codes and themes. The identified themes were then reviewed and refined. This involved checking the themes against the coded extracts and the entire data set to ensure they accurately represent the data. Themes were refined, combined, split, or discarded based on their relevance and the strength of the evidence. To further enhance reliability, a peer debriefing session was conducted, where an external expert reviewed the developed themes to provide an objective assessment. Once the themes were reviewed and refined, clear definitions and names for each theme were developed. This stage involved identifying the 'story' that each theme tells and how it contributes to the overall 'story' about the data. Finally, a detailed analysis was written, weaving together the analytic narrative and data extracts. The final account provided a concise, coherent, logical, non-repetitive, and interesting account of the story the data tells within and across themes.

Throughout the analysis, the researchers maintained a reflexive diary to record decisions, interpretations, and reflections. This helped to ensure the transparency and rigor of the analysis process. The findings were then connected

to the wider literature and theoretical frameworks (GT, SIT, TMST, and SNT) to interpret and make sense of the patterns identified.

Findings

Knowledge Sharing and Skill Enhancement

The findings show that all participants (n=12) agreed that working in research teams helps promote knowledge sharing and skill enhancement. It is stated that engaging in research teams had led to considerable opportunities for participants' knowledge sharing and skill enhancement. Participant P5 stated:

> Being part of a research team is like being part of a learning community. I learn something new every day. My colleagues share their insights, I share mine, and together we build a knowledge pool that we all benefit from.

Similarly, P10 noted:

> In a team, you're exposed to diverse perspectives and skills. My ability to conduct quantitative analysis has improved drastically after working with a team member who specializes in it. This kind of skill enhancement is hard to achieve when working alone.

Interpreting this finding through the lens of SIT, the research teams exhibited positive interdependence where team members mutually depend on each other's skills and knowledge. This interdependence promoted promotive interactions leading to knowledge sharing and skill enhancement. From the perspective of the TMST, these interactions indicate the development of a shared system where team members specialize in different areas and rely on each other for knowledge outside their own domain. This system provides a means of more effectively encoding, storing, and retrieving knowledge, enhancing the team's overall competence and productivity.

Enhanced Creativity and Innovation

Nine of the twelve participants cited enhanced creativity and innovation as a significant benefit of working within a research team. They attributed this to the diversity of perspectives and the collaborative problem-solving processes within the team. Participant P2 shared:

> When you are working alone, your ideas are limited by your own thoughts and experiences. But in a team, we have diverse viewpoints that lead to more creative and innovative solutions.

Similarly, P11 expressed:

> Our team meetings are always buzzing with ideas. It is like a brainstorming session where we challenge each other's thoughts, refine them, and sometimes come up with entirely novel approaches.

According to the SIT, this could be seen as a product of positive goal interdependence, where team members perceive that they can achieve their goal if and only if the other team members also achieve their goal. This sense of common purpose can stimulate creative thinking and innovative problem solving. Furthermore, it indicates that the collective ideation and problem-solving processes within the research team lead to emergent outcomes that might not have been possible in individual research contexts. These outcomes, as a result of the group's dynamic interactions, represent the 'emergent properties' of the research team.

Increased Productivity

A number of participants (n=10 out of 12) addressed increased productivity as a significant benefit of working within a research team. They noted that the division of labor and collaborative efforts led to more efficient completion of research tasks. Participant P1, for instance, reported:

> The workload in a research project can be overwhelming when working alone. In a team, tasks are divided based on individual skills and interests. This division of labor not only makes the process manageable but also increases overall productivity.

In a similar vein, P4 shared:

> In our team, we ensure that everyone's skills are utilized effectively. This not only speeds up the research process but also enhances the quality of our work.

From SIT perspectives, it is inferred that the positive task interdependence in the team leads to increased productivity. Participants indicated that they could achieve their objectives more efficiently as a team, which supports the notion of positive promotive interaction. The TMST also provides insights here, as participants acknowledged the specialization of tasks based on individual expertise. This indicates an effective Transactive Memory System where knowledge is distributed among team members, leading to increased efficiency and productivity.

Emotional Support and Motivation

More than half of the participants (n=7 out of 12) mentioned the emotional support and motivation they received from their team members as a significant benefit of working within a research team. Participant P3 said:

> Research can sometimes be isolating and stressful. In a team, we support each other through challenging times, which provides a sense of comfort and motivation.

Similarly, P9 noted:

> There were times when I felt overwhelmed or stuck. In such times, the encouragement and moral support from my team members were invaluable. They motivated me to keep going.

These findings can be understood through the lens of SIT. The emotional support and motivation experienced by participants indicate positive emotional interdependence. Emotional interdependence suggests that members of the team share emotions and affect, which can have a significant impact on team dynamics and individual well-being. As such, it can be deduced that positive emotional interdependence in the research team enhances the emotional resilience of team members and motivates them to persist through challenges.

Professional Development and Networking

Many participants (n=8 out of 12) expressed that being part of a research team offered opportunities for professional development and networking. Participant P12 expressed:

> Working in a team has significantly expanded my professional network. I have had the chance to collaborate with researchers from different institutions and disciplines, which has opened up new opportunities for me.

P6 shared a similar view:

> Being in a research team not only helped me in my current projects, but it has also been crucial for my professional growth. It has given me the opportunity to learn from others, gain new insights, and build a strong professional network.

This theme can be interpreted through the lens of SIT, which posits that positive interdependence leads to promotive interactions where individuals encourage and facilitate each other's efforts. In this context, these promotive interactions seem to foster professional development and networking, thereby enhancing the participants' professional growth and opportunities.

Improved Decision Making

Improved decision-making was identified as a significant benefit by most of the participants (n=8 out of 12). The participants perceived that the collaborative discussions and multiple perspectives within the team contributed to more comprehensive and balanced decisions. Participant P7 remarked:

> In a team, decisions are not made unilaterally. We discuss, debate, and take into account diverse viewpoints before reaching a conclusion. This, I believe, leads to better and more balanced decisions.

P8 also shared this view, stating that:

> The power of collective decision-making is significant. In our team, everyone's voice is heard, and this inclusivity ensures well-rounded decisions that take into account different aspects of the problem at hand.

These findings can be understood through the lens of SIT. The improved decision-making processes indicate a positive outcome of promotive interactions and goal interdependence. Team members engage in comprehensive discussions and share the responsibility of making decisions, promoting a more balanced and inclusive decision-making process.

Expanded Research Scope

Seven out of twelve participants highlighted that working in a research team allowed for a broader scope of research than would be possible individually. Participant P2 noted:

> As a team, we can tackle larger and more complex research questions. The diversity of our skills and knowledge allows us to expand the scope of our research, which I find very exciting.

Similarly, P11 commented:

> Working in a team has allowed us to undertake multidisciplinary research projects. Such diversity and scope would be challenging to manage individually.

Interpreting these findings in light of the SNT, the sharing shows how the collective capacity of the team allows for emergent properties like the expanded research scope. The diverse skills and knowledge within the team enable

researchers to address larger, more complex, and multidisciplinary research questions, showcasing the synergy of the team.

Access to Greater Resources

Five out of twelve participants identified access to greater resources as a benefit of working within a research team. Participant P1 stated:

> In a team, we pool our resources together. This not only includes financial resources but also access to wider networks, research tools, and institutional supports. This pooled resource helps us conduct better research.

P12 also noted:

> Working individually can limit the resources one can access. In a team, we can leverage each other's resources, which has been extremely beneficial in our research endeavors.

These responses can be understood through the lens of both the SIT and the TMST. Participants indicated that the shared resources in the team facilitated their research, which points to positive resource interdependence. It also hints at the specialization of resources and how team members rely on each other for resources beyond their reach, mirroring the Transactive Memory System.

Enhanced Communication Skills

Half of the participants (n=6 out of 12) reported that their experience in a research team significantly enhanced their communication skills. Participant P9 mentioned:

> Working in a team requires constant communication and negotiation. This experience has greatly enhanced my ability to convey my ideas clearly and understand others' perspectives.

P6 echoed a similar sentiment:

> Over the years, being part of various research teams has undoubtedly improved my communication skills. It has taught me the art of active listening and constructive feedback, which I believe are invaluable in any professional setting.

The SIT is helpful in understanding this finding. Positive interdependence in a team necessitates effective communication among team members. As a result, researchers often improve their communication skills, including both speaking and listening, through their engagement in team interactions.

Increased Accountability

Increased accountability was identified as a significant benefit of team-based research (n=5 out of 12). The participants noted that the sense of responsibility towards their team members increased their commitment to the tasks. Participant P10 shared:

> In a team, you are not just accountable to yourself, but also to your team members. This sense of collective accountability pushes me to deliver my best and meet deadlines more effectively.

P4 shared a similar view:

> The team depends on each individual's contributions. Knowing this, I find myself more committed and accountable to my tasks. It is a form of positive pressure that enhances productivity.

Increased accountability is a central element of the SIT. The participants' sentiments suggest positive outcome interdependence, where the outcomes of the individuals are affected by their own as well as others' actions. This interdependence creates a sense of accountability among the team members, thus enhancing their commitment to their tasks.

Opportunities for Leadership and Teamwork Skills

Seven out of twelve participants mentioned that being part of a research team provided them with opportunities to develop their leadership and teamwork skills. Participant P5 expressed:

> Being part of a team has provided me with opportunities to take up leadership roles in certain projects. It has helped me hone my leadership skills and understand the dynamics of team management.

Similarly, P3 shared:

> Working in a research team has been a learning journey. It has taught me a lot about collaboration, conflict resolution, and leading by example. These skills are not just essential for research but are also valuable in all aspects of professional life.

These findings align with the premise of SIT that working within a team encourages the development of social skills. As members of the research team take on different roles, they get the opportunity to develop and hone their leadership and teamwork skills.

Publication Success

More than half of the participants (n=7 out of 12) stated that being a part of a research team led to higher publication success. They perceived that team collaboration resulted in high-quality research, which increased the chances of their research being published in esteemed journals. Participant P11 shared:

> "he collective effort of a team tends to yield high-quality results. Over the years, our team has achieved significant publication success, which I believe is due to the collaborative nature of our work.

P7 echoed a similar sentiment:

> Our team's research papers have a good publication record. I attribute this success to the combined expertise and rigorous peer review process within the team.

The SIT is relevant in understanding this finding. The high publication success can be seen as a product of positive goal interdependence and promotive interaction, where team members work collaboratively towards the shared goal of producing high-quality research leading to successful publications.

Peer Recognition

Five out of twelve participants indicated that being a part of a research team increased their recognition among peers. They perceived that their contributions to the team's research were noticed and valued by other researchers in their field. Participant P2 noted:

> Through our collaborative work, we have gained recognition from our peers. This recognition is not just for the team, but for each one of us as individuals.

P12 added:

> Our team's accomplishments have earned me recognition in my professional circle. It is encouraging to see our hard work being acknowledged.

This finding can be viewed through the lens of the SIT, particularly in terms of reputation interdependence. The recognition that participants gained from their peers may foster a sense of reputation interdependence where team members understand that their individual reputation and the team's reputation are mutually influential.

Fostering a Sense of Belonging

Four out of twelve participants mentioned that being a part of a research team fostered a sense of belonging. They felt that the shared goals and collaborative efforts created a sense of community. Participant P1 stated:

> Being in a team gives me a sense of belonging. We work towards a common goal, celebrate our successes together, and support each other in times of difficulty. This has created a strong sense of community for me.

P8 shared a similar view, expressing that:

> In our team, we do not just share a workspace, but also aspirations, challenges, and successes. This shared experience has created a sense of belonging that I cherish.

The finding aligns with the SIT, emphasizing positive emotional interdependence. The sense of belonging suggests that team members are emotionally connected and share a sense of community, enhancing their emotional well-being and satisfaction.

Opportunity for Mentorship and Learning

Half of the participants (n=6 out of 12) identified the opportunity for mentorship and learning as a significant benefit of working within a research team. Participant P3 shared:

> Being part of a research team has given me a chance to learn from more experienced researchers. Their guidance and mentorship have been instrumental in my growth as a researcher.

Similarly, P5 mentioned:

> Working in a team provides a unique platform for mentorship. We have experienced researchers guiding the less experienced ones. This dynamic has not only been beneficial for individual growth but also has enriched our team's collective knowledge.

The finding aligns with the SIT. The mentorship and learning opportunities observed in the research teams suggest positive promotive interaction where individuals encourage and facilitate each other's efforts to achieve the shared goals.

Diversification of Ideas

Eight out of twelve participants appreciated the diversification of ideas that a team-based approach brought into the research process. Participant P10 noted:

> In a team, each individual brings their unique perspectives and ideas. This diversity enriches our discussions and brings innovative angles to our research.

In addition, P12 agreed:

> I believe that the greatest advantage of team research is the exchange of diverse ideas. It provides us with broader insights and helps us consider aspects of the research that we might have overlooked individually.

Interpreting this finding in light of the SIT, it is clear to see how the collective brainstorming within the team allows for the emergence of diversified ideas. This diversity and synergy in thinking boost the team's creativity and innovation.

Shared Responsibilities and Reduced Pressure

Nine out of twelve participants mentioned that shared responsibilities and reduced pressure were significant benefits of working in a research team. Participant P4 expressed:

> The shared responsibility in a team significantly reduces individual pressure. Knowing that we can rely on each other provides a certain level of comfort and lessens the stress of meeting project deadlines.

P9 shared a similar perspective, stating that"

> When working individually, the pressure can be overwhelming. But in a team, we share our workload and responsibilities, making the research process less stressful and more manageable.

These sentiments align with the SIT. The shared responsibilities and reduced pressure suggest positive task interdependence, where team members depend on each other to accomplish tasks. This interdependence lessens individual pressure, making the research process more manageable and less stressful.

Enhanced Professional Network

Seven out of twelve participants identified the enhancement of their professional networks as a significant benefit of participating in research teams. Participant P6 said:

> Being part of a research team has allowed me to connect with other researchers in my field. This networking aspect has been quite beneficial for my professional growth.

P1 shared a similar thought:

> Research teams provide excellent opportunities for networking. Over the years, I have been able to establish valuable contacts within the academic community through my team engagements.

In light of SNT, the participants' experiences suggest that being part of a research team creates a platform for creating and strengthening professional networks, which can lead to further collaboration, knowledge exchange, and professional growth.

Exposure to Diverse Research Methodologies

Half of the participants (n=6 out of 12) highlighted that working within a research team exposed them to a variety of research methodologies. Participant P11 expressed:

> The diversity in a research team extends to research methodologies as well. I have learned about different research approaches and techniques from my team members, which has enriched my research skills.

Similarly, P8 reported:

> Every researcher has their unique approach to conducting research. Being in a team, I have been exposed to different methodologies, which has broadened my understanding and approach to research.

Under the umbrella of SNT, as the team engages in iterative discussions and exchanges, they share their individual experiences and approaches, contributing to a broader and richer understanding of research methodologies among team members.

Personal Satisfaction and Fulfillment

Five out of twelve participants indicated that being a part of a research team brought them personal satisfaction and fulfillment. Participant P2 mentioned:

> There is a sense of fulfillment in collaborating with others and creating something valuable together. The camaraderie and the shared success in a team bring me immense satisfaction.

P7 echoed a similar voice:

> The collective achievements of our team bring me a sense of personal satisfaction. It's fulfilling to contribute to something larger and make a meaningful impact as a team.

These sentiments align with the SIT, particularly in terms of reward interdependence. The satisfaction and fulfillment derived from team collaboration and shared success suggest that the team members see their personal rewards as intertwined with the team's achievements.

Peer Review and Feedback

Seven out of twelve participants highlighted the advantage of peer review and feedback in a research team setting. Participant P6 expressed:

> Being in a research team allows for continuous feedback and review of our work. It has definitely improved the quality of my research.

Similarly, P10 shared:

> The opportunity for peer review within the team is invaluable. It ensures our research maintains a high standard and improves over time.

This finding highlights the importance of "emergent fit", which requires ongoing modification and refinement of theories in the light of fresh data. The iterative peer review and feedback processes within research teams support this principle by enabling continuous improvement and refinement of research output. The relatively underdeveloped formal peer-review structures in Vietnam heighten the value of this benefit.

Effective Time Management

Eight participants underscored the advantage of effective time management within a research team. As Participant P2 stated:

> Working in a team allows us to manage our time effectively. We divide tasks based on our expertise and schedules, making the research process much more efficient.

From the perspective of the participant, research teams function as a social-technical system where both social and technical elements interact for optimal productivity. Effective time management can be viewed as a result of this interplay, where social processes (like task distribution and collaboration) interact with technical processes (like research methodologies and tools), leading to efficient time usage.

Access to Funding Opportunities

Half of the participants (n=6 out of 12) indicated the importance of access to funding opportunities as a benefit of being part of a research team. Participant P3 said:

> Our team has been successful in securing external funding for our research projects. It would not have been possible if we were working individually.

With the explanation of SNT, it is emphasized that organizations often enter into relationships with others to gain access to needed resources. Similarly, research teams, by virtue of their collective skills, reputation, and networks, might be more attractive to funding bodies.

Increased Research Visibility and Impact

Nine out of twelve participants reported the benefit of increased research visibility and impact. Participant P7 shared:

> Our team's research has reached a wider audience and has had more impact than any of our individual works. It has helped us gain recognition both locally and internationally.

Participant P11 added:

> The collective efforts of our team have made our research more impactful. We have been able to contribute to the academic community and also to policy-making in Vietnam.

Under the SNT, social interactions and networks can create capital that provides value to the individuals and groups involved. The collective work of a research team can generate significant social capital, leading to increased visibility and impact of their research. This aspect becomes particularly significant for Vietnam, where enhancing academic presence on the global stage is a national priority. The collective social capital of research teams can expedite this process.

Access to Local Networks and Resources

Five out of twelve participants mentioned that being a part of a research team in Vietnam provided access to local networks and resources, aiding their research process. Participant P1 shared:

> As a research team based in Vietnam, we have the advantage of easy access to local networks and resources. This accessibility plays a significant role in our research, especially when it involves community-based studies.

P8 expressed a similar sentiment, stating that:

> Our team's location in Vietnam offers us a distinct advantage. The access to local institutions, databases, and communities has significantly enriched our research.

Understanding this through the SNT, the participants' access to local networks and resources supports their research process, showing the benefit of geographical and cultural proximity in research work.

Understanding of Local Context and Culture

Eight out of twelve participants highlighted that working in a research team in Vietnam deepened their understanding of the local context and culture, enhancing the quality and relevance of their research. Participant P12 shared:

> Being a part of a research team in Vietnam provides us with a deep understanding of the local context and culture. This understanding significantly influences our research, making it more culturally relevant and impactful.

In a similar vein, P5 expressed:

> Our familiarity with the Vietnamese culture and social norms helps us design and implement research that is culturally sensitive and contextually appropriate. It also enables us to interpret our findings more accurately.

Observably, the team's intimate knowledge of the local context helps ground their research in the realities of the Vietnamese context, leading to more authentic and relevant findings.

Bilingual Advantage

Six out of twelve participants mentioned the bilingual advantage as a significant benefit of working in a research team in Vietnam. Participant P9 shared:

> Being bilingual, we can conduct research in both Vietnamese and English. This linguistic capability enables us to explore a wider range of resources and engage with local as well as international communities more effectively.

P11 added:

> Our proficiency in both Vietnamese and English allows us to communicate our findings to a broader audience. It also helps us incorporate diverse viewpoints and materials into our research.

These responses align with the SNT, emphasizing the importance of linguistic capabilities in expanding networks and enhancing the research process. The participants' bilingual abilities enable them to access and contribute to both local and global research communities.

These findings, stemming from in-depth analysis and thoughtful interpretation, are crucial in understanding the multifaceted benefits of formulating research teams, especially within the context of Vietnam. To facilitate a more intuitive understanding and effective communication of these results, a visual representation has been curated (see Figure 1). This figure serves as a comprehensive summary, encapsulating the numerous benefits identified through the study's course. It presents an overarching view of the results, paving the way for further discussion and interpretation.
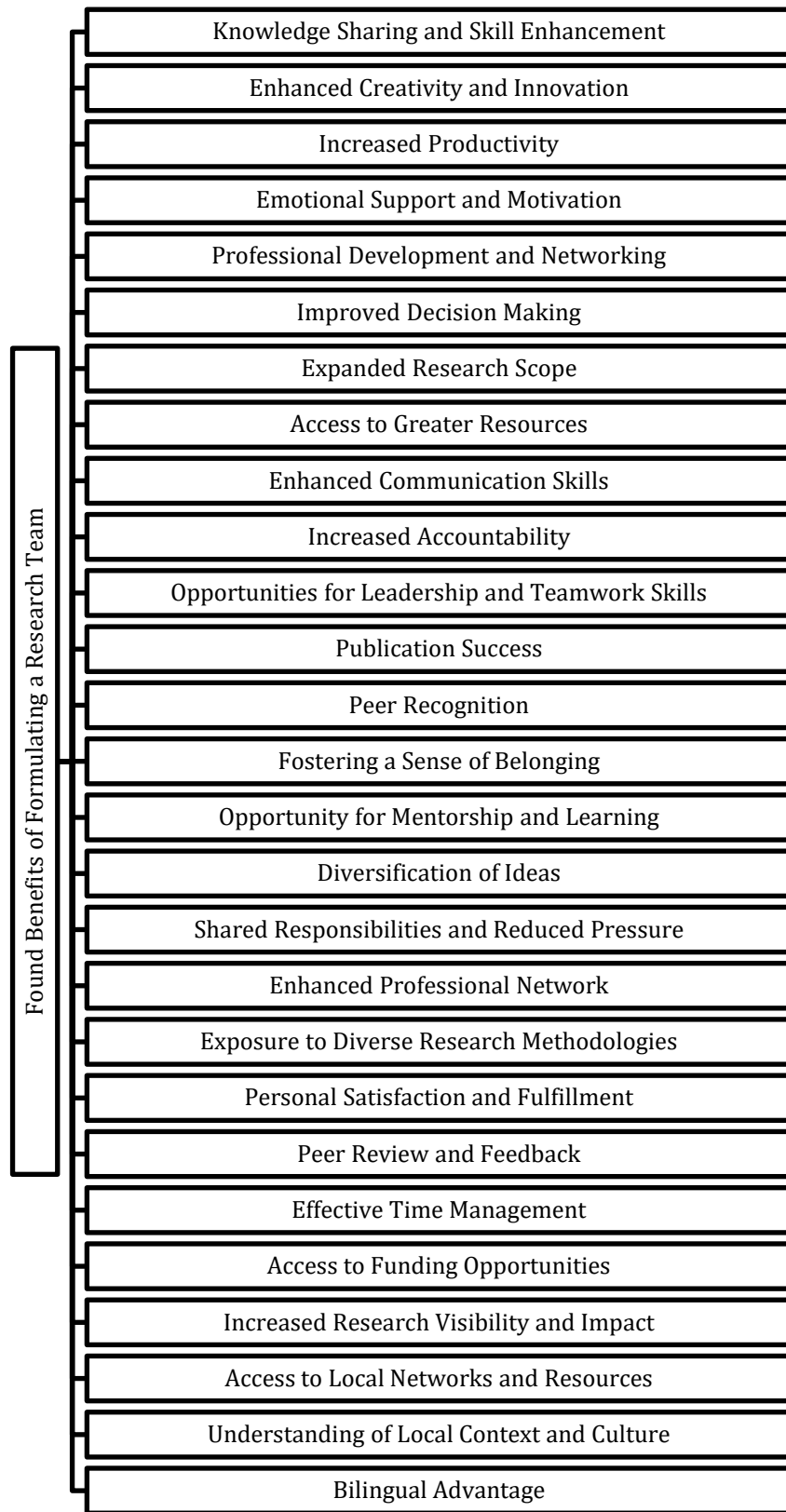
Figure 1. Summary of the Findings

Discussion

This study aimed to explore the perceived benefits of formulating a research team, focusing on the unique context of Vietnam. The findings identified several benefits of team-based research that align with prior studies, along with some insights that are unique to the context of Vietnam.

Consistent with previous research on research collaborations (Bennett & Gadlin, 2012), this current study identified enhanced productivity, diversification of ideas, and publication success as significant benefits of working within a research team. The participants addressed that the collaborative environment led to an increase in productivity, diversified viewpoints, and high-quality research output, increasing the likelihood of publication success. Digging deeper into the Vietnamese context, the collaboration might stem from Vietnam's cultural emphasis on collective effort and community values. It implies that research teams, as a collective, might have a more intrinsic motivation to succeed in such a context, drawing strength from cultural values.

Similar to what Wuchty et al. (2007) highlighted about team research, the present study found that being a part of a research team led to knowledge exchange, skill development, and opportunity for mentorship and learning. Participants in this study reported gaining new insights, developing research skills, and benefitting from mentorship opportunities within the team. Notably, in the Vietnamese context, where hierarchies and respect for elders play a crucial role, the mentoring aspect may have a deeper cultural resonance, with junior researchers possibly showing an elevated reverence and eagerness to learn from their senior counterparts.

The current study also identified shared responsibilities and reduced pressure, enhanced professional network, and personal satisfaction and fulfillment as benefits, corroborating the findings of Lee and Bozeman (2005). The shared workload, expanded professional networks, and the sense of personal satisfaction derived from team successes, as reported by the participants, speak to the psychological and social benefits of working in a research team. This finding suggests that in Vietnam's socio-cultural fabric, the collective success of a team might be more celebrated and embraced than individual achievements, thereby further enhancing the satisfaction levels.

Creativity and innovation, peer review and feedback, and personal and professional growth emerged as particularly potent. In alignment with Paulus and Nijstad's (2019) research, this study found that research teams are hotbeds of creativity and innovation, fostered by the blending of various perspectives. This melding of perspectives might be even more pronounced in Vietnam, given its unique confluence of eastern traditions and increasing western influences. This innovative spirit can stimulate Vietnam's burgeoning knowledge economy. Similarly, the participants identified peer review and feedback as critical advantages (O'Neill et al., 2019). Considering Vietnam's emphasis on mutual respect and constructive feedback, the value of peer reviews in Vietnamese research teams might be seen as a culturally entrenched practice. As formal peer-review structures develop in Vietnam, research teams present a platform for improving research quality through continuous review and feedback. Moreover, in line with Cummings and Kiesler's (2005) findings, this study underscores the potent environment research teams provide for personal and professional growth, an advantage that has particular resonance in Vietnam where building research capacity remains a focus.

Another group of benefits encompass improved decision-making, expanded research scope, and access to greater resources. Building on Cummings and Kiesler's (2005) research, this study recognizes that research teams foster improved decision-making through collaborative discussions and the integration of multiple perspectives. This collaborative decision-making, seen through the lens of Vietnam's socio-cultural norms, could be indicative of the importance placed on consensus and harmony in decision-making processes. Such benefits are especially significant in Vietnam's traditionally hierarchical research context, where collective decision-making can offer more balanced outcomes. Furthermore, research teams facilitate expanded research scope, in sync with Söderlund's (2004) findings, by enabling tackling larger, complex projects. This aligns with Vietnam's increasing aspirations to address more global and intricate research issues, positioning itself as a notable player in the international research community. Access to greater resources, a benefit identified by Bozeman and Boardman (2014), was acknowledged by the participants in the current study. Given the Vietnamese ethos of sharing and mutual support, pooling resources within teams might be a naturally occurring phenomenon, reflecting the societal values of mutual aid and solidarity.

The findings further highlight the benefits of formulating research teams, such as increased accountability, leadership and teamwork skills development, and effective time management. In agreement with Langfred (2004), the study establishes that research teams invoke a heightened sense of accountability among members, enhancing their commitment to tasks. Research teams also serve as platforms for developing leadership and teamwork skills (Salas et al., 2005). Additionally, Woodfield and Kennie's (2008) observation that research collaboration allows for efficient time management was echoed in the present findings, an aspect particularly critical in Vietnam's fast-paced research climate.

Another group of benefits includes exposure to diverse research methodologies, peer recognition, emotional support and motivation, and a sense of belonging. Similar to Fiore's (2008) findings, this study demonstrates that research teams expose members to diverse research methodologies, an advantage that is especially beneficial in Vietnam where researchers are keen to adapt varied methodologies to local needs. The benefits of peer recognition, emotional support, and sense of belonging were noted in this study, aligning with findings from Lee and Bozeman (2005) and Schippers et al. (2014). These benefits, critical for maintaining team cohesion and productivity, are particularly relevant in Vietnam's collectivist culture and the often isolating nature of academic work.

The other benefits relate to access to funding opportunities, the enhancement of communication skills, and increased research visibility and impact. These findings are in line with Bozeman and Boardman's (2014) study which found that the participants discussed access to funding opportunities as a significant advantage of research collaboration. Given the

limited research funding in Vietnam, this advantage is of particular relevance. Similarly, the improvement in communication skills, corroborating Cramond's (2009) findings, was identified as a key benefit of being part of a research team. In a context where researchers are increasingly required to communicate their work to varied audiences, this benefit holds significant importance. Also, the benefit of increased research visibility and impact, as noted by the participants, has been highlighted in previous research on research collaborations (Horta & Santos, 2016). The ability of research teams to increase the visibility and impact of their work is particularly relevant for Vietnam, a country striving to enhance its academic presence and impact on the global stage.

What distinguishes the current study from previous research is the emphasis on the unique advantages of working within a research team in the context of Vietnam. The participants noted the benefits of access to local networks and resources, a deeper understanding of local context and culture, and a bilingual advantage. Access to local networks and resources facilitated participants' research process, especially for community-based studies. This finding resonates with Boehe's (2013) observation that local networks can provide valuable resources for research. However, this aspect appears to be amplified in the context of Vietnam, where relationships and networks play a crucial role in accessing resources and information. Furthermore, the participants' deeper understanding of the local context and culture enhanced the quality and relevance of their research. This aligns with Jamali and Karam's (2018) assertion about the importance of understanding the local cultural and social nuances for conducting meaningful research. Given Vietnam's distinct cultural and social context, the value of local knowledge in conducting and interpreting research cannot be overstated. Finally, the bilingual advantage of the participants facilitated their engagement with both local and international research communities. As Pacheco et al. (2019) suggested, bilingual researchers are positioned to engage in 'translingual practice', allowing for richer engagement with diverse resources and audiences. In the case of Vietnam, this advantage is particularly significant given the country's ongoing efforts to integrate into the global academic community.

In analyzing and interpreting the results, it is evident that the unique socio-cultural context of Vietnam shapes many of the perceived benefits of research collaboration. The findings are not just a mere extension of previous studies but offer a nuanced understanding, embedding them in Vietnam's cultural, historical, and socio-economic milieu. The importance of cultural context in shaping research practices cannot be overlooked, and this study underscores its pivotal role in shaping the contours of research collaboration in Vietnam.

Conclusion

This study, aimed primarily at understanding the benefits of formulating research teams within the context of Vietnam, was designed using a qualitative approach. It primarily involved conducting semi-structured interviews with twelve researchers specializing in TESOL, EFL teaching and learning, and language and linguistics. The participants were chosen to represent diverse experiences, and each interview, lasting approximately 60 minutes, was audio-recorded with participant consent. The data obtained from these interviews underwent rigorous thematic analysis, revealing a multitude of benefits associated with the formulation of research teams.

This study has shed light on an array of benefits associated with the formulation of research teams in the context of Vietnam. The participants highlighted the significance of knowledge sharing and skill enhancement, attributing this to the diversity and collaborative environment within the teams. They recognized that teams can foster enhanced creativity and innovation and drive increased productivity. Participants also appreciated the emotional support and motivation provided within the team setting, often enhancing their commitment to the project at hand. Professional development and networking were mentioned as critical advantages, enabling them to forge new relationships and broaden their professional horizons. The study further revealed the importance of improved decision-making, an expanded research scope, and access to greater resources as significant benefits, underscoring the synergistic potential of teamwork. Participants also noted that their communication skills were enhanced within a team environment. Furthermore, the increased accountability observed within teams heightened their commitment and responsibility towards shared goals. Teams also provided opportunities for members to develop their leadership skills and enjoy the fruits of publication success, peer recognition, and foster a sense of belonging. Participants emphasized the opportunity for mentorship and learning, diversification of ideas, shared responsibilities, and reduced pressure as critical outcomes of working in a team. An enhanced professional network, exposure to diverse research methodologies, and personal satisfaction were seen as further benefits. The system of peer review and feedback within teams, as well as the advantage of effective time management, was also highlighted. Access to funding opportunities, increased research visibility and impact, and access to local networks and resources were underscored as significant in the Vietnamese context. Participants also pointed out the value of a deeper understanding of the local context and culture and the bilingual advantage inherent in the Vietnamese context. Collectively, these findings underscore the multifaceted benefits of formulating research teams, highlighting their potential to drive research and development in Vietnam.

The Vietnamese context plays a significant role in accentuating these benefits. Given the country's dynamic research climate, limited resources, and the drive to enhance its academic presence on the global stage, research teams can serve as a crucial tool in achieving these objectives.

Recommendations

Building on the findings of the current study regarding the benefits of team-based research in Vietnam, a number of dimensions could be taken into consideration for future research. For instance, when examining challenges within research teams, one might specifically investigate the roles of communication barriers or varying levels of expertise. These could include understanding potential challenges within research teams for a balanced perspective, such as identifying frequent points of conflict or misunderstandings that arise from hierarchical differences or generational gaps.

For the recommendation on conducting cross-cultural studies, researchers might consider selecting specific neighboring countries or countries with emerging research landscapes, like Indonesia or the Philippines, to draw clear comparative insights. Conducting cross-cultural studies for comparative insights, and exploring discipline-specific dynamics by expanding participant scope might involve narrowing down to fields like environmental research or urban planning, which are of significant relevance to Vietnam's current development trajectory.

Longitudinal studies could illuminate the evolving benefits and dynamics of research teams over time, with a focus on tracking specific milestones such as publication success, funding acquisition, or team expansion. Researchers could also periodically survey team satisfaction, collaboration tools used, and shifting team goals.

Given the increasing shift towards digital collaboration, it would be worth examining the impact of technology on research team functioning. Specifically, the research could delve into the effectiveness of various digital tools like collaborative software, video conferencing platforms, or shared cloud spaces in enhancing or hindering team collaboration. It might also be valuable to explore challenges in digital literacy among older researchers versus younger members or to investigate best practices in remote research collaboration. Exploring the influence of diverse leadership styles on team dynamics could also yield vital insights. For instance, assessing the impact of democratic versus autocratic leadership styles, or how transformational leaders versus transactional leaders influence team morale and productivity, could provide granular insights into effective leadership within research teams.

Lastly, studying the role of institutional support and effective policies in enhancing research team benefits could guide strategies for fostering productive research teams. A more specific approach here would involve analyzing specific types of institutional support such as grant opportunities, training programs, or mentorship structures. Additionally, the study could evaluate the impact of particular policies like open access mandates, research transparency guidelines, or incentives for interdisciplinary collaboration. Such targeted investigations would offer a comprehensive understanding of research team dynamics, contributing significantly to this developing field of study.

Limitations

Despite the valuable insights gained, this study is not without its limitations. Firstly, the focus of the study was limited to the benefits of research team formation, excluding potential challenges or drawbacks. The second limitation lies in the field of focus; participants were drawn from TESOL, EFL teaching, and linguistics. Thus, the study might not capture the full breadth of experiences across other research disciplines. Lastly, the study relied primarily on semi-structured interviews, which, while rich in qualitative data, are subject to participant bias and interpretation.

Ethics Statements: All participants provided their written informed consent to participate in this study.

Authorship Contribution Statement

Le: Supervision. Nguyen: Design. Phuong: Editing. Pham: Analyzing Data and Writing. Huynh: Reviewing. Nguyen: Conceptualization.

References

Aprile, K. T., Ellem, P., & Lole, L. (2021). Publish, perish, or pursue? Early career academics' perspectives on demands for research productivity in regional universities. *Higher Education Research and Development*, *40*(6), 1131-1145. https://doi.org/10.1080/07294360.2020.1804334

Bear, J. B., & Woolley, A. W. (2011). The role of gender in team collaboration and performance. *Interdisciplinary Science Reviews*, *36*(2), 146-153. https://doi.org/10.1179/030801811X13013181961473

Bennett, L. M., & Gadlin, H. (2012). Collaboration and team science: from theory to practice. *Journal of Investigative Medicine*, *60*(5), 768-775. https://doi.org/10.2310/JIM.0b013e318250871d

Boehe, D. (2013). Collaborate at home to win abroad: How does access to local network resources influence export behavior? *Journal of Small Business Management*, *51*(2), 167-182. https://doi.org/10.1111/jsbm.12013

Bozeman, B., & Boardman, C. (2014). *Research collaboration and team science: A state-of-the-art review and agenda* (Vol. 17). Springer. https://doi.org/10.1007/978-3-319-06468-0

Braun, V., Clarke, V., & Hayfield, N. (2023). *Thematic analysis: A reflexive approach*. SAGE Publications.

Cramond, B. L. (2009). Future problem solving in gifted education. In B. L. Cramond (Ed) *International Handbook on Giftedness* (pp. 1143-1156). Springer. https://doi.org/10.1007/978-1-4020-6162-2_58

Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Pearson Education, Inc.

Cummings, J. N., & Kiesler, S. (2005). Collaborative research across disciplinary and organizational boundaries. *Social Studies of Science*, *35*(5), 703-722. https://doi.org/10.1177/0306312705055535

Cypress, B. (2018). Qualitative research methods: A phenomenological focus. *Dimensions of Critical Care Nursing*, *37*(6), 302-309. https://doi.org/10.1097/DCC.0000000000000322

Daly, A. J. (Ed.). (2010). *Social network theory and educational change*. Harvard Education Press.

Fiore, S. M. (2008). Interdisciplinarity as teamwork: How the science of teams can inform team science. *Small Group Research*, *39*(3), 251-277. https://doi.org/10.1177/1046496408317797

Gilson, L. L., Maynard, M. T., Jones Young, N. C., Vartiainen, M., & Hakonen, M. (2015). Virtual teams research: 10 years, 10 themes, and 10 opportunities. *Journal of Management*, *41*(5), 1313-1337. https://doi.org/10.1177/0149206314559946

Glaser, B., & Strauss, A. (2017). *Discovery of grounded theory: Strategies for qualitative research*. Routledge. https://doi.org/10.4324/9780203793206

Hansen, M. V., Henningsen, A. F., & Gregersen, A. (Eds.). (2019). *Curatorial challenges: Interdisciplinary perspectives on contemporary curating*. Routledge. https://doi.org/10.4324/9781351174503

Ho, M.-T., Le, N.-T. B., Ho, M.-T., & Vuong, Q.-H. (2022). A bibliometric review on development economics research in Vietnam from 2008 to 2020. *Quality and Quantity*, *56*, 2939-2969. https://doi.org/10.1007/s11135-021-01258-9

Hoai, T. T., Hung, B. Q., & Nguyen, N. P. (2022). The impact of internal control systems on the intensity of innovation and organizational performance of public sector organizations in Vietnam: the moderating role of transformational leadership. *Heliyon*, *8*(2), Article e08954. https://doi.org/10.1016/j.heliyon.2022.e08954

Horta, H., & Santos, J. M. (2016). The impact of publishing during PhD studies on career research publication, visibility, and collaborations. *Research in Higher Education*, *57*, 28-50. https://doi.org/10.1007/s11162-015-9380-0

Ivanov, D., Tang, C. S., Dolgui, A., Battini, D., & Das, A. (2021). Researchers' perspectives on Industry 4.0: Multi-disciplinary analysis and opportunities for operations management. *International Journal of Production Research*, *59*(7), 2055-2078. https://doi.org/10.1080/00207543.2020.1798035

Jamali, D., & Karam, C. (2018). Corporate social responsibility in developing countries as an emerging field of study. *International Journal of Management Reviews*, *20*(1), 32-61. https://doi.org/10.1111/ijmr.12112

Johnson, D. W., & Johnson, R. T. (2008). Social interdependence theory and cooperative learning: The teacher's role. In R. M. Gillies, A. F. Ashman, & J. Terwel (Eds) *The teacher's role in implementing cooperative learning in the classroom* (pp. 9-37). Springer. https://doi.org/10.1007/978-0-387-70892-8_1

Langfred, C. W. (2004). Too much of a good thing? Negative effects of high trust and individual autonomy in self-managing teams. *Academy of Management Journal*, *47*(3), 385-399. https://www.jstor.org/stable/20159588

Lap, T. Q., & Thao, L. T. (2022). Why formulate a research team? *International Journal for Academic Development*, *27*(4), 350-351. https://doi.org/10.1080/1360144X.2023.2172527

Larivière, V., Gingras, Y., Sugimoto, C. R., & Tsou, A. (2015). Team size matters: Collaboration and scientific impact since 1900. *Journal of the Association for Information Science and Technology*, *66*(7), 1323-1332. https://doi.org/10.1002/asi.23266

Lee, S., & Bozeman, B. (2005). The impact of research collaboration on scientific productivity. *Social Studies of Science*, *35*(5), 673-702. https://doi.org/10.1177/0306312705052359

Nguyen, H. T. L. (2020). A review of university research development in Vietnam from 1986 to 2019. In P. L. Ha & D. B. Ngoc (Eds.), *Higher education in market-oriented socialist Vietnam. International and development education* (pp. 63-86). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-46912-2_4

Nguyen, N., & Tran, L. T. (2018). Looking inward or outward? Vietnam higher education at the superhighway of globalization: Culture, values and changes. *Journal of Asian Public Policy*, *11*(1), 28-45. https://doi.org/10.1080/17516234.2017.1332457

O'Neill, T., Larson, N., Smith, J., Donia, M., Deng, C., Rosehart, W., & Brennan, R. (2019). Introducing a scalable peer feedback system for learning teams. *Assessment and Evaluation in Higher Education*, *44*(6), 848-862. https://doi.org/10.1080/02602938.2018.1526256

Pacheco, M. B., Daniel, S. M., Pray, L. C., & Jiménez, R. T. (2019). Translingual practice, strategic participation, and meaning-making. *Journal of Literacy Research*, *51*(1), 75-99. https://doi.org/10.1177/1086296X18820642

Paulus, P. B., & Nijstad, B. A. (Eds.). (2019). *The Oxford handbook of group creativity and innovation*. Oxford Library of Psychology. https://doi.org/10.1093/oxfordhb/9780190648077.001.0001

Payne, R. (1990). *The effectiveness of research teams: A review*. In M. A. West & J. L. Farr (Eds.), Innovation and creativity at work: Psychological and organizational strategies (pp. 101–122). John Wiley & Sons.

Rhoten, D., & Pfirman, S. (2007). Women in interdisciplinary science: Exploring preferences and consequences. *Research Policy*, *36*(1), 56-75. https://doi.org/10.1016/j.respol.2006.08.001

Salas, E., Sims, D. E., & Burke, C. S. (2005). Is there a "big five" in teamwork? *Small Group Research*, *36*(5), 555-599. https://doi.org/10.1177/1046496405277134

Schippers, M. C., Edmondson, A. C., & West, M. A. (2014). Team reflexivity as an antidote to team information-processing failures. *Small Group Research*, *45*(6), 731-769. https://doi.org/10.1177/1046496414553473

Söderlund, J. (2004). On the broadening scope of the research on projects: A review and a model for analysis. *International Journal of Project Management*, *22*(8), 655-667. https://doi.org/10.1016/j.ijproman.2004.05.011

Stephan, U., Andries, P., & Daou, A. (2019). Goal multiplicity and innovation: How social and economic goals affect open innovation and innovation performance. *Journal of Product Innovation Management*, *36*(6), 721-743. https://doi.org/10.1111/jpim.12511

Wageman, R., Gardner, H., & Mortensen, M. (2012). The changing ecology of teams: New directions for teams research. *Journal of Organizational Behavior*, *33*(3), 301-315. https://doi.org/10.1002/job.1775

Wegner, D. M. (1987). Transactive memory: A contemporary analysis of the group mind. In B. Mullen & G. R. Goethals (Eds) *Theories of group behavior* (pp. 185-208). Springer. https://doi.org/10.1007/978-1-4612-4634-3_9

Woodfield, S., & Kennie, T. (2008). 'Teamwork' or 'working as a team'? The theory and practice of top team working in UK Higher Education. *Higher Education Quarterly*, *62*(4), 397-415. https://doi.org/10.1111/j.1468-2273.2008.00399.x

Wuchty, S., Jones, B. F., & Uzzi, B. (2007). The increasing dominance of teams in production of knowledge. *Science*, *316*(5827), 1036-1039. https://doi.org/10.1126/science.1136099