Analyzing the Impact of Knowledge Sharing in Virtual Teams: Practical Evidence from Indonesia Open University

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ABSTRACT: Remote studying and working pose challenges to personal development. In this environment, knowledge sharing is essential for improvement and serves as a vital organizational tool. However, many Open University students remain unaware of the benefits derived from active engagement in Virtual Teams. This research examines the impact of knowledge sharing and skill application in virtual team sessions, focusing on the Master of Management program at the Indonesia Open University. A qualitative method through Focus Group Discussions (FGDs) with 40 *'the Ready to Contribute' (Siap Berkarya)* participants was employed. Key themes identified include leadership effectiveness, digital culture assimilation, self-efficacy, work-life balance, and the potential evolution of human resource management. The study underscores the importance of transparent communication, mutual trust, and effective coordination for virtual team functionality. It contributes to organizational policy development, emphasizes digital well-being's significance in today's digital age, and enhances understanding of virtual teams' complex dynamics.

Keywords: Knowledge Sharing, Virtual Teams, Focus Group Discussions, Leadership Effectiveness, Self-Efficacy

INTRODUCTION

The emergence of digital technologies and platforms has ushered in innovative methods in contemporary work and learning environments (Chatterjee et al., 2023; Dabić et al., 2023). These transformative tools have become increasingly essential in light of the recent global pandemic, accelerating the shift from traditional face-to-face interactions to virtual team settings (Carnevale & Hatak, 2020; Sheng et al., 2021).

Spurred by the researcher's experiences within the Master of Management program at the Indonesian Open University, and driven by an ambition to nurture self-efficacy and achievement, this study explores both face-to-face and online interactions within the academic community (Montcalm, 1999; van Dinther et al., 2011). Utilizing various digital platforms such as email, webinars, WhatsApp, and virtual meetings, these engagements culminated in enriching Focus Group Discussions (FGDs).

Many students at Open University are still unaware of the benefits of active participation in Virtual Teams. The insights derived from these FGDs form the foundation of this investigation, which aims to examine the broader implications of knowledge sharing in virtual teams. The profound impact of these collaborative efforts reaffirms the potential of virtual teams in enhancing learning outcomes and employee well-being (Acosta-Prado et al., 2020; Greimel et al., 2023).

This research contributes to the expanding body of literature on virtual teams and digital workplaces, with particular attention to how digital collaboration influences knowledge-sharing behaviors (Leal-Rodríguez et al., 2023; Natu & Aparicio, 2022). It also reflects on the wider implications for human resource management and the formation of organizational culture within digital contexts (Acosta-Prado et al., 2020; Dabić et al., 2023).

As both the researcher and initiator of the FGDs, the unique interplay of practical and scholarly experiences lends a distinctive viewpoint to this study. From this perspective, the research embarks on a critical exploration of virtual team dynamics within an academic setting, juxtaposed against the broader context of evolving work environments and digital culture (Leal-Rodríguez et al., 2023; Xiong et al., 2023).

Transcending technological limitations, the study extends its scope to encompass human aspects within virtual settings (Carnevale & Hatak, 2020). The primary focus is to comprehend how digital platforms can be effectively utilized to foster knowledge sharing, personal development, and academic achievement in a remote learning context.

Leveraging the findings from the FGDs, the research offers substantial insights into the functioning of virtual teams within digitalized workplaces, thereby contributing to the discourse on the future of digital work, especially in the post-COVID-19 scenario (Iiyoshi, 2020; Sri Yusriani, 2023). It underscores the significance of effective leadership, digital culture, and organizational policies in cultivating a conducive virtual work environment (Chatterjee et al., 2023; Greimel et al., 2023; Xiong et al., 2023).

Despite the increasing prevalence of virtual teams and digital workspaces, empirical research, particularly in academic environments, remains scarce (Natu & Aparicio, 2022). Moreover, the understanding of how virtual interactions influence knowledge sharing behavior and the subsequent impact on individual and collective learning outcomes is a domain yet to be thoroughly explored. This research thus seeks to fill this gap and provide a nuanced understanding of these dynamics. By analyzing the outcomes of the FGDs and drawing on the lived experiences of its participants, this study aims to contribute practical insights to the effective management of virtual teams and the creation of supportive digital learning environments (Carnevale & Hatak, 2020; Leal-Rodríguez et al., 2023). Additionally, the findings could have broader implications for how organizations manage their human resources in a digital age and navigate digital transformation journeys (Dabić et al., 2023).

Knowledge sharing is a fundamental process in any organization, enabling the exchange of expertise, skills, and insights among members to enhance individual and organizational learning and performance (Nonaka, 1994). It encompasses both tacit knowledge, which is personal,

context-specific, and often rooted in experience and action, and explicit knowledge, which is codified and can be communicated and shared in systematic and formal languages (Nonaka & Takeuchi, 1995).

In the context of the digital age, knowledge sharing has been significantly impacted by the advent of digital technologies and platforms, which have enabled more efficient, scalable, and geographically independent knowledge sharing activities (Paulin et al., 2011). Recent studies have also indicated that effective knowledge sharing in virtual environments can promote innovation, improve team performance, and enhance the decision-making process (Nedbal & Stieninger, 2020).

Virtual teams are work groups that are geographically dispersed and coordinate their work predominantly with electronic information and communication technologies (EICT) (Powell et al., 2004). They have gained considerable attention due to the increased globalization of business activities, advances in information technologies, and more recently, the need for remote working induced by the global pandemic (Hertel et al., 2005). Virtual teams offer several advantages such as access to diverse skills and knowledge, reduced relocation time and costs, and around-the-clock service to global customers. However, they also face unique challenges like building trust, dealing with cultural differences, and overcoming communication barriers (Gilson et al., 2015).

The Indonesia Open University, known as Universitas Terbuka (UT), was established in 1984 with a mandate to provide broader access to quality higher education for the Indonesian populace, especially for those living in remote areas and working individuals who cannot attend regular classes (Belawati & Zuhairi, 2007). The university, as its name suggests, utilizes open and distance learning (ODL) systems, which incorporate the use of various media and learning resources for teaching, learning, and student service processes. In recent years, UT has also been integrating digital technologies into its learning systems to enhance educational access and quality (Belawati & Zuhairi, 2007).

FGDs, originally referred to as "focused interviews" or "group depth interviews," were developed post World War II as a method to gauge audience reactions to radio broadcasts (Stewart & Shamdasani, 2014). Since then, social scientists and evaluators have recognized FGDs as valuable tools for comprehending the beliefs people hold regarding specific subjects or programs.

An FGD can be described as an interaction among individuals sharing common interests or traits, united by a moderator who leverages the group's interaction to gain insights into a specific issue. Typically consisting of 7-10 people unfamiliar with each other, an FGD assembles participants with shared characteristics related to the discussion topic. The moderator fosters an inclusive and nurturing environment that encourages diverse perspectives without coercing consensus or specific outcomes (Krueger, 1988, 1994; Krueger & Casey, 2014). Repeating the discussion with similar participants enables the identification of trends in perception. A thorough and methodical analysis of the dialogues provides an understanding of group perceptions of a product, service, or opportunity. Given the small number of participants in a focus group discussion and the general design as a one-off encounter, one cannot exhaustively discuss a topic just by conducting a single

group discussion. Consequently, some authors have recommended a minimum of three to four group meetings for simple research topics (D. Burrows & Sally Kendall, 1997). The principle of theoretical saturation, where focus group discussion sessions are run until a clear pattern emerges and subsequent groups produce no new information, has been applied for studies covering larger areas, wider interest groups, and complex topics (Bloor et al., 2001; O.Nyumba et al., 2018; Krueger, 1994).

What Focus Groups Can Reveal: 1) Insights into Collective Thoughts and Feelings: FGDs can illuminate how groups perceive or feel about specific subjects. 2) Deeper Understanding of Opinions: They provide a more profound comprehension of why certain views are maintained. 3) Enhancement of Program Planning and Design: They can contribute to the enhancement and planning of new initiatives. 4) Evaluation Tool for Existing Programs: They serve as an effective means to evaluate ongoing programs. 5) Strategic Development Insights: They generate insights beneficial for devising strategies for outreach.

Initially, scholars created an online group in March 2022 that evolved into virtual teams, with scheduled discussions aligned with members' agreement. The coordinator, serving as a moderator within the online group, facilitated members in realizing Focus Group Discussions (FGDs) entitled the 'Ready to Contribute' (*Siap Berkarya*) FGD, which consists of 40 students from the Indonesia Open University Management Master Program. However, the phenomenon observed is that, despite recognizing the importance of self-development through knowledge sharing, the willingness to participate in scheduled activities remains low. This is evidenced by the lack of student participation in various activities, where out of 40 student members in the FGD, only a small number actively participated. Research questions aimed at reaching the above research purpose include:

1) How does knowledge sharing contribute to the effectiveness of virtual teams?
2) What are the perceived benefits and challenges of active participation in virtual teams among students at the Indonesia Open University?
3) How do participants perceive the leadership quality within the knowledge-sharing session?
4) What influences self-efficacy within students?
5) How do participants perceive work-life balance within virtual teams?
6) How will the virtual team evolve human resource management practices?

Based on the background, the purpose of this study is to explore the role of knowledge sharing in virtual teams within an academic setting, focusing on the Master of Management program at the Indonesia Open University. The second purpose is to explore what skills have been utilized in virtual team knowledge-sharing sessions, which is illustrated in the following framework that describes the benefits and challenges of knowledge sharing in virtual teams to create improvements in various skills.
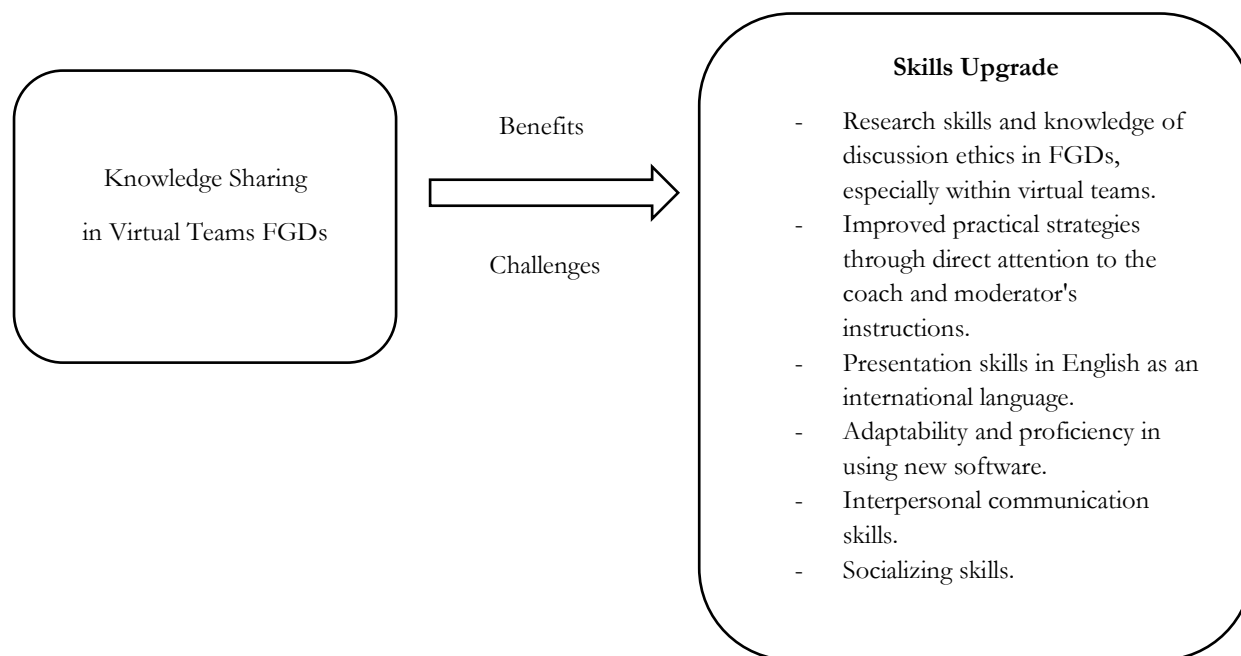
Figure 1. Conceptual Framework from the Literature Review Analysis Presented in the References

METHOD

This study utilizes a qualitative research approach to explore the impact of knowledge sharing in virtual teams within an academic setting, with a specific focus on the Indonesia Open University, Master of Management program. This design enables an in-depth examination of participants' experiences, perceptions, and insights. Focus Group Discussions (FGDs) can be instrumental when power imbalances exist between individuals. In this context, homogeneity may facilitate productive discussions, while heterogeneity could pose various challenges (Annansingh et al., 2018).

The FGD method is chosen for its efficacy in unveiling patterns of social interaction, cohesiveness, decision-making, conformity, leadership, and power relationships among its members (Stewart & Shamdasani, 2014). These methodological attributes significantly contribute to fulfilling our research objectives. The focus group methodology, originating from the group interviewing approach outlined by Merton & Kendall (1946), has notably gained popularity within the realms of qualitative research and evaluation. Defined broadly in Sim & Waterfield (2019) regarding a type of group discussion about a topic under the guidance of a trained group moderator, focus groups strike a balance between the structure of meetings and the spontaneity of conversations. This equilibrium is further emphasized by Agar & MacDonald (1995), who highlight the specifically organized, structured nature of focus groups alongside their conversational dynamics, allowing for spontaneity and the natural flow of discussion where participants can build upon one another's contributions.

Data collection and subsequent analysis in focus group research are recommended to encompass both the dialogue and interactions within the group, thereby presenting distinct methodological challenges (Grønkjær et al., 2011; Halkier, 2010; Sim & Waterfield, 2019). This analytical approach seeks to capture how meaning is negotiated and co-produced within the group context (Wilkinson, 1998), underlining the co-constructive nature of knowledge in focus groups.

The focus group methodology requires adherence to established procedures for briefing and conducting discussions, grounded in reputable international journal references that detail prior research in this area (Carey & Asbury, 2016; Krueger & Casey, 2009; Barbour, 2018; Sim & Waterfield, 2019). These comprehensive accounts offer a framework for conducting focus groups that respect the conventions of qualitative research while facilitating the emergence of the depth and richness of group interaction.

Through such a meticulous approach, focus group research continues to provide valuable insights into the collective perspectives and dynamics that shape participants' views on various subjects, establishing it as an essential tool in the arsenal of qualitative research methodologies.These scholar-oriented FGDs are aligned with the tripartite mission of higher education, incorporating faculty members and emphasizing teaching, research, and community service. In light of the ubiquity of digital technology in the contemporary era (Amanda et al., 2023), the execution of these discussions continually promotes collaboration, creativity, and discourse in learning, research, and scientific publication.

The 'Ready to Contribute' (*Siap Berkarya*) FGD, initiated by scholars of the Master of Management (MM) Program since March 2022, has achieved numerous academic objectives over the last seven months through more intensive communication, leading to the creation of several academic scientific journals. This ongoing initiative has also effectively established multiple virtual teams committed to continuing research endeavors.

Participants

For this study, 40 students were interviewed, selected from 60 members participating in the Focus Group Discussions (FGDs) of the online group. These individuals were chosen based on their availability for virtual meetings and prompt responses to interview invitations since May 5, until August 15, 2023, aimed at evaluating the virtual team's knowledge-sharing sessions.

Data Collection and Analysis

In-depth, semi-structured interviews following the FGDs served as the primary method of data collection. These allowed participants to articulate their experiences, insights, and the perceived benefits of their involvement. All sessions were recorded and transcribed, with some evolving into one-on-one virtual meetings or smaller group discussions.

The interview guide drew from insights in the literature on virtual teams, digital collaboration, and knowledge sharing, as well as the researcher's experiential understanding of the FGDs. The questions sought detailed responses about participants' experiences, perceptions, and the impacts of knowledge sharing within the virtual teams.

Thematic analysis was applied to the interview transcriptions. The research team engaged in discussions in a conducive environment, grouping similar responses to ensure effective addressing of research questions. From the initial data collection phase, perceptions were aligned to uncover the thematic meanings related to knowledge sharing, thus enhancing mutual understanding. This analytical technique illuminated interpretations centered on specific discussion outcomes.

The research was conducted in alignment with the ethical guidelines for qualitative research. Participants were briefed on the study's purpose and procedures, and informed consent was obtained. Measures were implemented to ensure the confidentiality and anonymity of the participants' identities and responses.

RESULT AND DISCUSSION

Among the active members, 55% are male, and 90% of the members are married. The majority reside in Indonesia, specifically on the island of Java, where 45% of the respondents live. In the Focus Group Discussions (FGDs), most students work as staff (47.50%) or as managers or branch heads (42.50%), with the majority employed in the public sector (37.50%). This is followed by those working in the academic/education realm, comprising 12.50% of the respondents. The most substantial monthly expense is over 15 million rupiahs, accounting for 55% of the 40-respondents. Many members have been actively participating since the group's inception, with the majority having been engaged with the virtual teams for the past 15 months (75%). The attached table 1 provides further details.

Table 1. Profile of Respondents (n=40)

No	Profile		Sum	Percentage (%)
1	Gender	Male	22	55.00
		Female	18	45.00
2	Age	<25%	0	0
		25 – 25 year	10	25
		36 – 45 year	18	45
		46 – 55	11	27.5
		>55 year	1	2.5
3	Marital Status	Married	36	90.00
		Unmarried	4	10.00
4	Workplace	Java	18	45.00
		Sumatera	9	22.50
		Kalimantan	7	17.50
		Bali	1	2.5.00
		Sulawesi	1	2.5.00
		Nusa Tenggara Barat	1	2.5.00
		Denmark	1	2.5.00
		Saudi Arabia	1	2.5.00
		Netherland	1	2.5.00
5	Occupation	Staff	19	47.50
		Manager	17	42.50
		Director	2	5.00

		Entrepreneur	1	2.50
		Other	1	2.50
6	Sector/Industry	Public/Government	15	37.50
		Service	4	10.00
		Education	5	12.50
		Mining	1	2.50
		Hospital	3	7.50
		Banking	3	7.50
		E-Commerce	1	2.50
		Manufacturing	3	7.50
		IT	2	5.00
		Consultant	2	5.00
		Construction	1	2.50
7	Monthly Expense (IDR)	1 – 3 million	0	0
		3 – 5 million	0	0
		5 – 10 million	9	22.50
		10 – 15 million	9	22.50
		15 million above	22	55.00
8	Membership of Virtual Teams	1 – 5 months	8	20.00
		6 – 10 months	2	5.00
		11 – 15 months	30	75.00

Source: data processed (2023)

Next, the frequency of answers to the questions asked is displayed on Table 2.

Table 2. Responses (n=40)

No	Question	Percentage (%)				
		Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
1	Do you agree that FDGs we've been created in this online group have been beneficial?	100	-	-	-	-
2	Do you agree that being in the FDGs, you've experienced significant progress in academic achievement	100	-	-	-	-
	Understanding and closing statement					
3	Do you feel that we, as members of the group, are becoming closer?	100	-	-	-	-

Source: data processed (2023)

Based on table 2, it is revealed that 100 percent of respondents stated "strongly agree" on the question "Do you agree that FDGs we've been created in this online group have been beneficial?"

and Do you agree that being in the FDGs, you've experienced significant progress in academic achievements?" Furthermore, the benefits felt were not only in academic achievements but also in the practical implementation within the respondents' professional roles.

Moderator FM summarized that the first group concluded the existence of our Virtual Teams to be immensely beneficial. Members expressed happiness due to the friendships formed, the achievement of study goals, and advancements in digital skills. Challenges, such as differing time zones and a lack of personal touch, can lead to varied interpretations of statements within the online group text, as each member reads or listens with different situation and background. On the other hand, Focus Group Discussions (FGDs) are seen as more beneficial as they offer a more genuine environment in which participants can influence and be influenced by one another (Krueger & Casey, 2000). The synergy resulting from group interaction further enhances their appeal (Stewart & Shamdasani, 2014). Moreover, when opportunities for data collection are limited, focus groups are often preferred over individual interviews (VanderStoep & Johnson, 2008). They serve as powerful tools for collecting high-quality data within a social context, as highlighted by Patton (2002). Therefore, it is vital to clearly define and comprehend the essence of FGDs to ensure their proper execution. In conclusion, our engagement with these virtual meets leave us feeling appreciative, grateful, and elated.

ISP, serving as the moderator for the 2nd group, summarized the responses to the inquiry as follows: Leadership, digital culture, and comfort levels within Focus Group Discussions (FGDs) can vary among participants. Effective leadership is often associated with enhanced communication, greater engagement, and efficient decision-making. A positive digital culture can foster open dialogue, mutual respect, and a readiness to share knowledge. Comfort levels may impact participation rates and the quality of contributions. Overall, we are comfortable with the leadership in place, the roles we are assigned when initiating new paperwork projects, and the flexible scheduling for virtual meetings across different time zones. Displaying patience and maintaining a positive attitude are essential for all participants, given that the students within the Virtual Teams function important role as staff and managers in their respective professional organizations.

RIS, serving as the moderator for group 3, stated that virtual interactions could significantly impact self-efficacy and achievement by offering a platform for continuous learning, collaboration, and feedback. Participants keenly felt the profound effects of virtual interactions, notably in their enthusiasm to contribute academically for both personal and societal enrichment. Especially since we are all geographically distant, relishing the process of online distance learning (ODL) and being mature learners, we find these activities extremely beneficial. There's a consensus that these endeavors should continue, with ongoing improvements in the implementation of our activities.

WA, serving as the moderator for the 4th group, remarked, "The shift from face-to-face to digital interactions possesses both potential benefits and challenges. While it can pave the way for flexible learning and work environments, enhanced productivity, and cost reductions, it also poses risks such as feelings of isolation, communication misunderstandings, and an imbalance between work

and personal life." He emphasized the immense value of Focus Group Discussions (FGDs) and noted his intention to further harness FGDs in future research endeavors, underscoring the myriad benefits gleaned from such engagements. He highlighted the immediate acquisition of actionable insights from peer support post-discussions.

- Deep Insights: FGDs enable researchers or mentors to delve deeply into participants' perspectives, emotions, and thoughts about a specific subject. These discussions can surface diverse perceptions and insights that might remain unvoiced in other methodologies.
- Qualitative Data Collection: FGDs serve as a potent tool for procuring qualitative data, offering context that sheds light on intricate subjects under exploration.
- Fostering Social Interaction: FGDs cultivate an environment where participants can engage directly, sparking innovative ideas, reflections, and even robust debates, enriching the data compilation process.
- Data Verification: In an FGD setting, participants can provide feedback to each other and build upon insights shared, thereby strengthening data validation and ensuring the authenticity of research results.
- Discerning Patterns: FGDs empower researchers to pinpoint both disparities and parallels in participants' perspectives and experiences, unveiling patterns or trends that might elude individual assessments.
- Catalyst for Hypotheses: FGDs can be instrumental in formulating hypotheses or evolving research queries. Group discussions can stimulate inventive thought processes, guiding researchers toward fresh facets of their study topic.
- Cultural and Social Insight: FGDs provide a lens to discern cultural and societal contexts from the vantage point of the participants, proving pivotal for research rooted in cultural, societal values, and norms.
- Efficiency in Time and Resources: By consolidating multiple participants into a single session, FGDs offer a more resourceful alternative compared to individual interviews, optimizing both time and resources.

NNb, serving as the moderator for the 5th group, asserted that digital collaboration could revolutionize human resource management and organizational culture. This transformation might heighten the emphasis on digital competencies, prompt the establishment of remote work policies, and encourage the cultivation of virtual team-building strategies.

Within her group, she observed that the participants experienced numerous positive changes in their learning habits. These encompass enhanced motivation to learn, improved literacy skills, exchanges of foreign and regional languages, and a heightened sense of mutual respect. These positive shifts have fostered a strong bond among the members, enhancing their interactions and communication ties within the group.

Consequently, alongside feelings of increased happiness and a sense of closeness in their friendships, there's a collective aspiration to, in the future, possibly convene in person during

holiday breaks. The prospect of such face-to-face gatherings further enriches the vibrant sense of community and shared purpose that these digital collaborations have cultivated.

Mir, serving as the moderator for the 6th group, underscored that insights gleaned from FGDs could illuminate the pivotal roles of transparent communication, mutual trust, and adept coordination in the realm of virtual team dynamics. The expertise of the members has been notably honed and augmented through the exchange of perspectives within this setting. "Great! It's evident in our interactions," she affirmed.

SY, serving as the moderator, emphasized that the first-hand experiences shared by FGD participants could offer valuable insights into the efficacies and challenges inherent in virtual team management and digital learning environments. For instance, when the virtual team discussed "data processing" using quantitative tools, member A, with expertise in that theme, was able to impart knowledge to member B. As a result, both experienced notable progress in their data processing skills using those specific tools. Another illustrative example was when the topic of conflict management within corporations was broached. Member C introduced an innovative strategy that had been successfully implemented in their company to manage conflicts. As Master's students in Management, we discern a marked enhancement in our managerial acumen, which we subsequently integrate into our respective workplaces.

We are profoundly grateful to our kind lecturers, mentors, and all lovely members who have generously dedicated their time to collaborative learning within this Virtual Team.

RF, serving as the moderator for the 8th group, noted:

> "*The findings of the study indicate that organizations should increase their investment in digital tools, training, and support systems to proficiently manage human resources in the digital age. Consideration must also be given to employees' digital well-being and work-life balance as integral components of digital transformation strategies. We aspire for the Open University to enhance facilities for scholarly pursuits, such as initiating comparative studies with international universities. This could foster the development of research and the exchange of insights in this increasingly sophisticated digital era. Thank you very much.*"

The moderator posed the same questions to each FGD group within the Virtual Teams as a concluding segment. There were eight groups discussing this research, and they reach a consensus on the answers.

"Do you feel that, as members of the group, are becoming closer?" 100% of the respondents felt confident that there is an emotional closeness and friendship within the group. The audience provided an opportunity for the moderator to synthesize their various statements in response to this question:

> "*What would you like to say to conclude our meeting today?*"

The moderator delivered a consolidated concluding remark from the participants, starting from:

"We would like to express our heartfelt thanks for the invitation to be here. I am truly grateful to be in an environment of friendship (where we service as peer support, as well as mentors and students), where we respect each other and mutually contribute to one another in academic projects and community engagements. We love to learn together and feel blessed."

The examples of skills that have been utilized in virtual team knowledge sharing sessions are:

1. Skills in grammar and article writing using Microsoft Word.
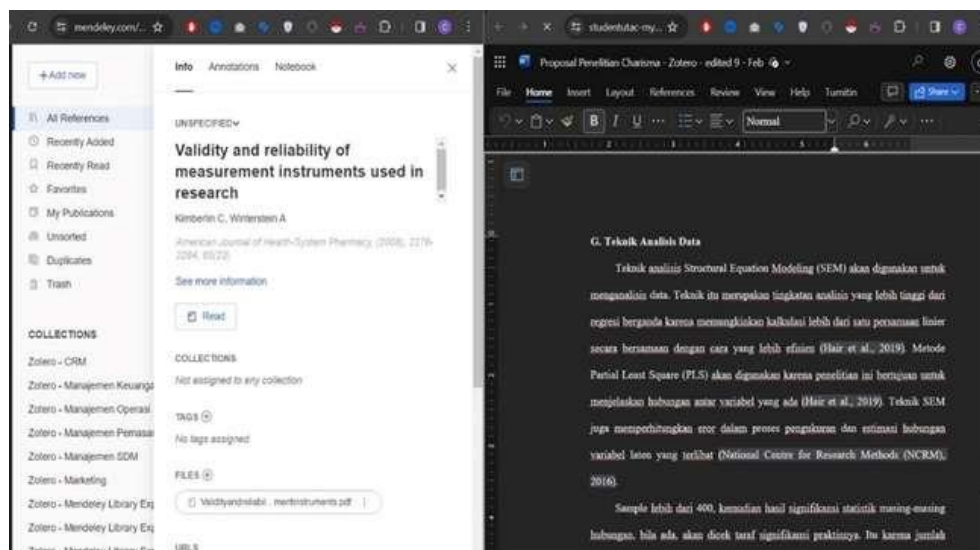
(Figure 2. Screenshot of Knowledge Sharing 1, data processed, 2023)
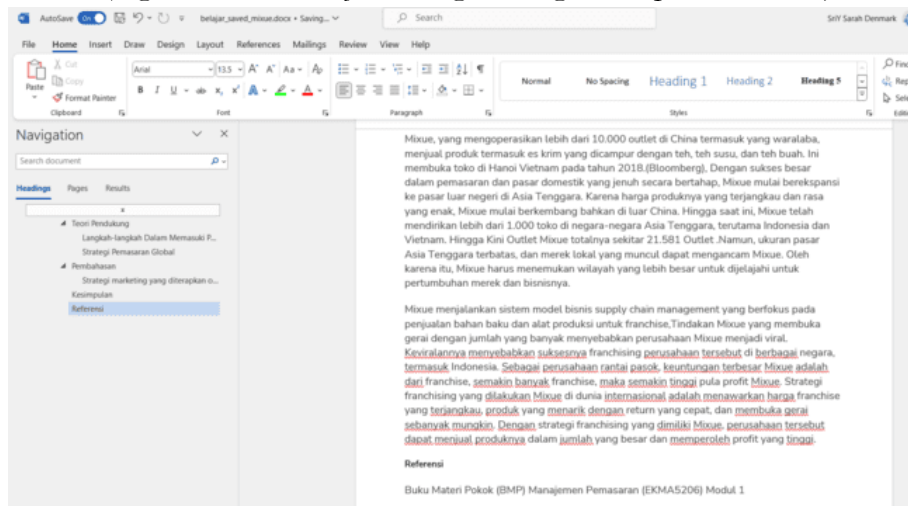
(Figure 3. Screenshot of Knowledge Sharing_2, Ms.Word, data processed, 2023)

2. Basic skills in research methodology, including steps to conduct research and prepare for presentations.
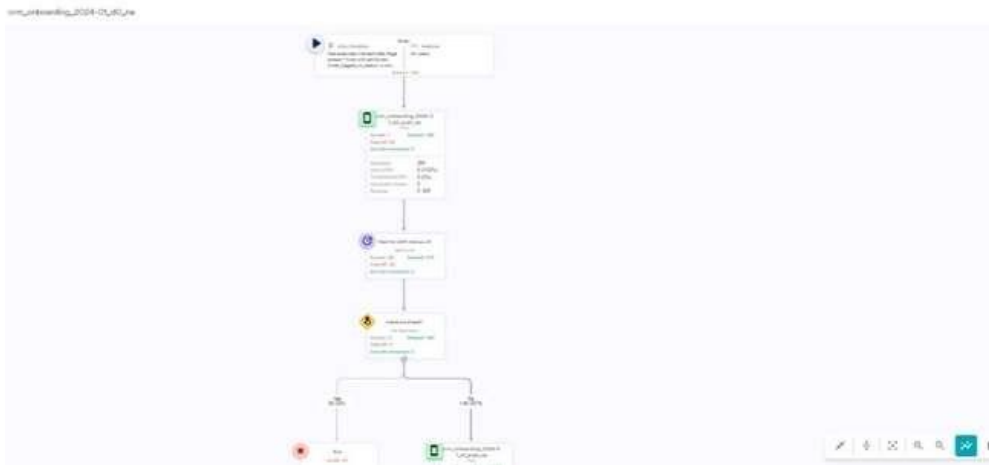
(Figure 4. Screenshot of Knowledge Sharing_3, Moengage Workflow_app data processed, 2023)
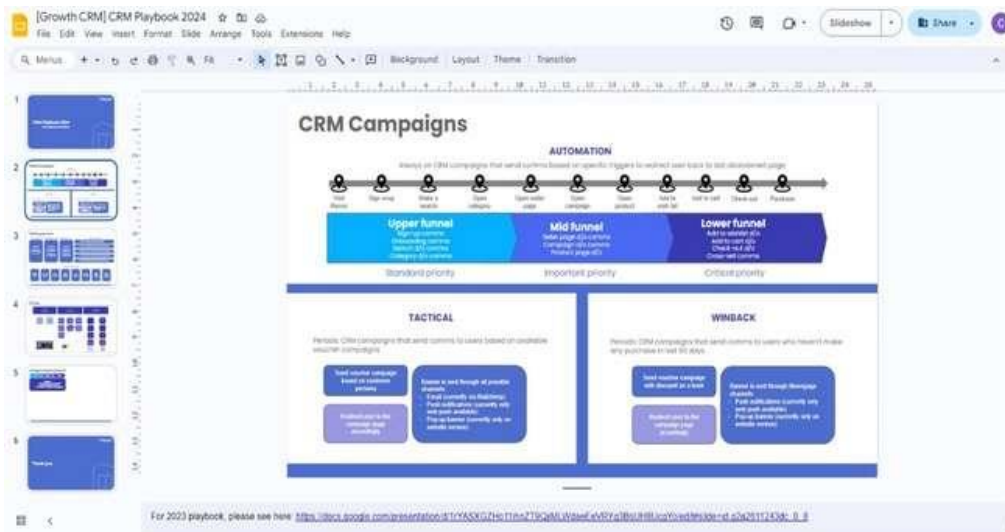
(Figure 5. Screenshot of Knowledge Sharing_4, Learning High level Strategy in Marketing, data processed, 2023)

3. Skills in presenting research findings.

(Figure 6. Screenshot of Knowledge Sharing_5, data processed, 2023)
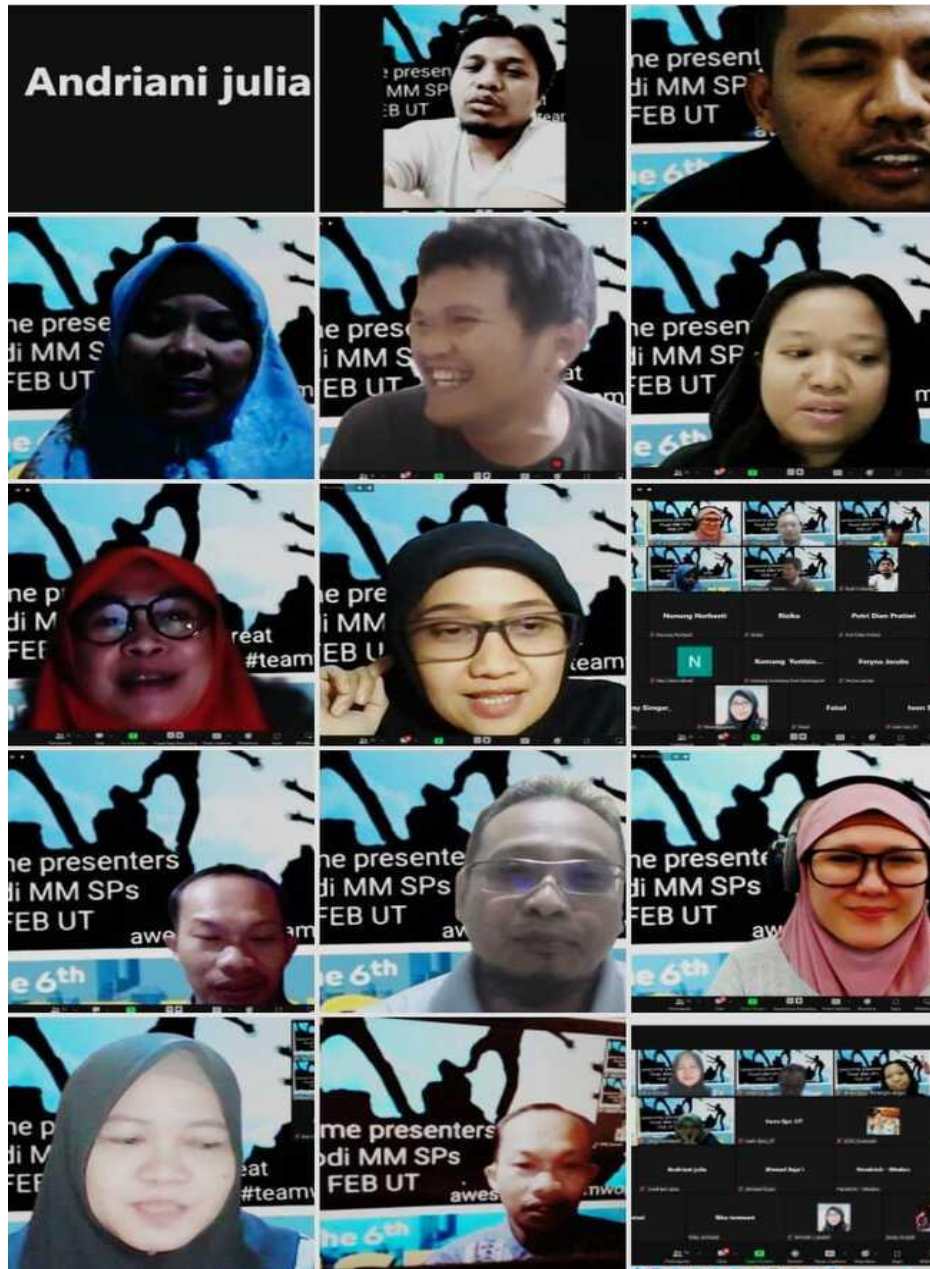

(Figure 7. Screenshot of Knowledge Sharing_6, presenting research findings, data processed, 2023)

(Figure 8. Screenshot of Knowledge Sharing_7, presenting research findings, data processed, 2023)
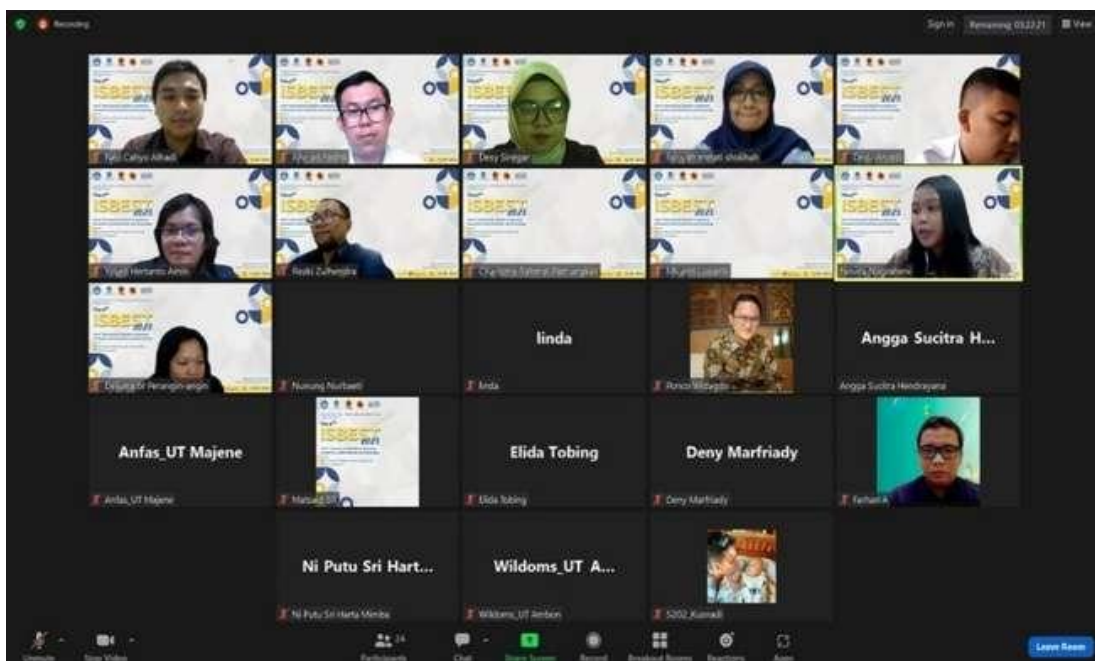
4. Presentation skills in English as preparation for an international conference.

(Figure 9. Screenshot of Knowledge Sharing_8, data processed, 2023)

(Figure 10. Screenshot of Knowledge Sharing_9, data processed, 2023)

(Figure 11. Screenshot of Knowledge Sharing_10, data processed, 2023)

5. Skills in adopting Microsoft Teams and Zoom meetings, which have enabled colleagues who were initially unaccustomed to become adaptable and proficient in using this software.
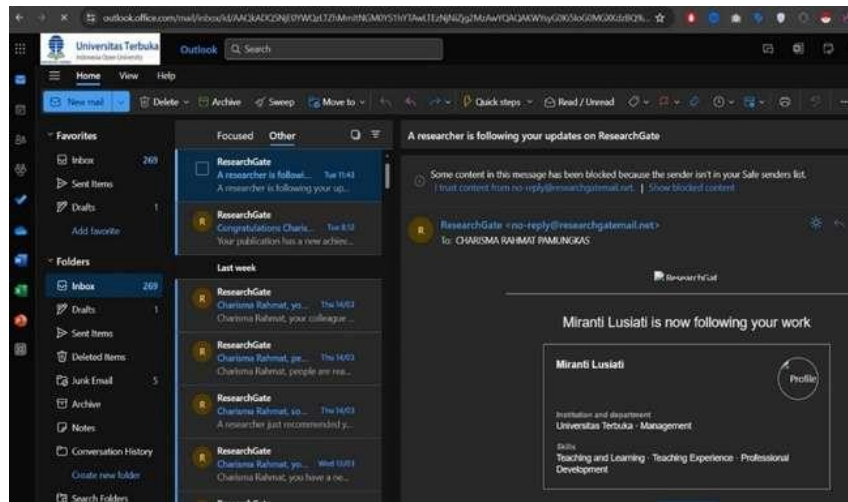
(Figure 12. Screenshot of Knowledge Sharing_11, data processed, 2023)

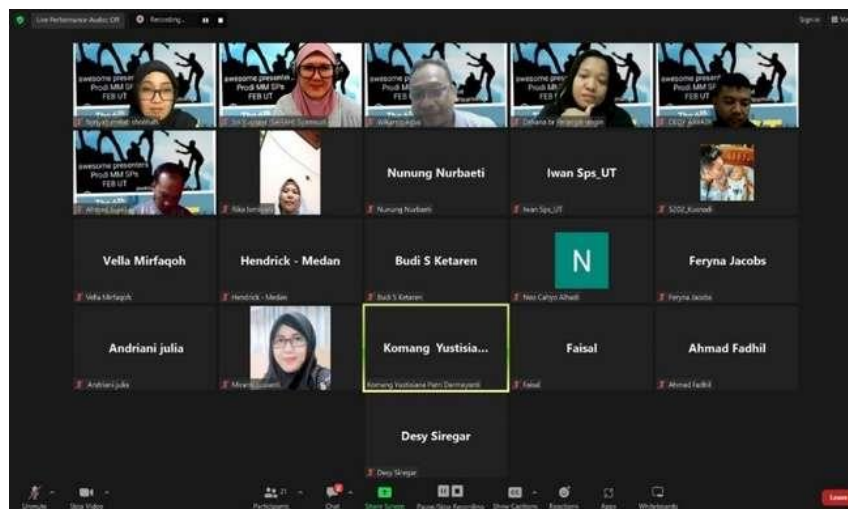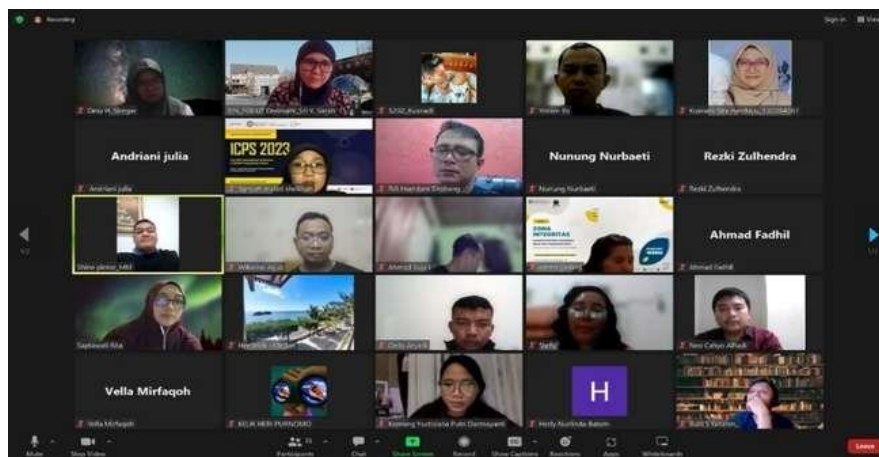*(Figure 13. Screenshot of Knowledge Sharing_12, data processed, 2023)*

6.   Interpersonal communication skills.

(Figure 14. Screenshot of Knowledge Sharing_13, data processed, 2023)

(Figure 15. Screenshot of Knowledge Sharing_14, data processed, 2023)

(Figure 16. Screenshot of Knowledge Sharing_15, data processed, 2023)

(Figure 17. Screenshot of Knowledge Sharing_16, data processed, 2023)

7. Enhancement of socializing skills, particularly noticeable in onsite meetings with colleagues in nearby areas, negotiating meeting schedules, and actively participating in achieving academic goals.

This study demonstrates the impact and serves as tangible evidence of previous research exploring the influence of self-efficacy and peer support on enthusiasm for learning and digital competencies in the context of online distance learning, particularly among students of the Open University's Graduate School. The research findings indicate that self-efficacy, support from peers, and learning motivation do not significantly affect digital competencies. However, peer support and intensive communication significantly sustain learning enthusiasm and motivation (Yusriani et al., 2023).

CONCLUSION

Based on the discussion above, this methodological approach provides a comprehensive framework for exploring the dynamics of knowledge sharing in virtual teams, specifically within the context of the Master of Management program at the Indonesian Open University. The qualitative design facilitates a detailed examination of the experiences and perceptions of participants, thereby enriching the existing literature on digital collaboration, virtual teams, and knowledge sharing in an academic setting.

The skills utilized in virtual team knowledge sharing sessions include: skills in grammar and article writing using Microsoft Word; basic research methodology skills, including steps for conducting research and preparing presentations; skills in presenting research findings; English presentation skills as preparation for international conferences; proficiency in adopting Microsoft Teams and Zoom for meetings; interpersonal communication skills; and socializing skills.

The study underscores the pivotal role of virtual teams in advancing academic collaboration, enhancing digital skills, and fostering interpersonal relationships. While there are challenges, the

benefits far outweigh them, especially when managed effectively with the right strategies, tools, and leadership in place.

Based on the findings, the study recommends:
- Addressing the challenges posed by virtual teams, such as differing time zones and potential misinterpretations.
- Enhancing leadership training and cultivating a robust digital culture to ensure the success of virtual teams.
- Investing more in digital tools, training, and systems to support digital collaboration and transformation effectively.
- Emphasizing the importance of face-to-face interactions, possibly through annual or bi-annual meet-ups, to complement virtual collaboration.
- Collaborating with international universities to foster research and insights exchange in this digital era.

This study also has a limitation due to the nature of Focus Group Discussions (FGDs), participants might influence each other, and the interpretations by moderators could introduce bias. The study primarily relies on qualitative feedback and lacks quantitative data for broader validation. The findings are context-specific, based on participants from the Master of Management program at the Indonesia Open University, which may not generalize to other settings. Additionally, there's a digital disparity; unequal access to or familiarity with digital tools among participants might skew results.

Refering to the limitation, we propose ideas for future research as follow:
- Diverse Populations: Future studies could look at the effects and experiences of virtual teams in different populations, outside the academic environment, or in different countries and cultures.
- Quantitative Analysis: Introduce quantitative measures to validate some of the qualitative findings, such as the impact of FGDs on academic performance or professional growth.
- Comparison with Traditional Methods: A comparative study of traditional face-to-face groups versus virtual teams could provide insights into the specific benefits and challenges of each mode.
- Study on Moderation Techniques: Investigate the role and influence of moderators in shaping the outcomes of FGDs, and how different moderation techniques might influence group dynamics and findings.
- Depth on Challenges: A dedicated study focusing specifically on the challenges of digital interactions, with solutions or mitigation strategies.
- Digital Tool Efficacy: Investigate the efficiency and efficacy of different digital tools in fostering collaboration and knowledge sharing.
- Impact of Cultural and Social Dynamics: A deep dive into how cultural and societal norms influence digital collaboration, especially in a diverse group.
- Research on Digital Well-being: Given the importance of digital well-being, a focused study on its factors, implications, and strategies to enhance it would be beneficial.

- Implementation and Outcome Study: After identifying best practices, a study that implements these practices and measures outcomes would be beneficial, offering a practical roadmap for other organizations or academic institutions.
- Cross-University Collaborations: As suggested in the findings, launching comparative studies with international universities can give a broader perspective on virtual teams and digital collaboration. This can pave the way for a more globalized and interconnected academic environment.

We express our heartfelt appreciation and gratitude to all colleagues who participated in this research and provided their invaluable support. We hope that this preliminary study, which also serves as an evaluation of our virtual meetings, can be further developed in the future, bringing positive impacts to our achievements as both students and professionals.

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