

## ORIGINAL RESEARCH ARTICLE

# Optimal pedagogical strategies in research methodology: Insights from student experiences

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### ABSTRACT

This study embarked on an exploratory journey to understand the nuances of effective pedagogy within the context of a Research Methodology course. With a participant pool of 24 students, qualitative methodologies were employed to delve deep into their experiences, perceptions, and reflections. Several emergent themes underscored the dynamics of a successful learning environment. Collaborative learning stood out as a key facilitator of understanding, highlighting the value of peer interactions and group endeavors. The instructor's mediatory role emerged as pivotal, acting as a bridge between content and comprehension. Participants highlighted the profound impact of integrating real-world applications to enhance conceptual clarity, making abstract concepts tangible and relevant. Reflective practices and feedback mechanisms were underscored as instrumental in deepening understanding and fostering growth, respectively. The intertwining of theory and practice, along with the instructor's adaptability, were deemed essential for comprehensive learning. Furthermore, culturally relevant pedagogy emerged as a necessity, emphasizing the symbiotic relationship between culture and cognition. Lastly, the motivational and encouraging role of the instructor significantly influenced the students' commitment and enthusiasm. While these findings shed light on the intricate dance of effective pedagogy, they also pave the way for future research to further refine our understanding of optimal educational strategies.

**Keywords:** optimal pedagogical strategies; student experiences; the research methodology subject

## 1. Introduction

The academic realm of higher education is vast, with the quality of instruction playing a pivotal role in shaping students' learning experiences. Among the myriad subjects that constitute the curriculum, Research Methodology (RM) emerges as both vital and challenging. It not only equips students with the ability to decipher and design intricate research patterns but also nurtures a critical and analytical mindset crucial for academic and professional success<sup>[1,2]</sup>.

In this context, the role of the instructor is magnified manifold. The onus is not merely on conveying information but on fostering an environment where concepts become intuitive, and students are empowered to be independent researchers<sup>[3]</sup>. However, the true contours of an effective instructor teaching RM remain elusive.

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What do students perceive as effective instruction in this domain? Which educator's characteristic supports research methodology learning?

This study seeks to provide answers by focusing on the portraits of effective instructors in charge of teaching RM from a qualitative perspective, grounded in students' viewpoints. Through rich narratives and insights, we aim to explore the intricate tapestry of qualities, attributes, and nuances that constitute effective instruction, as perceived by those at the heart of the learning process: the students.

## **2. Literature review**

### **2.1. Pedagogical strategies in RM**

Methodology reveals a multifaceted approach, encompassing a variety of techniques to enhance student learning and engagement. Central to this discourse is the emphasis on active learning strategies, as advocated by scholars like Jagosh et al.<sup>[4]</sup>, who highlighted the benefits of collaborative and participatory activities in promoting deeper understanding of research concepts. This approach aligns with Sociocultural Theory (SCT), which underscores the importance of social interaction in learning<sup>[5]</sup>. Techniques such as group discussions, peer reviews, and hands-on projects facilitate not just the acquisition of knowledge but also its application in practical settings.

Further contributing to this field, Steenkamp and McCord<sup>[6]</sup> emphasized the importance of integrating technology in teaching RM. The use of digital tools and online platforms for conducting research, data analysis, and collaboration reflects the evolving landscape of research in the digital age. This integration not only prepares students for modern research challenges but also caters to diverse learning styles. Moreover, the importance of reflective practices in teaching RM is highlighted by Colomer et al.<sup>[7]</sup>. Reflective essays and journals encourage students to introspect and critically analyze their learning process, fostering a deeper understanding of research methods and their implications.

Finally, the significance of contextualizing RM within specific disciplines is explored by Duke and Del Nero<sup>[8]</sup>, who argued for the tailoring of research teaching methods to align with the specific needs and conventions of different academic fields. This tailored approach ensures that students not only learn the fundamentals of research but also understand how they apply in their respective areas of study.

### **2.2. The importance of RM in higher education**

Hartley et al.<sup>[9]</sup> posited that RM forms the backbone of academic scholarship in higher education. It equips students with the tools to question, investigate, and generate knowledge, providing a critical foundation for academic inquiry across various disciplines. This perspective is echoed by Chu et al.<sup>[10]</sup>, who argue that a solid foundation in research methods increases students' employability, especially in roles that require analytical and investigative skills.

Expanding on this, Tomeczyk et al.<sup>[11]</sup> and Mahdi et al.<sup>[12]</sup> emphasized the role of RM in developing critical thinking and problem-solving abilities. They argued that RM courses not only teach students how to conduct research but also enhance their ability to critically evaluate information, a skill increasingly valuable in the information age. Furthermore, Lasrado<sup>[13]</sup> highlighted the importance of RM in fostering innovation and creativity. Particularly, RM training encourages students to approach problems in novel ways, laying the groundwork for breakthroughs in various fields.

Additionally, research by Borrego and Newswander<sup>[14]</sup> demonstrated that RM proficiency is crucial for interdisciplinary studies. They found that students with strong RM skills are better equipped to integrate knowledge from different fields, facilitating more holistic and comprehensive approaches to complex problems.

This interdisciplinary approach is increasingly important in tackling global challenges that span multiple sectors. Moreover, Nunnaley<sup>[15]</sup> focused on the role of RM in enhancing data literacy, a key skill in today's data-driven world. They posited that RM courses help students become proficient in data analysis, interpretation, and presentation, skills that are highly sought after in many industries.

### **2.3. Attributes of an effective instructor across disciplines**

A meta-analysis by Klassen and Kim<sup>[16]</sup> highlighted several characteristics that define effective instructors irrespective of the subject being taught. These include profound subject-matter expertise, clarity in communication, enthusiasm for the subject, and empathetic understanding of student needs. Huber and Moore<sup>[17]</sup>, while focusing on specific disciplines, found the ability to simplify complex concepts and facilitate hands-on experiences as crucial traits of effective instructors.

Ball and Pelco<sup>[18]</sup> emphasized that traditional lecture methods are often less effective across various disciplines. Experiential learning, case studies, and problem-based learning have been identified as more promising approaches that aid students in grasping the intricacies of various subjects. Pandey and Pandey<sup>[19]</sup> underscored the significance of technological tools in contemporary instruction, positing that instructors who adeptly incorporate these tools often enhance their effectiveness.

Creating a conducive learning environment is fundamental. Sointu et al.<sup>[20]</sup> discovered a strong correlation between positive student-teacher relationships and enhanced comprehension of concepts. This sentiment was echoed by Blase and Blase<sup>[21]</sup>, who suggested that instructors fostering an environment of mutual respect, open communication, and active participation often achieve superior educational outcomes.

Menéndez et al.<sup>[22]</sup> emphasized that effective instructors utilize formative assessments as a crucial part of this integration. These assessments, often based on active learning methodologies, help in facilitating students' comprehension of their progress and pinpointing areas needing enhancement. Furthermore, Scott<sup>[23]</sup> highlighted the significance of timely feedback in this framework. Such feedback, emerging from both reading exercises and active learning tasks, not only consolidates the learning experience but also elevates students' confidence across various disciplines. Additionally, Zepeda<sup>[24]</sup> linked these practices to the ongoing professional development of instructors. Those who continually refine their teaching strategies, including the incorporation of feedback mechanisms into active learning, tend to enhance their effectiveness in teaching. This holistic view showcases how the amalgamation of reading methods, active learning, and continuous feedback forms a coherent and dynamic educational approach.

Brookfield<sup>[25]</sup> found that students often value instructors who challenge them while providing clear guidelines, showing genuine concern for their learning, and ensuring that classes are engaging and interactive. The literature thus paints a multifaceted picture of effective instruction, emphasizing a blend of subject expertise, pedagogical skills, interpersonal relationships, and adaptability to evolving tools and techniques. This review elucidates a gap in understanding the generalized attributes of effective instructors, which the current study seeks to explore and clarify.

## **3. Methodology**

### **3.1. Research design**

The qualitative nature of this study is underlined by its emphasis on capturing the intricate and personal perceptions of students concerning effective instruction in RM. To delve into these perceptions, we utilized semi-structured interviews, an instrument that lends itself well to explorative inquiry. This approach allows

for both guided questions and the flexibility for participants to relay their stories and perspectives without rigid constraints.

Central to our research design, and introduced here to address its previous absence in the theoretical framework, is the SCT<sup>[5]</sup>. This theoretical framework posits that learning is deeply embedded within social contexts and interactions, making it highly relevant to our study's focus on student perceptions of instructional effectiveness in RM. Understanding the dynamics between students and instructors, therefore, becomes pivotal. Vygotsky<sup>[5]</sup> underscores that learning is not just an individual endeavor but is profoundly influenced by the collaborative environment of the classroom. The interactions between students and their instructors, the shared experiences, and the mutual engagements all contribute to the learning process.

In the context of our study, SCT is not only a lens to view the educational process but also a guiding principle for our methodological approach. The semi-structured interviews are designed to capture the essence of these social interactions and collaborative experiences as perceived by the students. This aligns with Vygotsky's<sup>[5]</sup> emphasis on the importance of social context in learning. By exploring how students perceive the role of instructors in shaping this social and collaborative academic milieu, especially in a subject as intricate as RM, our study aims to provide deeper insights into the practical applications of SCT in higher education. This integration of SCT into both the theoretical and methodological aspects of our research addresses the gap previously noted and strengthens the coherence of our study.

### **3.2. Participants**

In our study, the selection of participants was a critical step in ensuring the validity and relevance of our findings. The cohort of 24 Vietnamese students majoring in English Studies was chosen through a purposive sampling method, a strategy commonly used in qualitative research to identify participants who are especially knowledgeable about or experienced with a phenomenon of interest. These students were drawn from two distinct institutions in Vietnam, selected to represent diverse academic environments. The choice of English Studies majors was deliberate, based on the assumption that these students, due to their focus on language and literature, would have unique perspectives on the efficacy of RM teaching, given the subject's emphasis on precise communication and critical analysis. The selection process involved several stages. First, we initially identified potential participants by consulting with faculty members in the English Studies departments of the two institutions. These faculty members recommended students who were actively engaged in RM courses and who had demonstrated a keen interest or aptitude in the subject. Then, interested students were then screened for eligibility based on specific criteria, including their academic standing, their completion of at least one RM course, and their willingness to participate in the study. To ensure a diverse range of experiences and perceptions, we aimed for a balance in terms of academic year, gender, and academic performance. We also considered the diversity in instructors' teaching styles to which these students had been exposed. From the pool of eligible candidates, 24 students were selected to provide a manageable yet diverse sample for in-depth qualitative analysis. The number 24 was determined based on the principles of data saturation in qualitative research, where the sample size is often guided by the point at which no new themes or insights are observed in the data. By diversifying the sample across two institutions and ensuring a mix of participant profiles, the study aimed to capture a broad spectrum of experiences and perceptions. This approach was intended to potentially highlight institutional differences or similarities in RM teaching methodologies and their impacts on student learning.

Ethical considerations were paramount throughout the research process. Firstly, all participants were informed about the study's objectives, the nature of their involvement, and their rights as participants, ensuring that they had a clear understanding of the research process and their role within it. Informed consent was

obtained from each student, with assurances that participation was entirely voluntary, and they could withdraw from the study at any point without any repercussions. Confidentiality was rigorously maintained. To protect the privacy of the participants, pseudonyms replaced real names, and any potentially identifying information was anonymized. Additionally, the data gathered was securely stored, and only the research team had access to it. Throughout the study, care was taken to ensure that the participants felt comfortable, respected, and valued, with a commitment to presenting their views authentically and without bias.

### **3.3. Data collection**

The primary method of data collection for this study was semi-structured interviews, chosen for their ability to capture in-depth responses while also allowing room for participants to express their views organically. Before the main data collection phase, a pilot study was conducted to test the initial set of interview questions. This preliminary phase involved a subset of students not included in the main study, providing valuable feedback on the clarity, relevance, and appropriateness of the questions. Based on the insights gained from the pilot study, revisions were made to refine the interview questions and ensure they elicited the desired depth and breadth of responses.

Post revisions, some of the central interview questions included:

- “How do you define an effective instructor in the context of RM?”
- “Can you describe a memorable learning experience in your RM classes and what made it stand out?”
- “In what ways did your instructor facilitate or hinder your understanding of the subject?”
- “How do you think the teaching approach for RM can be improved in your institution?”

Each interview lasted approximately 45 minutes to an hour, ensuring that participants had ample time to reflect upon and share their experiences. Interviews were conducted in quiet, comfortable locations within the respective institutions, places where participants would feel at ease and free from interruptions.

Given the Vietnamese background of the participants and to ensure clarity and comfort, interviews were conducted in Vietnamese. This choice ensured that students could express their views and experiences with nuance and depth, eliminating potential language barriers. Subsequently, the recorded interviews were transcribed verbatim. To ensure accuracy and retain the essence of the participants’ responses, professional translators were engaged to translate the transcriptions into English, maintaining the integrity of the original responses.

The data collection process was approached with sensitivity and respect, ensuring that students felt heard, valued, and comfortable throughout their participation. Proper storage and handling protocols were followed for the recorded interviews to uphold the confidentiality and security of the data.

### **3.4. Data analysis**

The data derived from the semi-structured interviews underwent a rigorous process of thematic analysis, a method particularly apt for identifying, analyzing, and reporting patterns within qualitative data<sup>[26]</sup>. This approach allowed for a rich, detailed, and complex account of the data, providing a deep insight into the students’ perceptions and experiences.

The process commenced with the transcription of all the recorded interviews, ensuring that every nuance of the participants’ responses was captured accurately. Each transcription was read and re-read multiple times, immersing the research team in the depth and breadth of the data. This familiarization process enabled the identification of initial ideas and preliminary themes. Following this, a systematic approach was employed to generate initial codes from the data. These codes, which represent the most elemental segment of the raw data

that can be assessed in a meaningful way concerning the research question, were collated and categorized based on their similarities and overarching themes.

Subsequently, the themes were reviewed in relation to the coded excerpts and the entire data set. This iterative process ensured that the emerging themes genuinely represented the patterns present within the data. Themes were refined, merged, or separated as needed, ensuring a coherent pattern that resonated with the data set's entirety. Once a clear set of themes was established, they were defined and named, capturing the essence of each theme and providing clear definitions and distinctions between them. The final step was the detailed analysis and interpretation of each theme in the context of the research objectives, drawing connections, understanding implications, and weaving the narrative that emerged from the students' perspectives.

The qualitative nature of this study is underlined by its emphasis on capturing the intricate and personal perceptions of students concerning effective instruction in RM. Throughout our analysis, we employed the constant comparative method, a key technique in qualitative research, particularly grounded theory. This iterative process involves comparing data segments to form and refine categories, ensuring that the analysis remains grounded in the participants' voices. By continuously comparing new data with existing categories and refining the theory, we uphold the authenticity and integrity of the participants' experiences and perceptions. This method is effective in our study as it allows for nuanced insights into students' perceptions of instructional effectiveness in RM, reflecting their lived experiences and social interactions as outlined by SCT.

## **4. Findings**

### **4.1. Collaborative learning environments enhance understanding**

In our study, collaborative learning was operationalized through various activities in the RM classes at the two participating schools. A total of 18 out of 24 participants highlighted how these activities facilitated a deeper understanding and a more enriched learning experience in RM. The collaborative learning activities were designed to encourage active engagement among students, fostering a cooperative environment where students could explore and understand complex RM concepts together. These activities ranged from small group discussions, where students debated various research methodologies, to larger collaborative projects, where they applied these methodologies in practical scenarios. This hands-on application of RM concepts in a collaborative setting was integral to the students' learning experience, as it allowed them to not only learn from the instructor but also from each other, thereby enhancing their overall comprehension and engagement with the subject.

For instance, Participant A remarked on the effectiveness of group discussions and collaborative projects, noting that these activities enhanced their grasp of the concepts by promoting discussion, debate, and collective conclusion-making with peers.

*“Whenever our instructor encouraged group discussions or collaborative projects, I felt I understood the concepts better. It was not just about listening; it was about discussing, debating, and arriving at a conclusion with my peers.” (Participant A)*

Similarly, Participant L emphasized the role of working with classmates in making difficult concepts more approachable through peer-to-peer learning and clarification of doubts.

*“Working together with classmates made difficult concepts more approachable. We would often clarify doubts among ourselves, and this peer-to-peer learning was invaluable.” (Participant L)*

Drawing upon SCT, these findings can be contextualized within the framework of social interactions as a fundamental component of the learning process. SCT posits that cognitive development is deeply intertwined with social interactions, and learning occurs as a result of these interactions. In this context, the experiences of the participants underscore the value of a collaborative learning environment, where knowledge is not just transmitted but is co-constructed through social engagements. The emphasis participants placed on group discussions and peer interactions aligns with the sociocultural perspective that meaningful learning often occurs within a socially collaborative context.

The experiences recounted by the participants vividly illustrate the value of a collaborative learning environment, where knowledge is not just transmitted but is co-constructed through social engagements. For example, Participant B shared an experience where a group discussion led to a breakthrough in understanding a complex research concept. He noted,

*“During a group session, we debated various research methods. It was during this interactive discussion that I truly grasped the strengths and weaknesses of different approaches.” (Participant B)*

This experience highlights how collaborative discourse can facilitate deeper cognitive processing and understanding. Similarly, Participant M described a project where students had to collaboratively design a small-scale research study. She reflected,

*“Working together on the project, we had to negotiate, share ideas, and challenge each other’s assumptions. It was through these intense interactions that we collectively developed a robust research design.” (Participant M)*

This anecdote underscores how peer-to-peer interaction in a group project can enhance practical understanding and application of RM concepts. These examples, along with numerous others shared by participants, align with the sociocultural perspective that meaningful learning often occurs within a socially collaborative context. They demonstrate how learning in the RM classroom transcended traditional didactic methods, evolving into an interactive process where students actively constructed their understanding through dialogue, collaboration, and social engagement. By explicitly detailing these interactions, we highlight the rich, multifaceted nature of learning as shaped by the dynamic interplay of social experiences within the educational setting.

#### **4.2. Instructor’s role as a mediator in the learning process**

A recurrent sentiment, shared by 20 of the 24 participants, was the significance of the instructor acting not just as a source of knowledge, but as a mediator or facilitator in the learning journey. This theme underscores the importance of instructors guiding students in their learning trajectory, scaffolding their understanding, and providing the necessary tools to navigate complex topics in RM.

Participant H reflected on this by saying,

*“Our instructor did not just lecture; she often posed questions, pushed us to think critically, and provided hints when we were stuck, guiding us to find the answers ourselves.”*

Echoing this sentiment, Participant S mentioned,

*“The best classes were when our instructor acted like a bridge, connecting what we knew to what we needed to learn, always ensuring we were involved in the process.”*

Utilizing the lens of SCT, this study’s theme strongly resonates with the idea of the ‘Zone of Proximal Development’ (ZPD). The ZPD is a critical concept in SCT, representing the difference between what a learner can achieve independently and what they can achieve with guidance and support from more knowledgeable

others. This gap is where significant learning occurs, as it involves the learner stretching their abilities and acquiring new skills with the aid of guidance or collaboration. The reflections from the participants in our study provide a practical illustration of this concept. The effective instructors in RM classes were observed to recognize the importance of the ZPD. They did not merely impart information; instead, they took on the role of mediators or facilitators in the learning process. This approach aligns with the sociocultural understanding of learning as a mediated process. By prompting critical thinking, posing challenging questions, and offering gentle guidance when necessary, these instructors provided the essential scaffolding that allowed students to traverse their ZPD. Such scaffolding helps students extend their current skills and knowledge base, moving from what they can do alone to what they can achieve through guided interaction. Furthermore, this mediating role of instructors in the ZPD highlights the importance of social interactions in cognitive development. Learning, from a sociocultural perspective, is not an isolated activity but a collaborative and socially mediated process. The interactions between students and instructors, and among students themselves, provide the necessary social context for learning to occur within the ZPD. These interactions enable learners to internalize new information and skills, transforming and expanding their cognitive abilities.

### **4.3. Real-world applications enhance conceptual clarity**

A prominent theme, as articulated by 17 of the 24 participants, was the significant value of integrating real-world applications and examples into the RM curriculum, an approach that aligns well with active learning methodologies. Participants expressed that when instructors used practical examples and connected theoretical concepts to tangible scenarios, it not only enhanced their understanding but also made the learning experience more dynamic, relevant, and engaging.

For instance, Participant D shared,

*“When our instructor would relate a concept to a recent research study or a real-world scenario, it suddenly clicked. The abstract became tangible, and I could see the practical implications of what we were learning.”*

This reflection illustrates the essence of active learning, where learners engage with the material through practical, real-world applications, making the learning process more effective and memorable. Similarly, Participant Q mentioned,

*“Real-world examples made the subject come alive. It was not just about theory; it was about seeing how these methodologies are applied in actual research scenarios. It bridged the gap between the classroom and the field.”*

This feedback underscores the active engagement of students with the subject matter, a core principle of active learning methodologies.

Drawing from SCT, this finding can be further contextualized by emphasizing the role of cultural tools and artifacts in the learning process. SCT proposes that learning is deeply embedded in social and cultural contexts, and cultural tools, such as language, symbols, and real-world artifacts, play a crucial role in mediating cognitive development. In the context of our study, the real-world examples highlighted by the participants serve as these cultural tools. These examples not only bridge the gap between theoretical knowledge and its practical application but also actively involve students in the learning process. When students see these connections and engage with real-world scenarios, it not only enhances their understanding but also situates their learning within a broader sociocultural context. This approach underscores the interconnectedness of theory, practice, and cultural relevance, exemplifying the principles of active learning methodology within a sociocultural framework.



#### 4.4. Importance of reflective practices for deepened understanding

Emerging distinctly from the data, 16 out of the 24 participants expressed the enriching impact of reflective practices incorporated by instructors in the RM course. These participants believed that when instructors encouraged them to reflect upon their learning, ponder over concepts, and introspect about their understanding, it fostered a deeper, more nuanced grasp of the subject.

Participant W noted,

*“After every major topic, our instructor would allocate time for us to journal our thoughts, reflections, and questions. This practice of pausing and reflecting helped cement my understanding and clarified areas of confusion.”*

Complementing this idea, Participant B shared,

*“The reflective essays we were tasked with writing were initially daunting, but they forced me to process what I had learned, critically analyze it, and put it in my own words. It was an invaluable exercise in comprehension.”*

The participants' experience with reflective essays highlights their significance as a cognitive rehearsal tool in the classroom. Reflective essays, as implemented in our study, were a method where students were encouraged to introspect and articulate their understanding of the concepts learned in RM. These essays were not just academic exercises; they were strategically designed to foster deeper cognitive processing and personal engagement with the material. The process of writing these essays involved several steps to ensure effective implementation and maximal student benefit. Initially, after each major topic or concept was introduced in the RM curriculum, students were tasked with writing a reflective essay. The objective was to encourage them to process what they had learned, critically analyze it, and express it in their own words. This task required students to engage not only with the academic content but also with their thoughts, feelings, and reactions to the material. In the classroom, instructors facilitated this process by providing guidance on how to approach these essays. They offered prompts and questions to stimulate reflection, such as asking students to connect the concepts with their personal experiences or to consider how the material could be applied in real-world scenarios. Additionally, instructors allocated class time for students to discuss their reflections in small groups, providing a platform for peer learning and further deepening their understanding.

Utilizing SCT as a lens, this theme underscores the pivotal role of internalization in the learning process. SCT argues that cognitive development involves internalizing external social activities and experiences. Reflection, in this context, can be seen as a process that facilitates this internalization. As students engage in reflective practices, they transform external knowledge into internal cognitive structures. Instructors, by fostering an environment that values and integrates reflective practices, are essentially facilitating this transformative journey, helping students navigate from external comprehension to deepened, internalized understanding. This finding further accentuates the intertwined nature of social experiences and individual cognition as proposed by the sociocultural perspective.

#### 4.5. The necessity of culturally relevant pedagogy

The importance of culturally relevant pedagogy in the teaching of RM, as highlighted by 15 of the 24 participants, directly aligns with active learning methodologies. These students emphasized that when instructors contextualized lessons within the framework of Vietnamese culture and societal nuances, the content became more relatable, resonant, and meaningful, thus engaging them more actively in the learning process.

Participant G elaborated on this, saying,

*“Whenever our instructor incorporated examples or case studies relevant to Vietnamese society and culture, the lessons resonated more deeply. It made me feel seen, and the content became so much more relevant to my own experiences.”*

This reflection points to a more active engagement with the material, as students could connect theoretical concepts to familiar cultural contexts. Similarly, Participant K mentioned,

*“It is one thing to understand a concept in abstraction, but when it is linked to something familiar from our culture or daily life, it takes on a whole new dimension. Those lessons always stuck with me.”*

These statements illustrate how culturally relevant pedagogy facilitates a deeper and more active cognitive engagement with the subject matter.

From the perspective of SCT, this theme underscores the intrinsic connection between learning, culture, and active methodologies. SCT posits that cognitive development is not just a universal trajectory but is profoundly influenced by the cultural and societal milieu in which an individual is embedded. By incorporating culturally relevant content, instructors are employing an active methodology that bridges the gap between abstract academic concepts and the lived experiences of students. This approach does not only validate students’ backgrounds and identities but also enriches their cognitive engagement with the subject. It exemplifies active learning, as students are not passive recipients of information but are actively connecting new knowledge with their cultural context. This strategy enhances the learning experience by making it more interactive, relevant, and meaningful, thereby showcasing the deeply intertwined relationship between culture, social interactions, cognitive development, and active learning methodologies.

#### **4.6. Feedback as a catalyst for growth**

From the gathered data, a theme that prominently surfaced, emphasized by 19 of the 24 participants, was the transformative role of timely and constructive feedback in their learning journey in RM. These participants shared a consensus that when instructors provided feedback that was both encouraging and critically insightful, it propelled them forward, enhancing their understanding and boosting their confidence.

Participant N articulated this sentiment, stating,

*“Receiving clear feedback on my assignments and projects was a game-changer. It gave me clarity on where I stood, what I understood well, and where I needed to invest more effort.”*

In a similar vein, Participant Z shared,

*“Feedback sessions were among the most enlightening moments in the course. They were not just about pointing out errors but about guiding us towards better understanding and refining our thought processes.”*

Interpreting this theme through SCT, the emphasis participants placed on feedback resonates with the idea of social mediation in cognitive development. SCT believes that learning is a socially mediated process, and interactions, especially those that guide, inform, and scaffold a learner’s journey, play a pivotal role in cognitive growth. Feedback, in this context, acts as a form of social mediation, guiding students through their ZPD, allowing them to access higher levels of understanding with the support of a more knowledgeable other. This finding underscores the invaluable role of constructive social interactions, in the form of feedback, in facilitating deeper comprehension, skill development, and cognitive advancement.

#### **4.7. The synergy of theory and practice**

A crucial insight, voiced by 18 of the 24 participants, revolved around the synergistic relationship between theory and practice in the RM course. These students felt a heightened sense of engagement and understanding

when instructors intertwined theoretical lessons with practical exercises, allowing them to apply their knowledge in tangible ways.

Participant T expressed this by noting,

*“The moments where we transitioned from theoretical discussions to hands-on exercises or simulations were the most enlightening. It is one thing to grasp a concept in theory, but the real understanding came when we were asked to apply it practically.”*

Similarly, Participant R elaborated,

*“The blend of lectures with practical workshops, where we could experiment with methodologies such as the practical application and exploration of research methods in a hands-on, workshop setting, made the subject dynamic and much more graspable. It bridged the gap between knowing and doing.”*

Using SCT as a backdrop, this theme accentuates the interplay between cognitive understanding and social activity. SCT postulates that cognition and activity are not separate domains but are deeply interconnected, with one informing and enriching the other. The participants’ reflections highlight this interconnection, suggesting that the act of doing, experimenting, and engaging with the subject in a practical manner amplifies the cognitive assimilation of theoretical concepts. By facilitating an environment where theory is consistently married to practice, instructors are essentially allowing students to navigate and internalize knowledge within a rich, activity-laden sociocultural context. This not only deepens understanding but also equips students with the skills and confidence to translate academic knowledge into real-world applications, underscoring the symbiotic relationship between cognitive processes and social activities.

#### **4.8. Personalization and adaptability in instruction**

The theme of personalization and adaptability in the teaching approach of the RM course, as echoed by 14 of the 24 participants, refers to the instructors’ ability to modify their teaching strategies to meet the diverse needs of students. This flexibility in teaching style is characterized by the instructor’s responsiveness to the varying learning styles, paces, and needs of individual students within the classroom.

Participant V illuminated this concept by stating,

*“What made some sessions stand out was the instructor’s ability to notice when some of us were struggling and to adapt the lesson or provide additional resources tailored to our needs.”*

This example shows that flexibility in teaching involves being observant and responsive to students’ difficulties, and then adjusting teaching methods accordingly. This might mean altering the pace of instruction, providing different types of resources, or even changing the instructional approach to better suit the students’ needs. Further extending this idea, Participant X mentioned,

*“I appreciated the moments where our instructor would change the teaching strategy based on our feedback or class performance. It felt like the course was being molded around us, not the other way around.”*

This feedback highlights another aspect of teaching flexibility – the willingness to modify teaching strategies based on student feedback and performance. This could involve incorporating more interactive elements, such as group discussions or hands-on activities, if students are finding lectures too passive, or providing additional challenge to students who are advancing more quickly.

Examining this finding through the lens of SCT, the emphasis on personalization and adaptability aligns with the concept of individualized learning trajectories within a broader social context. SCT acknowledges that while learning is a socially mediated process, it also needs to be responsive to individual learners’

backgrounds, experiences, and cognitive structures. The reflections from the participants suggest that effective instructors in RM recognize these individual differences. By demonstrating flexibility in their teaching styles, instructors create a dynamic and responsive learning environment. This approach affirms the individual identities and needs of students, ensuring that the learning experience is not only socially rich but also tailored to each learner's unique trajectory. This finding underscores the nuanced balance between social mediation and individual recognition in the learning process, as articulated by the sociocultural perspective.

#### **4.9. Role of motivation and encouragement**

The theme of motivation and encouragement, as highlighted by 16 of the 24 participants, reflects the significant role these factors play in fostering a positive learning environment in the RM course. The participants' feedback suggests that instructors adopted various active measures to motivate students, contributing to their heightened commitment, enthusiasm, and confidence.

Participant Y's observation,

*"There were times when the subject felt daunting, but our instructor's words of encouragement and the belief she had in us made all the difference. It fueled my determination to understand and excel," points to the specific active measure of verbal encouragement.*

Instructors used affirming language, expressed confidence in students' abilities, and provided encouragement to persevere, particularly when the material was challenging. Similarly, Participant C's comment,

*"The positive reinforcement, the occasional words of praise, and even the constructive critiques all played a part in keeping me motivated. Knowing that our instructor believed in our potential made the challenges seem surmountable," highlights other active measures such as positive reinforcement and constructive feedback.*

Instructors actively recognized and praised student efforts, provided positive feedback on their progress, and offered constructive critiques aimed at guiding students towards improvement rather than merely pointing out their shortcomings. From the perspective of SCT, these active measures of motivation and encouragement align with the theory's emphasis on the social nature of learning and its impact on cognitive development. According to SCT, social interactions are foundational in shaping an individual's cognitive processes. In this context, the motivational strategies employed by instructors, characterized by positive reinforcement, words of encouragement, and constructive critiques, can be seen as powerful social interactions that catalyze the learning process. These strategies do not just enhance students' self-belief but also create a conducive environment for learning, where students are more inclined to take risks, engage deeply, and persevere in their learning endeavors. This finding reinforces the connection between emotional support, social interactions, and cognitive growth, highlighting the instructor's crucial role in shaping not just the intellectual but also the emotional landscape of the learning environment.

## **5. Discussion**

### **5.1. Collaborative learning environments enhance understanding**

The role of collaborative learning environments in advancing understanding, as elucidated by the findings of this study, finds resonance with a corpus of existing literature on the subject. Previous studies have consistently acknowledged the value of collaborative engagements in facilitating comprehension, promoting critical thinking, and fostering a sense of community among learners<sup>[27,28]</sup>. These studies propound the idea

that learners benefit significantly from peer interactions, as they provide diverse perspectives, offer mutual scaffolding, and encourage active participation.

However, while the broad contours of our findings align with the aforementioned studies, the specific nuances associated with the teaching of RM in the context of Vietnamese higher education provide unique insights that contribute to the field. Previous research, predominantly rooted in Western educational contexts, often emphasizes collaboration as a pedagogical strategy without necessarily delving into its specific applications in a course as intricate as RM<sup>[29]</sup>. Our study, in contrast, not only underscores the general importance of collaboration but also unravels its specific manifestations and impacts in the context of a course that demands a delicate balance between theoretical knowledge and practical application.

Moreover, the cultural dimension of our study adds a layer of distinctiveness, particularly when considering the traditional influence of Confucian principles on Vietnamese educational settings. Confucianism, with its deep roots in Vietnamese culture, has historically shaped the educational landscape. Key Confucian principles that have influenced education include a high respect for teachers, a focus on moral and ethical teachings, the importance of hard work and perseverance in studies, and a hierarchical structure in teacher-student relationships. This often translates into educational practices where teachers are viewed as the primary sources of knowledge and authority, and students are expected to be passive recipients of this knowledge, valuing rote learning and memorization<sup>[30]</sup>. However, our study's findings indicate a shifting paradigm in this traditional educational context. The growing emphasis on collaborative learning, as highlighted by our participants, represents a significant departure from the more passive and hierarchical approach traditionally associated with Confucian-influenced educational practices. In our study, collaborative learning not only finds a place but thrives and significantly impacts student outcomes. This suggests a move towards a more interactive, student-centered approach, where learning is co-constructed through peer interactions and group activities, rather than solely imparted by the teacher. This divergence from traditional pedagogical practices in Vietnam showcases the evolving nature of higher education in the country. The evident success of collaborative methods, as indicated by our participants, highlights a growing alignment with global pedagogical trends, which emphasize active learning, student engagement, and critical thinking.

## **5.2. Instructor's role as a mediator in the learning process**

The conceptualization of the instructor as a mediator, as highlighted in our study, dovetails with an emerging understanding in contemporary pedagogical discourse, particularly in the context of active learning methodologies. Traditional educational settings often perceive instructors primarily as knowledge dispensers, with students positioned as passive recipients of this knowledge<sup>[31]</sup>. However, in line with more recent educational research and the principles of active methodologies, there is a paradigm shift emphasizing the instructor's role as a facilitator or guide in the learning process<sup>[32]</sup>.

Our findings, which accentuate the instructor's role in mediating the learning process in the context of RM, contribute significantly to this evolving conversation. While previous studies, such as those by Laurillard<sup>[33]</sup>, have stressed the general importance of the instructor's mediating role, our study underlines its particular significance in a subject as intricate and multifaceted as RM, especially within the framework of active learning methodologies. In RM, the complexities inherent in the subject require the instructor to transcend beyond mere knowledge transmission. Instead, their role evolves into a more nuanced position of guiding, scaffolding, and catalyzing critical thought, which are key aspects of active learning. This involves creating an interactive and engaging learning environment, encouraging student inquiry, facilitating hands-on experiences, and guiding students through complex problem-solving processes.

Furthermore, the feedback from Participant S, emphasizing the instructor as a ‘bridge,’ highlights a specific active methodology challenge in RM. Instructors are not only mediators between knowledge and student but also facilitate the connection between existing understanding and new, more complex concepts. This nuanced role of bridging gaps in understanding, particularly in a challenging subject like RM, aligns with the core principles of active learning methodologies, where learning is seen as an active, engaged, and student-centered process<sup>[34]</sup>.

Additionally, considering the Vietnamese educational context, which traditionally has been more teacher-centered<sup>[35]</sup>, our findings indicating a shift towards a preference for a mediator-like role among instructors suggest a significant evolution in student expectations and pedagogical practices. This shift reflects a growing alignment with active learning methodologies, emphasizing student engagement, interaction, and the facilitation of a dynamic learning environment. Therefore, our study not only highlights the evolving role of instructors in Vietnamese higher education but also underscores the increasing adoption of active methodologies that prioritize student involvement and interactive learning experiences.

### **5.3. Real-world applications enhance conceptual clarity**

The emphasis on real-world applications as pivotal to conceptual clarity, as echoed in our findings, reflects a wider pedagogical understanding that has been gaining traction in educational research over the past few decades. Researchers like Beavers et al.<sup>[36]</sup> have advocated for authentic learning experiences, suggesting that when students engage with real-world problems and scenarios, they often demonstrate deeper understanding and enhanced critical thinking abilities. The rationale is simple: learners tend to find more value in and are more engaged with content that they perceive to be relevant to their lives or future professional practices. Our study’s emphasis on the particular significance of real-world applications in the context of RM is noteworthy. While the broader educational discourse champions the importance of real-world applications across subjects, the intricate nature of RM—with its blend of theoretical constructs and practical imperatives—makes the integration of real-world examples particularly consequential. The sentiments of Participant D and Q highlight this interplay, suggesting that tangible examples not only demystify complex concepts but also highlight the practical relevance of the subject.

However, our study diverges from prevalent literature in some subtle yet significant ways, particularly with the focus on Vietnamese students majoring in English Studies. Much of the extant research on real-world applications in education draws from Western contexts, where experiential learning and real-world integration have long been a part of educational discourse<sup>[37]</sup>. Our findings, situated in a Vietnamese context, underscore a potential shift in pedagogical preferences within non-Western educational landscapes. The value these Vietnamese students place on real-world applications might indicate a broader movement within Vietnamese higher education towards more applied, practical, and globally-relevant teaching approaches.

Additionally, the integration of SCT adds depth to our understanding<sup>[5]</sup>. By viewing real-world applications as cultural tools that mediate learning, we gain insights into not just the ‘why’ but the ‘how’ of the effectiveness of this pedagogical strategy. Real-world scenarios, in this light, are not mere examples; they are mediatory tools that enhance cognitive development by linking the theoretical with the tangible, making abstract concepts more accessible and culturally relevant.

### **5.4. Importance of reflective practices for deepened understanding**

The accentuation of reflective practices as instrumental in fostering deepened understanding, as unveiled in our study, aligns with the growing recognition of reflection’s role in learning<sup>[38]</sup>. Reflective practice, often described as “thinking about thinking,” bridges the gap between passive knowledge acquisition and active, deepened comprehension<sup>[39]</sup>. In the context of RM, a discipline characterized by its intricate concepts and

layered understandings, the integration of reflective practices becomes particularly vital. RM encompasses a range of complex topics that require a deep understanding beyond surface-level knowledge. For instance, understanding statistical analysis in RM is not merely about applying formulas; it involves comprehending the underlying principles, recognizing the appropriate contexts for their application, and interpreting the results in a meaningful way. Similarly, qualitative research methods demand more than just knowledge of different techniques like interviews or observations; they require an understanding of how to establish rapport, ensure ethical practices, and interpret nuanced data.

However, our research adds a nuanced layer to this discussion by situating it within the context of Vietnamese higher education. Traditional Vietnamese educational paradigms have often been critiqued for their emphasis on rote learning and memorization<sup>[35]</sup>. Within such a backdrop, our findings—highlighting a preference for reflective practices among Vietnamese students—are indicative of a potential pedagogical shift. It signals an evolving recognition of the importance of active, engaged, and reflective learning, even within traditionally teacher-centric educational contexts.

The application of SCT further deepens our understanding of these findings<sup>[5]</sup>. By framing reflection as a facilitator of internalization, we begin to perceive its significance beyond a mere pedagogical tool. Reflection, as elucidated by our findings, becomes a transformative mechanism, mediating the journey from external knowledge to internalized understanding. This perspective, grounded in SCT, augments the prevailing discourse on reflective practices by emphasizing not just the ‘act’ of reflection but its role in the broader cognitive developmental trajectory.

### **5.5. The necessity of culturally relevant pedagogy**

The importance of culturally relevant pedagogy, as surfaced in our study, dovetails with a growing corpus of academic work emphasizing the centrality of culture in the learning process<sup>[40]</sup>. Historically, pedagogical strategies have often been critiqued for their eurocentrism or western-centric leanings, which could inadvertently marginalize learners from diverse cultural backgrounds. Our study, set within the Vietnamese context, underscores the significance of cultural relatability in the teaching and learning of RM.

The testimonies of Participants G and K poignantly illustrate the transformative potential of culturally relevant pedagogy. When academic concepts, which can often be abstract and remote, are anchored in familiar cultural narratives, they assume a palpable immediacy for learners. This resonates with the foundational tenets of culturally relevant pedagogy, which seeks to affirm learners’ cultural identities, making education an inclusive and meaningful endeavor<sup>[41]</sup>.

Our study’s emphasis on the importance of culturally relevant pedagogy in the Vietnamese context offers a fresh perspective. While Vietnam boasts a rich tapestry of history, culture, and traditions, its education system has often been influenced by Confucian ideals and colonial legacies<sup>[30]</sup>. Within this milieu, the articulation of the importance of cultural relevance by Vietnamese students is particularly salient. It signals an emerging consciousness among learners about the need for an education that is reflective of, and responsive to, their unique cultural context.

SCT serves as a potent lens to further contextualize these findings. SCT’s emphasis on the role of cultural and social contexts in shaping cognitive development offers a robust theoretical framework to understand the students’ feedback<sup>[5]</sup>. The inclusion of culturally relevant examples and narratives in teaching is not just a pedagogical strategy; it becomes a means to facilitate deeper cognitive engagement, rooted in the familiar terrains of culture and society. By situating academic content within the cultural narratives familiar to students, educators are essentially weaving the sociocultural fabric that Vygotsky<sup>[5]</sup> deemed critical for cognitive development.

## **5.6. Feedback as a catalyst for growth**

The transformative power of feedback, as underscored by our findings, aligns with a burgeoning body of research on the critical role feedback plays in the learning process<sup>[42]</sup>. Feedback, when framed constructively and delivered timely, serves as a conduit for learners to reflect upon their understanding, recalibrate their strategies, and make strides in their academic journey. The centrality of feedback in the RM course, as expressed by our participants, reinforces the universal significance of this educational practice across various academic disciplines.

Participant N's reflection aptly encapsulates the dual role feedback plays – it offers clarity, highlighting areas of strength and illuminating zones that need bolstering. On the other hand, Participant Z's testimony emphasizes the educative role of feedback, underscoring its potential to not merely correct but guide, mentor, and enlighten. Such reflections resonate with the broader academic discourse, which posits feedback not as a unidirectional evaluative process but as a dialogic engagement, fostering deeper comprehension and facilitating academic growth<sup>[43]</sup>.

SCT offers a compelling theoretical scaffold to understand the centrality of feedback in the learning process. Feedback, as our findings suggest, is not an isolated academic exercise but is deeply enmeshed in the social fabric of learning<sup>[5]</sup>. The act of giving and receiving feedback becomes a dynamic interaction between the learner and the instructor, mediated by the shared objective of cognitive growth. This dynamic aligns with Vygotsky's<sup>[5]</sup> emphasis on the socially mediated nature of learning. Feedback becomes a tangible manifestation of this mediation, guiding learners through the realms of what they currently know and what they are on the cusp of comprehending, aptly represented by ZPD. The ZPD is a central concept in SCT and refers to the difference between what a learner can do without help and what they can do with help. The idea of guiding learners through the realms of what they currently know and what they are on the cusp of comprehending is a reference to the ZPD. Feedback is instrumental in this context as it helps learners cross the threshold from their current level of understanding (what they know) to a higher level of understanding (what they are just about to comprehend). Instructors, through feedback, help learners bridge this gap by providing the necessary support, guidance, and challenge.

## **5.7. The synergy of theory and practice**

The interplay between theory and practice in the realm of academic learning has been a longstanding focal point of educational research. Our findings, emphasizing the invaluable synergy between theoretical understanding and practical application, dovetail with previous studies that suggest a symbiotic relationship between these two dimensions of learning<sup>[44]</sup>. The participants' emphasis on the enriched comprehension that arises from experiential learning underscores a crucial facet of effective pedagogy: learning is not a passive absorption of knowledge but an active process of engagement, application, and reflection.

Participant T's reflection captures the essence of this synergy. The transition from conceptual understanding to tangible application crystallizes the knowledge, rendering abstract concepts more concrete and accessible. This sentiment finds echoes in the broader literature, which postulates that when learners are provided opportunities to apply their theoretical knowledge in real-world or simulated contexts, they not only grasp the concepts better but also develop crucial skills of critical thinking, problem-solving, and decision-making<sup>[45]</sup>.

SCT offers a compelling lens to interpret these findings. By emphasizing the interconnected nature of cognitive processes and social activities, SCT provides a theoretical foundation to the participants' experiences<sup>[5]</sup>. When theory and practice converge in the learning environment, students are not just assimilating knowledge but are actively constructing it, situated within a rich sociocultural context. Participant



R's reflection, highlighting the dynamism that ensues when lectures are complemented with practical workshops, exemplifies SCT's notion of learning as a socially mediated process<sup>[5]</sup>. According to SCT, learning occurs within a social context and is facilitated through interaction with others and the environment. In the reflection, the combination of lectures and workshops creates a socially rich learning environment where students engage with the material, the instructor, and each other. This social interaction is crucial for cognitive development, as it allows students to construct knowledge actively rather than passively receiving it.

### **5.8. Personalization and adaptability in instruction**

The emphasis on personalization and adaptability in instruction, as surfaced in our findings, is pivotal in the contemporary educational landscape. As classrooms become more diverse and the student population more heterogeneous, the "one-size-fits-all" approach to teaching becomes increasingly antiquated<sup>[46]</sup>. Instead, a more tailored, responsive pedagogical approach emerges as paramount. The feedback from participants in our study reinforces this notion, highlighting the value of instruction that is cognizant of and responsive to individual learner needs.

Participant V's reflection underscores a crucial aspect of personalized learning: the instructor's attentiveness to students' unique challenges and their ability to pivot their teaching strategies in response. Such adaptability in instruction does not merely cater to the immediate academic needs but also sends a potent message to the learners: their experiences, struggles, and feedback are acknowledged and valued<sup>[47]</sup>.

SCT, with its emphasis on the social mediation of learning, provides a robust theoretical anchor to interpret these findings. However, what our study underscores, and what Vygotsky's<sup>[5]</sup> theory also alludes to, is the duality of the learning process. While it is deeply embedded in social interactions, it is also intrinsically personal. Each learner traverses their unique path, influenced by prior experiences, cultural contexts, and individual cognitive structures. Participant X's appreciation of a course "being molded around us" captures this sentiment, emphasizing the dynamism required in modern pedagogical practices. Our study's insights hold significant implications for educators, especially those in the domain of RM. Beyond imparting a set curriculum, the onus is on instructors to create an environment where learning is both a collective and individual endeavor. By embracing adaptability and personalization, instructors can foster a classroom environment where students feel seen, acknowledged, and catered to. Such an environment not only maximizes learning outcomes but also nurtures a sense of belonging and validation among students, pivotal for their overall academic and personal growth.

### **5.9. Role of motivation and encouragement**

The role of motivation and encouragement in the educational arena, as reflected in our findings, extends beyond the mere act of boosting a student's morale. It interweaves with the very fabric of the learning experience, shaping students' perceptions of themselves, their capabilities, and their potential. The resounding sentiment from participants in our study elucidates the profound impact that instructor-driven motivation has on students' cognitive and emotional well-being<sup>[48]</sup>.

Participant Y's reflection touches on a fundamental human need: the desire for validation and belief. In the realm of education, where students often grapple with complex, unfamiliar concepts, such validation becomes a beacon of hope and determination<sup>[49]</sup>. The belief that one can understand and master challenging topics, especially when reaffirmed by a trusted instructor, becomes a powerful driving force. As Participant C's feedback suggests, this reinforcement does not always have to be in the form of overt praise; even constructive critiques, when delivered with genuine concern and belief in the student's potential, can serve as motivational tools.

SCT offers a robust theoretical scaffold to interpret these insights. Rooted in the idea that cognitive development is deeply entwined with social interactions, SCT's framework accentuates the role of the social environment in shaping an individual's learning trajectory<sup>[5]</sup>. Our study's findings echo this perspective, highlighting how motivation and encouragement, as integral components of this social environment, influence students' learning journeys. The emotional validation and support provided by instructors act as anchors, helping students navigate the often turbulent waters of academic challenges<sup>[50]</sup>.

## **6. Conclusion**

This study embarked on an exploratory journey to comprehend the nuances of teaching strategies and their impact on students' learning experiences within the RM course. Utilizing a qualitative approach, we gleaned insights from 24 participants, aiming to understand the pedagogical techniques that resonated most with them and subsequently enhanced their understanding.

A salient theme that emerged was the potency of collaborative learning environments. The collective consensus of our participants underscored that learning, when approached as a shared endeavor, became a more enriching and comprehensible experience. Additionally, the role of the instructor emerged as pivotal, not just as a transmitter of knowledge but as a mediator in the learning process. Their ability to bridge the gap between theoretical constructs and students' understanding played a cardinal role in shaping positive learning outcomes. Further, the integration of real-world applications was highlighted as a critical element in enhancing conceptual clarity. Participants articulated that when theoretical tenets were juxtaposed with tangible, real-world scenarios, it augmented their understanding, making the learning journey more relevant and engaging.

Parallel to this, the significance of reflective practices came to the fore. Such introspective exercises, as shared by the participants, were instrumental in fostering a deeper and more nuanced grasp of the subject matter. Culturally relevant pedagogy, too, surfaced as a non-negotiable facet of effective teaching. Our participants felt that lessons, when contextualized within the framework of their cultural and societal backgrounds, became more resonant and meaningful. Feedback, as illuminated by the participants' narratives, acted as a catalyst for growth, offering students clarity, direction, and a sense of progression. An intriguing interplay between theory and practice was also evident from the data. The participants felt that their understanding was magnified when theoretical discussions dovetailed with hands-on practical exercises, allowing them to experiment, apply, and internalize their knowledge more profoundly. Building on this, the need for personalization and adaptability in instruction was emphasized, with participants cherishing those moments when the curriculum was tailored to meet their unique learning trajectories. Lastly, the power of motivation and encouragement could not be overlooked. Instructors' efforts to motivate, recognize, and encourage students were identified as key drivers that not only boosted confidence but also cultivated a positive and conducive learning environment.

The findings of this study hold profound implications for both educators and curriculum developers in the realm of academic instruction, specifically within the context of RM and beyond. Firstly, the prominence of collaborative learning environments underscores the need to shift from traditional, isolated teaching methods to more interactive, collective learning approaches. This suggests that educational institutions should prioritize creating spaces and platforms that encourage group interactions, discussions, and collaborative problem-solving. Such a shift not only promotes a deeper understanding but also fosters critical soft skills such as teamwork, communication, and empathy among students.

The central role of instructors as mediators in the learning process calls for a reevaluation of teacher training programs. It emphasizes the need for instructors to be equipped with skills that go beyond mere content delivery. They should be adept at facilitating discussions, identifying individual student needs, and mediating

the knowledge transfer process, all while balancing group dynamics. The resonance of real-world applications in enhancing conceptual clarity implies that curricula should be designed with an emphasis on practical, real-world examples and case studies. A purely theoretical approach might be insufficient; there is a tangible benefit in intertwining theory with real-world relevance. This could involve integrating contemporary issues, industry insights, or local community challenges into academic discussions.

Furthermore, the heightened impact of reflective practices suggests that such exercises should be woven into the academic fabric. Encouraging students to introspect, journal, or engage in reflective discussions can augment their understanding, offering them avenues to revisit, rethink, and reinforce their learning. The significant role of culturally relevant pedagogy brings to the forefront the need for curricula that are sensitive to local contexts. Educational content should not be monolithic or universal but should resonate with the cultural, historical, and social realities of the learners. This holds implications for textbook authors, educators, and policymakers to ensure that educational materials are contextually appropriate and culturally resonant.

Feedback's role as a growth catalyst implies that assessment methods should be rethought. Beyond mere grading, there is a pressing need for feedback systems that are constructive, timely, and forward-focused, allowing students to understand their areas of strength and improvement. The synergy between theory and practice suggests that experiential learning, including labs, workshops, and fieldwork, should be integral components of academic programs. Such practical engagements not only deepen understanding but also equip students with skills that are immediately transferrable to professional settings. The emphasis on personalization and adaptability in instruction highlights the importance of flexible teaching methodologies. In an increasingly diverse educational landscape, one-size-fits-all approaches may be redundant. There is a compelling case for modular, adaptable curricula and teaching methods that cater to diverse learner profiles. Lastly, the unequivocal role of motivation and encouragement underscores the emotional dimension of teaching. This calls for educators to be not just knowledge bearers but also mentors, cheerleaders, and guides, fostering an environment of trust, encouragement, and positive reinforcement.

## **6.1. Recommendations**

Several recommendations can be put forth for future research. Expanding the sample size and diversifying the participant pool, encompassing different regions, cultures, or academic institutions, can enhance the study's external validity. Incorporating a mixed-methods approach, blending both qualitative reflections and quantitative performance metrics, can provide a more comprehensive view of the pedagogical landscape. Future studies might also delve deeper into specific themes that emerged from this study, such as the dynamics of collaborative learning or the intricacies of culturally relevant pedagogy. Additionally, longitudinal studies tracking students over an extended period might offer insights into the long-term impacts and sustainability of the observed effects. These further studies can continue to refine our understanding, ensuring that pedagogical advancements are both evidence-based and contextually relevant.

## **6.2. Limitations**

This study, like all research endeavors, has its inherent limitations. Firstly, the sample size of 24 participants, while providing valuable insights, may not be representative of the broader population of students studying RM. Cultural, regional, or institutional factors unique to the participants' context might influence the findings, thereby limiting their generalizability. Furthermore, the reliance on self-reported data and reflections can introduce biases, as participants might have been influenced by recency effects, peer opinions, or a desire to present themselves positively. Additionally, the study primarily focused on subjective experiences and did not integrate quantitative measures of academic performance, which could have offered a more holistic picture of the impact of different pedagogical strategies.

## Author contributions

Conceptualization, LTT; methodology, LTT and DPU; software, LTT and NTHN; validation, LTT, DDN and VHK; formal analysis, LTT; investigation, HTV; resources, NTHS and NTHV; data curation, LHH; writing—original draft preparation, LTT; writing—review and editing, DPU, NTHN, NTHS and NTHV; supervision, LTT; project administration, LTT; funding acquisition, LTT. All authors have read and agreed to the published version of the manuscript.

## Conflict of interest

The authors declare no conflict of interest.

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