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Unveiling Students' Perceptions on Metacognitive Dimensions in Reading Comprehension at an Islamic University

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Abstract
This study explored the perceptions of 18 students from IAIN Bone through a series of structured interviews. Using the qualitative method, the results indicated that most students had a positive perception of metacognitive dimensions, particularly appreciating how these strategies enhance comprehension, promote active participation, and foster classroom interaction. Three main themes were found: emotional engagement with the learning process, affective engagement and emotional support, and experiential learning process. However, some students expressed challenges, including feelings of nervousness and anxiety related to the frequent questioning and active engagement required. Despite these challenges, most students strongly desired to continue using metacognitive dimensions in future classes. These findings suggested that while metacognitive dimensions are generally well-received, their implementation required sensitivity to students' varying levels of comfort with active participation. This study enhanced the comprehension of student perceptions and provided insights for lecturers aiming to incorporate metacognitive approaches into reading comprehension classes.

Keywords: Metacognitive dimensions; reading comprehension; students' perceptions

Introduction

Reading comprehension is a fundamental skill in academic and professional settings, because it facilitates extracting, processing, and applying information in written materials (Snow, 2010). However, many students struggle to develop strong reading comprehension skills, especially when retaining and fully understanding complex materials. One instructional approach that has shown promise in addressing these challenges is using metacognitive dimensions. These strategies, which involve planning, monitoring, and evaluating one's cognitive processes while reading, help students become more active and self-regulated (Flavell, 1976).

Metacognitive dimensions in reading involve strategies such as predicting content, making connections to prior knowledge, summarizing, and evaluating the effectiveness of one's understanding during and after reading (Baker, 2013). This approach enhances cognitive abilities and encourages self-reflection and accountability for learning, which are pivotal for academic success (Cleary & Zimmerman, 2004). While much of the present study emphasizes the efficacy of these strategies in improving reading comprehension, there is comparatively less focus on students' perceptions of these strategies in practice (Gilakjani & Sabouri, 2016).

In education, the capacity to understand written materials is an essential skill, especially in academic environments (Wohl & Fine, 2017). Understanding students' perceptions is vital, as it can provide insights into how metacognitive dimensions can be optimized for diverse students, especially in dynamic classroom settings (Haug et al., 2018).

This study aims to address this gap by assessing the perspectives of IAIN Bone students regarding implementing metacognitive dimensions in reading comprehension classes. Through interviews with 18 students, it seeks to uncover students' opinions, thoughts, feelings, and experiences concerning using metacognitive dimensions in their reading comprehension classes. By gathering this data, this study will provide valuable insights into how these strategies impact student learning and engagement and their potential for improving reading outcomes in higher education settings.

Literature review

Metacognitive dimensions in reading comprehension

Metacognition, first conceptualized by Flavell (1976), refers to the awareness and control of one's cognitive processes during learning. In reading comprehension, metacognitive dimensions are critical. These strategies involve students' ability to plan, monitor, and evaluate their understanding of the text, enabling them to adjust their reading strategies for better comprehension and retention (Schraw & Dennison, 1994). According to Papleontiou-louca (2003), these strategies are categorized into two main areas: metacognitive knowledge (which includes awareness of reading goals, the strategies available, and the ability to reflect on one's thinking process) and metacognitive regulation (which involves the actual process of monitoring comprehension and adjusting strategies as needed during reading).

Metacognitive dimensions encourage students to actively engage with the text, leading to deeper understanding and retention. A study by Pressley & Afflerbach (1995) emphasized that effective readers constantly monitor their comprehension, predict text content, summarize, and make inferences while reading. These strategies are particularly pivotal in complex texts where readers must organize and synthesize new information (Duke & Pearson, 2009).

Cleary and Zimmerman (2004) demonstrated that metacognitive fosters self-regulation, a critical component in academic success. Self-regulated students, who are actively aware of their cognitive processes, tend to engage in more strategic reading behaviours, such as re-reading, self-

questioning, and summarizing, all of which contribute to better comprehension. In the classroom, self-monitoring has been shown to help students identify areas of confusion and take steps to resolve them, leading to more effective learning (Veenman et al., 2006). For example, Baker and Brown (1984) found that when lecturers explicitly model metacognitive dimensions such as predicting, summarizing, and evaluating, students are better able to adopt these strategies on their own. Similarly, a study by Kim & Anderson (2003) revealed that students taught specific metacognitive reading strategies significantly improved reading comprehension over time.

While the benefits of metacognitive dimensions are well-documented, their successful implementation depends on various factors, including students' prior knowledge, self-efficacy, and emotional responses to the strategies. Schraw & Graham (1997) pointed out that students' metacognitive awareness about students' understanding of how and when to apply these strategies varies greatly. Some students may already have strong metacognitive skills, while others may require explicit training to effectively utilize these strategies. According to Pintrich & Blazevski (2004), self-regulation is not an innate skill but one that develops over time with practice and instruction.

Based on De-La-Peña & Luque-Rojas (2021), reading comprehension is commonly categorized into levels depending on information depth and cognitive process complexity. Reading comprehension levels might vary between studies and models. Several models and measures have been presented to categorize reading comprehension abilities. Bloom's Taxonomy is a popular paradigm for categorizing cognitive skills into levels (Horvathova & Naďová, 2021). One of the key challenges to implementing metacognitive dimensions is the emotional and cognitive effort required by students (Djudin, 2018). In particular, anxiety may get into a significant role in the uptake of these strategies. Students may experience discomfort when asked to constantly monitor their comprehension and reflect on their thinking process. Hong et al. (2017) found that students' emotional responses to self-monitoring strategies could enhance or inhibit their ability to engage with the material. While some students report feeling empowered and motivated by metacognitive dimensions, others experience frustration and stress, particularly if they are unsure how to apply the strategies effectively (Schraw & Dennison, 1994).

Numerous studies (Floris & Divina, 2015) have shown that English learners who read English literature more often appear to learn the language significantly better than those who do not. According to Kebudayaan (2012), EFL English learners are unlikely to progress significantly if they do not read much in class. Because these students read less English and are less accustomed to it, they find it difficult to understand English content.

Moreover, not all students perceive metacognitive dimensions as beneficial. Some may feel overwhelmed by the demands of frequent self-monitoring and may struggle to implement these strategies consistently. A study by Baker (1989) found that while metacognitive dimensions enhance reading comprehension, students' use of these strategies was inconsistent, especially when they did not receive adequate guidance or were not accustomed to using such strategies. For example, students accustomed to passive reading behaviours may find it difficult to switch to a more active, self-regulated approach (Pintrich & DeGroot, 1990).

Metacognitive dimensions in higher education

In higher education, students frequently must interact with complicated academic writings, the importance of metacognitive dimensions becomes even more pronounced. Studies have found

that university students who engage in metacognitive practices during reading are more successful at retaining and understanding the material (Tregaskes & Daines, 1989). For instance, a study by Swanson (1985) indicated that college students who employed metacognitive dimensions reported better comprehension and critical thinking skills when reading academic articles. These findings are consistent with Zimmerman's (2002) research, which demonstrated that college students who actively monitored their reading processes tended to perform better academically.

However, higher education environments often present unique challenges for implementing metacognitive dimensions. Large class sizes, limited individual attention from lecturers, and the fast pace of academic courses may hinder the effective use of these strategies (Dirkes, 1985). Moreover, students may not receive explicit instruction on using metacognitive dimensions, leading to a lack of understanding about regulating their reading behaviours (Veenman et al., 2006). In such environments, students' willingness to adopt metacognitive dimensions can be influenced by their perceived value of these techniques and the quality of instruction they receive (Dangin, 2020).

Students' perceptions of metacognitive dimensions

According to Landy (2018), perception and action are closely linked, especially in acquiring expertise, as expert actions consistently aim to achieve a certain goal. Garcia et.al (2007) mentioned the perception as opinion (a form of perception where individuals create a judgment or believe about something using their thoughts, emotions, and past experiences), feeling (intricate physiological and psychological reactions to internal or external stimuli, while sensations are the immediate responses of the senses to inputs), thought (encompasses the cognitive processes of logic, comprehension, and information analysis), and experience (the acquisition of knowledge, skills, and understanding through direct encounters with events, circumstances, or phenomena).

Understanding students' perceptions of metacognitive dimensions is essential for optimizing their implementation in the classroom. Robbins et al. (2002) categorize perception into positive and negative perceptions. Previous studies have explored how students perceive the effectiveness of these strategies and the emotional responses they elicit. For example, Schraw et al. (2001) found that students who understood the purpose of metacognitive dimensions were more likely to use them effectively and felt more confident in their reading abilities. Conversely, students who were unsure of the benefits of these strategies or who struggled to apply them often reported negative feelings, including anxiety and frustration (Hill, 2021).

Furthermore, the social and classroom environment shapes students' perceptions. In an interactive and supportive classroom, where lecturers model and encourage metacognitive dimensions, students are likelier to feel comfortable and engaged (Sumadyo et al., 2018). For instance, a study by Tsai (2009) emphasized that when lecturers provided opportunities for students to share their thoughts and questions during reading, students were more likely to embrace metacognitive dimensions and view them as useful.

Given the variability in students' perceptions, lecturers need to tailor the use of metacognitive dimensions to the needs and preferences of their students. Some students may appreciate the opportunity to engage in active reading, while others may find it overwhelming or stressful Melanlioglu (2014). As a result, a balanced strategies that combines metacognitive dimensions with other teaching strategies may be most effective in fostering student engagement and improving reading comprehension.

Research method

Research design

This qualitative study used structured interview to explore students' perceptions of metacognitive dimensions in reading comprehension class. According to Creswell (2019), qualitative research is well-suited for in-depth investigation of participants' experiences and perspectives. Structured interview was chosen for this research because it provided a consistent and standardized way to collect participant data. According to Patton (2002), structured interview ensure that each respondent was asked the same set of questions in the same order, minimizing interviewer bias and allowing for comparability across responses. This consistency was essential in research focused on students' perceptions, as it enabled the researcher to identify common themes and patterns more reliably and objectively.

Subject of the research

The study involved 18 students from the English Department at IAIN Bone, chosen using purposive sampling. Purposive sampling, also known as judgment sampling, allows researchers to deliberately select participants based on their knowledge and relevance to the study (Mills & Gay, 2016). This method ensured that the selected individuals provided meaningful insights related to the research objective, making the data more reliable.

Table 1. Participants' profile

No	Participant	Participant Code	Sex	Class
1	DD	S1	Male	2022 TBI 2
2	FD	S2	Female	2022 TBI 2
3	RAF	S3	Female	2022 TBI 2
4	SS	S4	Female	2022 TBI 2
5	AY	S5	Female	2022 TBI 2
6	SHH	S6	Female	2022 TBI 2
7	NAS	S7	Female	2022 TBI 2
8	KA	S8	Female	2022 TBI 2
9	AP	S9	Female	2022 TBI 2
10	APAD	S10	Female	2022 TBI 2
11	VNW	S11	Female	2022 TBI 2
12	FA	S12	Female	2022 TBI 2
13	IAI	S13	Female	2022 TBI 2
14	KNA	S14	Female	2022 TBI 2
15	SN	S15	Female	2022 TBI 2
16	RK	S16	Female	2022 TBI 2
17	AMTNH	S17	Male	2022 TBI 2
18	HRQ	S18	Female	2022 TBI 2

Data collection instrument

The primary data collection instrument used in this study was a structured interview, designed to elicit students' perceptions of metacognitive dimensions in reading comprehension. A structured interview was chosen to ensure uniformity in the questions presented to all participants, allowing for consistency in responses and minimizing interviewer bias (Patton, 2002). The structured interview format enabled the researcher to gather comparable data across all respondents, ensuring that key themes and patterns could be identified effectively.

The interview instrument consisted of five close-ended questions, each focusing on different aspects of metacognitive dimensions in reading comprehension. Close-ended questions were selected to provide clarity in responses, allowing for easier analysis and interpretation of

students' perceptions (Cheng & Dörnyei, 2007). The questions were: Do you like the implementation of metacognitive strategies in reading comprehension class? What do you feel when the lecturer applied metacognitive strategies in reading comprehension class? Do you find metacognitive strategies challenging to be implemented? Do you have any comments and suggestions about using metacognitive strategies in reading comprehension? How would you respond if your lecturer continued using metacognitive strategies in reading comprehension? Each question was carefully formulated to capture students' opinions, emotional responses, perceived challenges, and preferences regarding metacognitive strategies in their reading activities.

Data collection procedure

The primary instrument used for data collection was a structured interview, which included four close-ended questions. These questions were focused to elicit responses about students' opinions, emotional responses, perceived challenges, and preferences regarding metacognitive dimensions. Close-ended questions ensure clarity and focus in responses, making it easier to analyze patterns across participants (Cheng & Dörnyei, 2007). Well-structured interview questions help minimize researcher bias and improve data validity.

Data analysis

The first step in the data analysis process was to reduce the raw data from the close-ended interviews. Given the limited number of interview questions (five questions), each student's response was reviewed and categorized according to the primary themes related to metacognition. Each student's response was coded and grouped into categories corresponding to the key metacognitive dimensions. This helped to identify recurring patterns in students' perceptions and responses. Next, the reduced data were analyzed to conclude the students' perceptions of metacognition in their reading classes. Based on the patterns identified in the data, conclusions were drawn regarding which students most commonly reported metacognitive dimensions and whether there was a significant awareness of the importance of these strategies in reading comprehension.

Results

The results of this study provide insightful reflections on students' perceptions of implementing metacognitive dimensions. This finding has three main themes. The first main theme is *emotional engagement with learning process*, which consists of three sub-themes: clarity and guidance, engagement and active participation, support and care. The second main theme, *affective engagement and emotional support*, consists of three sub-themes: affective learning environment, psychological comfort, and emotional resilience. The third main theme is *experiential learning process* consists of three sub-themes: cognitive demand, classroom interaction and participation challenges, adjustment to learning strategy.

Emotional engagement with learning process

Metacognitive dimensions foster emotional engagement by ensuring students feel guided and supported throughout their learning journey. These strategies create a structured learning environment where students are encouraged to participate actively and gain a deeper understanding of the material. Making the learning process interactive makes students feel more involved and motivated to engage with reading materials.

The first main theme is clarity and guidance. When lecturers implement metacognitive dimensions, they provide clear explanations and structured lessons that help students grasp key concepts. Students appreciate when lecturers ensure they fully understand the material, as it eliminates confusion and enhances learning efficiency. Guiding the reading process allows students to absorb information more organised and meaningfully.

> *"Yes, I like it. Because the lecturer always makes sure that the students get all the points of the material given." (S1)*

This response highlights how students appreciate the lecturer's structured approach in ensuring comprehension. By emphasizing that all points are covered, the student acknowledges the effectiveness of metacognitive dimensions in guiding their learning process and preventing misunderstandings. *"I like it because asking the students guides us to absorb the reading texts in track." (S3).* This student values how the lecturer's questioning method keeps them on track while reading. This suggests that metacognitive dimensions play a role in maintaining focus, reinforcing understanding, and helping students actively engage with the reading materials.

The second sub-theme is engagement and active participation. Students feel more engaged when metacognitive dimensions encourage them to interact with the lecturer and their peers. Active participation through questioning and discussions helps students focus and better comprehend the reading materials. By fostering an interactive learning environment, these strategies ensure that students are consistently engaged rather than passively receiving information.

> *"Totally like because there will be more interaction between students and the lecturer." (S12)*

This response reflects a preference for interactive learning environments. The student perceives metacognitive dimensions as an opportunity to engage more deeply with the lecturer and peers, leading to a more dynamic and participatory classroom experience. *"I like it when the lecturer asks us during the class if we understand or not about the material." (S15).* The student appreciates the lecturer's approach of checking comprehension during the lesson. This suggests frequent questioning and reflection encourage students to actively monitor their understanding and seek clarification when necessary.

The third sub-theme is support and care. Using metacognitive dimensions makes students feel valued, as lecturers show concern for their understanding and progress. When lecturers check for comprehension and provide feedback, students perceive this as a form of care that boosts their confidence. This supportive environment enhances learning and encourages students to take ownership of their academic growth.

> *"I like it because I feel cared for and I enjoyed it. I was supported by the lecturer" (S5)*

This response reveals that metacognitive dimensions contribute to an emotionally supportive learning environment. The student perceives the lecturer's active involvement in their learning process as a sign of care, which enhances their motivation and confidence. *"Yes, I like it. I like when the lecturer gives us the summary of the material at the end of the class." (S6).* The student values the use of summaries, which indicates that metacognitive dimensions aid in reinforcing key concepts. The provision of summaries helps students consolidate their learning and ensures that they retain essential information.

Affective engagement and emotional support

Metacognitive dimensions contribute to a positive classroom atmosphere by reducing anxiety and fostering a sense of comfort. When students feel emotionally supported, they are more willing to engage with reading materials and participate in discussions. These strategies help create a balance between intellectual challenge and emotional reassurance, making learning both effective and enjoyable.

The first sub-theme is affective Learning Environment. Students benefit from a relaxed and enjoyable classroom atmosphere, allowing them to process information more effectively. When lessons incorporate metacognitive dimensions, they create an environment where students feel encouraged rather than pressured. A fun and interactive setting enhances motivation and makes reading comprehension a more engaging experience.

> *"What I feel is relaxed, enjoy and happy. I don't feel any pressure in the classroom interaction. It helps me to think harder." (S2)*

This response emphasizes the role of metacognitive dimensions in creating a stress-free learning environment. The student finds the approach enjoyable, fostering deeper thinking and encouraging intellectual engagement without feeling overwhelmed. *"What I feel is happy. By that, the students not only get the material, but also the classroom interaction will be fun." (S9).* The student appreciates how metacognitive dimensions contribute to a lively, engaging classroom atmosphere. This suggests that the method does more than just facilitate learning—it also enhances enjoyment, making the process more effective.

The second sub-theme is psychological comfort. A non-judgmental learning environment enables students to freely express their thoughts without fear of making mistakes. Metacognitive dimensions ensure that students feel comfortable asking questions and sharing their ideas, which builds their confidence. This sense of psychological safety fosters a learning space where students can actively engage without fear of criticism.

"I feel free to ask and give answers because the lecturer never judges me."(S4)

This response highlights the importance of a non-judgmental learning environment. The student feels encouraged to participate without fear of criticism, which fosters confidence and supports active engagement with the material. *"I feel the class becomes more interesting and we like it. It is different from other lecturers that only explain the material once and never repeat it." (S17).* The student compares the lecturer's use of metacognitive dimensions to traditional teaching methods, emphasizing that repeated engagement with the material enhances understanding. This suggests that the strategy makes the learning process more stimulating.

The third sub-theme is emotional resilience. While some students may initially feel nervous or anxious about active participation, metacognitive dimensions help them build resilience. These strategies challenge students to think critically and express their thoughts, gradually reducing their fear of making mistakes. Students gain confidence in their abilities by repeatedly engaging with the material and improving their reading comprehension skills.

> *"I feel a little bit nervous but excited too because I like it when the lecturer asks our knowledge about the material before he explains the material and at the end of the class." (S11)*

The student experiences a mix of nervousness and excitement, indicating that metacognitive dimensions challenge them intellectually while providing motivation. The pre- and

post-discussions allow them to test their understanding and reinforce learning. *"Sometimes I feel anxious to speak in the class if the lecturer asks me." (S18).* This response suggests that while metacognitive dimensions encourage participation, they may also induce anxiety in students who are less comfortable with speaking. It highlights the need for additional support to help students overcome their fears and build confidence in expressing their thoughts.

Experiential learning process

Metacognitive dimensions encourage students to actively engage with reading materials rather than passively absorbing information. These strategies enhance cognitive development by challenging students to reflect on their understanding and continuously participating in discussions. Over time, students adapt to this approach and recognize its long-term benefits in improving their reading skills.

The first sub-theme is cognitive demand**.** Students find metacognitive dimensions mentally stimulating, as they require constant focus and recall of information. These strategies train students to sharpen their memory and develop a habit of critical thinking when approaching reading texts. Although it may seem challenging at first, this cognitive engagement ultimately improves comprehension and retention.

> *"For me, yes. I have to sharpen my memory and focus so I can answer every question the lecturer gives me." (S7)*

The student acknowledges that metacognitive dimensions require them to engage in deeper cognitive processing. They develop stronger memory retention and critical thinking skills by frequently recalling and applying information. *"I find it challenging because I have to be ready every time the lecturer asks me about something related to our material every meeting." (S8)* The student recognizes the rigorous nature of metacognitive dimensions, as they must stay prepared for discussions at all times. This suggests that the approach promotes active learning and continuous engagement with the material.

The second sub-theme is classroom interaction and participation challenges**.** Active classroom participation can be beneficial and challenging for students, depending on their comfort level with speaking in front of their peers. While some students appreciate the interactive nature of metacognitive dimensions, others may struggle with nervousness or hesitation. However, consistent exposure to these strategies helps students gradually overcome their fears and become more confident in engaging with the material.

> *"Yes, because sometimes I am sleepy in the middle of the classroom interaction, but suddenly wake up when the lecturer points me to read or answer the questions." (S14)*

This response suggests that metacognitive dimensions play a role in maintaining attentiveness. The student finds the approach helpful in preventing disengagement and ensuring they remain focused during the lesson. *"It is challenging for me as I don't like to speak in front of my friends." (S13)* The student finds classroom discussions difficult due to personal discomfort with speaking. This indicates that while metacognitive dimensions encourage active participation, they may require adjustments to accommodate students with different confidence levels.

The third sub-theme is adjustment to learning strategy**.** Initially, students may find metacognitive dimensions overwhelming, requiring continuous engagement and readiness. However, as they become more familiar with the approach, they appreciate its effectiveness in

reinforcing their understanding. Adapting to these strategies highlights the importance of persistence and active involvement in learning.

> *"At first, I found that the implementation of this strategy made me confused and tired because the lecturer always asked me. But day by day, I found it interesting." (S16)*

This response illustrates the adaptation process students go through when encountering metacognitive dimensions. The frequent questioning felt overwhelming initially, but the student began to appreciate its benefits in reinforcing their learning over time. *"Like what I mentioned in the second question, it is important to implement this strategy because if the lecturer only explains the material once, I will not understand the material." (S10)* The student recognizes the necessity of repetition and active engagement for comprehension. This reinforces that metacognitive dimensions support deeper learning by ensuring students revisit and process information multiple times.

Discussion

This study examined students' perceptions regarding implementing metacognitive dimensions in reading comprehension at IAIN Bone. The findings revealed three main themes that shaped the students' perceptions with these strategies: Emotional Engagement with Learning Process, Affective Engagement and Emotional Support, and Experiential Learning Process. By exploring these themes, we can better understand how metacognitive dimensions influence students' emotional, cognitive, and social learning outcomes. This section delves deeper into the implications of these findings, linking them to existing research and literature on metacognition, reading comprehension, and the emotional aspects of learning.

Emotional engagement with learning process

The first theme highlights how metacognitive dimensions can foster a sense of emotional involvement in the learning process. The findings demonstrate that students value lecturers' clarity and guidance when employing metacognitive dimensions. Responses from students such as S1 and S3 emphasized the importance of clear explanations and structured lessons in helping them comprehend the material. This aligns with Flavell's (1976) conceptualization of metacognition, where awareness and control of one's cognitive processes are vital in enhancing comprehension. Flavell argued that students actively aware of their thinking processes are better equipped to grasp and organize new information.

Additionally, students strongly preferred engagement and active participation in the classroom, which was facilitated by metacognitive dimensions. As seen in the responses from S12 and S15, students appreciated how frequent questioning and interactive discussions helped them remain focused and develop a deeper understanding of the material. This finding resonates with Baker (2013), who argued that metacognitive dimensions, such as asking students to reflect on their understanding, foster active participation and lead to greater cognitive engagement. In classrooms where students are actively involved in discussions, they are more likely to monitor their comprehension effectively, as Schraw and Dennison (1994) indicated. As emphasized in previous studies by Pressley & Afflerbach (1995), active participation improves comprehension and makes the learning process more dynamic and enjoyable.

The theme of support and care also emerged strongly in the findings, with students (S5 and S6) expressing appreciation for the emotional support provided by their lecturers. This support was primarily conveyed through activities like summarizing key points and providing feedback on

student comprehension. This aligns with Cleary & Zimmerman's (2004) findings, which emphasized that metacognitive dimensions foster self-regulation and confidence, ultimately creating a supportive learning environment. By offering this feedback and guidance, lecturers signal students that their learning is valued, enhancing their motivation and engagement with the material.

Affective engagement and emotional support

The second main theme further emphasizes the emotional aspects of learning. Metacognitive dimensions are pivotal in creating a supportive and emotionally safe classroom environment where students can thrive without fear of judgment. Findings from the study show that metacognitive dimensions contribute to an affective learning environment where students feel relaxed and enjoy the learning process (S2 and S9). This finding is consistent with Schraw and Graham's (1997) research, which suggested that metacognitive dimensions promote a positive, stress-free classroom atmosphere. A learning environment that fosters emotional comfort allows students to engage with the material meaningfully without feeling overwhelmed. As noted by Duke & Pearson (2009), when students feel emotionally at ease, they can better focus on the content, leading to improved comprehension.

Furthermore, as described by S4 and S17, psychological comfort was important in enhancing student engagement. This psychological safety ensures that students feel free to ask questions and express their thoughts without fear of being judged. Schraw et al. (2001) highlighted that students' perceptions of a supportive classroom environment significantly impact their willingness to engage with metacognitive dimensions. The non-judgmental nature of the classroom, in which students are encouraged to participate actively, increases their confidence and ability to reflect on their understanding.

Regarding emotional resilience, students reported feeling nervous and excited (S11 and S18) as they engaged in metacognitive activities. While some students experienced initial anxiety, metacognitive dimensions ultimately helped them develop resilience over time. This aligns with Veenman et al. (2006), who noted that engaging with metacognitive dimensions helps students build confidence and overcome their initial discomfort. This resilience is crucial in the long-term development of self-regulation skills, as it allows students to navigate challenges and continue developing their reading comprehension abilities despite initial struggles.

Experiential learning process

The third theme examines how metacognitive dimensions contribute to the active engagement of students with the reading materials, promoting critical thinking and enhancing comprehension. The findings indicate that students recognize the cognitive demand of these strategies, which require them to continuously monitor and evaluate their comprehension. This aligns with the work of Pressley & Afflerbach (1995), who found that effective readers are constantly engaged in self-monitoring and adjusting their reading strategies. Students develop a deeper engagement with the material by making predictions, summarizing, and evaluating their understanding, leading to improved comprehension and retention.

In contrast, classroom interaction and participation challenges were also noted by students like S14 and S13, who expressed difficulty in participating due to anxiety. This finding supports Schraw & Dennison's (1994) argument that while metacognitive dimensions are cognitively demanding, they can also induce emotional stress for some students, particularly those who struggle with active participation. Despite the challenges, most students could adapt and overcome

these obstacles, reflecting that metacognitive dimensions require time and practice for effective implementation (Pintrich & Blazevski, 2004). The emotional demands of self-monitoring and self-reflection are often overwhelming at first but, over time, help students develop the resilience necessary to engage deeply with the material.

Finally, the adjustment to learning strategy sub-theme highlighted how students gradually adapted to the demands of metacognitive dimensions. Initially, some students found the frequent questioning and reflection overwhelming (S16 and S10), but they recognized the benefits of repeated engagement with the material over time. This finding aligns with Veenman et al. (2006), who emphasized that metacognitive awareness and regulation develop gradually. The ability to adjust to these strategies is crucial, as it ensures that students can actively engage with complex texts and enhance their comprehension skills over time.

The findings from this study underscore the significant impact of metacognitive dimensions on students' emotional, cognitive, and social engagement in the classroom. These strategies create a comprehensive learning environment that enhances reading comprehension by fostering emotional engagement, providing affective support, and promoting an experiential learning process. This study highlights the importance of considering students' emotional responses and perceptions when implementing metacognitive dimensions in the classroom, ensuring that these strategies are adapted to the diverse needs of students. By linking these findings to the existing literature, we can see that the effective implementation of metacognitive dimensions requires cognitive engagement, emotional support, and resilience-building in students.

Through this investigation, the researcher contributes to a deeper understanding of how metacognitive dimensions influence students' perceptions and ability to engage and comprehend academic texts. As metacognitive dimensions become more widely recognized for their cognitive benefits, it is crucial that educators also pay attention to the emotional and psychological aspects of learning, ensuring that students have the tools to succeed both intellectually and emotionally.

Conclusion

In conclusion, the findings of this study confirm the positive perception of metacognitive dimensions on students' learning, particularly in enhancing reading comprehension and fostering self-regulation. Students' perceptions reveal that these strategies help them engage actively with the material, reflect on their understanding, and improve their ability to manage their learning. The role of the lecturer in guiding the use of these strategies and providing timely feedback was also crucial for their success. While students appreciated the structure of the strategies, some expressed a desire for more personalized approaches, suggesting that differentiated instruction could further improve the effectiveness of metacognitive teaching practices. Ultimately, this study highlights the importance of metacognition in creating independent, reflective learners who are better prepared to navigate complex academic tasks.

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