The Effectiveness of Applying the Habits of Mind Approach on Developing Female Fifth Graders' Reading Self-Efficacy

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Abstract

Self-efficacy, which refers to one's own capabilities to perform a task successfully, has been found to be a significant predictor of various educational achievements. The current study emphasizes the role of self-efficacy in the context of reading, highlighting that students' beliefs about their reading abilities can significantly shape their motivation and performance in reading. Consequently, unsuccessful outcomes in reading may not necessarily result from a lack of skills or knowledge but rather from a deficiency in the self-efficacy beliefs needed to apply those skills effectively (Carroll & Fox, 2017). Considering the narrow scope of research on reading self-efficacy, this quasi-experimental study aimed to extend previous work by exploring how reading self-efficacy changes among female fifth-grade students through a nine-week Habits of Mind (HoM) program. This program specifically targeted the four primary sources of information that affect reading self-efficacy: progress, observational comparison, social feedback, and physiological states. Participants comprised 66 female fifth-grade students from a public elementary school, split into an experimental group of 33 who participated in the HoM program and a control group of 33 students adhering to the standard curriculum. The findings indicate that participants in the HoM program reported significantly higher reading self-efficacy levels in four sources of reading self-efficacy compared to those in the control group. Results also indicated that the improvements in reading self-efficacy and its four foundational factors, attained through implementing the HoM program, were either sustained or experienced further growth over time. We recommend that this approach might help students develop a lifelong passion for reading, along with the confidence they need to overcome reading challenges.

Keywords: fifth-grade students, habits of mind, reading self-efficacy, sources of reading self-efficacy

1. Introduction

Countries are actively pursuing the latest trends in reading instruction, acknowledging its fundamental benefits in enhancing both personal development and community prosperity. Those countries whose leaders prioritize literacy as a strategic objective are rewarded with enhanced economic growth (Schwanenflugel & Knapp, 2015). Reading not only enriches individual intelligence and cognitive abilities, but it also nurtures thinking, creativity, empathy, and stress reduction. According to Sun et al. (2023), reading plays a crucial role in children's cognitive development, mental health, and brain structure, which serve as the foundations of future learning and overall well-being. Effective reading instruction encompasses more than just teaching reading strategies and skills; it involves understanding and nurturing the range of cognitive, metacognitive, affective, conative, and epistemic factors that influence reading growth (Pearson et al., 2020). This holistic approach to reading instruction not only focuses on the mechanics of reading but also on nurturing the reader's overall engagement and growth, ensuring a foundation for lifelong reading success. According to Afflerbach (2022), integrating strategies and skills essential for reading with key psychological factors like self-efficacy significantly enhances the reading development process and can enhance students' lifelong reading abilities and engagement.

The PIRLS (Progress in International Reading Literacy Study) 2021, highlighted the essential connection between reading self-efficacy and reading achievement among young students aged 9-10 globally. In Saudi Arabia, however, PIRLS 2021 revealed notable concern that more than half of Saudi female students, precisely 55%, enter the fifth grade with less confidence in their reading ability, correlating positively with their lower reading achievement scores (Reynolds et al., 2024). This finding from PIRLS advocates for a transformation in how reading curricula are designed, calling on educators to embed frameworks that not only equip students with

lifelong reading strategies and skills but also intertwine these educational aspects with vital psychological factors like self-efficacy (Afflerbach, 2022). This approach is pivotal in fostering students' reading skills and strategies, integrated tightly with crucial psychological elements like self-efficacy. By enhancing their reading proficiency, we also bolster their confidence and motivation, creating a holistic educational experience that empowers students both intellectually and psychologically.

To achieve this goal, researchers consider incorporating the Habits of Mind (HoM) into the educational curriculum, which offers a promising approach (Altan & Lane, 2023). The Habits of Mind framework stands out because it can be explicitly taught, actively practiced, and deeply valued. Applying the Habits of Mind into educational practices, like incorporating them into lesson plans and using them during classroom activities, aligns with the growing emphasis on developing cognitive and emotional skills necessary for students to succeed in various facets of life. Costa and Kalick (2008, 2009) defined the Habits of Mind as a set of thinking dispositions at the core of social, emotional, and cognitive behavior. Students who develop these habits will be able to respond intelligently and empathically when confronted with situations involving problems, conflicts, and uncertainty, the resolution to which may not be apparent at the time. Costa and Kallick developed over several years a list of sixteen learning and training Habits of Mind (HoM): persisting; creating, imagining, and innovating; thinking and communicating with clarity and precision; managing impulsivity; listening with understanding and empathy; responding with wonderment and awe; taking responsible risks; striving for accuracy; questioning and posing problems; thinking interdependently; gathering data through all senses; applying past knowledge to new situations; finding humor; thinking flexibly; and remaining open to continuous learning). Adopting the HoM can motivate students to be active learners and build their knowledge and proficiency. By implementing HoM, students evolve into self-regulated learners who are aware of their mental disposition, monitor it, and modify it as needed (Altan & Lane, 2023).

In terms of reading, Cartwright (2023) posits that "reading is thinking," highlighting it as a dynamic and profoundly intricate cognitive process. This process involves assimilating new information with existing knowledge and deliberately monitoring comprehension to produce nuanced interpretations of text content. However, it has been observed that students seem to lack thinking skills, therefore, incorporating the Habits of Mind framework into reading lessons, as outlined by Billmeyer (2009), is crucial. This framework comprises a set of thinking dispositions that, when cultivated, can empower students to navigate complex reading tasks with greater confidence in their ability.

Incorporating Habits of Mind into reading instruction significantly enhances students' literacy capabilities by fostering resilience, empathy, critical thinking, and teamwork. This approach not only strengthens a student's belief in their own reading competence but also elevates their overall confidence, which is essential for their academic achievements and future endeavors. For instance, the habit of "persisting" encourages students to tackle challenging texts and complex reading tasks, thereby building resilience and reading stamina. "Listening to others with understanding and empathy" enriches comprehension by valuing diverse perspectives. "Thinking about thinking (Metacognition)" plays a critical role in reading confidence by enhancing students' awareness of their cognitive processes and by enabling individuals to be aware of, regulate, and apply effective strategies for reading comprehension (Furnes & Norman, 2015; Soodla et al., 2017). "Questioning and posing problems" encourages students to generate their own questions and explore texts more thoroughly, which can lead to a richer reading experience. "Applying past knowledge" to new reading tasks allows students to deepen their understanding and apply it in new contexts. Lastly, "Thinking interdependently" through collaborative learning broadens perspectives and fosters community, collectively building more confident and competent readers (Billmeyer 2009; Vollrath, 2019). Based on that, embedding Habits of Mind within reading lessons or units can profoundly affect a student's confidence in their reading ability, significantly boosting their reading self-efficacy. Research has shown that self-efficacy plays a significant role in student motivation and engagement in reading (Clarke et al., 2013; Schwanenflugel & Knapp, 2015).

Self-efficacy, defined by Bandura (1993), refers to an individual's belief in their own ability to succeed in a particular goal or accomplish a task. Bandura (1997) proposed that individuals with high self-efficacy are more likely to persist through challenges, view challenging tasks as challenges to overcome rather than threats to be avoided, and are less affected by setbacks or failures than those with lower self-efficacy. In other words, individuals who have confidence in their ability to succeed at a task are likelier to engage in it (Zimmerman, 1995; Bandura, 1995; Schunk & Zimmerman, 1997).

According to Social Cognitive Theory, the development and alteration of efficacy beliefs are dynamic processes influenced by environmental, behavioral, and personal factors (Bandura, 1997). Our beliefs about effectiveness are

continually shaped and reshaped by interactions between external factors, our actions, and our thoughts and feelings. These factors operate in a cycle of reinforcement over time. Self-efficacy beliefs are influenced by mastery experiences, verbal persuasions, vicarious experiences, and physiological and emotional states (Bandura, 1997). Personal experiences of success and failure, particularly with moderate-difficulty tasks, often have the strongest influence. Additionally, observing similar peers achieve or struggle with tasks, social persuasion, comments, and feedback about one's abilities, as well as emotions and moods, can impact self-efficacy (Schwanenflugel & Knapp, 2015).

In the context of reading, self-efficacy refers to the general-level beliefs students hold about their reading abilities, as assessed through their confidence and perceived skills in reading activities (Lee & Zentall, 2017; Schwanenflugel & Knapp, 2015; Smith et al., 2012). More specifically, reading self-efficacy refers to a learner's belief in their ability to complete reading-related tasks successfully. This includes their confidence in understanding, interpreting, and engaging with texts, directly influencing their reading behavior and, ultimately, their reading achievements (Henk & Melnick, 1995). In other words, reading self-efficacy encapsulates how children perceive their reading capabilities, which can either motivate or inhibit their learning and engagement in reading activities (Henk & Melnick, 1995).

Research by Galla et al. (2014), Guthrie et al. (2007), and Lee & Zentall (2017) indicates that students with high self-efficacy are more likely to exert greater effort and persistence in reading. Such students also tend to spend more time on reading activities and are more inclined to read for pleasure as compared to students who lack confidence in their reading abilities. Thus, students who believe they are good readers probably have a rich history of engaging in reading and exhibit a substantial likelihood of continued positive interactions with text (Henk & Melnick, 1995). In contrast, students with low self-efficacy in reading tried to avoid challenging reading activities and were more likely to withdraw from tasks they perceived as too hard (Wigfield & Guthrie, 1997; Zimmerman, 2000). As emphasized by Hornstra et al. (2016) and Smith et al. (2012), students' belief in their reading ability is a crucial predictor of their reading-related behaviors. This belief significantly shapes their engagement in reading activities, underscoring its profound importance in literacy education.

By using social cognitive theory as a foundation, educators can play a transformative role in shaping positive learning experiences. This can be achieved by focusing on the four critical factors of self-efficacy: mastery experiences, verbal persuasion, vicarious experiences, and physiological and emotional states. This approach can significantly enhance children's belief in their reading abilities. Bandura (1997) emphasizes the critical role of these sources in self-efficacy development, while Boakye (2015) supports this view, suggesting that successful reading instruction programs should focus on boosting students' self-efficacy through clear learning goals, consistent feedback, specific reading strategies, recognition of effort, and using relevant texts. Expanding on this, Unrau et al. (2018) assert that interventions focused on enhancing reading self-efficacy hold great promise. When well-designed and grounded in established theoretical frameworks, these interventions provide students with enriched learning opportunities. The potential benefits include a boost in motivation, engagement, and comprehension skills. Moreover, these interventions not only enrich students' learning experiences but also empower them to engage more deeply and for longer periods in reading activities, fostering a sense of optimism about their reading abilities.

After reviewing the literature, a significant lack of intervention research was found across all four sources of self-efficacy in reading, except for a study conducted by Aro et al. (2018). In this study, students in third-to-fifth grade participating in the self-efficacy intervention were deliberately given positive experiences related to the four theorized sources of self-efficacy. *Mastery experiences* were provided through individually challenging yet achievable tasks tailored to each child's skill level, and these experiences were enhanced by focusing children's attention on their own improvements and recognizing these advancements with concrete visual feedback during training. Additionally, *verbal persuasion* was effectively employed by providing positive, explicit, systematic, and concrete feedback on each student's practice, effort, and notably, improvement. This feedback specifically emphasized the connection between improvement and the student's ability to learn, as well as the effort and persistence displayed during the learning process. *Vicarious experiences* were fostered by grouping children with peers at similar reading levels, and this arrangement enabled children to focus on their peers' improvements and receive feedback, utilizing mastery and coping models. Simultaneously, *physiological and emotional states* were actively addressed by naming and discussing them using stories. Children observed their own reading performance, emotions, and practice routines, and expressed their feelings towards their practice, thereby enhancing emotional engagement with learning. In summary, classrooms that prioritize mastery experiences, modeling, feedback, and physical and emotional experiences create healthy and effective environments for generating self-efficacy in reading, as suggested by Aro et al., (2018).

Further research is needed to fully understand how elementary students develop confidence in reading by considering all four sources of reading self-efficacy and exploring how it changes and develops over time (Aro et al., 2018; Peura et al., 2019). Our study aimed to evaluate how 'habits of mind,' which are fundamental ways of thinking that affect social, emotional, and cognitive behaviors, shape children's belief in their own reading abilities. Specifically, we aim to identify critical developmental stages and specific thinking dispositions that impact children's perceptions of their reading skills. The discovery of these findings could potentially provide insight into the development of self-efficacy in reading. This could help in creating specific strategies aimed at promoting positive beliefs about reading, which in turn can offer hope for the improvement of reading self-efficacy in elementary students.

1.1 The Current Study

Considering the gaps identified in the existing literature, it is necessary to understand the role of both cognitive and non-cognitive factors that support reading development among Arab students. Researchers have examined cognitive factors that support reading development in the Arabic language (Asadi & Ibrahim, 2018; Amin & Gottardo, 2020), while there has been minimal focus on non-cognitive factors, such as psychological elements including reading self-efficacy on reading achievement (Reynolds et al., 2024). The lack of support for the four sources of self-efficacy: mastery experiences, verbal persuasion, vicarious experiences, and physiological and emotional states can profoundly affect student mindsets and their reading performance (Afflerbach, 2022). Addressing this concern requires a research-backed educational program that integrates into the curriculum, teaching alongside the content to cultivate all four sources of self-efficacy in reading among Saudi students.

The main objective of this study was to evaluate the effectiveness of the Habits of Mind -learning and teaching- program in enhancing reading self-efficacy and its four sources among fifth-grade Saudi female students. The decision to focus on fifth graders is strategic, as they are at a critical juncture where their belief in their reading capabilities often tends to diminish. A study by Smith et al. (2012) found a decline in reading motivation and self-efficacy between the ages of 8 and 12. Furthermore, the reading self-efficacy of elementary-grade children is more likely to improve than that of higher-grade students (Umaru et al., 2017). In view of the alarming decrease in self-efficacy among young learners, our aim is to confront and potentially reverse this trend of declining self-efficacy at a key stage in their academic journey.

1.2 The Research Questions and Hypotheses

The study aimed to answer the fundamental research question: "How do the Habits of Mind -learning and teaching- program affect reading self-efficacy and its four sources among fifth-grade Saudi female students?" To further explore the main research question, the study included sub-questions:

1) Is there a significant difference in the post-test scores of the four sources of reading self-efficacy between students in the Habits of Mind program (experimental group) and those who did not participate (control group) after controlling for pre-test reading self-efficacy?

Hypothesis: We expect that the average scores of reading self-efficacy and its four sources among students in the experimental group will be significantly higher than those in the control group due to the implementation of a specific educational HoM approach designed to enhance student reading self-efficacy

2) Is there any statistical difference in the development of reading self-efficacy and its four sources among experimental group participants from the post-test to the two-month follow-up test?

Hypothesis: During the HoM -learning and teaching- program, we expected the experimental group to show noticeable increases in reading self-efficacy and its four sources. Additionally, we expected that the positive gains in reading self-efficacy and its four underlying factors would persist over time (be maintained) or even increase. In this way, the implemented intervention strategies would have a lasting impact or demonstrate the long-term effectiveness of the intervention strategies.

2. Method

This section determines the methodology used to investigate the impact of the Habits of Mind Approach on the development of fifth graders' reading self-efficacy within a quasi-experimental framework. The methodology consists of the following segments: Participants, Procedure, Measures, and Data Analysis, each described in detail below.

2.1 Participants

The participants of this study consisted of 66 female students in grade five (age range = 9 to 11 years; mean M = 10.61, standard deviation SD =.605) from a public elementary school in Riyadh, Saudi Arabia. The study was

divided into two groups: the experimental group, consisting of 33 students who participated in the Habits of Mind -learning and teaching- program. The other group was the control group, which also consisted of 33 students who followed the standard or regular curriculum without any modifications. Before the experiment, the researchers conducted a t-test on independent samples to evaluate the homogeneity of the experimental and control groups in terms of reading self-efficacy. The analysis of pretest scores was crucial to ensure that any observed differences after the intervention could be attributed to the intervention itself rather than pre-existing variations between the groups. The mean and standard deviation for the experimental group's reading self-efficacy scores were $M = 130.03$, $SD = 10.81$. The control group's scores were $M = 128.42$, $SD = 11.15$. This statistical assessment confirmed the groups' equivalence at baseline, highlighting the study's methodological integrity and the fairness of the quasi-experimental design. A t-test for independent samples was conducted to compare reading self-efficacy levels between the experimental and control groups before the experiment. The results indicated that there were no significant differences in reading self-efficacy, $t(64) = .594$, $p = > .05$ (.277) at the $\alpha = .05$ level of significance. These findings suggest that the groups were homogeneous regarding reading self-efficacy before the experiment.

2.2 Procedures

Participants were recruited using random cluster sampling. This method involved randomly selecting one out of twelve education offices and then one school within the chosen office, followed by randomly selecting two classes within this chosen school using the RANDBETWEEN function in Excel. This methodological approach aimed at ensuring that the results accurately represented the study population and minimizing potential biases (Creswell & Creswell, 2017).

Furthermore, the research was conducted in strict adherence to ethical guidelines. Notably, all students participated voluntarily, with their legal guardians' written informed consent. This crucial step ensured respect for individual autonomy and transparency in the research process. The ethical approval for this research was granted by the Standing Committee for Scientific Research Ethics and the Subcommittee on Human and Social Research Ethics at King Saud University in Riyadh, Saudi Arabia (Research Project No: KSU-HE-23-702 dated 13-06-2023). This unwavering commitment to ethical standards was instrumental in maintaining the validity and integrity of the research findings.

Students' reading self-efficacy was assessed using the Arabic-translated version of The Reader Self Perception Scale (RSPS) questionnaire by Henk and Melnick (1995). The researcher supervised the assessment and trained students in the experimental group. The researcher holds a Habits of Mind Individual Practitioner Certification.

A quasi-experimental design with pre-, post-, and follow-up examinations was applied. The study was conducted over a nine-week period, with distinct phases. During the first week, participants completed a pre-test measure of reading self-efficacy using the (RSPS) questionnaire. Instructions were provided both verbally and in writing to ensure comprehension. Furthermore, practice items were employed to familiarize the students with the applied response scale. Following the pre-test, the experimental group was engaged in the Habits of Mind -learning and teaching- program, which was incorporated into their regular classroom activities. Notably, the HoM was embedded into a reading curriculum and was taught along with content. At the end of the HoM -learning and teaching- program, both groups underwent post-test assessments identical to the pre-test to evaluate changes in self-efficacy and its four sources. Two months later, a follow-up test was conducted. Data collection occurred in a controlled environment to minimize distractions and ensure consistency. In more detail, questionnaires were administered at three time points across the first and second semesters of the 2023 school year: August (pre-test), October (post-test), and December (follow-up test).

2.3 Measures

2.3.1 Reading Self-Efficacy

This study used the Reader Self-Perception Scale (RSPS) to assess students' emotional connections with reading via (reader self-efficacy). The scale was developed by Henk and Melnick (1995), based on Bandura's (1977,1982) theory of perceived self-efficacy, focusing on how children view their reading abilities. The RSPS targets children aged 9 to 11 years, requiring 15-20 minutes to complete. This scale consists of one general item to prompt the child to think about their reading ability and 32 specific items across four subscales: The Progress (PR) subscale, designed to put the student's perspective at the forefront, is comprised of statements reflecting a student's view on their current reading performance relative to their past performance. The Observational Comparison (OP) subscale, also student-centric, focuses on students' assessment of their reading skills compared to their classmates. The Social Feedback (SF) subscale, a reflection of the student's social environment, captures both verbal and non-verbal reactions students receive from teachers, classmates, and parents concerning their reading capabilities.

Lastly, the Physiological States (PS) subscale, a window into the student's emotional world, includes statements about students' internal feelings regarding their reading progress and their emotional engagement with reading.

The scale was selected for its alignment with Social Cognitive Theory and robust theoretical foundation in self-efficacy research, addressing a gap in measures not grounded in theoretical principles. The researcher translated the scale into Arabic and then had it reviewed by expert translators for back-to-back translation. This process ensured that the translation was accurate while preserving the scale's original meanings and objectives.

The validity of the translated Reader Self-Perception Scale (RSPS) was established through a pilot study with 130 fifth-grade female students. The scale demonstrated satisfactory internal consistency, with item-to-dimension correlation coefficients ranging from .33 to .86 and item-to-total scale score correlations ranging from .32 to .60, all statistically significant at the .05 level. These findings indicate that the scale's validity was acceptable for assessing reader self-perception in the target population.

The reliability of the translated Reader Self-Perception Scale (RSPS) was confirmed by administering the scale to a pilot sample, the same group used to compute internal consistency. The scale demonstrated strong reliability, with Cronbach's alpha coefficients of .70 for the Progress (PR) subscale, .76 for Observational Comparison (OP), .82 for Social Feedback (SF), and .83 for Physiological States (PS). The scale overall demonstrated a Cronbach's alpha of .90, indicating high internal consistency. Additionally, McDonald's omega for the scale was .89, further confirming the scale's reliability in the present study.

2.3.2 Habits of Mind -Learning and Teaching- Program

The program was strategically designed to facilitate consistent engagement and provide sufficient exposure to *Habits of Mind* along with suitable *Content, Thinking Skills,* and *Reading Strategies.* It aimed to effectively foster students' reading self-efficacy, drawing from its four key sources: progress, observational comparison, social feedback, and physiological states. The reading lessons were structured using Costa and Kallick's (2008; 2009) concentric circles diagram, which organizes outcomes into four nested levels (see Appendix A Figure 1). The first level, *Content*, focuses on identifying essential learning concepts, enhancing comprehension, and assessing understanding. The second level, *Thinking Skills*, emphasizes the importance of integrating thinking skills in teaching content. This involves ensuring that students can perform, articulate, and spontaneously use thinking skills such as analyzing, discussing, diagramming, verifying, summarizing, and empathizing when faced with challenges. Influential thinkers demonstrate their understanding of content through explanation, interpretation, empathy, questioning, and application. The second level, *Thinking Skills*, emphasizes the importance of integrating thinking skills in teaching content. This involves ensuring that students can perform, articulate, and spontaneously use thinking skills such as analyzing, discussing, diagramming, verifying, summarizing, and empathizing when faced with challenges. Influential thinkers demonstrate their understanding of content through explanation, interpretation, empathy, questioning, and application. The third level, *Cognitive Strategies*, refers to a set of mental processes consciously employed to regulate thought processes and content to achieve goals or tackle difficulties. This level requires skillful thinking and includes executive processes like constructing meaning from texts (Cameron & Jago, 2013). Lastly, the *Habits of Mind* level. At this level, students self-reflect and assess their cognitive abilities. The focus is on identifying the habits of mind that serve or support their learning, active participation, and approach to challenging tasks. This level represents a key point in students' cognitive development as they refine their metacognitive skills and develop a deeper understanding of their learning styles. Through this process, students can leverage their strengths and address areas for improvement, leading to improved reading self-efficacy and overall learning experience.

In this program, the researcher, as part of the study, has redesigned a unit of a school reading textbook. The aim was to align the content with the study's objectives. The researcher added thinking skills, reading cognitive strategies, and integrated specific Habits of Mind—persistence, metacognition (thinking about thinking), questioning and posing problems, collaborative thinking (thinking interdependently), listening with understanding and empathy, and applying past knowledge to new situations—into reading instruction. The goal was to foster reading self-efficacy, considering the four foundational sources of self-efficacy. Our program, integrating these specific thinking dispositions into our reading instructional program, has shown promising outcomes. It might allow students to develop high reading self-efficacy. How might this happen? By persevering through difficult passages and tasks, reflecting on their comprehension, consistently assessing the use of reading strategies, actively questioning and probing texts, collaborating to construct meaning and share emotions, and leveraging prior knowledge for a new understanding of new content (see Appendix A table A. for an example of reading lesson plan: fostering reading self-efficacy through integrated habits of mind approach).

The program was conducted over a nine-week period, during which participants in the experimental group

engaged in sessions held three times per week, totaling 27 sessions. The nine-week period aligns with established research, such as Bandura (1997), showing significant shifts in self-efficacy from short-term interventions. Zimmerman (2000) emphasizes that self-efficacy, a mediator of academic success, responds quickly to instructional interventions such as mastery experiences and modeling. Unrau et al. (2017) conducted a meta-analysis that suggests short-term interventions can effectively improve reading self-efficacy.

2.4 Data Analysis

Statistical analyses were conducted using SPSS 29.0. Firstly, descriptive analyses were performed to determine the sample's demographic characteristics. Then, a Multivariate Analysis of Covariance (MANCOVA) was carried out to investigate if there were any significant differences between the experimental and control groups (independent variable) in terms of the four sources of reading self-efficacy (dependent variables), while controlling for pre-test scores on the RSPS scale. In addition, an Independent-Samples T-test was conducted to determine if there were any significant differences between experimental and control groups in RSPS pre-test scores. Finally, a Paired Samples T-test was conducted to check for any significant difference between the result of the experimental group's post-test and the follow-up test.

3. Results

In the current research study, all the student participants were given the Reader Self-Perception Scale (RSPS) assessment before the start of the study. After completing the initial assessment, the experimental group began participating in the Habits of Mind -learning and teaching- program. After completing the program, both the experimental and control groups underwent post-testing using the same RSPS assessment as the pre-test. Two months later, the experimental group was assessed again with the RSPS scale for a follow-up assessment.

3.1 Descriptive Analysis

Descriptive statistics, including means and standard deviations, for the raw scores of total reading self-efficacy and its four sources (Progress, Observational Comparison, Social Feedback, and Physiological States) for both groups are displayed in Table 1. Following this, further analyses were undertaken to address the research questions.

3.2 Equivalence of Groups Before Program Exposure

An independent-sample t-test was conducted to determine if differences existed in pretest scores from the RSPS between the experimental and control groups. Before conducting the t-test on the pretest data, assumptions were verified, including outlier analysis, normality, variance homogeneity, and descriptive statistics evaluation. No outliers were detected, as assessed by inspection of the boxplot. RSPS scores for each group were normally distributed, as assessed by the Shapiro-Wilk test ($p > .05$). Homogeneity of variances was violated, as assessed by Levene's test for equality of variances, $F(1, 64) = .110, p = .742$. The control group demonstrated a mean score of $M = 128.42, SD = 11.15$, indicating the average performance measured for this group. In comparison, the experimental group had a slightly higher mean score of $M = 130.03, SD = 10.81$, suggesting a close but distinguishable difference in average outcomes between the two groups. An independent-sample t-test was conducted to assess the statistical significance of the difference in average outcomes between the experimental and control groups, which was found to be statistically significant, $t(64) = .594, p < .05$ (see Table 1).

Table 1. Comparison of Pretest Reader Self-Perception Scale RSPS and its Sources Scores Between Groups

Sources	Experimental		Control		$t(64)$	p
	M	SD	M	SD		
Progress (PR)	36.18	4.11	36.88	4.49	.594	.556
Observational Comparison (OC)	22.27	2.59	21.79	3.18	.657	.514
Social Feedback (SF)	33.30	3.97	32.27	4.59	.679	.499
Physiological States (PS)	34.21	3.92	33.48	4.37	.972	.335
Total RSPS	130.03	10.81	128.42	11.15	7.11	.479

3.3 First Research Question and Hypothesis

Is there a significant difference in the post-test scores of the four sources of reading self-efficacy between students in the Habits of Mind program (experimental group) and those who did not participate (control group) after controlling for pre-test reading self-efficacy? Prior to conducting the MANCOVA analysis, descriptive statistics

were calculated for all dependent variables across each group (see Table 2).

Table 2. Groups Descriptive Statistics for Dependent Variables by Group Before MANCOVA Analysis

Sources	Experimental		Control	
	M	SD	M	SD
Progress (PR)	42.06	2.54	36.79	4.19
Observational Comparison (OC)	24.88	3.27	22.03	3.74
Social Feedback (SF)	38.55	3.73	30.82	3.84
Physiological States (PS)	36.58	3.04	29.73	6.53
RSPS scale Covariates	130.03	10.80	128.42	11.15

A Multivariate Analysis of Covariance (MANCOVA) was conducted to examine the impact of the Habits of Mind program on students' reading self-efficacy. The study controlled for pre-test self-efficacy scores using the RSPS scale and focused on the four sources of self-efficacy: progress, observational comparison, social feedback, and physiological states. The results showed that the Habits of Mind program had a significant multivariate effect on the combined dependent variables of reading progress, peer comparisons, feedback from teachers and parents, and internal feelings while reading. The overall model was significant, with *Wilks' Lambda* = .253, $F(4, 60)$ = 44.23, p = <001, partial η^2 = .75, indicating that the program significantly affects students' reading self-efficacy.

A partial η^2 of .75 means that around 75% of the variation in the dependent variables, grouped together as a multivariate outcome, was influenced by the independent variables while accounting for the effects of the covariates. This indicates a significant effect, suggesting that the independent variables have a substantial role in explaining the variability in the dependent variables.

After controlling for pre-test self-efficacy scores using the RSPS scale, tests of between-subject effects indicated significant differences across groups. For the dependent variables, progress, observational comparison, social feedback, and physiological states, the effects of the Habits of Mind -learning and teaching- program were significant, suggesting that the HoM program had a meaningful impact on students' reading self-efficacy. In terms of covariates, the pre-test self-efficacy score significantly influenced all the dependent variables (see Table 3).

Table 3. Tests of Between-Subjects Effects

Source	Dependent Variables	$F(1,66)$	η^2
Pre-test Reading Self-Efficacy as (Covariate)	Progress (PR)	42.513***	.403
	Observational Comparison (OC)	48.564***	.435
	Social Feedback (SF)	18.102***	.223
	Physiological States (PS)	7.652***	.108
Groups	Progress (PR)	55.159***	.467
	Observational Comparison (OC)	14.626***	.188
	Social Feedback (SF)	80.884***	.562
	Physiological States (PS)	30.442***	.326

*****P<.001.*

3.4 Second Research Question and Hypothesis

Is there any statistical difference in the development of reading self-efficacy and its four sources among experimental group participants from the post-test to the two-month follow-up test?

A Paired Samples T-test was conducted to determine the effect of the Habits of Mind -learning and teaching- program on reading self-efficacy, and it is for sources. Results indicated a significant increase in total reading self-efficacy score from the post-test M=146.8, SD = 9.19 to follow-up M=151.8, SD = 8.67; $t(32)$ = -4.232,

$p<.001$). This significant change suggests that the total reading self-efficacy score was substantially higher at follow-up than at post-test. The effect size for this difference, calculated using Cohen's d, was 0.74, which falls between medium and large according to Cohen's (1988) conventions (small = 0.2, medium = 0.5, large = 0.8). This effect size indicates a substantial impact of the HoM -learning and teaching- program on reading self-efficacy, suggesting that the program is effective in enhancing reading self-efficacy over the course of time. In short, reading self-efficacy sources displayed a significant increase in observational comparison, social feedback, and physiological states from post-test to follow-up test, while progress factors were maintained (see Table 4).

Table 4. Paired samples t-test on post and follow-up test scores for total reading self-efficacy and it is for sources in the experimental group

Sources	Post- test		Follow-up test		Mean difference	t(32)	p	Cohen's d
	M	SD	M	SD				
Progress (PR)	42.06	2.54	42.42	2.45	-.364	-.797	.216	.14
Observational Comparison (OC)	24.88	3.27	26.48	2.99	-1.61	-2.63	.007	.46
Social Feedback (SF)	38.55	3.73	39.97	4.08	-142	-2.73	.005	.81
Physiological States (PS)	36.58	3.04	37.55	2.03	-.970	-2.14	.020	.83
Total RSPS	146.8	9.19	151.2	8.67	-4.42	-4.23	.001	.74

4. Discussion

This study aimed to evaluate the effectiveness of a nine-week Habits of Mind (HoM) program, a potentially transformative intervention, in developing total reading self-efficacy, including progress, observational comparison, social feedback, and physiological states, among female fifth-grade students. Our primary hypothesis was that participants who received the HoM program would report significantly higher reading self-efficacy levels compared to those in the control group who did not receive any intervention and continued with their regular curriculum. Secondary hypotheses explored the program's potential impact on participants' reading self-efficacy over time. The findings confirmed our initial hypothesis, demonstrating that participants in the experimental group, who were exposed to the Habits of Mind -learning and teaching- program, showed a significant impact on students' reading self-efficacy compared to the control group, which did not receive the program. This was observed through our analysis across four key sources.

4.1 Evaluating the Impact of the HoM Program on Reading Self-Efficacy

Our analysis showed that students in the experimental group demonstrated notable progress in four key factors of reading self-efficacy. Regarding first-factor *mastery experiences (progress)*, the program had been shown to significantly enhance students' mastery progress, resulting in a noticeable improvement in their reading abilities over time. This finding aligned with previous research by Byars-Winston et al. (2017) and Usher and Pajares (2008), who discussed how different factors influenced self-efficacy. This indicated that mastery experiences or progress—that is, the comparison of students' current reading performance against their past performance—were fundamental in enhancing one's self-efficacy, particularly in educational contexts like reading. Butz and Usher (2015) further supported this, showing that successful reading experiences could boost students' confidence in their reading ability. In other words, students tended to feel more confident in their reading ability when they experienced success. Building on this foundation, Afflerbach (2022) emphasized the importance of educational strategies that focused on mastery experiences to foster students' reading self-efficacy. Afflerbach's work was particularly relevant as it underscored the need for an engaging and motivating environment where students were encouraged to interact with reading materials that were both interesting and appropriately challenging. This approach not only facilitated achievement but also built confidence in reading abilities.

Secondly, our *observational comparison* findings highlighted the need to implement the HoM program in schools. Students who had participated in the program significantly increased their reading self-confidence compared to their peers in the control group. This underscored the motivational benefits of the program, demonstrating its potential to transform learning environments. This finding aligned with previous research that emphasized the intricate link between reading performance, self-efficacy, and the effectiveness of environmental and instructional supports in developing a strong sense of self-efficacy among students (Afflerbach, 2022; Peura et al., 2022). According to Usher et al. (2023), in the early stages of learning, observing other students performing a task

successfully had been particularly motivating. This comprehensive approach combined observational comparisons with strategic support and motivational resources, providing a solid framework for enhancing students' belief in their reading abilities and confidence in their success.

Thirdly, our program had a positive impact on the *social feedback* factor, which included verbal and non-verbal feedback from teachers, classmates, and parents about students' reading skills. This feedback loop was crucial for building a supportive learning environment, boosting students' confidence, and reinforcing their efforts and achievements in reading. Our findings aligned with previous research indicating that feedback strongly impacts self-efficacy. For instance, a study by Karl et al. (1993) demonstrated that students who received feedback on their performance showed more significant improvements in self-efficacy compared to those who did not receive any feedback. Furthermore, the study found that the more positive the performance feedback, the higher the increase in the students' self-efficacy. Similarly, Schunk and Rice (1990) determined that feedback significantly supports both self-efficacy and reading skills, underscoring its importance in mastering reading strategies. Additionally, Beattie et al. (2016) reported that detailed feedback could transform negative self-efficacy effects into positive ones, emphasizing the critical role of feedback in educational outcomes. Moreover, the reception of positive feedback and encouragement from teachers, parents, and peers was shown to build students' confidence in their own reading abilities, as demonstrated by Aro et al. (2018), Butz & Usher (2015), and Guthrie et al. (2007). In short, social feedback played a key role in developing and enhancing reading self-efficacy. It not only influenced how children perceived their reading abilities but also affected their motivation to engage in reading activities, thereby impacting their reading achievement and overall academic performance (Henk & Melnick, 1995).

Lastly, The HoM program significantly improved students' *physiological states*, advocating a holistic approach to reading education. This program fostered a positive emotional and psychological environment that motivated students to engage deeply with reading activities. Our findings corresponded with previous research, notably by Henk and Melnick (1995), who emphasized that the internal emotions children experience while reading—such as calmness, comfort, and enjoyment—are crucial in shaping their reading self-efficacy. According to Usher et al. (2023), students often judge their capabilities based on their physical and emotional reactions to tasks. These reactions can be seen as signs of success or failure. Strong and unpleasant physical reactions can make some learners feel incapable of controlling their actions. Furthermore, Ramirez et al. (2019) and Peura et al. (2022) noted that anxiety during reading can obstruct learning by overloading working memory, making concentration and engagement challenging, and causing students to perceive themselves as less competent. Thus, it is crucial to cultivate educational environments that promote positive emotional experiences to enhance students' reading self-efficacy (Henk & Melnick, 1995).

4.2 Examining Changes in Reading Self-Efficacy Over Time in the Experimental Group

Regarding secondary hypotheses about differences from post-test to follow-up in reading self-efficacy sources, Regarding the study's second hypothesis, which examined the effectiveness of the Habits of Mind (HoM) program on sources or factors of reading self-efficacy among experimental group participants from the post-test to the two-month follow-up test, the findings were informative and significant.

First, the results showed that the *progress* factor, which had improved during the post-test, was maintained at the follow-up test. Several aspects contribute to the maintenance and gradual development of progress as a key source of reading self-efficacy, Development, and Stability; the development and maintenance of self-efficacy, including its stability or changes over time, are inherently slow processes. Students depend on the accumulation of experiences and the cognitive processing of these experiences. Variability Among Students: Scherrer and Preckel (2019) noted that while self-efficacy can show overall stability, the direction and magnitude of changes can vary significantly among students. Each student's journey is unique, and for some, noticeable progress that influences self-efficacy might take longer to manifest, especially if it hinges on accumulating multiple positive reading experiences to counteract previous setbacks or challenges. This highlights the need for personalized approaches to fostering self-efficacy. Individual Differences: The research acknowledges the complex nature of self-efficacy development, influenced by personal, behavioral, and environmental factors. For instance, Peura et al. (2021) highlighted that not all students follow the same trajectory in developing self-efficacy. This heterogeneity implies that while some students may quickly assimilate progress into an enhanced belief in their self-efficacy, others may require more time and consistent evidence of progress to adjust their self-perceptions. This variability could be due to differences in how children perceive and interpret their achievements, their resilience to setbacks, and the influence of external feedback.

Second, the results showed a noteworthy enhancement in the *observational comparison* factor from the post-test to the follow-up test, indicating a significant increase over time. The importance of observational comparison in this

context can be elucidated through the theoretical framework established by Bandura (1997). According to Bandura, witnessing others successfully engage in reading tasks serves as a vicarious experience that can inform students about their own potential capabilities. This process, often referred to as vicarious learning, is pivotal as it provides students with a model of success, fostering belief in their own ability to achieve similar outcomes in reading tasks. Usher et al. (2023, pg. 268) reported that in the early stages of learning, observing others complete a task successfully can be highly motivating (e.g., "If they can do it, I can too"). As learners gain more direct experience, they often begin to compare their own performance with that of their peers (e.g., "I must be a capable reader because I am always the first among my peers to finish reading assignments"). Thus, the cycle of observational learning, from initial inspiration to ongoing self-comparison, plays a pivotal role in fostering self-efficacy and personal growth in educational settings.

Third, the results showed a significant improvement in the *social feedback* factor from the post-test to the follow-up test, indicating a notable increase over time. Peura et al. (2021) mentioned that the lack of encouragement and feedback from significant others, such as teachers, parents, and peers, can lead to a decline in reading self-efficacy over time. This highlights the critical role of social feedback in building students' confidence in their reading abilities, as noted by Butz and Usher (2015) and Guthrie et al. (2007). According to Bandura (1997), verbal persuasion and positive reinforcement are particularly crucial during the early stages of skill acquisition when children are most susceptible to the feedback they receive about their capabilities.

In terms of the last factor, the results demonstrated a significant improvement in the *physiological states* from the post-test to the follow-up test, indicating a notable increase over time. This improvement suggests that the internal emotions children experience during reading tasks, such as reduced anxiety, can play an important role in shaping their reading self-efficacy. Peura et al. (2021) found that negative emotional states during reading activities are associated with lower self-efficacy beliefs, while a reduction in negative arousal over time can lead to increased confidence in reading abilities. This indicates that enhancing reading self-efficacy requires not only continuous and explicit social support but also effective management of the negative emotional and physiological responses to reading tasks through the application of habits of mind. Additionally, integrating strategies that promote relaxation and stress management during reading activities could further bolster this aspect of self-efficacy. Techniques such as mindfulness, controlled breathing, and positive self-talk have been shown to alleviate physiological stress responses and could be incorporated into reading sessions to help students manage their emotional states more effectively (Afflerbach, 2022).

4.2 The Practical and Theoretical Implications of the study

The study offers valuable insights into the effectiveness of targeted educational interventions, particularly the Habits of Mind (HoM) program, in developing reading self-efficacy among female fifth-grade students. This has practical implications for curriculum design, teacher training, and policy implementation. By integrating the HoM program into reading curricula, key sources of self-confidence can be targeted: progress, observational comparison, social feedback, and physiological states. This is particularly important in early education, where building reading confidence is crucial. Teacher training should include modules to enhance self-efficacy, focusing on effective feedback, positive physiological responses, and observational learning, emphasizing the importance of tracking, and communicating student progress. Policy support is crucial for funding such educational initiatives and nurturing ongoing adaptation to meet diverse educational needs. Theoretically, the study contributes to self-efficacy theory by providing empirical support for the role of self-efficacy in reading achievement, aligning with Bandura's theoretical constructs. It suggests that interventions focusing on the specific sources of self-efficacy can effectively enhance self-beliefs and subsequent performance in academic domains.

4.3 Limitations

The present study has some limitations related to its quasi-experimental design. Randomly assigning participants to groups was not feasible since the study occurred under real-world conditions within the school's specialized educational support system's framework. However, based on statistical analyses, efforts were undertaken to ensure that reading self-efficacy levels were the same between the groups. Moreover, our study only includes female fifth-grade students, which may limit its applicability to other groups. Nevertheless, we intentionally focused on female students in Saudi Arabian public schools, where education is gender-segregated, to explore their unique experiences and perspectives more deeply. This demographic is underrepresented in the current literature, which emphasizes the value and importance of our research. Additionally, using self-reported measures for evaluating reading self-efficacy and engagement raises concerns about potential biases, such as social desirability or inaccuracies in self-assessment, which could affect the reliability of the findings. Finally, the statistical power of the present study may have been compromised by the relatively small sample size within the intervention group.

4.4 Future Research

Future research should aim to replicate this study using a randomized controlled trial design to strengthen the evidence for the causal effects of the Habits of Mind -learning and teaching- program on reading self-efficacy. Investigating the program's impact on a more diverse sample, including male students and those from various grade levels and educational contexts, would enhance the generalizability of the findings. Longitudinal studies could also explore the long-term effects of the HoM -learning and teaching- program on reading motivation and engagement, providing insights into the sustainability of the observed benefits. Lastly, examining the individual and combined effects of the four sources of self-efficacy would facilitate a deeper understanding of the mechanisms by which educational interventions influence students' reading self-efficacy. According to Peura et al. (2022), continued investigation by researchers and practitioners into the most effective methods for supporting young readers is crucial, as the beliefs held by children about their own reading capabilities can significantly determine their engagement in or avoidance of reading activities.

5. Conclusion

Self-efficacy is an essential concept in social cognitive theory. It plays a critical role in motivating people and promoting engagement. This idea has been well-established for many years (Bandura, 1997). Studies have shown that self-efficacy greatly influences students' motivation, achievement, and ability to regulate themselves (Afflerbach, 2022; Schunk & Pajares, 2009). Students who have a strong belief in their capabilities engage more, persist longer, show greater interest, and attain higher achievements than those who have low self-efficacy or lack confidence in their abilities (Bandura, 1997).

In terms of reading, positive self-perceptions of one's ability to read are associated with better engagement in reading activities during the early school years (Peura et al., 2022). According to Afflerbach, "Readers with low self-efficacy may be hard-pressed to become successful; believing that they are not strong readers, they avoid reading when they can; such avoidance greatly diminishes opportunities for these students to learn and practice reading strategies and skills" (2022, p. 94-95). Therefore, it is crucial for educators, researchers, and practitioners to closely understand students' reading self-efficacy and how it might be enhanced through interventions to enhance their motivation and engagement while reading (Peura et al., 2022).

The current study examined whether implementing the Habits of Mind approach in reading instruction could develop the four sources of reading self-efficacy over time. The findings showed that the intervention successfully improved students' reading self-efficacy. Additionally, the study highlights that the Habits of Mind approach can be a powerful tool in enhancing students' motivation and engagement while reading. It achieves this by encouraging students to experiment with new thinking skills and reading cognative strategies, learn from observing their peers, receive positive feedback that reinforces their beliefs in their abilities, and manage their emotions effectively before, during, and after reading. This approach holds the potential to not only provide students with the confidence required to overcome reading challenges but also to foster a lifelong passion for reading.

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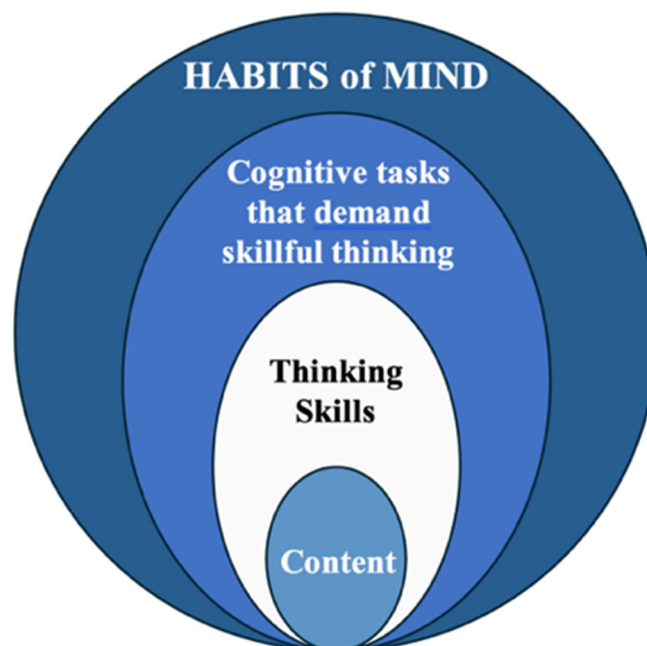
Appendix A

Figure 1. Four Levels of Educational Outcomes. From Habits of Mind Across the Curriculum: Practical and Creative Strategies for Teachers, by A. A. Costa & B. Kallick, 2009, p. 4

Table A. Example of Reading Lesson Plan: Fostering Reading Self-Efficacy through Integrated Habits of Mind Approach

Content	Identify and analyze the four critical elements of a story — characters, setting, conflict, and resolution — by engaging in an interactive presentation on narrative components, participating in collaborative group discussions to dissect story elements, and conducting an individual analysis exercise to apply their understanding to new stories.				
Thinking Skills	**Cognitive Reading Strategies**	**Habits of Mind**	**Activities**	**Feedback**	**Reading Self-Efficacy Sources**
- Imagine - Illustrate - Visualize	**Story Map/ Visualization** Students employed visualization to create mental images of the story's setting, characters, and events.	**Thinking about Thinking (Metacognition)** Encourages students to reflect on their ability to visualize and how to improve it over time.	As part of a reading assignment, students were asked to draw and write a visual representation of the story, focusing on detailed imagery and connections between text elements.	The students received feedback on the clarity and creativity of their visualizations. The focus was on how well these representations helped to understand the deeper meanings of the story. The students were encouraged to reflect on their progress in using this strategy and compare it to their previous attempts. This aimed to promote continuous improvement.	**Mastery Experiences (Progress)** Students can assess their reading progress by evaluating how well they can imagine the content they read. They can compare their current performance with their past performance to determine if they have improved. Positive recognition of improvement, based on specific and constructive feedback, can bolster students' confidence and belief in their reading abilities. Experiences perceived as successful can profoundly and positively affect self-efficacy, instilling a sense of hope and motivation in students.
		Persisting Encourages students to persist in refining their visualization skills, even when faced with complex or challenging texts.	As part of their assignment, students were required to create a comprehensive story map that visually presents the key elements of the selected story.	The students' efforts were recognized, and feedback was provided on the depth and accuracy of their story maps, encouraging persistence by pointing out areas for improvement.	Through consistent practice and feedback, students saw improvements in their ability to handle more complex texts compared to previous attempts. This recognition of progress reinforces their self-efficacy by demonstrating that persistent effort leads to improved skills and better reading performance.

- Summarize - Identify	**Summarization** Students summarized parts of the story, focusing on main ideas and essential details.	**Applying Past Knowledge to New Situations** Encourages students to apply their prior knowledge of summarization techniques and insights gained from observing peers in new reading situations.	Students observed effective text summarization by a peer and practiced the technique on a new text.	Direct and comparative feedback was provided on student summaries, highlighting alignment or divergence with effective examples and pointing out areas for improvement from previous summaries.	**Observational Comparison** Through observing their peers' effective summarization, students can distinguish their potential for success and make inferences about their abilities. When they make positive comparisons ("I summarized as well as my peer"), their reading self-efficacy is enhanced, which may motivate them to refine their skills further.
- Ask - Generate - Think-up! - Come-up with - Reflect	**Question Generating** Students generated their own questions about the text to foster curiosity and deeper understanding.	**Questioning and Posing Problems** Encourages students to ask productive questions that demonstrate curiosity and commitment to a topic.	Students read a selected text and then generate a set of questions that explore themes, characters, and plot developments. These questions were shared in a classroom discussion.	The students received feedback that was both specific and encouraging. Students were praised by their teachers and peers for asking productive questions, with comments such as "That question really makes us think deeper about the character's motives" and "Your question opened up a new perspective on the story." These verbal persuasions can significantly affect students' reading self-efficacy.	**Social Feedback/ Persuasions** Positive Social Feedback from teachers and peers about the quality of the questions raised can significantly boost students' confidence in their reading ability to read, engage with, and understand texts.

- Integrate - Blend - Combine - /Put together!	**Synthesizing:** Students involved in merging different ideas develop a new understanding of the text.	**Thinking Interdependently** Encourages students to integrate their thoughts with their peers, fostering a collaborative understanding of the text.	Students worked in groups to discuss and combine their understandings and interpretations of a text to create a unified group synthesis presented as a joint presentation.	Positive feedback was given on how well the group's synthesis incorporated diverse perspectives and the creativity of their integrated understanding. Comments such as "Your group's synthesis brought new insights into the text" or "You have effectively combined your ideas" helped to enhance students' reading confidence.	**Social Feedback/ Persuasions** Receiving positive feedback from teachers and peers about the synthesis process's effectiveness can enhance students' confidence in their ability to integrate different perspectives and make meaningful contributions to group discussions. This type of feedback validates their ability to work effectively in collaborative environments, which is essential for their self-efficacy in reading and beyond.
- Think through - Engage	**Self-talk (Connecting)** students engaged in Self-talk to connect personal experiences to the text, enhancing comprehension and engagement.	**Listening with Understanding and Empathy** Encourages students to take an empathetic approach that allows them to better understand and connect with the emotions and situations of others.	Students engage in a reflective reading session where they note down their connections with the text. They discussed these connections in small groups, focusing on how their experiences relate to the story and each other's understandings.	Feedback was given on the depth and relevance of the connections made. The uniqueness and value of students' perspectives were acknowledged.	**Physiological States** Engaging in self-talk that connects text to personal emotions and empathetically listening to peers can positively affect students. They may experience physiological responses such as feeling calm and having reduced anxiety, which are considered to be indicators of successful engagement and understanding. These positive states can enhance students' confidence in their reading abilities and reinforce their belief in their capabilities. This, in turn, may reduce negative physiological responses in future reading tasks.

Note. The information presented in this table was based on seminal works by distinguished researchers in the field of Habits of Mind and reading self-efficacy, including Afflerbach (2022), Aro et al. (2018), Bandura (1997), Billmeyer (2009), Costa and Kallick (2008; 2009), Usher et al. (2023), and Peura et al. (2021). These publications have significantly contributed to both the theoretical and practical understanding of the Habits of Mind framework and the development of reading self-efficacy.

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