



OPEN ACCESS

EDITED BY

Sharon Hardof-Jaffe,
Levinsky-Wingate Academic College,
Israel

REVIEWED BY

Michal Ganz-Meishar,
Levinsky College of Education, Israel
Shira Soffer-Vital,
Ono Academic College, Israel

*CORRESPONDENCE

Tuyet Linh Vuong
✉ vuonglinh.hp@gmail.com

RECEIVED 13 November 2025

REVISED 14 February 2026

ACCEPTED 18 February 2026

PUBLISHED 11 March 2026

CITATION

Vuong TL and Steklács J (2026) Teacher readiness for reciprocal teaching in Vietnamese primary schools: a constructivist grounded theory informed by social cognitive theory. *Front. Educ.* 11:1746018. doi: 10.3389/feduc.2026.1746018

COPYRIGHT

© 2026 Vuong and Steklács. This is an open-access article distributed under the terms of the [Creative Commons Attribution License \(CC BY\)](https://creativecommons.org/licenses/by/4.0/). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

Teacher readiness for reciprocal teaching in Vietnamese primary schools: a constructivist grounded theory informed by social cognitive theory

Tuyet Linh Vuong^{1,2*} and János Steklács^{1,2,3}

¹Doctoral School of Education, University of Szeged, Szeged, Hungary, ²MTA-PTE Reading Fluency and Comprehension Research Group, Pécs, Hungary, ³Doctoral School of Education, University of Pécs, Pécs, Hungary

Introduction: This study examines how Vietnamese primary school teachers' social and psycho-professional experiences shape their readiness to implement Reciprocal Teaching (RT) in the classroom with implications for self-determined professional development. Anchored in Social Cognitive Theory and employing a Constructivist Grounded Theory approach, the research explores the dynamic interplay among teachers' personal beliefs, environmental contexts, and instructional practices, and examining these dynamics through core heutagogical concepts like self-determined, critical reflection, and teacher empowerment.

Methods: Nineteen teachers participated in semi-structured interviews, comprising five with prior RT implementation experience and 14 without, all having completed comparable professional training. Through iterative open, focused, and theoretical coding, four interconnected domains of readiness emerged: personal beliefs, cognition, and self-efficacy; behavioral strategies, regulation, and modeling; environmental affordances and constraints; and reciprocal dynamics reflecting continuous interactions among these domains.

Results: Through heutagogy, findings indicate teacher readiness emerges as a fluid, context-specific process molded by educators' self-guided reflection, strategic adaptations, and evolving professional agency.

Discussion: A key theoretical insight positions self-efficacy as both a prerequisite and an outcome of RT implementation. This grounded framework enriches teacher education by clarifying how heutagogical approach function in professional learning contexts, offering practical strategies to cultivate lasting teacher autonomy, confidence, and pedagogical innovation in diverse educational environments.

KEYWORDS

constructivist grounded theory, heutagogy, reciprocal teaching, social cognitive theory, teacher readiness

1 Introduction

This study investigates teachers' readiness for Reciprocal Teaching in Vietnam's resource-limited primary schools, amid education reform curricula and policy pressures that demand adaptive autonomy and professional agency. Innovative teaching methods such as Reciprocal Teaching are vital in education, as they enhance student learning outcomes, engagement, and motivation (Tronchoni et al., 2022; Liu et al., 2024) while supporting teachers in sustaining

long-term pedagogical expertise and confidence (Zhumabayeva et al., 2024).

Reciprocal Teaching (RT) is an established instructional approach that improves students' reading comprehension (Mafarja et al., 2023; Juhkam et al., 2023; Hussein, 2024) and fosters greater enjoyment of learning (Wahyudi et al., 2024). This method employs four key strategies in small student groups, including questioning, clarifying, summarizing, and predicting (Chen and Kong, 2016; Oo et al., 2021; Wu and Chen, 2018), enabling students to actively construct meaning and develop self-regulated learning skills (Decristan et al., 2022). However, research indicates significant barriers to implementing RT in primary schools (Mafarja et al., 2023), including limited resources, materials, and professional support (Oo et al., 2021), as well as insufficient time for lesson preparation and lack of collegial support (Decristan et al., 2022).

A review of the literature reveals that most studies focus on RT's effectiveness for students (Vuong and Steklács, 2025), with limited attention to the challenges, barriers, or underlying factors hindering teachers' adoption of RT in regular instruction. Furthermore, recent RT research predominantly employs quantitative or mixed-methods designs, with a scarcity of purely qualitative studies. A qualitative approach is thus essential to provide deeper insights into the reasons for teachers' hesitation to implement RT, elucidate the complexities of pedagogical practice, and inform targeted teacher training and policy development. Although RT was introduced in 1984, it remains relatively unfamiliar to many Vietnamese primary school teachers (Vuong and Steklács, 2024). As Vietnam undergoes comprehensive educational reforms emphasizing innovative teaching methodologies to promote active student learning, this study addresses the following research questions: Are Vietnamese primary school teachers willing to integrate RT into their daily teaching practice after being introduced to it? What factors influence their decision-making in this regard?

Constructivist Grounded Theory (CGT) is particularly suited to this study due to its emphasis on the contextual factors shaping actions (Lindqvist and Forsberg, 2023). Elements such as class size, examination pressures, and teaching culture significantly influence classroom practices. Consequently, CGT enables an analysis of individual teacher practices within the broader context of Vietnam's educational framework. Moreover, CGT, as a qualitative research methodology, generates explanatory theories grounded in participants' experiences and the social interactions between researchers and participants (Zhang et al., 2023). This study, conducted in Vietnam, utilized 19 semi-structured interviews with primary school teachers, including five with prior experience implementing RT and 14 without. By collecting data from both groups, the study develops a theory elucidating the circumstances, beliefs, and experiences influencing teachers' readiness to adopt RT. Thus, CGT facilitates the creation of a theoretical framework that is both contextually grounded and practically applicable to enhancing RT implementation in classrooms.

Thus, this investigation explores the ways in which Vietnamese primary school teachers' social encounters and professional backgrounds influence their preparedness to adopt Reciprocal Teaching amid Vietnam's current educational reforms. Through a qualitative lens, it aims to illuminate teachers' viewpoints and reasoning around embracing pedagogical innovations within the challenges of under-resourced classrooms.

This investigation employs Constructivist Grounded Theory (Charmaz, 2014) as its methodological anchor, complemented by theoretical lenses that clarify how teachers' convictions, professional

autonomy, and situational influences guide their classroom practices (Bandura, 1986). From this standpoint, teachers' readiness to implement Reciprocal Teaching (RT) is conceptualized as a dynamic, self-determined process rather than a passive adaptation to instructional reform.

Although this study employs a CGT approach (Charmaz, 2014), its analysis is informed by Social Cognitive Theory (SCT) (Bandura, 1986). SCT provides a valuable lens for understanding teacher readiness by exploring the interplay of teachers' beliefs, environmental factors, and intentions in adopting innovative teaching methods. Core concepts such as self-efficacy, observational learning, and anticipated outcomes serve as critical theoretical tools to examine how Vietnamese primary school teachers navigate their willingness to integrate RT into their practices. Rather than applying SCT as a rigid framework, it serves as a sensitizing guide to enhance theoretical sensitivity (Blumer, 1954). Through abductive reasoning, which is an iterative process of moving between data and theory (Timmermans and Tavory, 2012), the study refines its conceptual model of teacher readiness ensuring that the resulting grounded theory is both contextually rich and theoretically robust.

Beyond these analytical lenses, the study also draws on heutagogical principles, which place self-determined learning and learner agency at the center of its conceptual framing. The concept of heutagogy was first introduced in Hase and Kenyon (2007). This approach promotes flexible learning where teachers provide resources but learners negotiate their own paths. Blaschke (2012) and Blaschke and Hase (2016, 2019) further developed the theory, emphasizing self-determination, reflection, and capacity building in digital and blended contexts. Studies over the past five years have highlighted the increasing role of heutagogy as a suitable framework for teacher education and professional development, emphasizing autonomous learning, learner autonomy, reflective practice, and the capacity to meet the growing demands of modern education (Mwinkaar and Lonibe, 2024; Panta, 2025). Although heutagogy and self-determined learning are sometimes used interchangeably in the literature, this study adopts heutagogy as a contextual and integrative reference, while reserving self-determined learning for its underlying orientation.

This study sheds light on how personal perceptions, behavioral strategies, and contextual factors interact to shape primary teachers' self-determined learning and agency (Chamo et al., 2023; Zakaria et al., 2024). Through interview data analysis, it highlights teachers' initiative in refining strategies, reflecting on outcomes, and seizing environmental opportunities, affirming that professional learning unfolds as an active, socially embedded process rather than mere passive uptake (Mwinkaar and Lonibe, 2024; Newfield, 2025). While the study draws on heutagogical ideas of teacher autonomy, reflective practice, and social interaction for contextual understanding (Blaschke, 2012; Chamo et al., 2023), the analysis itself relies on a tripartite conceptual frame of cognition, behavior, and context to underpin deeper discussion ahead.

Methodologically, this study draws on CGT (Charmaz, 2014) to explore how Vietnamese primary teachers' social and professional experiences shape their readiness for RT. Informed by SCT (Bandura, 1986), it foregrounds personal motivation and self-efficacy alongside support from principals and peers, which strengthens teacher agency in the face of crowded classrooms, diverse learner abilities, and curriculum reform pressures (Chamo et al., 2023; Pham et al., 2023). SCT and CGT together promote self-determined learning by equipping Vietnamese primary teachers to thoughtfully adapt Reciprocal

Teaching despite institutional constraints that hinder classroom innovation. Heutagogy further enriches this framework by revealing the reflective growth and capability-building evident throughout participants' accounts (Glassner and Back, 2020; Akçay, 2025). Collectively, these perspectives capture the interplay of personal motivation, professional behaviors, and environmental influences guiding teachers' pedagogical decisions in Vietnam's primary schools. Heutagogical tenets enhance this perspective by illuminating the reflective practices and capability development reflected in participants' narratives (Glassner and Back, 2020; Akçay, 2025).

2 Methodology

2.1 CGT

CGT posits that knowledge is collaboratively constructed through interactions between researchers and participants, shaped by social structures, cultural contexts, and personal experiences (Charmaz, 2014; Mohajan, 2022). This methodology emphasizes the researcher's active role in meaning making and requires continuous reflexivity regarding assumptions, perspectives, and positionality throughout data collection and analysis (Charmaz, 2014). The CGT process entails iterative data collection and analysis through initial, focused, and theoretical coding, supported by memo-writing and constant comparison to refine emerging categories and theoretical insights (Charmaz, 2014; Lindqvist and Forsberg, 2023). Theoretical sampling guides the strategic selection of additional data to clarify, expand, or challenge developing categories, enhancing the theoretical coherence of the model (Tie et al., 2019; Lindqvist and Forsberg, 2023).

In this study, CGT provided the methodological framework for developing a contextualized understanding of Vietnamese primary school teachers' readiness to adopt RT. Data were collected through 19 semi-structured interviews, comprising five teachers experienced in RT and 14 without, enabling the co-construction of rich, contextual insights. To enhance theoretical sensitivity, Social Cognitive Theory (SCT) (Bandura, 1986) was applied as an interpretative lens rather than a prescriptive framework. Consistent with Blumer's (1954) concept of sensitizing constructs, SCT functioned to guide analytical attention and deepen interpretive insight without constraining the data through predefined categories. Rather than being imposed rigidly, SCT functioned as a guiding perspective supporting abductive reasoning and iterative movement between empirical data and theory (Timmermans and Tavory, 2012). This integration ensured the emergent grounded theory remained data-informed and conceptually refined. Following this approach, both initial and focused coding were carried out inductively, grounded in participants' accounts, without the prior application of SCT constructs. Engagement with SCT took place mainly after the core categories had been identified, enabling the evolving theory to be theoretically enriched while avoiding the imposition of external frameworks.

Reflecting CGT's constructivist principles, the researcher practiced reflexivity to acknowledge the influence of personal and contextual factors on interpretations. Trustworthiness was ensured by addressing Lincoln and Guba's (1985) criteria: credibility (through member checking and peer debriefing), dependability (via audit trails and analytic memos), confirmability (through reflexive journaling and peer discussions), and transferability (through detailed descriptions

of participants and contexts). These measures collectively strengthened the authenticity, depth, and applicability of the resulting theory, providing a robust foundation for understanding teacher readiness within Vietnam's dynamic educational landscape.

2.2 Researcher reflexivity and positionality

Consistent with the constructivist paradigm, the researchers acknowledge that knowledge and meaning are co-constructed through continuous interactions with participants. The first author, an experienced Vietnamese primary school teacher and educator, brought extensive familiarity with classroom practices and RT, which informed but did not predetermine data interpretation. The second author, an expert in RT and reading comprehension for students aged 6 to 15, contributed specialized insights into pedagogical and literacy frameworks.

Throughout data collection and analysis, reflexive practices, such as memo-writing, journaling, and peer debriefing, were employed to enhance transparency and mitigate potential biases. This collaborative reflexive approach positioned both researchers as co-learners and co-constructors of meaning alongside participants, aligning with CGT principles (Charmaz, 2014). By acknowledging their positionality and maintaining reflexivity, the researchers ensured that interpretations were grounded in mutual understanding and contextually relevant, thereby enhancing the study's credibility. Ongoing reflexive dialogue between the researchers facilitated the identification and examination of personal assumptions, strengthening the confirmability of the analytical interpretations.

2.3 Literature review

2.3.1 The role of literature in constructivist grounded theory

In CGT, the literature serves as a dynamic resource that informs the researcher's evolving interpretations without imposing predetermined categories (Charmaz, 2014). Burns et al. (2022) emphasize that meaning and theory are co-constructed through interactions among researchers, data, and prior knowledge. Thornberg and Dunne (2019) suggest that engaging with existing studies enhances theoretical sensitivity by enabling researchers to identify patterns, challenge assumptions, and recognize research gaps without allowing prior theories to dominate. Bobbink (2024) further notes that prior research contextualizes emerging theories, deepening their interpretive depth. Thus, in this study, the literature functioned as a critical, reflective tool, supporting creative and contextually grounded theoretical development.

2.3.2 Literature on reciprocal teaching and influencing factors

In RT, theory is primarily constructed through researcher-participant interactions, but prior studies on RT and Bandura's SCT (Bandura, 1986) provide critical reference points for comparison and critique.

International research identifies intensive training (Mafarja et al., 2023), collegial and institutional support (Alharbi, 2024), and digital technology integration (Alasmari, 2021; Mafarja et al., 2023) as key factors influencing RT adoption. In Vietnamese primary schools, teacher data reflect similar influences of training and collaboration but highlight

distinct factors, including curriculum pressures, limited lesson time, and diverse classroom dynamics. This comparison informs targeted interview questions and reveals gaps unaddressed by existing theories.

Moreover, engagement with existing literature enhances the data coding process. International studies, including Oo et al. (2021) and Okkinga et al. (2021), guided identification of key constructs like “teacher-student interaction” and “group feedback,” shaping preliminary coding categories from Vietnamese teachers’ data. This analysis facilitated reflective inquiry, enabling new insights and supporting the co-construction of meaning (Charmaz, 2014; Brown et al., 2022).

As the categories developed into a coherent theoretical framework, the researcher engaged in a process of revisiting the literature (“returning to the library,” Charmaz, 2014) to contextualize and compare the emerging theory within broader educational discourse and constructivist perspectives. This reflective engagement helped articulate the study’s theoretical contributions and extended the understanding of teacher readiness as a fluid, socially mediated process rather than a static condition.

2.4 Participants

This study was conducted in Vietnam, a developing nation undergoing comprehensive educational reforms across all educational levels (Pham et al., 2023). In the 2024–2025 academic year, Vietnam had approximately 8.8 million primary school students and over 400,000 primary school teachers (Ministry of Education and Training, 2018). The large student population and class sizes exert significant pressure on primary schools. On average, classes comprise 30–35 students, though in some urban areas, class sizes may range from 45 to 48 students. Primary education begins at age six and continues until age ten, encompassing Level I, a universal and compulsory education phase that includes five grades (Grades 1 to 5) (Ministry of Education and Training, 2018). RT is a relatively new instructional approach in Vietnam, with limited application in primary classrooms (Vuong and Steklács, 2025). To investigate factors influencing teachers’ willingness or reluctance to implement RT, two groups of primary school teachers were purposively recruited.

The first group consisted of Grade 3 teachers who participated in an eight-week RT intervention in 2024 in Hai Phong, Vietnam. Including teachers from multiple grades facilitated a broader examination of their beliefs, perceptions, and contextual factors influencing their decisions to adopt RT in primary education. All 19 participants were female, reflecting the gender distribution in primary teaching. Of the 14 teachers without prior RT experience, 13 were from Hai Phong, and one was from Bac Giang. Their class assignments were as follows: three taught Grade 5, six taught Grade 4, two taught Grade 3, two taught Grade 2, and one served as a vice-principal. This study employed a theoretical sampling approach, with participant selection guided by the evolving needs of data analysis rather than a predetermined sample size. Participants were initially selected based on predefined criteria, with additional recruitment conducted as needed to enrich emerging categories and achieve theoretical sufficiency. This approach ensured the collection of comprehensive and nuanced data, aligning with the principles of CGT.

2.5 Sampling strategy

This study employed a theoretical sampling strategy aligned with CGT principles (Charmaz, 2014). Participants were purposively

selected to ensure conceptual diversity and support emerging categories. The sample comprised 19 primary school teachers in Vietnam, five with RT experience and 14 without. Initially, teachers familiar with RT were interviewed to identify preliminary codes and processes related to readiness and classroom practices. Subsequently, teachers without RT experience were recruited to contrast perspectives, refine categories, and enhance theory development. All engaged in iterative semi-structured interviews, informing further sampling. The unequal group composition reflects theoretical sampling’s flexible nature, prioritizing theoretical sufficiency over numerical balance to understand teacher readiness.

2.6 Theoretical sufficiency

Data collection concluded based on theoretical sufficiency rather than data saturation. Theoretical sufficiency denotes sufficient data to construct a robust theory capturing the research phenomenon (Charmaz, 2014; Saunders et al., 2018). This relies on the researcher’s judgment of the completeness, coherence, and depth of emerging categories, not the absence of new information (Sbaraini et al., 2011). Sampling followed theoretical sampling principles, adjusting participants to enrich categories until sufficiency was achieved. Data collection ceased when no further theoretical insights emerged. A fixed sample size could have constrained theory development, a potential limitation (Miller, 2023). Theoretical sufficiency enhances the credibility and relevance of findings in CGT through researcher-data interaction (Charmaz, 2014).

2.7 Ethical considerations

This study obtained ethical approval from the Institutional Review Board (IRB) of the Doctoral School of Education, University of Szeged, 6722 Szeged, 30-34 Petöfi S. Av., Hungary (protocol code 7/2024-NI and date of approval: 23 March, 2024). Before conducting the interviews, the first author contacted teachers by telephone to explain the study’s purpose, duration, data collection methods, and intended data use. Participants signed voluntary informed consent forms, which outlined confidentiality assurances, their right to access data upon request, and plans for disseminating findings. Participants were also informed of their right to withdraw from the interview or discontinue participation at any stage. To ensure anonymity, all personally identifiable and school-related details were removed during transcription, and a systematic coding system was applied to fully anonymize the data.

2.8 Data collection

The research team independently designed a semi-structured interview protocol specifically to investigate factors affecting primary teachers’ readiness or reluctance to implement RT. The questionnaire centered on four key themes: (1) Perceptions and evaluation of RT: teachers’ opinions regarding its strengths, limitations, applicability in classrooms, student interest or potential difficulties, and reactions to assuming various roles in group discussions. (2) Strategies and practical challenges: views on which strategies students find easier or harder, methods to support the most difficult strategies, and approaches to overcoming implementation obstacles. (3) Feasibility and application: willingness to adopt RT, influencing factors, and intended frequency or scope of use (e.g., daily, occasional, or restricted to specific lessons).

(4) Dissemination and scaling: opinions on recommending RT to colleagues and underlying reasons.

In the initial phase, five teachers from the RT intervention were interviewed, informing minor wording and sequencing revisions for nuanced perspectives. The revised questionnaire was used for 14 teachers without RT experience, ensuring consistency while allowing flexibility aligned with the study’s evolving focus.

All interviews were conducted via video calls in Vietnamese and audio-recorded. The first five interviews, with teachers experienced in RT, occurred between January and February 2025, while the remaining 14, with teachers trained but not yet implementing RT, took place from June to August 2025. Each interview lasted approximately 30 to 45 min. The semi-structured format facilitated exploration of emerging themes while aligning with research objectives.

2.9 Data analysis

2.9.1 Initial coding

All interviews were transcribed verbatim and analyzed using CGT (Charmaz, 2014). Following Brown et al. (2022), line-by-line coding of transcripts in the initial phase enabled the researcher to remain aligned with participants’ perspectives while maintaining theoretical sensitivity and openness. During this open coding phase, transcripts were analyzed separately for two teacher groups: those who had implemented RT and those who had received RT training but had not yet applied the approach. This separation facilitated the identification of distinct viewpoints and experiences. For teachers with RT implementation experience, coding focused on their classroom practices, strategies for overcoming challenges, and contextual factors influencing their approaches. For teachers who had undergone training but had not implemented RT, coding emphasized their beliefs, perceived feasibility of the method, and contextual or cognitive barriers affecting their readiness to adopt it.

During the initial coding phase, recurring themes in participants’ narratives led to four tentative conceptual categories: method evaluation, management of practical constraints, understanding of applicability and implementation, and envisioning dissemination. These categories emerged inductively through iterative comparison and reflexive analysis. Table 1 illustrates early coding, demonstrating how meanings were derived from the data.

2.9.2 Focused coding

In the focused coding phase, initial codes were synthesized into broader categories that elucidate how teachers’ understanding of RT develops through the interplay of their beliefs, classroom environments, and pedagogical strategies. These categories align with the interconnected elements of Bandura’s SCT (Bandura, 1986) and were derived inductively from teachers’ reflections on their pedagogical rationale, contextual challenges, and adaptive classroom practices.

Teachers’ beliefs about RT’s instructional value were captured in focused codes such as “fostering active participation” and “promoting learner autonomy,” reflecting their view of RT as a method to enhance engagement and independence. Environmental factors were evident in codes like

“managing group learning complexity” and “addressing mixed-ability class feasibility,” highlighting how school conditions and class

TABLE 1 Line-by-line initial coding of teachers’ perspectives on reciprocal teaching.

Transcript excerpt	Group	Initial coding
“For this Reciprocal teaching method, I think its first advantage is that it enhances students’ active participant.”	Non-Experienced Group	Recognizing RT as promoting active student engagement.
“The easiest part for students is predicting, because they can be creative and imaginative; nothing is strictly right or wrong.”	Non-Experienced Group	Valuing prediction as a low-pressure, creative learning activity.
“When teaching RT to students, I find it difficult to control the effectiveness of group work for all students.”	Experienced Group	Struggling to manage collaborative group work effectively.

This table presents the systematic line-by-line coding of transcript excerpts from teachers to generate initial analytic categories regarding their perspectives on reciprocal teaching.

diversity influence RT implementation. Behavioral aspects emerged in codes like “balancing preparation effort with teaching benefits” and “facilitating student summarization,” illustrating teachers’ practical adaptations for applying RT in classroom settings. The constant comparison method was applied systematically:

Data from teachers who had not yet implemented RT were compared with insights from those who had applied it. This iterative analysis revealed a developmental shift from initial perceptions of difficulty and hesitation to increasing acceptance and adaptation over time. For example, the contrast between “difficulty managing group activities” and “students gradually becoming familiar with RT” shows that teacher readiness is not fixed but co-constructed through practice-based teacher reflection and practical experimentation. Each new data segment prompted the refinement and reconceptualization of categories, uncovering subtle shifts from anxiety and uncertainty toward greater confidence and agency. (Vuong, 2025-09-13)

Analytic memo-writing played a crucial role in this process, with researcher’s reflexive and observations regularly recorded to trace how focused codes developed into higher-order categories. The memos served as a space to capture emerging insights into the reciprocal influence of beliefs, contexts, and actions, as well as teachers’ ongoing negotiations and reflective shifts as they engaged with RT in practice, as below:

Data from teachers without RT experience (Participant 5) were systematically compared with those who had implemented RT (Participant 9). This ongoing comparison revealed a developmental shift from initial perceptions of difficulty and hesitation to growing acceptance and adaptation over time. The contrast between “difficulty managing group activities” and “students gradually becoming familiar with Reciprocal Teaching” illustrates that teacher readiness is not static but co-constructed through ongoing, practice-based teacher reflection and practical experimentation. (Vuong, 2025-09-13)

Through iterative comparison and detailed analytic memoing, it became evident that teacher readiness for RT is a socially situated, dynamic process shaped by the reciprocal interplay of individual beliefs, environmental factors, and enacted practices, as summarized in Table 2. Teachers who implemented RT described developmental trajectories from initial uncertainty to enhanced self-efficacy, with each domain mutually influencing the others. This reflects Bandura's (1986) concept of reciprocal determinism, wherein cognition, environment, and behavior interact.

Further analysis revealed that teachers yet to implement RT experienced similar reflective tensions, recognizing RT's pedagogical value but

questioning its feasibility within institutional constraints. This negotiation between aspiration and limitation, identified by Charmaz (2014) and Miller (2023) as an analytic turning point, facilitated the consolidation of core categories, reinforcing readiness as a dynamic construct. To ensure credibility and confirmability, the coding framework and preliminary themes were collaboratively reviewed by the two researchers and discussed during peer debriefing with academic colleagues.

Table 2 synthesizes the focused coding outcomes, aligned with SCT, demonstrating how initial codes were organized into personal, behavioral, and environmental dimensions. These categories elucidate how teacher readiness for RT emerges through the interplay of beliefs, pedagogical strategies, and contextual factors. Consistent with Charmaz's (2014) perspective that theoretical sensitivity arises through active data engagement, the findings underscore readiness as a socially mediated, dynamic process rather than a static individual attribute.

TABLE 2 Integration of focused codes with the triadic dimensions of social cognitive theory.

Initial codes (sample extracts)	Focused codes	Emerging category	SCT dimension
Increasing active participation; Encouraging autonomy; Monitoring and adjusting instruction.	Promoting student engagement and responsive teaching.	Perceived pedagogical benefits of RT.	Personal (beliefs/cognitive)
Difficulty applying in mixed-ability classes; Need for students training and planning time.	Recognizing contextual and instructional constraints.	Practical challenges in RT implementation.	Environmental (context/constraints)
Summarizing and questioning most difficult; Dependence on text-type	Negotiating the complexity of RT strategies.	Understanding strategic implementation processes.	Behavioral (action/strategies)
Grouping intentionally; Rotating roles; Reviewing group products; Giving feedback.	Managing group dynamics and supporting peer collaboration.	Facilitating collaborative learning structures.	Behavioral/environmental interaction.
Selecting appropriate texts; Need support from school; Sharing methods with peers.	Balancing motivation, feasibility and dissemination.	Readiness and advocacy for RT adoption.	Personal/environmental interaction.

This table outlines how focused codes were synthesized into personal, behavioral, and environmental domains, illustrating the reciprocal interactions shaping teacher readiness for reciprocal teaching.

2.9.3 Theoretical coding

Guided by Bandura's (1986) SCT, the theoretical coding phase integrates focused codes into a dynamic model depicting the development of teacher readiness for RT. As illustrated in Figure 1, the process begins with teachers' perceptions of RT's benefits and contextual support, combining personal beliefs and environmental affordances to inform cognitive appraisal of RT's feasibility and relevance (Bandura, 2001).

This appraisal, represented in Figure 1, mediates the transition from perceptions to implementation coping strategies, reflecting teachers' active behavioral engagement as they adapt instructional practices to address challenges. According to SCT's triadic reciprocal causation, these strategies both shape and are shaped by ongoing cognitive and contextual factors in a reciprocal feedback loop (Bandura, 1986). The model identifies two interconnected pathways: readiness and adoption of RT, or hesitation and partial implementation. These pathways remain fluid, subject to continuous negotiation, aligning with SCT's emphasis on reciprocal influences among cognition, environment, and behavior. Ultimately, both trajectories converge toward collaborative practice and professional confidence, fostering professional agency and collective efficacy within school communities, consistent with SCT's concepts of self-regulatory behavior and social learning (Bandura, 1986, 2001).

This model integrates grounded categories from the data with SCT's theoretical framework, embodying CGT's principle of co-constructing theory through analytic induction and constant evolving process, rooted in the interplay of personal cognition, environmental context, and behavioral adaptation.

Throughout the coding process, constant comparison (Charmaz, 2014). It positions teacher readiness as a socially situated, reflexive, and readiness, adoption, and collaborative confidence over time. Throughout the coding process, constant comparison was systematically employed to discern nuanced differences and similarities in teachers' experiences with RT adoption:

When comparing teachers who had implemented RT with those who had not, clear contrasts emerged in their views of student readiness. Teachers with RT experience noted that students gradually became more confident and adaptable, while those without such experience often doubted students' ability to take on new roles.

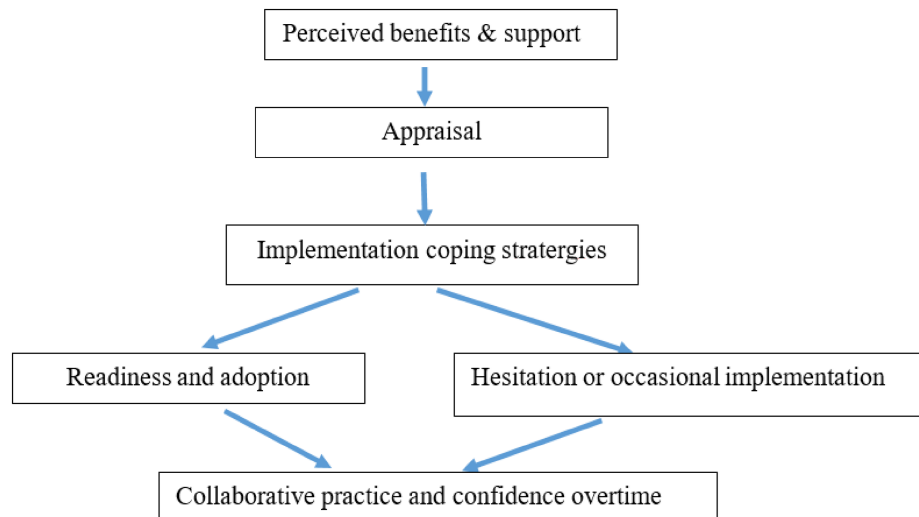


FIGURE 1

Conceptual process model of teacher readiness development. This figure depicts how teachers' perceived benefits, appraisal, and coping strategies interact to shape readiness, adoption, and collaborative confidence over time.

Nevertheless, both groups emphasized the need for guidance and classroom management, suggesting that readiness depends less on adopting RT itself and more on how teachers build supportive environments that strengthen students' sense of capability.

These iterative comparisons refined category boundaries and elucidated the mechanisms through which readiness fluctuates, reinforcing the model's portrayal of readiness as a dynamic, socially situated state shaped by reciprocal interactions among cognitive, behavioral, and contextual factors. Analytic memo-writing was instrumental in documenting theoretical insights as categories developed. Memos captured how negotiations between perceived benefits and environmental constraints shaped appraisal processes, influencing teachers' coping and adaptive behaviors.

Theoretical Memo – Negotiating Readiness in Implementing Reciprocal Teaching

The findings indicate that teacher readiness to implement Reciprocal Teaching is not a static attribute but a social-cognitive process continually shaped by the interplay among teachers' beliefs, instructional practices, and student responses. Teachers reported that students differed in their willingness to rotate roles within groups—some engaged readily, while others hesitated or withdrew when lacking adequate scaffolding or confidence. These student reactions, in turn, informed teachers' reflective judgments about task design and instructional practicality. Thus, readiness emerged as a socially situated and context-dependent state, co-constructed through teachers' interpretations of student engagement and the organization of learning activities. This dynamic aligns with the triadic reciprocal interaction among cognition, behavior, and environmental factors outlined in Social Cognitive Theory. (Vuong and Steklács, 2025-09-30)

To strengthen analytic transparency and credibility, Appendix A presents an illustrative coding lineage that traces the progression from

raw participant excerpts to initial codes, focused codes, and theoretical categories.

2.9.4 Trustworthiness and member checking

To strengthen the trustworthiness of the findings and ensure consistency with the constructivist grounded theory approach, member checking was carried out with five participants. This process occurred at two critical points in the analysis: first, when clarifying utterances that were ambiguous or highly context-dependent during initial coding; and second, during the formulation of focused codes and emerging categories.

Participants were contacted via Zalo, a commonly used communication platform among Vietnamese teachers, to confirm the intended meaning of their statements and to verify the researchers' interpretations, particularly concerning the perceived influence of collegial support in implementing Reciprocal Teaching. Their feedback served to validate the interpretations, provide additional contextual insights, and, when relevant, guide the refinement and integration of analytical categories. For instance, follow-up discussions regarding the phrase "needing colleagues who understand Reciprocal Teaching" helped differentiate between the teachers' desire for technical expertise and their broader need for a psychologically safe space for peer interaction during instructional experimentation.

3 Findings

Analysis of interviews with 19 primary teachers revealed a dynamic interplay among personal beliefs, behavioral practices, and environmental factors in shaping readiness to adopt RT. Interpreted through SCT, teacher readiness emerged as a socially mediated, self-regulating process, evolving through continuous interaction with contextual enablers and constraints.

3.1 Personal domain: beliefs, cognition, and self-efficacy

Teachers' personal beliefs were a critical determinant of their motivation to implement RT. Both adopters and non-adopters generally recognized RT's pedagogical value in fostering student engagement, independence, and comprehension, consistent with heutagogical frameworks that position teachers as autonomous professionals whose pedagogical choices are informed by self-efficacy, reflective practice, and commitment to lifelong learning (Glassner and Back, 2020; Singh and Sisodia, 2024; Akçay, 2025). Teachers highlighted the perceived value and autonomy of RT, stressing its ability to empower students as active participants in self-directed and collaborative learning processes. One participant observed:

"First, it enhances students' active participation, as they take on proactive roles in learning rather than merely listening to lectures. Second, it improves reading comprehension, as strategies help students understand texts more deeply and strengthen their comprehension skills. Third, it fosters self-directed learning and peer support, promoting collaboration within groups. For teachers, one advantage is the ease of assessing the learning process." (Teacher 5, Non-Experienced Group)

"The RT method offers several advantages over current teaching approaches. It promotes students' initiative and creativity, enhances interaction and collaboration among learners, develops critical thinking and communication skills, and deepens reading comprehension through strategies such as predicting, questioning, clarifying, and summarizing." (Teacher 3-Experienced Group)

This illustrates teachers' recognition of autonomy and learner-initiated engagement as essential, linking students' active involvement to heutagogy's emphasis on learner agency. Teachers who implemented RT reported significant improvements in students' confidence and communication skills, strengthening their own instructional self-efficacy:

"I observed significant improvements in students' reading comprehension after applying this method. In terms of skills, their comprehension improved remarkably. Regarding attitude, they showed greater interest in informational texts, worked more enthusiastically, and demonstrated higher motivation. In outcomes, each student's reading comprehension performance clearly progressed, with a marked increase in answer accuracy." (Teacher 5-Experienced Group)

Such experiences offered mastery feedback loops, bolstering teachers' confidence in RT's long-term viability and effectiveness. These experiences align well with heutagogy's focus on hands-on learning and building professional skills. Self-efficacy as a mediator of implementation: Non-adopters voiced reservations stemming from classroom management difficulties, student ability diversity, and time constraints:

"Of course, it has one limitation: students differ in ability and proficiency. When students are not at the same level, some participate actively while others remain disengaged." (Teacher 9-Non-Experienced Group)

"To successfully apply RT at the classroom level, teachers need to invest more effort. Lesson preparation must be more detailed, and the entire class should be trained to use all four strategies proficiently." (Teacher 13-Non-Experienced Group)

This contrast highlights self-efficacy as a pivotal psychological mediator, demonstrating that teachers with strong confidence in orchestrating and guiding RT were more inclined to demonstrate learner agency and adopt strategies independently, whereas those lacking such confidence hesitated despite acknowledging RT's potential advantages. Overall, these findings demonstrate the close interconnection between personal beliefs, mastery experiences, and self-efficacy with core heutagogical principles, particularly teachers' autonomy and reflective practices.

While CGT informed the analysis and SCT guided the interpretation, heutagogy was adopted as a theoretical framework to link the findings to teacher agency and self-determined professional learning as key drivers of pedagogical innovation (Hase and Kenyon, 2013; Blaschke and Hase, 2016).

3.2 Behavioral domain: strategies, regulation, and modeling

Behavioral patterns revealed varying levels of self-regulation. Teachers implementing RT employed adaptive strategies, such as simplifying learning materials, assigning roles effectively, and scaffolding discussions through questioning and summarizing. Over time, they developed monitoring and modeling practices that reduced preparation demands while fostering greater student participation. These patterns exemplify teachers' self-determined engagement, a fundamental heutagogical principle as they proactively tailored strategies to address students' needs and maximize learning outcomes.

"When organizing group activities, I guide and train group leaders while drawing on each member's strengths and contributions. This makes discussions more productive and meaningful, preventing situations where only a few strong students work while others stay passive, chat, or do unrelated tasks." (Teacher 2-Experienced Group)

"To train students in summarizing, I start with a short passage, identifying the main idea in each paragraph. Then I move to a text with two short paragraphs, combining their main ideas to form the text's core meaning. Gradually, I train students to express this content more and more concisely." (Teacher 1-Experienced Group)

These examples highlight how teachers demonstrate learner agency within their professional practice, independently regulating and modeling strategies to effectively scaffold student learning. This behavioral regulation aligns with SCT's concept of reciprocal determinism, wherein successful actions enhance self-efficacy, fostering sustained engagement. In contrast, teachers who had not implemented RT often described it in procedural or superficial terms. Their engagement was primarily vicarious, informed by training sessions or colleagues' demonstrations rather than personal practice. This reliance on external examples indicates an early learning stage, where teachers have yet to internalize strategies or apply theoretical knowledge in the classroom, highlighting a lack of self-determined professional learning.

“Actually, it’s not that I’m reluctant — I’m not. The thing is, if I were to do it spontaneously now, I might be a bit lazy. I need more materials on this method and some sample teaching videos to try out.” (Teacher 4- Non-Experienced Group). This shows that the teacher is open and willing to try the method but recognizes that without proper preparation, her efforts might not be effective.

“At the moment, my workload is already heavy. With two lessons a day and new text content to cover, I may be enthusiastic, but I simply don’t have the time.” (Teacher 10-Non-Experienced Group)

She acknowledges that while enthusiasm is present, practical constraints such as multiple daily lessons and material preparation limit the time available.

These statements reveal that although teachers demonstrate openness and willingness, the absence of opportunities for self-determined experimentation and modeling limits their behavioral adaptations to tentative efforts. Witnessing credible success within their local school context proved crucial; without it, teachers’ capacity for autonomous regulation and instructional innovation remained restricted. These findings align with the theoretical principles of heutagogy, which highlight learner agency, hands-on experiential learning, and professional capability building as key drivers of lasting teacher growth and instructional innovation (Glassner and Back, 2020; Akçay, 2025).

3.3 Environmental domain: contextual affordances and constraints

The environment served as both a facilitator and a barrier to RT implementation. Many teachers identified institutional factors, such as rigid 35-min lesson schedules, frequent administrative observations, and limited classroom space, as significant constraints.

“What concerns me most is the class period length. If enough time isn’t ensured, the lesson will spill into the next period. Last year, administrators often inspected classes mid-lesson, and if a teacher didn’t finish on time, they were reminded.” (Teacher 7-Non-Experienced Group)

“The classroom space is cramped; arranging desks in groups leaves little room to move, making it hard to get through. Another issue is that students work at different paces—some groups are fast, while others are slow.” (Teacher 13-Non-Experienced Group)

These limitations shaped perceptions of RT’s feasibility, often discouraging experimentation and limiting opportunities for autonomous and learner-initiated professional learning, a core principle of heutagogy. Conversely, environmental support, including collaborative teamwork, a flexible curriculum design, and administrative encouragement—empowered teachers to demonstrate agency and participate in reflective experimentation.

“When I develop something new, I share it for experimentation so colleagues can observe and give feedback. If they find it effective, they can apply and improve it further. If any part needs adjustment, I revise it based on their suggestions.” (Teacher 10-Non-Experienced Group)

“Objectively, I think innovating teaching methods is essential. This method includes many aspects I find engaging and practical for students, so I believe it’s worth trying and applying.” (Teacher 5-Non-Experienced Group)

“When I tried this method, I received encouragement from the school administration and feedback from two colleagues who observed my lessons. Their input helped me promptly adjust my teaching steps, which reduced pressure and increased my confidence in applying Reciprocal Teaching.” (Teacher 3-Experienced Group)

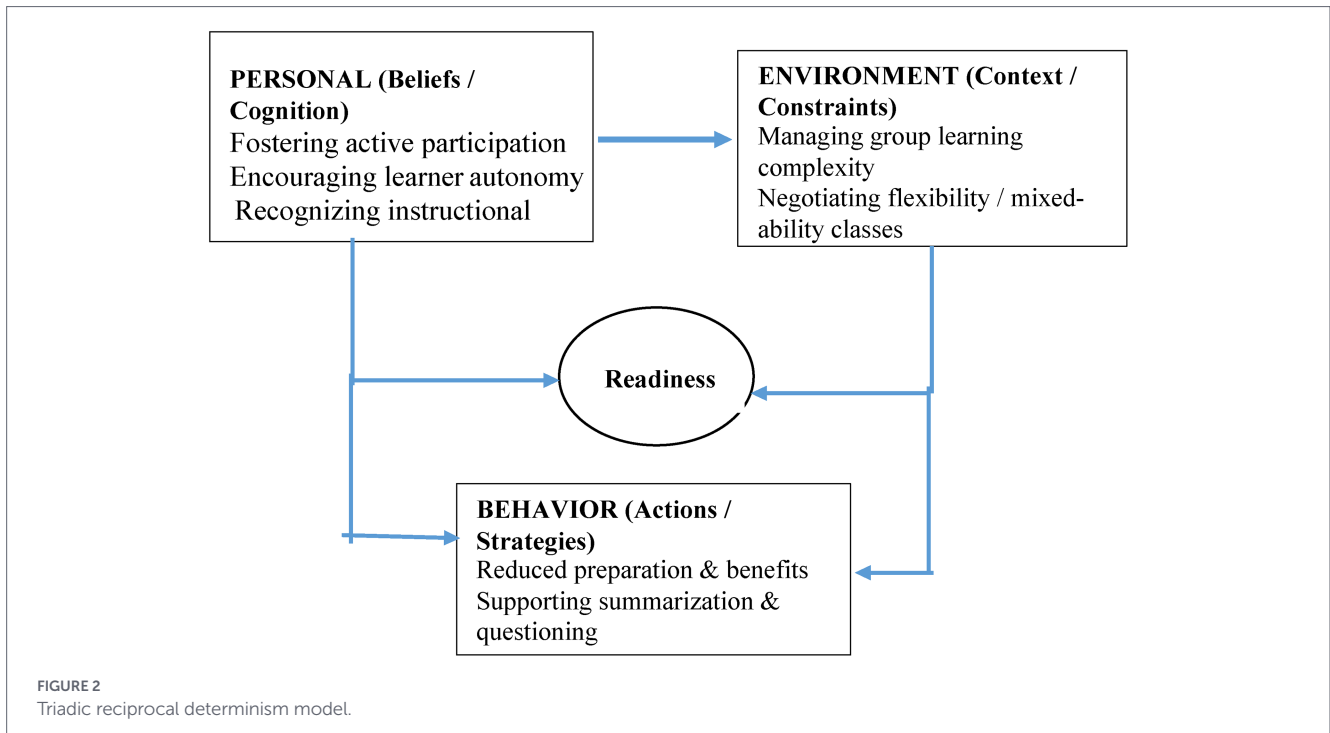
These accounts demonstrate that teachers operating within supportive environments exhibited greater confidence in experimenting with and adapting RT, perceiving challenges as avenues for professional growth rather than risks to performance. This corresponds with SCT’s focus on environmental influences, where context simultaneously limits actions and delivers feedback that molds beliefs and behaviors (Bandura, 1986). These environments support teachers’ learner-initiated reflection, collaborative problem-solving, and independent adaptation, resonating with heutagogical principles (Glassner and Back, 2020; Chamo et al., 2023; Mwinkaar and Lonibe, 2024; Akçay, 2025).

3.4 Reciprocal dynamics: toward a holistic understanding of readiness

Teacher readiness, across diverse contexts, emerged as a dynamic system shaped by reciprocal influences rather than a linear progression. Personal beliefs informed instructional actions, which, in turn, reshaped beliefs, both continuously shaped by environmental feedback. Teachers’ narratives revealed a cyclical pattern of practice-based teacher reflection, adaptation, and renewed engagement, consistent with Bandura’s triadic model of interaction among personal, behavioral, and environmental factors. Figure 2 illustrates these interconnections: personal cognitions (e.g., perceived value and self efficacy), behavioral strategies (e.g., scaffolding and monitoring), and contextual factors (e.g., institutional flexibility and time allocation) mutually influence one another, resulting in varying levels of readiness. These interactions underscore the significance of self-determined learning and autonomy, as teachers proactively adjust their strategies, reflect on results, and navigate environmental opportunities and limitations in line with heutagogical principles.

This interpretation frames teacher readiness as a socially co-constructed, context-dependent process rather than a static attribute. Consequently, the proposed framework advances a constructivist perspective on teacher learning and change, underscoring that fostering readiness for innovations like RT requires more than individual training. It necessitates supportive environments that promote autonomous practice-based teacher reflection, collaborative learning, and professional agency, enabling teachers to engage in self-determined pedagogical innovation (Glassner and Back, 2020; Akçay, 2025).

Figure 2 depicts the dynamic interplay among teachers’ beliefs, contextual elements, and instructional approaches in collectively shaping pedagogical readiness. Principles of learner autonomy, reflective practice, and learner agency resonate across these interconnected domains, steering teachers’ adaptation and preparedness for instructional transformation.



4 Discussion

Grounded in SCT, this study conceptualizes teacher readiness for RT as a dynamic, socially mediated construct shaped by reciprocal interactions among personal beliefs, behavioral strategies, and environmental conditions. Rather than a static attribute or linear stage of professional development, readiness emerges as an adaptive system responsive to ongoing, practice-based teacher reflection, contextual affordances, and collective learning processes. This perspective enhances understanding of how teachers transition from theoretical knowledge to practical implementation of innovative pedagogical methods in classroom settings.

A key finding is the critical role of self-efficacy as both a psychological antecedent and an outcome of RT implementation. Teachers who implemented RT reported increased confidence and recognition of its pedagogical value, demonstrating how mastery experiences bolster personal agency. Conversely, non-adopters' apprehension highlighted how low self-efficacy hinders the application of training. These findings align with Mafarja et al. (2023), who noted that teachers with low intrinsic motivation require leadership support and professional learning communities to effectively adopt RT. This evidence emphasizes that teachers' confidence and motivation are socially constructed through collaborative and institutional support, rather than solely individual attributes. This dynamic aligns with Bandura's (1986) view that efficacy beliefs influence effort, persistence, and resilience in overcoming challenges. Furthermore, teacher cognition is a socially co-constructed process, fostered through collegial dialogue, shared problem-solving, and observation of successful models, which are forms of vicarious reinforcement that reshape beliefs. Thus, self-efficacy is both individually held and collectively sustained (Goddard et al., 2000; Brückner, 2023).

Behavioral differences between teachers who adopted RT and those who did not reveal varying levels of self-regulation and expertise in adapting to innovative methods. Teachers implementing RT

demonstrated flexibility in adjusting strategies, monitoring student progress, and refining instruction based on feedback, reflecting self-regulated professionalism consistent with SCT. This adaptability is associated with enhanced autonomy and psychological well-being, enabling effective management of classroom challenges (Collie and Martin, 2017). Conversely, non-adopters expressed skepticism about RT's efficacy and approached group selection cautiously, suggesting that behavioral change depends on hands-on mastery and experiential learning beyond cognitive awareness. The gap between theoretical knowledge and practical application primarily stems from differences in self-efficacy rather than technical skill. Teachers perceiving adequate control and support were more likely to take pedagogical risks and iteratively refine their methods, fostering professional growth within constructivist learning frameworks. Persistent reluctance among some teachers may reflect broader emotional and contextual resistance to educational innovation (Lomba-Portela et al., 2022).

The Reciprocal Triadic Model (Figure 1) illustrates the dynamic interplay among cognition, behavior, and environment in shaping teacher readiness. Grounded in teachers' lived experiences, these findings offer contextualized insights into the evolution of readiness (Charmaz, 2014). Through abductive reasoning, the analysis iteratively linked empirical data to SCT constructs, such as self-efficacy and observational learning, refining theoretical interpretations without predetermined assumptions (Blumer, 1954; Bandura, 1986; Timmermans and Tavory, 2012). This re-conceptualizes readiness as a socially co-constructed, developmental capability within professional communities, rather than an isolated psychological state. From this perspective, each domain contributes distinct yet interconnected dimensions of readiness.

Within the framework of reciprocal determinism (Figure 2), the Personal domain encompasses teachers' self-efficacy, professional identity, and perceived pedagogical content knowledge. Many teachers positioned themselves as innovators committed to student-centered approaches, indicating a strong professional identity, yet their reported

difficulties with strategies such as summarization exposed perceived limits in pedagogical content knowledge. Together, these elements evolve through ongoing interaction with contextual conditions and classroom practices, indicating that teacher readiness is a dynamic, socially mediated construct rather than a fixed attribute.

Regarding the environmental domain of the Reciprocal Triadic Model, teachers commonly pointed to systemic pressures such as rigid monitoring systems and tightly regulated schedules, as barriers to implementing Reciprocal Teaching (RT). They highlighted the necessity of adhering to lesson durations and class transitions, given the coordination required across subjects (e.g., Music, Art, English) and periodic classroom observations by principals. These structural demands call for careful planning and may increase workload, particularly for less experienced or older teachers. Nevertheless, teachers noted that innovation is not formally restricted; the adoption of RT primarily depends on individual readiness, confidence, and perceived benefits for students. While younger teachers often embrace such innovations with enthusiasm, more senior educators tend to favor established routines. This pattern illustrates the reciprocal interaction between contextual constraints and personal factors—such as self-efficacy, professional identity, and pedagogical content knowledge—that collectively shape teachers' readiness for RT.

Theoretically, this study advances understanding of teacher learning by integrating SCT with constructivist perspectives on professional development. It frames teacher readiness as a dynamic, reciprocal process of adaptation, emphasizing the simultaneous evolution of cognition, behavior, and environment. Supported by empirical evidence and abductive reasoning, the proposed framework highlights the iterative interplay of teachers' beliefs, peer influence, and institutional contexts, providing a foundation for future research into how these elements collectively drive pedagogical innovation across diverse educational settings.

The findings underscore that teacher professional development programs should cultivate both cognitive understanding of RT principles and affective dimensions, such as motivation and self-efficacy, while providing supportive structures for practical experimentation. Mentorship, leadership support, and peer collaboration emerged as critical environmental factors fostering psychological safety, knowledge sharing, and reflective practice, all of which enhance teachers' readiness to implement RT. These recommendations align with the principles of self-determined learning by promoting teacher autonomy, reflective practice, and collaborative learning (Chamo et al., 2023).

Although heutagogy is commonly viewed as prioritizing learner autonomy, capacity for self-direction, and reflective competence (Hase and Kenyon, 2013; Blaschke and Hase, 2016), its application and examination remain rare in rigidly structured educational systems particularly in Vietnam, where primary teachers grapple with curriculum reforms marked by stark departures from prior programs, overcrowded classrooms, and insufficient support (Pham et al., 2023; Ha et al., 2021). This study extends heutagogy scholarship by demonstrating that Vietnamese primary teachers' self-determined learning transcends individual traits, emerging instead as a process shaped by social interactions and contextual demands (Chamo et al., 2023; Zakaria et al., 2024). Teachers' readiness to adopt reciprocal teaching (RT) stems not only from personal motivation and professional confidence (Bandura, 1986; Mwinkaar and Lonibe, 2024) but also from leadership backing, collegial networks, and structural constraints such as large class sizes and curricular pressures (Tran and Le, 2025). In this light, autonomy functions as a relational capacity, negotiated rather than

innate (Blaschke, 2012; Newfield, 2025). By situating self-determined learning amid centralized, accountability-driven education, the findings refine conventional views of heutagogy and underscore the conditional nature of teacher agency. Ultimately, these insights advance heutagogy theory by illuminating dynamic interplay among personal beliefs, behavioral experimentation, and environmental factors in cultivating professional learning (Chamo et al., 2023; Zakaria et al., 2024).

Heutagogy, often characterized as fostering learner autonomy and reflective depth (Hase and Kenyon, 2000), illustrates principles of hands-on skill development through everyday practices like mastering crafts via online tutorials, as well as professional education emphasizing initiative, experiential problem-solving, and cyclical inquiry (Chamo et al., 2023). Among Vietnamese primary teachers, this appears in strategy refinement tied to practical PD needs, professional learning communities, peer mentoring, lesson study, and online knowledge sharing. These activities blend individual reflection with collaborative, culturally embedded inquiry that teachers themselves initiate and direct (Glassner and Back, 2020; Nguyen et al., 2022; Mwinkaar and Lonibe, 2024). These dynamics provide a strong theoretical lens for examining instructional shifts in this study.

Teacher readiness should be conceptualized as a socially mediated, developmental capacity rather than a static individual attribute. Drawing on the Reciprocal Triadic Model, professional development in Vietnam can bolster teachers' self-efficacy by integrating structured training with practical RT engagement. Providing comprehensive resources, demonstration videos, and sample lessons enables teachers to internalize RT principles while fostering motivation and confidence in classroom application. To strengthen the social dimension of readiness, professional learning communities can be established within existing teacher networks, facilitating strategy exchange, experience sharing, and collaborative problem-solving for challenges like managing group dynamics or implementing RT components such as summarizing and questioning. Furthermore, administrative support from principals and department heads, familiarized with RT prior to teachers, can provide sustained encouragement and alleviate feelings of isolation during implementation. These strategies position teacher readiness as a dynamic capacity, nurtured through the interplay of self-efficacy, cognitive and affective development, and supportive professional and institutional contexts.

The Reciprocal Triadic Model offers a versatile framework for countries adopting RT. Its three interrelated components, including personal, behavioral, and environmental, can guide the design of teacher training programs, foster communities of practice, and inform educational policies tailored to diverse cultural contexts. The model emphasizes the role of social interactions and collective support in enhancing teachers' motivation and confidence during the adoption of innovative methods. To optimize RT implementation across settings, educational systems should prioritize peer support networks, practical teaching resources, and active leadership involvement.

The identified strategies embody heutagogical principles by highlighting socially mediated learning, autonomy, and collective agency via communities of practice and peer support (Chamo et al., 2023; Zakaria et al., 2024). By facilitating adaptive implementation in varied contexts, the model likewise fosters lifelong learning, as teachers iteratively refine their practices throughout their careers (e.g., Blaschke, 2012; Newfield, 2025).

Building on this study's findings, future research could validate and refine the conceptual model of teacher readiness for RT. Drawing on qualitative data, such as teachers' narratives and classroom

observations, the findings highlight readiness as a contextual, socially mediated process (Charmaz, 2014). To extend these insights, quantitative studies could develop survey instruments based on emergent categories, including self-efficacy, mentorship, peer collaboration, leadership support, and environmental factors, and evaluate their impact on teacher readiness and student outcomes. Employing structural equation modeling and cross-validation across diverse Vietnamese educational contexts would enhance the model's empirical validity and generalizability. Additionally, longitudinal qualitative or mixed-methods studies could explore how these constructs evolve in practice, deepening understanding of readiness as a developmental, socially situated process. Integrating grounded qualitative insights with systematic quantitative analysis would facilitate iterative refinement of the Reciprocal Triadic Model and strengthen theoretical integration between SCT and complementary perspectives on the interplay of cognition, behavior, and environment. The results of this study highlight teachers' independence, professional initiative, and engagement in self-determined learning growth. Vietnamese primary school teachers operate in a rigid system characterized by strict curriculum requirements, standardized lesson times, overcrowded classes (40–50 students/class), and intense administrative oversight, which frequently limits pedagogical freedom (Tran and Le, 2025). These structural constraints align with Vietnam's ongoing 2018 General Education Program reforms.

Despite these challenges, teachers' willingness to adopt Reciprocal Teaching demonstrates their ability to exercise professional discretion and tailor teaching methods to local realities. This adaptable, context-responsive approach reflects principles of self-determined learning, reflective, and collaborative professional learning, showing how educators' initiative can emerge even under structural constraints (Vu, 2024). These insights complement CGT and SCT by highlighting how reflective and collaborative practices serve as key mechanisms for pedagogical innovation (Blaschke and Hase, 2016; Glassner and Back, 2020; Chamo et al., 2023).

5 Practical implications

To facilitate the implementation of Reciprocal Teaching (RT) in Vietnamese primary schools, several practical measures can be adopted. Creating professional learning communities allows teachers to engage in collaborative peer observation and dialogue, fostering practice-based reflection on classroom practices and the contextual adaptation of RT. Such collaboration strengthens teachers' self-efficacy and professional identity while providing structured opportunities for experimentation and skill development. Supplying accessible instructional resources—such as step-by-step guides, demonstration videos, and sample lesson plans—helps teachers visualize, adapt, and personalize RT approaches to their specific classroom contexts, recognizing the diversity of learners. Easing administrative demands during the early implementation phase, for example by reducing unplanned classroom observations or offering more flexible lesson transitions, can further support teachers, particularly those who are less experienced or initially hesitant. Together, these strategies address both contextual constraints and individual readiness, cultivating an environment where motivation, confidence, and innovation can flourish. By reinforcing the interconnected Personal, Behavioral, and Contextual

domains of the Reciprocal Triadic Model, they ultimately enhance teacher readiness and the overall effectiveness of RT implementation.

Building on this triadic framework, the following practical recommendations draw on heutagogical principles, reflecting a self-determined approach to professional learning for RT implementation. The recommendations from this study can be implemented through three specific strategies, adapted to the Vietnamese educational context (GDPT 2018 curriculum and teachers' high workload pressures). First, personalized reflective journals can be utilized during 4–6 week workshops, where teachers document their Reciprocal Teaching (RT) experimentation and self-assess via Zalo groups, similar to the approach of Zulfikar and Mujiburrahman (2018) with Indonesian teachers. Second, online communities of practice on Facebook/WhatsApp can facilitate the sharing of RT lesson plans and flexible peer feedback, drawing on the model proposed by Chamo et al. (2023). Third, teachers can independently investigate specific classroom challenges in RT implementation, such as identifying the most difficult strategies or optimizing group activities, through iterative improvement cycles inspired by Mwinkaar and Lonibe (2024). School principals will provide support, encouragement, and recognition to participating teachers, enabling year-end rewards for adopting this method.

6 Conclusion

A teacher's reflection on RT's practical application: “*Teachers today are not merely knowledge transmitters but motivators who foster students' passion for learning*” (Teacher 12, non-experienced RT user), captures the enthusiasm and creativity of Vietnamese teachers in adopting innovative methods. Grounded in these insights, this study offers a constructivist perspective on teacher readiness for RT in Vietnamese primary classrooms, centering teachers' voices to elucidate the dynamic interplay of cognitive beliefs, intrinsic motivation, professional experience, and institutional support (Charmaz, 2014). Using abductive reasoning within SCT's framework (Bandura, 1986), the Reciprocal Triadic Model illustrates how self-efficacy, practical engagement, and supportive environments shape teachers' capacity to innovate, while acknowledging variability in RT enactment despite similar knowledge (Timmermans and Tavory, 2012).

These findings reveal teacher readiness as a complex, evolving capacity shaped by social interactions rather than a static characteristic. Teachers' reflections suggest that professional experience and confidence significantly influence their openness to innovative methods, tempered by challenges rooted in traditional practices. Emphasizing learner agency and reflective professional practice, consistent with heutagogical principles, supports transformative educational practices and provides a contextual lens for interpreting teacher readiness. Previous research indicates that self-determined learning enhances engagement, adaptability, and professional growth across educational contexts (Blaschke, 2012; Singh and Sisodia, 2024).

These insights bridge theory and practice, proposing a framework to guide mentorship, peer collaboration, and tailored professional development (Zhu et al., 2019; Shahid and Din, 2021). Although

limited RT adoption was observed, the identified patterns align with broader educational research, emphasizing the role of socially embedded support systems. Consistent with CGT, these interpretations are provisional and warrant further empirical validation. Ultimately, this study enriches conceptual understanding and provides practical guidance for fostering reflective, student-centered, and transformative learning environments.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

This study obtained ethical approval from the Institutional Review Board (IRB) of the Doctoral School of Education, University of Szeged, 6722 Szeged, 30-34 Petőfi S. Av., Hungary (protocol code 7/2024-NI and date of approval: 23 March, 2024). The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study.

Author contributions

LV: Formal analysis, Writing – original draft. JS: Methodology, Supervision, Validation, Writing – review & editing.

Funding

The author(s) declared that financial support was received for this work and/or its publication. Fully Open access funding provided by the Research Program for Public Education Development of the Hungarian Academy of Sciences—Reading Fluency and Comprehension Research Group, MTA-PTE, SZKF2022-12/2022.

References

- Akçay, P. (2025). The mediating role of academic self-efficacy in the relationship between university students' heutagogical competencies and lifelong learning tendencies. *Front. Educ.* 10:1719199. doi: 10.3389/feduc.2025.1719199
- Alasmari, A. L. (2021). Is internet reciprocal teaching the remedy for Saudi EFL learners' reading difficulties during the Covid-19 pandemic? *J. Educ. E-Learn. Res.* 8, 324–332. doi: 10.20448/journal.509.2021.83.324.332
- Alharbi, A. A. (2024). Reciprocal teaching strategy and reading comprehension development among students with learning disabilities. *Nat. Sci. Publish. Cor.* 10, 625635–625140. doi: 10.18576/isl/130314
- Bandura, A. (1986). *Social foundations of thought and action: a social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (2001). Social cognitive theory: an agentic perspective. *Annu. Rev. Psychol.* 52, 1–26. doi: 10.1146/annurev.psych.52.1.1
- Blaschke, L. M. (2012). Heutagogy and lifelong learning: a review of heutagogical practice and self-determined learning. *Int. Rev. Res. Open Distrib. Learn.* 13, 56–71. doi: 10.19173/irrodl.v13i1.1076
- Blaschke, L. M., and Hase, S. (2016). "Heutagogy: a holistic framework for creating twenty-first-century self-determined learners," in *Heutagogy and lifelong learning: A review of heutagogical practice and self-determined learning*, eds. L. M. Blaschke and S. Hase (Rotterdam, The Netherlands: Sense Publishers) 1–15.
- Blaschke, L. M., and Hase, S. (2019). Heutagogy and digital media networks: setting students on the path to lifelong learning. *Pacific J. Technol. Enhanc. Learn.* 1, 1–14. doi: 10.24135/pjtel.v1i1.1
- Blumer, H. (1954). What's wrong with social theory? *Am. Sociol. Rev.* 19, 3–10. doi: 10.2307/2088165
- Bobbink, I. (2024). Revisiting the constant comparative method: new developments and applications. *Qual. Res.* 24, 455–472. doi: 10.46743/2160-3715/2013.1569

Acknowledgments

We would like to express our sincere gratitude to the 19 primary school teachers in Hai Phong and Bac Giang, Vietnam, for their participation in the interviews.

Conflict of interest

The author(s) declared that this work was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Generative AI statement

The author(s) declared that Generative AI was not used in the creation of this manuscript.

Any alternative text (alt text) provided alongside figures in this article has been generated by Frontiers with the support of artificial intelligence and reasonable efforts have been made to ensure accuracy, including review by the authors wherever possible. If you identify any issues, please contact us.

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

Supplementary material

The Supplementary material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/feduc.2026.1746018/full#supplementary-material>

- Brown, M., Howard, J., and Walsh, K. (2022). Building trauma informed teachers: a constructivist grounded theory study of remote primary school teachers' experiences with children living with the effects of complex childhood trauma. *Front. Educ.* 7:870537. doi: 10.3389/feduc.2022.870537
- Brückner, L. (2023). Self-efficacy for learning beliefs in collaborative contexts: relations to preservice early childhood teachers' vicarious teaching self-efficacy. *Front. Educ.* 8:1210664. doi: 10.3389/feduc.2023.1210664
- Burns, M., Bally, J., Bures, M., Holtslander, L., and Peacock, S. (2022). Constructivist grounded theory or interpretive phenomenology? Methodological choices within specific study contexts. *Int J Qual Methods* 21, 1–13. doi: 10.1177/16094069221077758
- Chamo, N., Biberman-Shalev, L., and Broza, O. (2023). Nice to meet you again': when heutagogy met blended learning in teacher education, post-pandemic era. *Educ. Sci.* 13:536. doi: 10.3390/educsci13060536
- Charmaz, K. (2014). *Constructing Grounded Theory*. 2nd Edn. London: Sage.
- Chen, Y., and Kong, D. (2016). An investigation on factors in the integration of reciprocal teaching into multimediateaching. *EURASIA Journal of Mathematics, Science and Technology Education*, 13, 133–142.
- Collie, R. J., and Martin, A. J. (2017). Teachers' sense of adaptability: examining links with perceived autonomy support, teachers' psychological functioning, and students' numeracy achievement. *Learn. Individ. Differ.* 55, 29–39. doi: 10.1016/j.lindif.2017.03.003
- Decristan, J., Bertram, V., Reitenbach, V., Schneider, K., and Rauch, D. P. (2022). Linguistically responsive reciprocal teaching in primary school: effectiveness of an intervention study on students' reading competence. *J. Multiling. Multicult. Dev.* 45, 4102–4120. doi: 10.1080/01434632.2022.2141757
- Glassner, A., and Back, S. (2020). *The power of visuals in learning: A research synthesis*. New York, NY: Routledge.
- Goddard, R. D., Hoy, W. K., and Woolfolk Hoy, A. W. (2000). Collective teacher efficacy: its meaning, measure, and impact on student achievement. *Am. Educ. Res. J.* 37, 479–507. doi: 10.3102/00028312037002479
- Ha, H. T. L., Pham, A. T. K., Nguyen, H. T., and Duong, H. T. T. (2021). Training pedagogical skills: evaluation of lecturers and teacher training students at educational universities in Vietnam. *EURASIA J. Math. Sci. Technol. Educ.* 17:em2031. doi: 10.29333/ejmste/11418
- Hase, S., and Kenyon, C. (2000). From andragogy to heutagogy. Ulti-BASE In-Site. Available online at: <https://researchportal.scu.edu.au/esploro/outputs/journalArticle/From-andragogy-to-heutagogy/991012821597602368>
- Hase, S., and Kenyon, C. (2007). Heutagogy: a child of complexity theory. *Complicity Int. J. Complex. Educ.* 4, 111–118. doi: 10.29173/cmplct8766
- Hase, S., and Kenyon, C. (2013). *Self-Determined Learning: Heutagogy in action*. 1st Edn: Bloomsbury Academic.
- Hussein, M. T. Y. (2024). Effect of reciprocal teaching on reading motivation: experimental evidence from a classroom intervention. *Educ. Sci.* 14:202. doi: 10.3390/educsci14030202
- Juhkam, A., Mägi, E., and Park, M. (2023). Development of reading fluency and meta-cognitive reading strategies through reciprocal teaching: evidence from third-grade students. *Front. Psychol.* 14:1191103. doi: 10.3389/fpsyg.2023.1191103
- Lincoln, Y. S., and Guba, E. G. (1985). *Naturalistic Inquiry*. Newbury Park, CA: Sage.
- Lindqvist, H., and Forsberg, C. (2023). Constructivist grounded theory and educational research: constructing theories about teachers' work when analysing relationships between codes. *Int. J. Res. Method Educ.* 46, 392–407. doi: 10.1080/1743727X.2022.2095998
- Liu, S., Yin, H., Wang, Y.-N., and Lu, J. (2024). Teacher innovation: conceptualizations, methodologies, and theoretical framework. *Teach. Teach. Educ.* 145:104611. doi: 10.1016/j.tate.2024.104611
- Lomba-Portela, L., Domínguez-Lloria, S., and Pino-Juste, M. R. (2022). Resistances to educational change: teachers' perceptions. *Educ. Sci.* 12:359. doi: 10.3390/educsci12050359
- Mafarja, N., Mohamad, M. M., Zulnaidi, H., and Fadzil, H. M. (2023). Using of reciprocal teaching to enhance academic achievement: a systematic literature review. *Heliyon* 9:e18269. doi: 10.1016/j.heliyon.2023.e18269
- Miller, D. A. (2023). "Constructivist grounded theory," in *Methods for change volume 2: impactful social science methodologies for 21st century problems*, eds. M. Rodekirchen, M. Pottinger, L. Briggs, A. Barron, T. Esono and S. Hall (Manchester, UK: Aspect & The University of Manchester), 1–9.
- Ministry of Education and Training (2018). *General education curriculum*. Hanoi, Vietnam: MOET.
- Mohajan, H. K. (2022). Constructivist grounded theory: a new research approach in qualitative research. *Soc. Sci. Human. Educ. J.* 3, 110–126. doi: 10.25273/she.v3i2.11846
- Mwinkaar, L., and Lonibe, J.-F. Y. (2024). Heutagogy as an alternative in teacher education: conceptions of lecturers and pre-service teachers. *Front. Educ.* 9:1389661. doi: 10.3389/feduc.2024.1389661
- Newfield, T. (2025). Heutagogy in education: fostering self-directed learning for the 21st century. *J. Career Tech. Educ.* 40:500. doi: 10.21061/jcte.500
- Nguyen, Y. T. X., Ha, X. V., and Tran, N. H. (2022). Vietnamese primary school teachers' needs for professional development in response to curriculum reform. *Educ. Res. Int.* 2022:4585376, 1–8. doi: 10.1155/2022/4585376
- Oo, T. Z., Magyar, A., and Habók, A. (2021). Effectiveness of the reflection-based reciprocal teaching approach for reading comprehension achievement in upper secondary school in Myanmar. *Asia Pac. Educ. Rev.* 22, 251–266. doi: 10.1007/s12564-021-09707-8
- Okkinga, M., van Gelderen, A. J. S., van Schooten, E., van Steensel, R., and Slegers, P. J. C. (2021). Implementation quality of principles of reciprocal teaching in whole-classroom settings: A two-year study with low-achieving ado-lescents. *Reading Psychology*, 42, 323–363. doi: 10.1080/02702711.2021.1887019
- Panta, R. (2025). Heutagogy: a comprehensive review of self-determined learning in contemporary education. *Cureus* 17:e89731. doi: 10.7759/cureus.89731
- Pham, K. T., Ha, X. V., Tran, N. H., and Nguyen, Y. T. X. (2023). Curriculum reform in Vietnam: primary teachers' views, experiences, and challenges. Abingdon, United Kingdom: Taylor & Francis.
- Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., et al. (2018). Saturation in qualitative research: exploring its conceptualization and operationalization. *Qual. Quant.* 52, 1893–1907. doi: 10.1007/s11335-017-0574-8
- Sharaini, A., Carter, S. M., Evans, R. W., and Blinkhorn, A. (2011). How to do a grounded theory study: A worked example of a study of dental practices. *BMC Medical Research Methodology*, 11:128. doi: 10.1186/1471-2288-11-128
- Shahid, S., and Din, M. (2021). Fostering psychological safety in teachers: the role of school leadership, team effectiveness & organizational culture. *Int. J. Educ. Leaders. Manag.* 9, 122–149. doi: 10.17583/ijelm.2021.6317
- Singh, T. P., and Sisodia, S. (2024). Heutagogy and self-determined learning: a review of the approach for lifelong education. *Int. J. Human. Educ. Res.* 6, 77–85. doi: 10.33545/26648431.2024.v6.i1b.635
- Thornberg, R., and Dunne, C. (2019). *Grounded theory in education: A theorist-practitioner discourse*. Los Angeles, CA: SAGE Publications.
- Tie, Y. C., Birks, M., and Francis, K. (2019). Grounded theory research: a design framework for novice researchers. *SAGE Open Med.* 7, 1–8. doi: 10.1177/2050312118822927
- Timmermans, S., and Tavory, I. (2012). Theory construction in qualitative research: from grounded theory to abductive analysis. *Sociol. Theory* 30, 167–186. doi: 10.1177/0735275112457914
- Tran, T. Q. N., and Le, T. N. A. (2025). Curriculum reform in Vietnam: teacher autonomy and the reality of its implementation in classrooms. *Int. J. Learn. Teach. Educ. Res.* 24, 1–22. doi: 10.26803/ijlter.24.1.1
- Tronchoni, H., Izquierdo, C., and Anguera, M. T. (2022). A systematic review on lecturing in contemporary university teaching. *Front. Psychol.* 13:971617. doi: 10.3389/fpsyg.2022.971617
- Vu, T. L. (2024). Teacher agency in enacting English language curriculum: the case of primary school EFL teachers in Vietnam. *Issues Educ. Res.* 34:1618–1637. Available online at: <http://www.iier.org.au/iier34/vu.html>
- Vuong, T. L., and Steklács, J. (2024). A cross-sectional study on teaching informational text for third graders in Vietnamese school context. *VNU J. Sci.* 40, 105–114. doi: 10.25073/2588-1159/vnuer.4923
- Vuong, T. L., and Steklács, J. (2025). Trends in research on reciprocal teaching: a systematic review. *Cogent Educ.* 12:2491963. doi: 10.1080/2331186X.2025.2491963
- Wahyudi, D., Sa'diyah, M., Indra, H., and Handrianto, B. (2024). Management of educators and education personnel from an Islamic perspective. *PPSDP Int. J. Educ.* 3, 520–530. doi: 10.59175/pjied.v3i2.273
- Wu, T.-T., and Chen, A.-C. (2018). Combining e-books with mind mapping in a reciprocal-teaching strategy for a classical Chinese course. *Comput. Educ.* 116, 64–80. doi: 10.1016/j.compedu.2017.08.012
- Zakaria, M. I., Nasran, N. A. H. N., Abdullah, A. H., Alhassora, N. S. A., and Hanid, M. F. A. (2024). Heutagogy in action: empowering mathematics teachers through innovative pedagogical approaches. *Int. J. Instr.* 17, 135–148. doi: 10.29333/iji.2024.1748a
- Zhang, J., Zou, J., Wang, X., Luo, Y., Jin, Z., Xiong, Z., et al. (2023). Clinical nurses' compassion fatigue psychological experience process: a constructivist grounded theory study. *BMC Nurs.* 22:487. doi: 10.1186/s12912-023-01665-3
- Zhu, J., Yao, J., and Zhang, L. (2019). Linking empowering leadership to innovative behavior in professional learning communities: the role of psychological empowerment and team psychological safety. *Asia Pac. Educ. Rev.* 20, 657–671. doi: 10.1007/s12564-019-09584-2
- Zhumabayeva, Z., Zhaxylkova, K., Omirzakova, A., Aitenova, E., and Zhailuova, M. (2024). The impact of innovative approaches on prospective primary teachers' quality of education: an exploration of practice. *J. Infrastruct. Policy Dev.* 8:9248. doi: 10.24294/jipd9248
- Zulfikar, T., and Mujiburrahman (2018). Understanding own teaching: becoming reflective teachers through reflective journals. *Reflect. Pract.* 19, 1–13. doi: 10.1080/14623943.2017.1295933