

## Development of Reciprocal Teaching Model to Enhance Pedagogy Reading Comprehension for Undergraduate Students

Li Jinhui, Areewan Iamsa-ard, Wapee Kong-In and Suriya Phankosol

Curriculum and Instruction Program, Bansomdejchaopraya Rajabhat University

### บทคัดย่อ

การวิจัยครั้งนี้ มีวัตถุประสงค์เพื่อประเมินปัจจัยที่ส่งผลกระทบต่อการสอนเพื่อความเข้าใจในการอ่านสำหรับนักศึกษาปริญญาตรี ข้อมูลการวิจัยเก็บจากประชากรจำนวน 150 คน และกลุ่มตัวอย่างผู้สอน 3 คน จาก Hechi University ได้แก่ Literature and Media College, Music and Dance College, and Teacher Education College เครื่องมือในการวิจัยครั้งนี้ใช้แบบสอบถามสำหรับนักศึกษาและแบบสัมภาษณ์สำหรับผู้เชี่ยวชาญ สำหรับการวิเคราะห์ข้อมูลเชิงปริมาณใช้ค่าร้อยละ ค่าเฉลี่ย และส่วนเบี่ยงเบนมาตรฐาน ส่วนข้อมูลเชิงคุณภาพใช้การวิเคราะห์เนื้อหา

ผลการวิจัยพบว่า ปัจจัยภายในและภายนอกที่ส่งผลกระทบต่อความสามารถในการอ่านสำหรับนักศึกษาปริญญาตรี จากกลุ่มของนักศึกษาอยู่ในระดับสูง ปัจจัยภายในระดับที่สูงจากการตอบแบบสอบถามของนักศึกษา ได้แก่ แรงจูงใจ ภายในของนักศึกษา การรับรู้ความสำคัญของรายวิชา ตระหนักถึงประโยชน์ของการอ่านต่ออาชีพ ปัจจัยภายนอก ระดับที่สูงจากการตอบแบบสอบถามของนักศึกษา ได้แก่ การให้ข้อมูลป้อนกลับ การใช้วิธีการสอนที่หลากหลาย สิ่งแวดล้อมในการสอน สำหรับการสัมภาษณ์อาจารย์ พบว่า ปัจจัยภายในที่อาจารย์ระบุ ได้แก่ ผู้สอนและวิธีการสอน ส่วนปัจจัยภายนอกที่อาจารย์ระบุ ได้แก่ สื่ออุปกรณ์ การประเมินผล สภาพแวดล้อมและขนาดชั้นเรียน

**คำสำคัญ:** รูปแบบการสอนที่เอื้อซึ่งกันและกัน การสอนเพื่อความเข้าใจในการอ่าน นักศึกษาระดับปริญญาตรี

### Abstract

The purpose of this research aimed to examine the factors affecting pedagogy reading comprehension for undergraduate students. The data collected from the group of 150 students and 3 lecturers of Hechi University: Literature and Media College, Music and Dance College, and Teacher Education College. The research instruments were the questionnaire for student and interview protocol for lecturer. The data were statistically analyzed by finding frequency, mean and Standard Deviation (SD.) in quantitative data and used content analysis in qualitative data. The result revealed that the internal and external factors affecting are found to be at a high level.

The results of the research showed that the internal and external factors that affect reading ability for undergraduate students from the group of students are at a high level. Important for students to be aware of the benefits of reading to their careers, external factors that have a high level of response to students' questionnaires include providing feedback, using a variety of teaching methods, and the teaching environment. For the lecturers' interview, it was found that the internal factors identified by the lecturer include the lecturer and the teaching methods, while the external factors identified by the lecturer include materials, evaluation, environment and class size.

**Keywords:** Reciprocal Teaching Model, Pedagogy Reading Comprehension, Undergraduate Students

## Background

The Pedagogy Course is a compulsory foundational course for teacher education programs in normal universities. The course aims to equip students with basic theoretical knowledge and skills in education, instilling the concept of "cultivating virtues and shaping individuals." It encourages the establishment of correct educational perspectives, teacher perspectives, and child perspectives, fostering firm beliefs in educational ideals and progressively enhancing teachers' professional qualities and ethical qualities. Students are expected to apply basic educational theories, principles, and methods, and to scientifically design and organize educational activities. The course lays a solid foundation for students to become qualified primary and secondary school teachers. Preliminary application of basic theoretical knowledge in education to explain and analyze educational and teaching problems and solve fundamental issues independently and comprehensively. Develop skills and techniques related to educational and teaching practices, interpersonal communication, organizational management, scientific research, and self-reflection. (Hechi University, 2022)

The reading comprehension ability in subject pedagogy refers to students' ability to understand and apply subject-related texts in the process of subject teaching and learning (Duke & Pearson, 2002). It emphasizes students' understanding, analysis, and evaluation of subject knowledge (Shanahan, 2008), as well as their ability to gather information from texts and apply it to specific subject areas (Grabe, 2014). In subject pedagogy, reading comprehension ability is a crucial core skill because students need to construct knowledge and gain deep understanding of concepts through reading various subject texts (Lee & Spratley, 2010). These subject texts can include textbooks, academic papers, scientific experiment reports, historical literature, and more (Vacca et al, 2014). The reading comprehension ability in subject pedagogy differs from general reading comprehension ability, as it requires students to understand subject-specific vocabulary and concepts and apply them within the specific context of the subject (Harris & Jacobson, 2011). Students need to be able to identify and analyze key information in subject texts, understand the thinking patterns and logical structures within the subject domain, and engage in critical thinking and evaluation (Guthrie et al., 2007). Subject pedagogy's reading comprehension ability extends beyond literal comprehension of subject texts. Students also need to identify and understand key concepts, principles, and models within the subject (Snow, 2002). Furthermore, they should discern evidence and perspectives presented in subject texts and employ critical thinking to assess their validity and reliability (Duke, 2004). By developing reading comprehension abilities in subject pedagogy, students can enhance their understanding of subject knowledge and effectively apply learned concepts and skills to problem-solving and learning activities (Graham & Hebert, 2011).

There is evidence to support the existence of reading comprehension problems among students in higher education. Allocating students to read educational texts, academic articles, popular press books, and/or internet publications is common in higher education. However, it is equally common for teachers to be disappointed with students' understanding of assigned reading

materials. In other words, "while every student knows how to read, many students have never learned good reading skills" (Reyhner, 2001, p. 127). The central role of reading comprehension in the success of higher education exacerbates the lack of good reading skills. According to Hart and Speece (1998), one of the greatest demands on students attending institutions of higher education is to comprehend a variety of difficult texts. One approach to address this issue of poor reading comprehension ability is to explicitly teach reading comprehension strategies to undergraduate and graduate students (such as reciprocal teaching, SQ4R, and guided imagery). Hodge and Scott (1992) suggest that college students with low reading efficiency often do not monitor their own comprehension and rarely employ any strategies to compensate for their reading difficulties. Furthermore, Meyer and Bartlett (1989) argue that explicit instruction in reading comprehension strategies is an effective means to improve adult reading comprehension abilities. Unfortunately, explicit instruction in reading comprehension is rarely taught in higher education (Pressley et al., 1990; Wilson, 1988). By considering the above points, there is evidence to prove the existence of students' pedagogy reading comprehension problems in higher education (Hechi University, 2022).

The reciprocal teaching, explored by Palincsar and Brown (1984), is one of the most effective instructional methods to enhance reading comprehension. It has been found to be beneficial for learners in various contexts (Pressley, 2002). Oczkus (2004) advocates for reciprocal teaching as an explicit instruction of strategies used by learners in different instructional settings. Reciprocal teaching improves learners' reading comprehension abilities, facilitates the understanding of educational academic articles, and helps them develop collaborative skills with peers. Janzen and Stoller (1998) argue that strategy-based reading instruction is beneficial for second language learners and their teachers. They believe that it fosters learner autonomy and self-awareness in the meaning construction process and prepares undergraduate students for academic reading. They also highlight that reading strategy instruction provides teachers with an effective approach to motivate student engagement and teach effective reading strategies. Considering the above, the advantages of the reciprocal teaching model in enhancing pedagogy reading comprehension can be demonstrated.

Previous studies: findings related to using Reciprocal Teaching Model to Enhance Pedagogy Reading Comprehension for Undergraduate Students Palincsar and Brown (1984) conducted a study in which undergraduate students received reciprocal teaching instruction. The researchers found that this instructional approach significantly improved students' reading comprehension skills, as evidenced by their ability to generate questions, summarize text, clarify confusing parts, and predict what would come next. Peter (2006) investigated the impact of reciprocal teaching on undergraduate students' reading comprehension abilities. The study revealed that students who participated in reciprocal teaching activities showed significant improvements in their understanding and interpretation of academic texts compared to those in a control group. Additionally, students

reported increased confidence and engagement in their reading tasks. Rosenshein and Meister (1992) conducted a comprehensive review of reciprocal teaching studies involving undergraduate students. Their analysis showed that reciprocal teaching consistently resulted in improved reading comprehension outcomes across various academic disciplines. The researchers emphasized the importance of explicit instruction and guided practice in developing students' comprehension strategies. As the rationale shown above, the author realizes the importance of studying “Development of Reciprocal Teaching Model to Enhance Pedagogy Reading Comprehension for Undergraduate Students”.

### Objectives of the Study

This objective of this study was to examine the factors affecting pedagogy reading comprehension for undergraduate students.

### Definition of Terms

**The factors to enhance Students’ Pedagogy Reading Comprehension** refers to the internal and external factors collected from students using questionnaire and interviews for teachers designed by the researcher. The internal factors involve the information about students while external factors consist of information about the teacher and circumstances. In addition, the factors will be obtained by structured interviews with the lecturers.

**Development of Reciprocal Teaching** refers to a new instructional framework which consists of the stable teaching activities and procedures. Such a developed instructional model with 5 components: 1) Principle & Rationale, 2) Objectives, 3) Contents, 4) Methods of teaching & Materials and 5) Evaluation, is confirmed by the experts in 4 aspects standards: 1) Utility, 2) Feasibility, 3) Propriety and 4) Accuracy (Stufflebeam and Social Impact, 2012) as the follows:

**Utility** is intended to ensure that the developed instructional model will serve the information needs of intended users.

**Feasibility** is intended to ensure that the developed instructional model will be realistic, prudent, flexible, and frugal.

**Propriety** is intended to ensure that the developed instructional model will be conducted in conformity to teaching principles and provide positive results

**Accuracy** is intended to ensure that the developed instructional model shows a measure of closeness to a true value.

**Reciprocal teaching (RT)** refers to define as a reading teaching model developed by Palincsar and Brown et al. in the early 1980s. (Palincsar & Brown, 1984) In reciprocal teaching, teachers and students

take turns to assume the role of teaching, guiding classroom teaching in a dialogical manner. Use the four strategies of Predicting, Questioning, clarifying, and summarizing, to initiate dialogue and jointly construct the meaning of the essay to improve students' reading comprehension. There are 4 steps to teach: Step 1: Predicting Step 2: Questioning Step 3: Clarifying Step 4: Summarizing

**Pedagogy Reading Comprehension** refers to the ability of individuals within the field of pedagogy to understand and interpret written texts related to education and teaching practices. It involves the comprehension and analysis of various educational materials, scholarly articles, research papers, and other relevant texts (Smith, 2020; Jones & Brown, 2018). Pedagogy Reading Comprehension proficiency consists of three items, and each item has two standards for rubric scoring. The breakdown of the test items and their corresponding standards are as follows:

**Item 1:** Ability to identify main ideas and key concepts in pedagogical texts, and capacity to analyze and synthesize information from multiple sources for deeper understanding.

Standard 1: Ability to identify the main ideas and key concepts in pedagogical texts.

Standard 2: Capacity to analyze and synthesize information from multiple sources to gain a deeper understanding (Johnson, 2019).

**Item 2:** Proficiency in evaluating the credibility and reliability of sources used in pedagogical literature, and skill in identifying and interpreting evidence and supporting details in educational texts.

Standard 1: Proficiency in evaluating the credibility and reliability of sources used in pedagogical literature.

Standard 2: Skill in identifying and interpreting evidence and supporting details in educational texts (Lee & Smith, 2017).

**Item 3:** Capability to make connections between theoretical frameworks and practical applications in pedagogy, and competence in critically evaluating arguments and perspectives presented in educational writings.

Standard 1: Capability to make connections between theoretical frameworks and practical applications in pedagogy.

Standard 2: Competence in critically evaluating arguments and perspectives presented in educational writings (Brown & Davis, 2020).

**Undergraduate Students** refers to the 1st semester of 2023 students majoring in Chinese language and literature who enroll Pedagogy Course in the semester1 academic Year 2023 at Hechi University.

**Hechi University** refers to a full-time undergraduate university located in Yizhou District, Hechi City, Guangxi. It is a multi-subject local applied university with certain scale and initial characteristics.

## Literature Review

### Pedagogy course

The principle of the Pedagogy course is based on the Reciprocal Teaching Model, which aims to enhance the methods and thoughts of modern normal education. This model focuses on individualized instruction and tailoring teaching strategies according to the aptitude and needs of students at different levels. The principle of "according to their aptitude" in the Pedagogy course emphasizes the importance of recognizing and understanding the diverse abilities and learning styles of students. It acknowledges that each student is unique and requires personalized teaching approaches to maximize their potential. By assessing students' strengths and weaknesses, the course can design a feasible training plan and set appropriate targets for students at all levels. Another principle of the Pedagogy course is to meet the demands of social and cultural undertakings. This means that the course considers the evolving needs of society and aligns its curriculum with the current trends and expectation in the field of education. By staying updated with the latest developments and incorporating relevant content, the course ensures that students are well-prepared to contribute effectively to the educational landscape. Furthermore, the Pedagogy course emphasizes the comprehensive development of students. It not only focuses on enhancing students' theoretical knowledge and understanding of pedagogy but also places significant importance on practical professional skills and teaching ability. This approach aims to equip students with a well-rounded skill set that will enable them to excel in their future careers as educators. Overall, the principle of the Pedagogy course revolves around the Reciprocal Teaching Model, individualized instruction, meeting societal demands, and fostering comprehensive development. By following these principles, the course strives to provide a holistic learning experience for undergraduate students majoring in normal education.

### Curriculum Structure

There are 10 Units, 50 hours in Pedagogy Course. Contents in Pedagogy course semester 1 in the academic year 2023 by table 2.1

**Table 1.1:** Chapters and Contents Used in in the Present Study

Unit	Chapter	Contents	Times (16 hrs)
Unit 2: Education and social development	2.1 Social influence on educational development	The impact of productivity on education; The influence of politics on education; The impact of population on education; The influence of culture on education	8 hrs
	2.2 The promoting function of education to social development	The economic function of education; The political function of education; The population function of education; The cultural function of education.	
	2.3 The status and function of education in socialist modernization construction	Rejuvenating the country through science and education is an important strategy; Education is the cornerstone of national rejuvenation	
Unit 3: Education and human development	3.1 Human physical and mental development and its influencing factors	The connotation and characteristics of human physical and mental development; The main factors that affect people's physical and mental development; The unique value of school education in individual development.	8 hrs
	3.2 The function of education to promote individual development	The function of education to promote individual socialization; The function of education to promote individual socialization; Education promotes the relationship between individual socialization and individuation.	
	3.3 Education promotes the condition of individual development	Take "educating people as the foundation" as the fundamental requirement of education work; Take students as the subject of educational activities and development; Adhere to educational innovation.	

The researcher chooses Unit 2 and Unit 3 to have experiments through Reciprocal Teaching model.

### **The factors of promoting students' pedagogy reading comprehension**

The factors to promote pedagogy reading comprehension means the internal and external factors collected from students using questionnaire and interviews for lecturers designed by the researcher. The internal factors involve the information about students while external factors consist of information about the teacher and circumstances. In addition, the factors will be obtained by structured interviews with the lecturers. There are scholars to define the meaning of definition of internal factors and external factors as follows: Pasatiga (2012) said that internal factors mean the things that human needs are within the person. Whatever is visible or invisible, such as body, mind, intellect and spirit and external factors means the things that are needed are outside the person. Whether to see or invisible such as friends, lovers, clothes, food, water, air, house, vehicles, assets, money, copyrights, patents, equipment, and appliances. Also, Wei (2002) said that internal factors means personality, intelligence, attitude, and motivation are some of the learner's characteristics and external factors means Social environmental factors, learning environmental factors, and natural environmental factors are the three types of environmental factors.

### **Development of Reciprocal Teaching Model**

Recent studies have defined instructional models in several ways. For example, Kivunja (2015) defines instructional models as a systematic and precise plan for the presentation of new material, review of previous material, and assessment of student learning. Similarly, Ciavarella (2020) defines instructional models as a set of principles and practices that guide the planning, implementation, and assessment of learning experiences in a specific context. In it is designed to improve learning outcomes. Several recent studies have identified the components of instructional models. For example, Wu (2019) identified four components of a successful instructional model: (1) clear learning objectives, (2) sound instructional strategies, (3) effective assessment methods, and (4) feedback to students. Similarly, Lee (2019) identified three components of an effective instructional model: (1) conceptual understanding, (2) procedural fluency, and (3) problem-solving skills. Research has shown that the components of instructional models can have a positive impact on student learning outcomes. For example, Rottweiler (2017) found that using a structured instructional model for teaching mathematics resulted in significant improvements in student achievement. Similarly, Ayresar (2020) found that an instructional model that emphasized problem-solving skills resulted in significant improvements in student performance on problem-solving tasks. From the information above, the instructional model employed in the present study including clear learning objectives, effective instructional strategies, valid assessments, timely feedback, conceptual understanding, procedural fluency, and problem-solving skills. To ensure the appropriateness of developed instructional model before implementation, evaluated by the experts from 4 aspects: 1) Utility



Standard, 2) Feasibility Standard, 3) Propriety Standard and 4) Accuracy Standard (Stufflebeam and Social Impact, 2012).

### **Reciprocal Teaching (RT)**

Reciprocal teaching was designed as an instructional approach to improve students' reading comprehension at all levels and in all subject areas (Palincsar & Brown, 1984). Reciprocal teaching was introduced to help learners improve the ability to construct meaning from passage and control their reading a comprehension. Learners study a set of cognitive strategies, modeled by the instructor, and practiced by learners in collaborative work, that are used to structure discussions of the passage (Foster & Rotoloni, 2005). Essential components of reciprocal teaching strategy, such as self-evaluation, goals, plans, requesting for help, and using monitoring strategies are helpful in improving reading comprehension (Hashey & Connors, 2003; Oczkus, 2003).

RT, according to Palincsar and Brown (1984), is a metacognitive strategy instruction based on modelling and guided practice, in which the facilitator first plays his role to model a set of reading comprehension strategies and then gradually places responsibility for these strategies to the students. Each student plays his own role in a group of four or five students as predictor, questioner, summarizer and clarifier. The authors found that teaching processes of Reciprocal Teaching Approach as follows: 1. predicting 2. questioning 3. clarifying 4. summarizing. Overall, these studies demonstrate different effective methods of teaching reciprocal teaching approach. Using digital tools, explicit instruction, self-reflection, flipped classrooms, and tailored instruction for students with specific learning needs are all effective methods for teaching reciprocal teaching approach.

### **Pedagogy Reading Comprehension**

Reading comprehension is a combination of the reader's cognitive and meta-cognitive processes, which a reader must make inferences on the context of a text or at the end of a story by using information from various sources: the title, the illustrations, or generally from the previous paragraphs. The reading comprehension processes occur when the reader understands the information in a text and meaningfully interprets it appropriately (Blair-Larsen & Vallance, 2004). The conclusion of recognition among readers and the context is called reading comprehension (Eskey, 2005). Many of the strategies instruction occurred because of the earlier proposal from Rosenblatt (1978), that reading is a transaction among the text and reader. It is believed that readers establish and construct their own meanings and in the context of small-groups, readers can share those understandings. On the other hand, Chang, and Gould (2008) define reading as one of the most important factors in language learning. Reading also helps learners to improve themselves in various situations such as vocabulary knowledge, writing skills, and spelling (Harmer, 2007).

## Research Framework

Based on the research objectives, relevant theories are compiled and studied i.e, reciprocal teaching model and pedagogy reading comprehension proficiency. These thoughts and principles are employed as the foundation of the following research framework as shown in figure 1.1

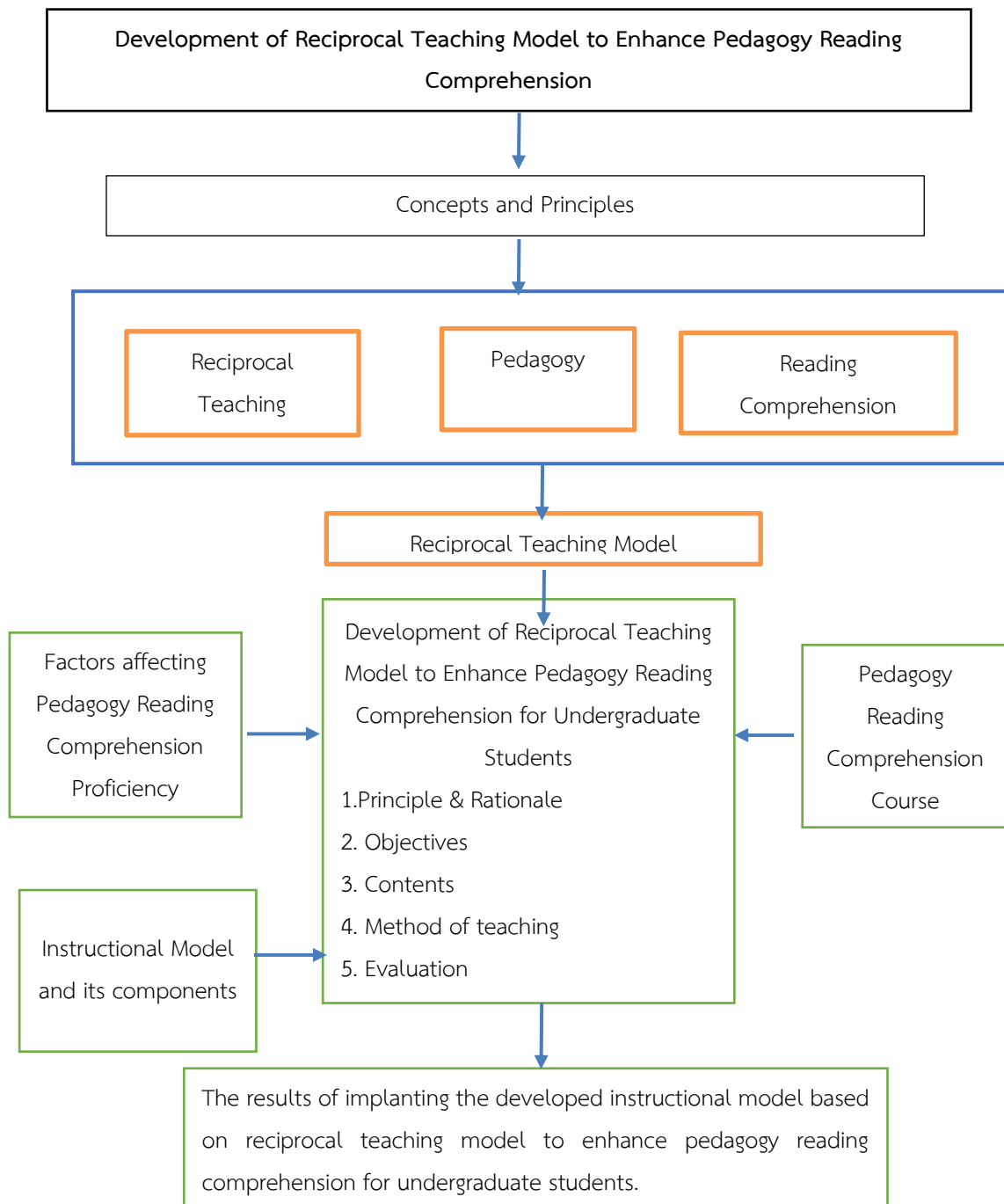


Figure 1.1 Research Framework

## Research Methodology

This research used Mixed Method Research. This research aimed to examine the factors affecting pedagogy reading comprehension for undergraduate students. The data collected from the group of students and lecturers. The details were shown as follow.

### Data from students

#### Population

The former 150 students of Pedagogy course in semester I of academic year 2022 from Hechi University. 1) 50students major in Chinese language and literature 2) 50 students major in Musicology 3) 50 students major in Preschool education

#### Research instrument

Questionnaire for students

#### Designing instrument 1

1. Study factors for enhancing students' Pedagogy reading comprehension.
2. Design a questionnaire on factors to enhance students' Pedagogy reading comprehension at Hechi University.
3. Present the draft of questionnaire to the advisors for checking correctness and completion.
4. Assess the validity of questionnaire on factors to enhance Pedagogy reading comprehension of students at Hechi University. by 5 experts through Index of Item-Objective Congruence (IOC) according to the criteria shown below (Phongsri ,2011).

+1 = If you are sure the passages measure its objectives

0 = If you are not sure that the measurement passage related its objectives

-1 = If it is certain that the passage is measured and does not relate the objectives

The acceptable items must have the IOC values not less than 0.5. The IOC calculated from the validation measure 1.00.

5. Design Likert 5-point rating scale questionnaire on the following score rating criteria.

5 means strongly agree

4 means agree

3 means neutral

2 means disagree

1 means strongly disagree

The factors affecting undergraduate students' pedagogy reading comprehension ability. obtained from the students are interpreted using pyramid theory proposed by Phongsri (2011)

4.51 - 5.00 means the Highest

3.51 - 4.50 means High

2.51 - 3.50 means Moderate

1.51 - 2.50 means Few

1.00 - 1.50 means the Fewest

#### **Data Collection**

1. Ask for permission for data collection.
2. Collect data from the assigned students using the developed questionnaire.

#### **Data Analysis**

Descriptive Statistics: Frequency, Mean ( $\mu$ ), Standard Deviation ( $\sigma$ )

#### **Data from lectures**

#### **Population**

The lecturers who are teaching Pedagogy course from Hechi University. 1) 1 Lecturer from Literature and Media College 2) 1 Lecturer from Music and Dance College 3) 1 Lecturer from Teacher Education College.

#### **Research instrument**

The researcher used interview protocol for teachers which has process to develop as follow.

1. Study literature on reading comprehension, improve of undergraduate students' reading comprehension ability, and factors affecting the enhancement of reading comprehension ability in undergraduates.
2. Design the draft of open-ended interview on factors affecting students' Pedagogy reading comprehension in undergraduate students.
3. Present the draft of open-ended interview to the advisors for checking correctness and completion.
4. Assess the validity of open-end interview on factors affecting Chinese reading comprehension of for the students at Hechi University. by 5 experts through Item-Objective Congruence (IOC) according to the criteria as shown below:

+1 = If you are sure the questions measure its objectives

0 = If you are not sure that the measurement questions related its objectives

-1 = If it is certain that the questions is measured and does not related the objectives

The acceptable items must have the IOC values not less than 0.5. The IOC calculated from the validation measures 1.00

5. Do the open-end interview in Hechi University. The open-end interview type can only be answered by the lecturers.

#### Quality Validation

Using IOC by 5 experts (List name in Appendix A) to test the quality of open-end interview.

#### Data Collection

1. Ask for permission for data collection.
2. Collect data from the assigned lecturers using the developed interview.

#### Data Analysis

Content analysis

#### Results

Analysis results serving objective aimed to examine the factors affecting pedagogy reading comprehension for undergraduate students. The common data of the respondents from three majors in overall shows that most of respondents were the female. The most common age distribution is relatively concentrated on, the 18-20 years old as shown in the table 1 below.

**Table 1** Common data of the respondent in overall (N-150)

2) 50 students major in Musicology 3) 50 students major in Preschool education

Data		Chinese language and literature		Musicology		Preschool education	
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Gender	Male	5	10	1	2	8	16
	Female	45	90	49	98	42	84
	Total	50	100	50	100	50	100
Age	A. below 18 yrs.	0	0	0	0	1	2
	B. 18-20 yrs.	47	94	21	42	15	30
	C. 21-23 yrs.	3	6	29	58	33	66
	D. over 23 yrs.	0	0	0	0	1	2
	Total	50	100	50	100	50	100

In addition, internal and external factors affecting pedagogy reading comprehension for undergraduate students are found to be at a high level as shown in the table 2 below.

**Table 2** The result of questionnaire about internal and external factors affecting pedagogy reading comprehension for undergraduate students from 3 majors: Chinese language and literature, Musicology and Preschool education.

Data	Factor	$\mu$	$\sigma$	Level
Chinese language and literature	Internal Factor	4.19	.728	High
	External Factor	<b>4.31</b>	<b>.596</b>	High
Musicology	Internal Factor	4.12	.625	High
	External Factor	<b>4.17</b>	<b>.595</b>	High
Preschool education	Internal Factor	4.18	.669	High
	External Factor	4.29	.609	High

#### The Lecturers Interview analysis results

Lecturers work on Literature and Media College, Music and Dance College and Teacher Education College from Hechi University. The common data of the lecturers shows that the most common gender is Female, representing 66.7% of the respondents, while male lecturers make up 33.3% of the sample. The lecturers have at least four years of teaching experience, the number of lecturers aged 30-40 accounted for 66.67 percent of the total number. After interviews with three lecturers, the factors that affect the pedagogy reading comprehension for undergraduate students are summarized as follows:

**Table 3** The factors that affect pedagogy reading comprehension for undergraduate students.

Factors	Details
<b>Internal factors</b>	
Lecturer	These teacher factors work in conjunction to provide students with clear context and background information, stimulate their interest, and promote a deeper understanding and application of educational literature. These factors contribute significantly to students' reading comprehension abilities and academic achievements. Therefore, the cultivation of reading comprehension in educational studies relies on the support of teachers' expertise and effective teaching methods.
The teaching methods	Teaching methods play a pivotal role in the comprehension of educational literature. These methods encompass diversity, the cultivation of critical thinking, personalized learning, interaction, and subjectivity. Their combined effect is to enhance students' thinking abilities, deepen their comprehension, and strengthen their analytical and problem-solving skills. Such comprehensive teaching methods are crucial for learning and understanding in the field of education.

**Table 3** The factors that affect pedagogy reading comprehension for undergraduate students.  
(Continued)

Factors	Details
External factors	
Materials	Material factors play a vital role in shaping the comprehension of educational readings in pedagogy. These factors encompass the selection of materials, diversity, interest stimulation, the cultivation of critical thinking, practical application, and cultural sensitivity. Educators should meticulously consider and manage these factors to ensure that materials effectively support students' learning objectives and facilitate a profound understanding of concepts and viewpoints in the field of education.
Evaluation	These evaluation factors encompass a wide range of methods aimed at comprehensively assessing students' reading abilities while ensuring the reliability and effectiveness of these assessment techniques. The methods include traditional approaches like in-class questioning, post-class assignments, and end-of-term examinations, as well as more diversified methods such as reading quizzes and tests, reading journals, group discussions and projects, oral presentations, educational projects and papers, as well as feedback and self-assessment.
Environment and class size.	Environmental factors and class size are closely related to the reading comprehension in educational studies. A conducive learning environment, including a quiet, comfortable classroom, and smaller class sizes, can significantly enhance students' reading comprehension abilities. Therefore, educators and schools should strive to create suitable learning environments and control class sizes to best support students' reading comprehension.

## Conclusion and Discussions

The results of the research showed that the internal and external factors that affect reading ability for undergraduate students from the group of students are at a high level. Important for students to be aware of the benefits of reading to their careers, external factors that have a high level of response to students' questionnaires include providing feedback, using a variety of teaching methods, and the teaching environment. For the lecturers interview, it was found that the internal factors identified by the lecturer include the lecturer and the teaching methods, while the external factors identified by the lecturer include materials, evaluation, environment and class size.

Reading comprehension can be improved by reciprocal teaching strategy and by making reading relevant to learners' lives and attitudes, it will create what learners know and believe and

by being mindful of their purposes and hopes for their futures (Guthrie & Wigfield, 2000). Instructors will provide reading environment that are suitable, interesting, and appropriate to learners' reading capabilities to assist in improving their comprehension. Reading comprehension is improved by reciprocal teaching which activates background knowledge in ways of pre-reading, while reading and after reading, in instructing students to get information and in monitoring their reading during their reading time (Guthrie & Wigfield, 2000).

### Recommendations for Further Research

To develop reciprocal teaching model to enhance pedagogy reading comprehension for undergraduate students and to study the results of implementing reciprocal teaching model to enhance pedagogy reading comprehension for undergraduate students.

### References

- Ardiansyah, W. & Ujihanti, M. (2018). *Social constructivist learning theory and reciprocal teaching to teach reading comprehension*. International Journal of Learning and Teaching, 10(1), 70-77.
- Ahmadi, M.R. & Hairul, N.I. (2012). *Reciprocal teaching as an important factor of improving reading comprehension*. Journal of Studies in Education, 2(4), 153-173.
- Barrett, P., Zhang, Y., Moffat, J., & Kobbacy, K. (2013). *A holistic, multi-level analysis identifying the impact of classroom design on pupils' learning*. Building and Environment, 59, 678-689.
- Calderón, M., Slavin, R., & Sanchez, M. (2011). *Effective instruction for English learners*. The future of children, 103-127. Available from: <https://www.specialsci.cn/detail/3aeb1799-4a56-4179-b045-3ea61706e62a>
- Rosenshine, B., & Meister, C. (1992). *The use of scaffolds for teaching higher-level cognitive strategies*. Educational Leadership, 49(7), 26-33.
- Carver, C. S., & Scheier, M. F. (2001). *On the self-regulation of behavior*. Cambridge University Press.
- Dierking, L. D., & Falk, J. H. (2010). *The 95 percent solution: school is not where most Americans learn most of their science*. The American Scientist, 98(6), 486-494.
- Doolittle, P. E., Hicks, D., Triplett, C. F., Nichols, W. D., & Young, C. A. (2006). *Reciprocal teaching for reading comprehension in higher education: A strategy for fostering the deeper understanding of texts*. International Journal of Teaching and Learning in Higher Education, 17(2), 106-118.
- Eysenck, H. J. (1967). *The biological basis of personality*. Charles C Thomas Publisher.



- Fielding, L. G., & Pearson, P. D. (1994). *Reading Comprehension: What Works*. Educational leadership, 51(5), 62-68.
- Grabe, W. (2014). *Reading in a second language: Moving from theory to practice (2<sup>nd</sup> ed.)*. Cambridge: Cambridge University Press. (Online). Available from <https://www.specialsci.cn/detail/037ee67c-ef94-4f61-b58a-c4b22d9f3e32>
- Gottfredson, L. S. (1997). *Why g matters: The complexity of everyday life*. Intelligence, 24(1), 79-132.
- Hechi University.( 2022). *Curriculum of Pedagogy Course*. Department of Education. Hechi University.
- Hart, E. R., & Speece, D. L. (1998). *Reciprocal teaching goes to college: Effects for postsecondary students at risk for academic failure*. Journal of Educational Psychology, 90(4), 670. Available from:<https://www.specialsci.cn/detail/075bd7b7-6066-4d20-b4eb-416974338ae3>
- Hyde, J. S., & Linn, M. C. (1988). *Gender differences in verbal ability: A meta-analysis*. Psychological Bulletin, 104(1), 53-69.
- Komariah, E., Ramadhona, P. A. R., & Silviyanti, T. M. (2015). *Improving reading comprehension through reciprocal teaching method*. Studies in English Language and Education, 2(2), 87-102. Available from:<https://jurnal.usk.ac.id/SiELE/article/view/2693>
- Krapp, A., Hidi, S., & Renninger, K. A. (2014). *Interest in learning: Theory, measurement, and long-term consequences*. Educational Psychologist, 49(3), 175-191.
- Keengwe, J., Onchwari, G., & Hootstein, E. W. (2013). *Promoting active learning through the integration of mobile and ubiquitous technologies*. Journal of Science Education and Technology, 22(6), 784-796.
- Oczkus, L. D. (2003). *Reciprocal Teaching at Work: Strategies for Improving Reading Comprehension*. Newark : Order Department, International Reading Association, Available from: <https://eric.ed.gov/?id=ED480245>
- Palincsar, A. S., & Brown, A. L. (1984). *Reciprocal teaching of comprehension-fostering and comprehension-monitoring activities*. Cognition and Instruction, 1(2), 117-175. (Online). Available from: [https://www.tandfonline.com/doi/abs/10.1207/s1532690xci0102\\_1](https://www.tandfonline.com/doi/abs/10.1207/s1532690xci0102_1)
- Petri, H. L., & Govern, J. M. (2012). *Motivation: Theory, research, and application*. Cengage Learning.
- Rasinski, T. V., & Lems, K. (Eds.). (2012). *Fluency instruction: Research-based best practices*. Guilford Press.

- Snow, C. (2002). *Reading for understanding: Toward an R&D program in reading comprehension*. Rand Corporation. Available from: <https://www.specialsci.cn/detail/5729a379-f2ca-4f22-b72e-bbc2bf53f745>
- Shanahan, T., & Shanahan, C. (2008). *Teaching disciplinary literacy to adolescents: Rethinking content-area literacy*. Harvard educational review, 78(1), 40-59. Available from: <https://www.specialsci.cn/detail/e20dfc10-f316-468f-8444-7640cd7d63e2>
- Snow, C. (2002). *Reading for understanding: Toward an R&D program in reading comprehension*. Rand Corporation. Available from: <https://www.specialsci.cn/detail/5729a379-f2ca-4f22-b72e-bbc2bf53f745>
- Shulman, L. S. (2005). *Signature pedagogies in the professions*. Daedalus, 134(3), 52-59.
- Vacca, R. T., & Vacca, J. A. L. (2005). *Content area reading: Literacy and learning across the curriculum*, 8/e. Available from: <https://www.specialsci.cn/detail/6a455151-74b7-4bd1-bdf8-436b9d549770>