DEVELOPMENT OF SCAFFOLDING INSTRUCTIONAL MODEL TO ENHANCE STUDENTS' READING COMPREHENSION SKILL



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Abstract

This thesis aims to 3 objectives were 1) To study the factors affecting students' reading comprehension skill, 2) To develop scaffolding instructional model to enhance students' reading comprehension skill, and 3) To examine the results of development of implementing scaffolding instructional model to enhance students' reading comprehension skill. The Sample The 51 students who enroll in English curriculum from class section B are obtained by simple random sampling. Data were statistically analyzed by mean, standard deviation, data analytics statistics for confirmation of instructional model and data analytics statistics for scoring rubric.

The results were found that. Answer by the 3 objectives 1) Analysis results serving objective 1. To study the factors to enhance undergraduate students 'problem-solving skills. The result of questionnaire from students in overview the factors the indicates that internal factors affecting the learning achievement of English curriculum are overall found to be at a high level and external factors affecting the learning achievement of English curriculum, the level is overall found to be at a high level. 2) Analysis results serving objective 2: To develop scaffolding instructional model to enhance students' reading comprehension skill. Overall, the 5 components are unanimously confirmed by 5 specialists or 100% of all specialists based on appropriateness in 4 areas: utility, feasibility, propriety, and accuracy, and 3) Analysis results serving objective 3: To examine the results of development of implementing scaffolding instructional model to enhance students' reading comprehension skill. It is found that among the factors that affect reading comprehension skill, students' attitude of reading comprehension skill is an important factor.

Keywords: development, scaffolding instructional model, reading comprehension skill

Introduction

The English Curriculum of Grade 5 in Gaoxin Primary School is achieved this English subject key competence through these four general objectives are 1) Language Ability. It involves three aspects. They're language understanding and accumulation, construction in

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acquiring language, and language expression and communication. 2) Cultural Awareness. It involves three aspects. They're cultural comparison and judgment, awareness of and ability in cross-cultural communication, and cultural comprehension and internalization. 3) English thinking quality. It involves three aspects. They're observation and analysis, summarization and inference, and critical and inventiveness and 4) Learning Ability. It involves three aspects. They're motivation and interest, autonomous learning ability, and cooperative inquiry spirit (MOE, 2022).

Reading comprehension skill refers to students' thinking personality characteristics, reflecting them in understanding, analysis, comparison, inference, criticism, evaluation, creation and other aspects of the level in English reading comprehension learning (MOE, 2022). So, we reference the English thinking quality to evaluate students' reading comprehension skill in this study.

The achievements of students about reading comprehension skill are not good last year. The detailed descriptors for their reading comprehension skill are presented in the following: It involves 1) Observation and analysis. Students cannot classify and compare simply the information of the text. 2) Summarization and inference. Students cannot identify, extract and summarize the key information, main content, theme, significance and point of the text. Understanding and judging correctly the main significance of the theme. 3) Critical and inventiveness. Students cannot express views and exchange feelings about writer's attitudes and opinions (Gaoxin Primary School, 2022).

Scaffolding instructional model in primary school English teaching is helpful to improve students' overall reading comprehension skill. In terms of research on enhancing reading comprehension skill through scaffolding instructional model. Zhang, M. (2020) believes that limited by the small vocabulary, the English reading comprehension skill training of primary school students mainly relies on the text.

Therefore, teachers should improve the awareness of reading comprehension skill training, and improve students' thinking logic through graphic scaffolding instructional model support within the scope of students' cognitive level and cognitive ability. Use question scaffolding instructional model to enhance students' thinking critically; By using the context scaffolding instructional model, we can develop the creativity of students' thinking, so that students can activate and train their thinking in various teaching activities, so as to improve their reading comprehension skill (Zhang, M, 2020). According to The F's research, the graphic scaffolding instructional model can give full play to students' subjective initiative, cultivate students' divergent thinking and summarizing ability, enhance students' creative ability, constantly improve students' English thinking quality, and promote students' comprehensive development. (He, F, 2021)

As the rationale shown above, the author realizes the importance of studying "Development of scaffolding instructional model to Improve students' reading comprehension skill".

Objectives

- 1. To study the factors affecting students' reading comprehension skill.
- 2. To develop scaffolding instructional model to enhance students' reading comprehension skill.
- 3. To examine the results of development of implementing scaffolding instructional model to enhance students' reading comprehension skill.

Material and Method

Literature review

Development instructional model

Joshua, C.E. (2020) development Instructional models are ways in which instruction are presented and improved through making an analysis of learning needs and instructional material needs, for the efficient delivery of instruction and for creating better understanding between the teacher and the students.

Liu,P.(2013) the meaning of development instructional model refers to be the relatively stable structure and procedure of teaching activities established under the guidance of certain teaching ideas or teaching theories.

Puangtong, Petchtone. (2013) in the research they developed the instructional model procedures integrated with thinking skills and knowledge constructivism into 2 steps, first, developing the instructional model and supplementary materials, second, testing testifying the developed model. The data were analyzed to calculate the percentage, mean, standard deviation and t-test.

Joshua, C.E. (2020) the components of all development instructional models includes the analysis stage because the understanding and breakdown of the learners' needs are very important for the preparation of instruction and also the evaluation stage because instruction must actually be assessed in order to know the effectiveness and if the expected outcome was achieved.

Puangtong, Petchtone. (2013) the instructional model developed comprised 6 components, i.e. rationale, objectives, content structure, task analysis, instructional units, and measurement and evaluation.

Scaffolding Instructional Model Theory

Sociocultural Theory (SCT) refers to have attracted the attention of second language (L2) researchers and educators since the publications of papers of Frawley and Lantolf (1984). Since then, SCT-informed research has become an established part of the landscape of second language acquisition (SLA), pedagogy, and assessment (Lantolf &Thorne, 2006; van C & Williams, 2013c), as evidenced by the growing number of journal articles and books focused on SCT. The majority of this research has, however, used SCT as a theoretical lens through which to interpret questions related to SLA rather than as a theoretical motivation for designing second language (L2) pedagogies.

Wood,B.,Ross.(1976) a process that enables a child or a novice to solve a problem, carry out a task, or achieve a goal which would be beyond his unassisted efforts.

Bradley, Bradley. (2004) considered scaffolding as the contextual support for meaning that is offered through simplified language as in avoiding the use of idioms; teacher modeling; using graphic organizers, tables, graphs, and visuals; hands-on learning; and cooperative learning.

Reading comprehension skill

MEO. (2022) defines reading comprehension skill to the individual characteristics of people's thinking, reflecting the level and level of students in understanding, analysis, comparison, inference, criticism, evaluation and creation. The improvement of reading comprehension skill helps students learn to find problems, analyze problems and solve problems, and make correct value judgments on things.

Anne, P.S., E.Snow. (2003) good comprehends have attention, memory, critical analytic ability, inferencing, and visualization ability.

The conditions of meaningful learning require an appropriate instructional strategy, where students need to elaborate, or generate activities, such as self-questioning, semantic

mapping, and summary writing, monitor learning, and construct meaning from a reading text. Such strategies can be considered effective in reading comprehension (McGriff, 1996).

Material and Method

In the study of "Development of scaffolding instructional model to Enhance Students' Reading Comprehension Skill" the research used Mixed Method of Research. This research is divided into 3 phases.

Phase 1 was conducted to answer research objective 1: To study the factors affecting students' reading comprehension skill.

Population

Group 1: The former students (Grade 6) of English curriculum in semester I of academic year 2022 from 3 primary schools in Nanning City.

- 1) 51 students from Gaoxin Primary School
- 2) 51 students from Guiyalu Primary School
- 3) 52 students from Zhihelu Primary School

Research instrument

The questionnaire for students

Designing instrument 1

- 1. Study English curriculum and factors affecting students' reading comprehension skill.
- 2. Design a questionnaire on factors to improve reading comprehension skill for the students at Gaoxin Primary School.
- 3. Present the draft of questionnaire to the advisors for checking correctness and completion.
- 4. Assess the validity of questionnaire on factors to improve reading comprehension skill of Grade 5 students at Gaoixn Primary School by 5 experts (List name in Appendix A) through Index of Item-Objective Congruence (IOC)
- 5. Design Likert 5-point rating scale questionnaire on the following score rating criteria.

Data Collection

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

Data Analysis

Descriptive Statistics i.e., Frequency, MEAN (\bar{x}) , Standard Deviation (S.D.)

Group 2: The teachers who are teaching English curriculum for Chinese compulsory schooling from 3 schools in Nanning City

- 1) 1 teacher from Gaoxin Primary School
- 2) 1 teacher from Guiyalu Primary School
- 3) 1 teacher from Zhihelu Primary School

Research instrument

The interview for the teachers

Designing instrument 2

- 1. Study literature on reading comprehension skill improve of reading comprehension skill factors affecting.
- 2. Design the draft of open-ended interview on factors affecting reading comprehension skill.
- 3. Present the draft of open-ended interview to the advisors for checking correctness and completion.
- 4. Assess the validity of interview on factors to improve reading comprehension skill of Grade 5 students at Gaoixn Primary School by 5 experts through Index of Item-Objective Congruence (IOC)

Data Collection

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

Data Analysis

Content analysis

Expected Output Phase 1

Factors affecting reading comprehension skill of Grade 5 students.

Phase 2 was conducted to answer research objective 2: To develop scaffolding instructional model to enhance students' reading comprehension skill.

Research instrument

Conformity Assessment Form of scaffolding instructional model in terms of accuracy standard, propriety standard, feasibility standard, and utility standard.

Designing instrument

- 1. Study related concepts, principles, process about developing instructional model, including results in terms of factors affecting reading comprehension skill from research objective 1.
 - 2. Design handout of scaffolding instructional model.
- 3. Design a questionnaire on confirming the appropriateness of the instructional model in terms of accuracy standard, propriety standard, feasibility standard, and utility standard.
- 4. Present the draft of open-ended interview to the advisors for checking correctness and completion.
- 5. Assess the validity of the questionnaire on confirming the appropriateness of the instructional model by 5 experts through Item-Objective Congruence (IOC)

Data Collection

- 1. Ask for permission of data collection
- 2. Collect appropriateness of the instructional model in terms of accuracy standard, propriety standard, feasibility standard, and utility standard from the 5 experts using the developed conformity assessment form of scaffolding technique.

Data Analysis

Descriptive analysis i.e., frequency and percentage. The acceptable items must not be less than 100%.

Expected Output Phase 2

Scaffolding instructional model, the appropriateness of which is confirmed by experts for further implementation

Phase 3 was conducted to answer research objective 3: To examine the results of development of implementing scaffolding instructional model to enhance students' reading comprehension skill.

Population

The total of 312 students of Grade 5 from 6 classes who enroll in the English curriculum Chinese elementary schools in 1st semester, academic year 2023. Those sections involve the following.

- 51 students in class A
- 51 students in class B
- 52 students in class C
- 52 students in class D
- 55 students in class E
- 51 students in class F

The Sample Group

The 51 students who enroll in English curriculum from class section B are obtained by simple random sampling.

Research instruments

- 1. Lesson plans using scaffolding instructional model
- 2. Pretest and Posttest

Designing instrument 1

Lesson plans using scaffolding instructional model

- 1. Study contents, objectives, methods of teaching, materials, evaluation.
- 2. Design lesson plans by format given.
- 3. Present the lesson plan to the advisors for checking correctness, completion and improvement.
- 4. Assess the validity of questionnaire on factors to improve reading comprehension skill of Grade 5 students at Gaoxin Primary School by 5 experts.
- 5. Conduct a try-out of the developed lessons plans with another group of samples for further improvements and implementation with the sample group.

Designing instrument 2

Pretest and Posttest 1

- 1. Study the testing objectives aligned with reading comprehension skill
- 2. Design pretest and posttest.
- 3. Present the developed pretest and posttest to the advisors for checking correctness, completion and improvement.
- 4. Assess the validity of the designed pretest and posttest by 5 experts through Item-Objective Congruence (IOC)
- 5. Conduct a try-out of the developed pretest and posttest with another group of samples for analyzing difficulty value (p), discrimination power (r), and reliability (KR-20). The calculated p value measures reading comprehension skill for r value, and scaffolding technique for reliability.

Data Collection

- 1. Ask for permission of data collection.
- 2. Collect students' learning outcomes by using pretest before the experiment.
- 3. Carry out the experiment.
- 4. Collect students' learning outcomes by using posttest after the experiment.

Data Analysis

Descriptive statistics – MEAN and standard deviation

Inferential statistics – Paired t-test for dependent samples

Relative Developmental Scores

Expected Output Phase 3 (Pretest-Posttest)

Results of implementing scaffolding instructional model – students' learning outcomes

Results and Discussion

In the study of "Development of scaffolding instructional model to Enhance Students' Reading Comprehension Skill", the researcher studied the documents concerning the following.

Part 1: Analysis results serving objective 1–To study the factors affecting students' reading comprehension skill

This section presents analysis results serving objective 1 using table and description in terms of MEAN, standard deviation, interpretation (Level of Attitude), and ranking of all factors in overview. After that, items of all factors are presented likewise

Common data of the respondent in overall (N=154(

The common data of the respondent in overall shows that 55.1% of the total participants are male. The female respondents make up 44.8% of the total. The total of male is more than female. The age distribution is relatively concentrated, 11 years old is the most common, 70.6% of the respondents belong to this category.

The result of questionnaire from students in overview (N=154)

The indicates that internal factors affecting the learning achievement of English curriculum are overall found to be at a high level (μ =4.31). Considering each item individually, it was found that No.3 Students believe that the good technique in teaching to improve reading comprehension skill in English curriculum is the highest mean (μ =4.60), followed by No.8 Students feel that the assignments assigned by the teachers and the feedback can help students better apply what they have learned (μ =4.47), and the lowest mean is No.2 Students have new ideas based on their responses to learning about reading comprehension skill in English curriculum (μ =3.98).

For external factors affecting the learning achievement of English curriculum, the level is overall found to be at a high level (μ =4.38). Considering each item individually, it was found that No.20 The environments is clean and bright, with desk and chairs, blackboards, podiums, computers, projectors, large screens, loudspeakers and other multimedia facilities to facilitate the teaching process is the highest mean (μ =4.56), followed by No.15 The teachers combine the teaching method he teaches objectives, the knowledge and reading comprehension skill in English curriculum to enhance students' reading comprehension skill (μ =4.46), and the lowest mean is No.18 The textbook fully considers the content and objectives of English curriculum and reading comprehension skill (μ =4.25).

The Common data of the respondent in Gaoxin Primary School. (N=51)

The common data of the respondent who is from Gaoxin Primary School the gender is almost the same, male is 49%, female is 51%. The most age is 11 yrs., 62.8%

The result of questionnaire from students in Gaoxin Primary School. (N=51)

The indicates that internal factors affecting the learning achievement of English curriculum are overall found to be at a high level (μ =4.25). Considering each item individually, it was found that No.3 Students believe that the good technique in teaching to improve reading comprehension skill in English curriculum is the highest mean (μ =4.63), followed by No.5 Students can develop their sense of accomplishment and pride through different activities in English curriculum (μ =4.41), and the lowest mean is No.2 Students have new ideas based on their responses to learning about reading comprehension skill in English curriculum (μ =3.94).

For external factors affecting the learning achievement of English curriculum, the level is overall found to be at a high level (μ =4.29). Considering each item individually, it was found that No.20 The environments is clean and bright, with desk and chairs, blackboards, podiums, computers, projectors, large screens, loudspeakers and other multimedia facilities to facilitate the teaching process is the highest mean (μ =4.55), followed by No.17 The teachers choose suitable materials and emerging network resources (μ =4.43), and the lowest mean is No.18 The textbook fully considers the content and objectives of English curriculum and reading comprehension skill (μ =4.12).

Common data of the respondent in Guiyalu Primary School. (N=51)

The common data of the respondent who is from Guiyalu Primary School the most gender is male, 55%. The most age is 11 yrs, 75%.

The result of questionnaire from students in Guiyalu Primary School. (N=51)

The indicates that internal factors affecting the learning achievement of English curriculum are overall found to be at a high level (μ =4.20). Considering each item individually, it was found that No.3 Students believe that the good technique in teaching to improve reading comprehension skill in English curriculum is the highest mean (μ =4.60), followed by No.8 Students feel that the assignments assigned by the teachers and the feedback

can help students better apply what they have learned ($\mu = 4.42$), and the lowest mean is No.6 Students feel that homework to be the strengths in English curriculum ($\mu = 3.92$).

For external factors affecting the learning achievement of English curriculum, the level is overall found to be at a high level (μ =4.27). Considering each item individually, it was found that No.20 The environments is clean and bright, with desk and chairs, blackboards, podiums, computers, projectors, large screens, loudspeakers and other multimedia facilities to facilitate the teaching process is the highest mean ($\mu = 4.64$), followed by No.15 The teachers combine the teaching method he teaches objectives, the knowledge and reading comprehension skill in English curriculum to enhance students' reading comprehension skill ($\mu = 4.34$), and the lowest mean is No.18 The textbook fully considers the content and objectives of English curriculum and reading comprehension skill ($\mu = 4.04$).

The Common data of the respondent in Zhihelu Primary School. (N=52)

The common data of the respondent who is from Zhihelu Primary School the most gender is male, 61%. The most age is 11 yrs, 77%.

The result of questionnaire from students in Zhihelu Primary School. (N=52)

The indicates that internal factors affecting the learning achievement of English curriculum are overall found to be at a high level ($\mu = 4.46$). Considering each item individually, it was found that No.5 Students can develop their sense of accomplishment and pride through different activities in English curriculum and No.8 Students feel that the assignments assigned by the teachers and the feedback can help students better apply what they have learned are the highest mean (μ =4.61), followed by No.3 Students believe that the good technique in teaching to improve reading comprehension skill in English curriculum ($\mu = 4.57$), and the lowest mean is No.2 Students believe that the good technique in teaching to improve reading comprehension skill in English curriculum ($\mu = 4.18$).

For external factors affecting the learning achievement of the English curriculum, the level is overall found to be at a high level ($\mu = 4.56$). Considering each item individually, it was found that No.15 The teachers combine the teaching method he teaches objectives, the knowledge and reading comprehension skill in English curriculum to enhance students' reading comprehension skill is the highest mean ($\mu = 4.69$), followed by No.17 The teachers choose suitable materials and emerging network resources ($\mu = 4.65$), and the lowest mean is No.16 The teachers can stimulate students' interest and meet the contemporary needs of students, such as the web reading comprehension competition, No.19 The teachers can stimulate students' interest and meet the contemporary needs of students, such as the web reading comprehension competition and No.20 The environments is clean and bright, with desk and chairs, blackboards, podiums, computers, projectors, large screens, loud speakers and other multimedia facilities to facilitate the teaching process ($\mu = 4.49$).

Interview Lecturers Results

After interviews with three teachers, the factors that affect the reading comprehension skill of Grade 5 students are summarized as follows:

Internal factors

Physics: In the teaching of reading comprehension skill, the three teachers all hope that students can actively participate in the teaching. From their experience, in the scaffolding instructional model, students not only need to actively participate in brain power but also Physically active participation is required, including an emphasis on student concentration during completion activities to better complete comprehension, analysis, reasoning, evaluation, problem solving, and more.

Psychology: In the teaching of reading comprehension skill, the three teachers all emphasized the active participation of students. It should be that the learning of reading comprehension skill is an important mental training, which requires students to use their brains to think about problems. They believe that students' learning initiative and teaching mode are the most important factors, and they emphasize the active participation of learners. In addition, teacher A also emphasized that students need to actively participate, boldly question, prudently judge, and actively explore.

External factor

Social environment: In English curriculum, teacher B emphasized the influence of the external environment on students' learning. For example, in a noisy environment, students are easily affected by the external environment and cannot concentrate on thinking. Teacher A also emphasized the creation of the classroom environment. In the teaching process, the teacher's creation of the classroom atmosphere will also affect students' learning of reading comprehension skill. Teacher C also emphasized the influence of the environment created by the activity on students' reading comprehension skill learning.

Materials: Teachers agree that teaching models, teaching materials and teaching methods affect students' learning of reading comprehension skill and are important factors. Teacher B believes that teachers' diverse choices of teaching methods are conducive to improving students' reading comprehension skill. Teacher C believes that the scaffolding instructional model is a set of systematic instructional design models, covering a series of core steps in the instructional design process, which is conducive to ensuring the teaching effect. Most teachers believe that scaffolding instructional model is of great help to the improvement of students' reading comprehension skill.

Teaching methods: All the teachers believe that appropriate teaching methods can stimulate students' interest in learning reading comprehension skill, and stimulating students' learning initiative is an important purpose of using teaching methods. Teacher A suggested that when teaching English curriculum, you can choose picture books, map construction, material online, etc., to stimulate students' interest in thinking and exploring reading comprehension skill. Teacher C suggested that arrangements in the classroom such as play games, have a competition, role play, do a survey, etc., can help improve student participation and activity.

Class size: Although there is no question of directly increasing the class size, according to the domestic enrollment plan and the number of administrative classes, the class size of these three schools is generally around 50 students per class. Such a class size will affect student participation to a certain extent, and it can be predicted that a class size of less than 30 students is more conducive to carrying out scaffolding teaching activities of reading comprehension skill.

Evaluation: In terms of evaluation, teacher A emphasized that evaluation of knowledge and skills, evaluation of processes and methods, evaluation of emotions and attitudes are the methodologies for students' measurement and assessment. In teacher B's opinion, homework, test and interview are the ways to evaluate students.

Through the above analysis, it is found that among the factors that affect reading comprehension skill, students' attitude of reading comprehension skill is an important factor. At the same time, appropriate teaching methods, teaching models and interesting teaching materials can better mobilize students' enthusiasm for reading comprehension skill. At the same time, the environment in which students learn reading comprehension skill includes the external environment of the classroom and class size, the internal environment of the classroom, and a good teacher-student relationship are also important factors that affect students' learning effects.

Analysis conclusion

Conclusion

The result in the study of "Development of scaffolding instructional model to Enhance Students' Reading Comprehension Skill", the researcher studied the documents concerning the following.

Part 1: Analysis results serving objective 1. To study the factors to enhance undergraduate students' problem-solving skills

The result of questionnaire from students in overview the factors the indicates that internal factors affecting the learning achievement of English curriculum are overall found to be at a high level and external factors affecting the learning achievement of English curriculum, the level is overall found to be at a high level

Part 2: Analysis results serving objective 2: To develop scaffolding instructional model to enhance students' reading comprehension skill.

Overall, the 5 components of "Development of scaffolding instructional model to Enhance Students' Reading Comprehension Skill" and rationale, objectives, contents, methods of teaching & materials, and evaluation are unanimously confirmed by 5 specialists or 100% of all specialists based on appropriateness in 4 areas: utility, feasibility, propriety, and accuracy.

Part 3: Analysis results serving objective 3: To examine the results of development of implementing scaffolding instructional model to enhance students' reading comprehension skill.

Research findings among 51 students who enroll in English curriculum from class section B, it is found that among the factors that affect reading comprehension skill, students' attitude of reading comprehension skill is an important factor. At the same time, appropriate teaching methods, teaching models and interesting teaching materials can better mobilize students' enthusiasm for reading comprehension skill. At the same time, the environment in which students learn reading comprehension skill includes the external environment of the classroom and class size, the internal environment of the classroom, and a good teacherstudent relationship are also important factors that affect students' learning effects.

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