Improving English Teaching Skills: An Online Course for Non-English Major Teachers in Southern Thailand's Rural Primary Schools

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Abstract

The mixed-methods study addressed the needs and challenges faced by first-grade English teachers in rural primary schools in Southern Thailand (for example, lack of pedagogical training). The study's primary objectives were to investigate these teachers' needs and difficulties, develop a 15-hour online pedadgocial training course, and evaluate its effectiveness after the training was completed. The research involved 33 teachers and 153 students and employed various tools, including questionnaires, an online pedagogical training and language course, pre-and post-tests, and semi-structured interviews about the experience. The findings highlighted the importance of training in speaking, vocabulary, materials, games, and communicative language teaching (CLT) for these teachers. Statistically significant improvements (p < 0.001) were observed in post-test scores for both teachers and students, indicating the positive impact of the customized online training course on teachers' English skills and teaching performance and improvement in student learning outcomes.

Keywords: Non-English major teachers, Online course, First-grade English Teachers, Equal Education

1. Introduction

In today's globalized world, English proficiency is a key driver of economic growth, fostering international communication and cultural exchange (Jia et al., 2018). Recognizing this, Thailand has implemented English as a mandatory subject from the first grade onwards. Students in primary level of education will learn English at least 1 hour per week in grade 1 to grade 3 (Office of the Basic Education Commission, 2008). However, ensuring effective early English language instruction remains challenging, particularly in rural areas. Effective training programs are essential to equip these first-grade English teachers with the necessary skills to deliver quality English education. This highlights the crucial role of primary school teachers as they lay the foundation for students' English competence (Boudersa, 2016).

Despite the recognition of English proficiency's importance, rural areas like Songkhla province in Southern Thailand face significant challenges due to a lack of qualified and untrained English teachers. Many rural primary schools are forced to assign English courses to teachers who are not English majors, leading to suboptimal student learning outcomes. On-the-job training is a promising solution to bridge this gap, improving teachers' skills in vocabulary, grammar, methodologies, material development, and lesson planning (Nopiana & Hickman, 2020; Ulla & Winitkun, 2018; Wichadee, 2011). Such training can enhance teaching methods, approaches, and techniques, ultimately improving student performance (Ulla, 2016).

To design an effective training program, a thorough needs analysis is crucial. This involves understanding teachers' specific needs and challenges in rural settings (Chatzikyriakou & Zafiri, 2019). Traditional onsite training can be geographically restrictive and resource intensive. Online platforms offer flexibility and accessibility, allowing rural teachers to access course materials, participate in interactive modules, and complete coursework at their own pace and convenience, regardless of location (Bucata & Babos, 2023). This is particularly important for schools in remote areas with limited resources and training opportunities (Hansen-Thomas et al., 2016; Joshi et al., 2023).

While various teacher training programs are offered by government organizations and educational service areas, these programs often do not address the specific needs of teachers in rural areas. This research aims to bridge this gap by designing and evaluating a customized online training course tailored to the needs of first-grade English teachers in rural areas. Because this training will be delivered online, the ADDIE model is considered an appropriate framework for this research project (Described in Section 2.2 below). This course will directly address the challenges faced by these educators and ultimately improve their pedagogical skills and student learning outcomes.

1.1 Purposes of the Study

The current study aims to:

- 1. Identify the specific needs and challenges faced by first-grade English teachers, particularly those who are not English majors.
- 2. Develop a customized online training course specifically designed for non-English-major teachers who instruct first-grade English

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learners.

3. Evaluate the effectiveness of the customized online training course in improving the knowledge and skills of non-English-major first-grade English teachers and assess its impact on student learning outcomes.

1.2 Research Questions

The research questions are also addressed as follows:

- 1. What are the specific needs and challenges faced by first-grade English teachers, focusing on those who are not English majors?
- 2. What are the key components and instructional methods incorporated into the customized online training course designed for non-English-major teachers who instruct first-grade English learners?
- 3. To what extent does the customized online training course improve non-English-major first-grade English teachers' knowledge, skills, and pedagogical practices and its impact on student learning outcomes?

2. Literature Review

This section reviews relevant literature on three key aspects of this research project: needs analysis, the ADDIE model, and teaching methodologies for young English language learners.

2.1 Needs Analysis for Designing a Teacher Training Course

Conducting a needs analysis is a crucial first step in designing effective training programs, including those for language teachers (Lestari, 2020; Misesani, et al., 2020). Needs analysis aims to identify the target audience's specific knowledge, skills, and experiences (Hyland, 2006). In the context of teacher training, this involves understanding the challenges teachers face, their current skill levels, and the specific needs of their students. Effective needs analysis considers various aspects, including:

- **Learner Needs:** This includes learners' goals, backgrounds, current English proficiency, learning preferences, and situations in which they must communicate (Hyland, 2006).
- Teacher Needs: This involves understanding the challenges teachers face in their specific contexts, such as lack of subject matter expertise, limited resources, or difficulty implementing specific teaching methods (Kusumoto, 2008; Richards, 2013).

Information for needs analysis can be gathered through various methods, such as surveys, questionnaires, interviews, and classroom observations (Youn, 2018). Combining different methods provides a complete picture of teacher needs, ensures the training program is relevant, and addresses their specific challenges (Chatzikyriakou & Zafiri, 2019). However, research suggests that training programs often fail to meet the needs of teachers, particularly in developing countries (Kabilan & Veratharaju, 2013). By conducting a thorough needs analysis focusing on non-English major teachers of first-grade English, this research aims to develop a training program that directly addresses their unique challenges.

2.2 The ADDIE Model for Online Course Development

The ADDIE model, known as the input-process-output paradigm, helps identify the learning need in a structured way and ensures that all learning activities meet that goal. This model forms a systematic instruction structure and is applicable for integrating technology into instruction (Tamayo Cano et al., 2023). The current study adopted the ADDIE model, an acronym for Analysis, Design, Development, Implementation, and Evaluation stages in the course development (see Figure 1). The ADDIE model for the e-learning course consists of 4 phases:

- 1. Analysis: The instructor identifies the problems, determines the instructional goals, and creates a list of tasks to be instructed.
- 2. Design and Development: Learning about the target population and course objectives, designing the lesson plans and materials, and sequencing the instruction using the information gathered from the Analysis phase.
- 3. Implementation: Using the developed media or materials with the target groups. Implementation based on what was discovered during the Analysis and Design stages promotes students' understanding of the material, supports their mastery of objectives, and ensures the subjects' knowledge transfer from the instructional setting to work.
- 4. Evaluation: Measuring the effectiveness and efficiency of the instruction. This phase ensures the reliability and content validity of the instruction and analyzes the feedback from instructors and students as participants.

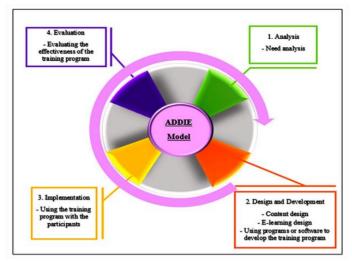


Figure 1. The ADDIE model for teachers' online course development. Adapted from Allen (2017, p. 75)

This research, following the ADDIE model, can ensure the development of a well-designed and effective online training course for first-grade English teachers of non-English majors.

2.3 Teaching Methodologies for Young English Language Learners

Effective language teaching for young learners requires specific considerations. Research suggests that young learners benefit from approaches that are:

- Engaging and Interactive: Young learners learn best through active participation and interaction with teachers and peers (Harmer, 2007). This includes activities such as games, simulations, and role-plays (Surayatika, 2022).
- **Multisensory:** Utilizing visual and auditory stimuli, such as pictures, stories, and songs, can enhance learning and retention for young learners (Surayatika, 2022).
- Communicative: Focusing on the practical use of language for communication can motivate learners and make English learning more relevant (Larsen-Freeman, 2000).

Several established methodologies can be adapted for teaching English to young learners, including:

- Game-Based Learning: Games and interactive activities can enhance motivation and engagement in the learning process (Chen & Hwang, 2014).
- Communicative Language Teaching (CLT): This method emphasizes using language for real-world communication through role-plays, discussions, and problem-solving tasks (Harmer, 2007).

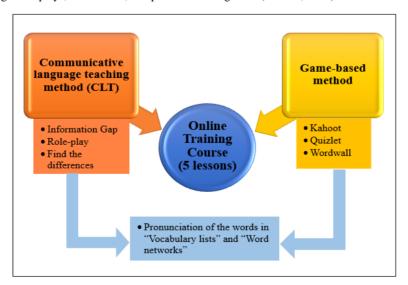


Figure 2. Teaching methodologies included in an online training course

This research explores how these teaching methodologies (Teachers' needs for training on teaching methodologies will be described in Section 4.1.1) can be adapted and integrated into an online training course designed for non-English major teachers of first-grade English (see Figure 2).

2.4 Previous Studies

Numerous researchers have conducted previous research related to online course development for non-English major teachers in rural schools. Ferri, Grifoni, and Guzzo (2020) and Lestari (2020) illustrated the importance of needs analysis in designing teacher courses. The results revealed that the preliminary needs analysis helped to discover the teachers' skills they needed to master and the gaps in knowledge and skills the materials should bridge. The rural school teachers' pedagogical skills could be increased after training with the designed online training courses.

The ADDIE model is a well-established and widely accepted framework that has proven highly effective in the development of online courses. A study conducted by Almelhi (2021) investigated the effectiveness of the ADDIE model in online teaching and its features, such as discussion boards, for enhancing EFL college students' creative writing skills. Sixty freshmen from the English department of a university in Saudi Arabia, who had inadequate writing backgrounds and common issues with vocabulary, grammar, cohesion, and logical order, were randomly selected for the study. The participants were divided into two groups: an experimental group using e-learning and a control group using traditional teaching methods. The results of t-tests showed statistically significant improvements in the mean scores of the pre- and post-tests for students in the online course. Similar findings were reported in Dewie et al. (2021), which investigated an online language learning and professional development program designed to help teachers in Malaysia enhance their proficiency. The study involved 201 English teachers from eight districts who lacked CEFR C1 qualifications and participated in a three-month online course. The researchers assessed the impact of the online learning on the teachers' language proficiency. The results indicated that a significant majority of the teachers were highly satisfied with the course content and found it beneficial for improving their skills in listening, reading, speaking, writing, and vocabulary. Relevant findings are also reported in Mishra's (2022) study, which evaluated the effectiveness of a remote teacher training program in five districts of Telangana, India. The program addressed various challenges and constraints faced by teachers with low digital adaptability skills (Flores & Gago, 2020). Data were collected during a state-level virtual training, which utilized technology platforms such as Microsoft Teams and Zoom, organized by Room to Read. The results indicated an improvement in the participating teachers' scores from pre-test to post-test, with the average percentage of correctly answered items increasing from 69% to 73%.

Additionally, it was seen that remote teacher training enhanced the teachers' knowledge to further improve their students. The mentioned statements are shown in the study by Doungprom et al. (2016), which aimed to explore some problems of developing self-confidence in teaching English of non-English major teachers in rural small primary schools in Thailand. The participating teachers attended face-to-face training and workshop with a researcher and a native speaker, using six approaches: direct training, self-direct learning, teacher networks, coaching and mentoring, informal meeting, and school visit. The results indicated that the semester-long training significantly developed six key approaches to boost non-English major teachers' confidence in teaching English. Additionally, it enhanced their communicative competence, making their teaching more effective. However, the study did not address the teachers' specific needs concerning skills, vocabulary, and grammar knowledge, as well as methodologies, techniques, or lesson plan design in English teaching. Additionally, it did not evaluate the impact of the training on students' English improvement after receiving instruction from the trained teachers.

Consequently, understanding teachers' needs in course development is crucial for enhancing their basic knowledge of English, teaching skills, and pedagogical practices, ultimately contributing to greater classroom efficacy. Additionally, an online training platform provides flexibility and accessibility, allowing rural teachers in remote areas with limited resources and training opportunities to participate in the course. The effective and competent teachers positively impact enhancing the quality of students' English learning outcomes. The students' knowledge and skills will be improved, eventually leading to their success (Mizell, 2010).

2.5 Conceptual Framework

The conceptual framework of the study is illustrated below.

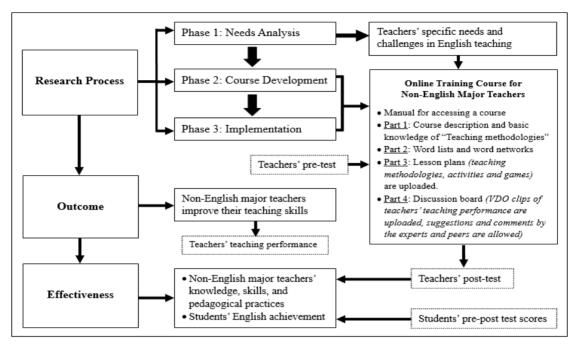


Figure 3. Conceptual framework of the study

The conceptual framework that underpins this study consists of three phases. Initially, a questionnaire utilizing a 5-point Likert scale was utilized for an analysis of teachers' specific needs and challenges in English teaching. The gathered data on teachers' needs and challenges was then analyzed to develop an online training course. After the course development, the implementation focuses on implementing a customized online training course and assessing its effectiveness. Pre-test and post-test assessments will gauge the effectiveness of teachers' English teaching skills, professional growth, and students' English achievement.

3. Method

3.1 Research Design

The study utilized a mixed-method design, incorporating both quantitative and qualitative approaches. Quantitative data were gathered through a questionnaire and analyzed using parametric tests, while qualitative data were obtained through semi-structured interviews and analyzed using content analysis. The methodology details are outlined in alignment with the study phases.

3.2 Sample and Data Collection

3.2.1 Phase 1: Needs Analysis

3.2.1.1 Population and Sample

In Phase 1, the study initiated a comprehensive Needs Analysis among a targeted group of first-grade English teachers in rural primary schools under Songkhla Primary Educational Service Area Office 1, Southern Thailand. Out of a total of 235 first-grade English teachers, researchers contacted the schools' directors to inform them about the purpose, objectives, and implementation of an online training course for teachers. They discussed the possibility of recruiting participants from their schools. Application forms for the course included selection criteria such as: (1) teaching English in rural areas, (2) teaching English at the first-grade level for at least two semesters, and (3) availability to participate in a 15-hour online training course, were sent privately via e-mail to all 235 teachers.

Of these 235 teachers, 147 returned their application forms and volunteered to become participants in the study. Following this, questionnaires were distributed to the 147 teachers to assess their specific educational needs. Of these, 98 teachers completed and returned the surveys, marking the initial step in understanding their professional development requirements.

3.2.1.2 Instrument

Dedicated to Needs Analysis, Phase 1 utilized a questionnaire and a semi-structured interview. Inspired by AL-Qahtani's work, the questionnaire comprised twenty-two items and demonstrated strong internal consistency (Cronbach's alpha = 0.96). Semi-structured interview questions, adapted from Lestari, underwent expert scrutiny and showed a high level of agreement (IOC score = 1.00).

3.2.1.3 Data Collection

Researchers obtained IRB approval and ensured participant rights and privacy by adhering to ethical standards. Ninety-eight teachers

received questionnaires focusing on English teaching needs, while five engaged in semi-structured interviews exploring teaching challenges and methodologies.

3.2.2 Phase 2: Course Development

Course Development in Phase 2 tailored an online training course based on insights from the Needs Analysis phase. The curriculum was meticulously designed to address identified needs in first-grade English instruction following the ADDIE model. The course, focusing on learning theories, methodologies, and tailored lesson plans, underwent expert validation and a trial run with teachers. Insights from the needs analysis informed the creation of a 15-hour online training course, incorporating teaching methodologies, vocabulary lists, and lesson-planning strategies.

3.2.3 Phase 3: Implementation

3.2.3.1 Population and Sample

Phase 3 focused on the Implementation and Assessment of the online training course. Thirty-three teachers engaged in the training sessions on a voluntary basis. To evaluate the effectiveness of the course, data were collected using two methods: 1) administering a post-test to assess the teachers' ability to address their challenges, theories of language learning, English teaching techniques, and principles of lesson design, and 2) evaluating the teachers' teaching performance using a teaching evaluation checklist. Additionally, an assessment involved 153 first-grade students who were taught by the trained teachers. These studentss were selected from seven classrooms using purposive cluster sampling.

3.2.3.2 Instrument

Implementation and Assessment involved a 15-hour online training course, pre-and post-tests for teachers and students, teaching evaluation checklist, and post-training interviews. Experts affirmed the course's content validity, and tests showed reliability. Teaching evaluation checklists aimed to evaluate teachers' teaching performance after received training, post-training interviews aimed to assess satisfaction and challenges, while the pre- and post-tests measure the impact on students' achievement.

3.2.3.3 Implementation and Data Collection

Teachers from rural primary schools in Southern Thailand participated in the training course, which included pedagogical skills in English teaching and performance evaluations, and peer feedback sessions. Post-training interviews provided insights into teaching methodology adaptation and course satisfaction, contributing to a comprehensive analysis of the study findings. To measure any improvements in the students' English achievement, a pre-test was administered in the first week of teaching to evaluate their initial knowledge. After eight weeks of implementing the techniques and skills learned from the trained teachers, a post-test was given to assess any progress in the students' English achievement.

3.3 Data Analysis

3.3.1 Phase 1: Needs Analysis

In the initial phase of the study, demographic data obtained from the questionnaire responses were meticulously scrutinized using percentages to gain insights into the characteristics of the participants. Teachers' specific needs and challenges in English teaching were assessed through detailed calculations of mean and standard deviation, providing a quantitative understanding of the areas requiring attention. Following this quantitative analysis, five teachers volunteered to engage in semi-structured interviews, each lasting approximately 30 minutes per participant. These interviews delved into two key themes: the difficulties encountered in teaching English to diverse learning styles and adapting effective teaching techniques and methodologies to enhance students' proficiency. The transcriptions of these interviews were subjected to thorough content analysis to extract meaningful themes that directly influenced the objectives, descriptions, content, and teaching activities incorporated into the subsequent online training course.

3.3.2 Phase 2: Course Development

During the Course Development phase, the content validity of the course lessons was rigorously evaluated by three experts using the Index of Item-Objective Congruence (IOC), resulting in a high congruence score of 0.92. This validation process ensured that the course content aligned effectively with the learning objectives. Based on the feedback received from the experts, the course underwent refinements and adjustments to enhance its overall quality and relevance before proceeding to the implementation stage.

3.3.3 Phase 3: Implementation

In Phase 3, the Implementation phase focused on assessing the effectiveness of the online training course. The evaluation involved comparing the pre-test and post-test mean scores of teachers and students to measure the impact of the training. Thirty-three English teachers and 153 first-grade students from seven classrooms participated in the study. Pre-tests and post-tests were administered to teachers to gauge improvements in their English proficiency, while similar assessments were conducted for students to evaluate their progress. The teachers' and students' tests were conducted and administered separately. The mean scores from these tests were meticulously analyzed to identify any significant differences indicative of improvement. Furthermore, an expert evaluation of teachers' teaching performance was conducted by reviewing VDO clip recordings uploaded to the "Discussion Board," using teaching evaluation checklist to assess the effective implementation of techniques, activities, games, and vocabulary networks in English teaching. Additionally, post-training semi-structured interviews were conducted in Thai to explore the effectiveness of the techniques employed by

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the teachers. These interviews were recorded, transcribed, and analyzed using content analysis methods to extract valuable insights and feedback for further refinement of the training program.

4. Results

Results are reported in three major sections, following research objectives 1, 2, and 3.

4.1 Results for Teachers' Needs Analysis

4.1.1 Results from the Questionnaire

The survey questionnaire, which included two main parts, was distributed online in a line group and on the website of Songkhla Primary Educational Service Area Office 1.

The first part, personal information, revealed that a high percentage of the teachers have taught English 1-10 years (76.19%). Over half of all teachers (73.27%) were in their 20s and 30s, and the majority were female (76.87%). Surprisingly, these teachers were non-English major graduates. A high percentage of teachers graduated with majors in Math and Science (46.94%), followed by Social (29.93%), and Thai (4.76%).

The second part was designed to survey teachers' needs and problems in five areas. Teachers were asked to rate their level of agreement on a five-point Likert scale ranging from strongly disagree (1) to agree (5). The survey data were analyzed descriptively. All items were translated into Thai to ensure the comprehensibility of the statements in the questionnaire.

Table 1. The descriptive statistics and the frequency of teachers' needs and problems in training

	(n=98)	M	SD	Interpretation
To what	t extent do you have problems and needs of learning in the teacher			
training	course:			
1. Engli	sh skills, Vocabulary and Grammar knowledge			
$1.\overline{1}$	Listening	4.49	0.80	Strongly Agree
1.2	Speaking	4.55	0.72	Strongly Agree
1.3	Reading	2.44	0.94	Disagree
1.4	Writing	2.32	1.00	Disagree
1.5	Vocabulary	4.53	0.80	Strongly Agree
1.6	Grammar/Structure	3.78	0.86	Agree
2. Teacl	ning Methodology			
2.1	Direct Method	3.68	0.81	Agree
2.2	Audio-lingual Method	3.87	0.93	Agree
2.3	Communicative Language Teaching	4.26	0.92	Strongly Agree
2.4	Game-based	4.45	0.77	Strongly Agree
3. Teacl	ning techniques			
3.1	Using songs to memorize vocabulary	3.89	0.80	Agree
3.2	Using materials/tools (e.g., word cards, picture cards, sentence cards)	4.45	0.77	Strongly Agre
3.3	Using drama/play	3.94	0.89	Agree
3.4	Using drills (repetition)	4.30	0.78	Strongly Agree
3.5	Using games	4.38	0.85	Strongly Agree
3.6	Role-play	4.21	0.91	Strongly Agre
4. Lesso	n plans			
4.1	know the basic education core curriculum of English subjects at the primary school level	3.87	0.95	Agree
4.2	learn how to specify the purposes/objectives in the lesson plans	3.85	0.98	Agree
4.3	plan lesson includes four steps of teaching English (warm-up,	4.37	0.94	Strongly Agree
	presentation, practice, production)			
4.4	plan lessons which include activities to encourage EFL learners to learn	3.92	1.10	Agree
	English			Č
5. Asses	sment and evaluation			
5.1	testing	3.71	0.94	Agree
5.2	task, worksheet, and portfolio	4.11	0.89	Strongly Agree

Table 1 shows that most teachers rated speaking and listening skills and vocabulary knowledge as their problems at the highest levels. In contrast, the writing skill was rarely needed to train by the teachers. The most required teaching techniques were Using materials/tools (e.g., word cards, picture cards, sentence cards) and Using games. The techniques of designing lesson plans, such as planning lessons, include four steps of teaching English (warm-up, presentation, practice, production), and planning lessons, which include activities to encourage EFL learners to learn English, were also required to add on an online training course. Some teachers claimed that creating the 'task, worksheet and portfolio' was also their problem when evaluating students' English achievement.

It can also be noted that the teachers rated teaching methodologies such as Communicative Language Teaching and Game-based as strongly agreeing that they should be trained. Hence, these two methodologies were included in an online training course design (see Figure 2).

4.1.2 Interview Results from Needs Analysis

Regarding the interview results, the teachers required additional training to effectively adapt their methodologies, techniques, and activities for teaching English. Excerpts 1 and 2 illustrated the "Difficulties of teaching English for learners' different learning styles", and "The way of adaptation of effective teaching methodologies, techniques, and activities to promote learners' English proficiency in the classrooms." was claimed in Excerpts 3 and 4.

Excerpt 1

Teacher Natalie: "Over ten years of my English teaching experience, I found different learners learned language differently. Some learners were great at learning individually, while some liked learning English with their partners or the teacher's assistance through games and activities. Choosing the right methods and techniques according to different learning styles of learners was very important in ELT. Consequently, language teachers should comprehend various teaching techniques and activities to teach English for each student efficiently and properly".

Excerpt 2

Teacher Bonus: "Some students in my classrooms preferred learning English through games, while others preferred doing exercises on the worksheets individually. I adjusted activities and exercises to suit the students' preferences and learning styles for the stated reasons. I could manage my class more easily when my students learned what they love to do".

Excerpt 3

Teacher Paula: "Getting primary school students to participate in a 50-minute class takes much work. Attractive English teaching techniques and activities might help teachers handle the classes. Thus, I want to increase my knowledge of English teaching techniques to attract learners within 50 minutes of my teaching via the extra training program".

Excerpt 4

Teacher Debby: "Communicative language teaching (CLT) is still important for EFL learners in promoting their self-confidence in English. Increasing learners' English proficiency is not easy for English teachers who graduated with a major in science like me. Therefore, attending a training course that adapts effective teaching techniques and classroom activities might be a good choice".

Beyond teaching methodologies, techniques, and activities, one of the most challenging aspects for Teacher Anna (Excerpt 5) was ensuring correct pronunciation of words from their lists.

Excerpt 5

Teacher Anna: "I am an English teacher who graduated with a major in Mathematics. I knew the meaning of English words but did not know whether I pronounced them correctly. I sometimes pronounced the words wrongly because English was not my specialization. Before teaching English pronunciation of words, I tried to look up the information on the Oxford or Longman dictionaries and the websites. Before entering the class, I practiced pronouncing the words I would teach my students many times. I needed to learn and practice my English pronunciation to increase my confidence".

4.2 Results for Course Development

The gathered data on teachers' needs and problems from the questionnaires and interviews were analyzed, interpreted, and converted into course development (see Figure 5). At least four components (the curriculum aims, content structure, training activities management, and measurement and evaluation) out of six components (added more on the rationale and passing criterion) must be incorporated into an acceptable curriculum (Marsh & Willis, 2003). Thus, the development of an online course in this study involved integrating four key components across five distinct lessons.

Each lesson was structured into four distinct parts: The first part consisted of the course description and theory of "Game-based and CLT methodologies". The second part included the concept of how to use visual tools such as *vocabulary lists* specified by the Ministry of Education and in three nationally used textbooks (*Smile, Projects: Play & Learn,* and *PW. Inter Primary English*) in primary schools under Primary Educational Service Area Office, Southern Thailand. The word pronunciation technique was also involved in this part. The third part consisted of how to teach word meanings and use those words in the dialogues and related structures (Four English skills will be practiced), the recordings of example dialogues were provided as the models for teachers to practice "listening" and "speaking" skills. The process of how to create word networks based on the vocabulary lists, the techniques of lesson plans design using the 2W3Ps (*warm-up, presentation, practice, production,* and *wrap-up*) and the examples of lesson plans, activities, games, materials for teaching English for first-grade students, and two teaching methodologies (*Game-based* and *CLT*) that were rated highest in terms of need for training by teachers have also been incorporated into this part. The participating teachers uploaded the VDO clips of their teaching performance on the fourth part (*Discussion board*) of the course to discuss and get feedback on their teaching performance from their peers and the experts in ELT (see Figure 4). An online training course, namely "English for teachers who are teaching first-grade level," was uploaded on the MUx (Mahidol University Extension) system (see Figure 4). The course URL is https://mux.mahidol.ac.th/courses/course-v1:MU-LA+LA004+2019/about

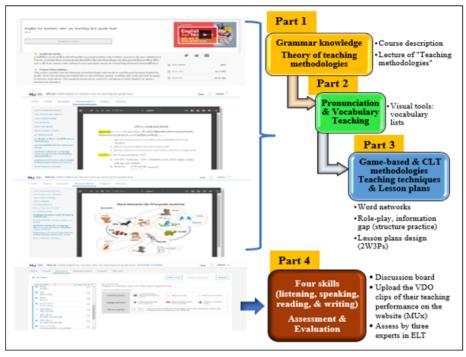


Figure 4. An online training course for non-English major teachers

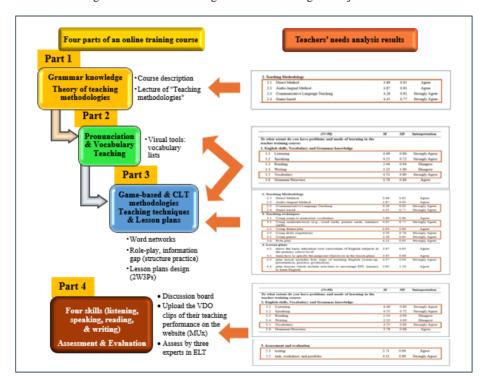


Figure 5. Teachers' needs analysis results to design an online training course

4.3 Results for Implementation and Assessment of the Effectiveness of an Online Training Course

During the course, the participating teachers learned the content, including English teaching methodologies and techniques, lesson plan design, activities and games, and example materials for English teaching. Moreover, the examples of VDO clips of English teaching were provided as a guideline for teachers' teaching performance improvement.

To assess the effectiveness of an online course, the pre-test and post-test scores of participating teachers and seven groups of students were compared using descriptive statistics (means, standard deviation) and inferential statistics (means of a dependent sample *t*-test) (See results in Table 2 and Table 3).

In the last part of the course, the VDO clips of participating teachers' teaching performances uploaded on the "Discussion Board" were evaluated by three experts to examine their teaching accuracy using teaching evaluation checklists. The following figures (Figure 6 and Figure 7) are VDO clips examples of teachers' teaching.



Figure 6. English Teacher (Bella)' teaching clip (see Excerpt 1)



Figure 7. English Teacher (Beauty)' teaching clip (see Excerpt 3)

Table 2. Pre-test and post-test mean score comparison of grade 1 teachers

		Pre-test		Post-test				
	n	M	S.D.	M	S.D.	t	df	p
Teachers' English proficiency	33	26.48	4.67	29.21	2.19	3.78	32	.000***

Note: n = 33, ***p < .001

There was a significant difference in the mean scores of the post-test (M = 29.21, S.D. = 2.19) and pre-test (M = 26.48, S.D. = 4.67) conditions; t(32) = 3.78, p = 0.000 for first-grade teachers as shown in Table 2. Therefore, the teachers had higher English proficiency after attending an online training course.

4.4 Interview Results for the Effectiveness of an Online Training Course

As for the qualitative aspect, a semi-structured interview was carried out voluntarily to ask about the teachers' satisfaction with an online training course with four primary school English teachers who teach first-grade level but were non-English major graduates. The data from the tape script of the interviews were transcribed verbatim. Regarding the teachers' interviews, all participating teachers satisfied with the course content, activities, and techniques for English teaching. These findinds partially matched Safi's (2015) study which stated that most teachers satisfied with the methodologies, skills, and knowledge provided in an online course development. Teachers identified lesson plan design technique (2W3Ps) as a significant area where they need additional training. Although most teachers satisfied with the course content, Excerpt 1 (Teacher Bella) proposed that the 2W3Ps technique, which consisted of warm-up, presentation, practice, production, and wrap-up, was hardly understood. She needed clarification about the differences between the practice and production steps.

Excerpt 1

Teacher Bella: "Even though the technique of 2W3Ps in designing lesson plans was provided in a course, I needed more clarification on the differences between the practice and production steps. Previously, the tasks (such as worksheets) or activities (such as role-play and information gap) I asked learners to practice their English skills could be included in both practice and production steps. After training, I found the differences between these two steps. For instance, students paid attention to the tasks and activities instructed by the teachers who were as facilitators, controllers, and partners for students during the "practice" step. Whereas students created their sentences in terms of writing or speaking performances according to the content presented by the teacher in the "production" step".

In addition to the 2W3Ps technique, the "Role-play" and "Word networks" were claimed as the most favorite activities in adjusting in the classes by Teachers Catty, Beauty, and Lucky (Excerpts 2, 3, and 4).

Excerpt 2

Teacher Catty: "When I used the techniques of word networks and games to teach vocabulary to my students, they could completely understand the new words and know how to use them in sentences within a period. Students learned both vocabulary and structures concurrently and could apply the words and sentences in the situations in their routines".

Excerpt 3

Teacher Beauty: "I think "Word Networks" and "Role-play" techniques were beneficial to my students. When I used the word networks technique, my students did not learn only one word, but they were able to link the words they already knew the meanings to the new words which were similar meanings. The students were very attentive and loved guessing the meaning of the words during the class. If they could not guess the word themselves, I mimed the meaning or invited one of the classes to come in front and mime the meaning to the classmates. In addition, the "Role-play" technique was included in the classes simultaneously when I taught my students the new words by using the word networks technique and adjusting those words with the related structure. Then, students practiced the words and structures in pairs via role-playing".

Excerpt 4

Teacher Lucky: "I am an English teacher who graduated with a non-English major. I did not specialize in teaching either English pronunciation or English structure. I was confident in using only the traditional method in my English classrooms. Thus, my students learned English in my classrooms inactively. They could do the provided activities such as 'gap filling, dictation, sentence scramble, and building sentences based on the given words.' However, they needed urgent help using the language to communicate meaningfully in certain situations. After I attended this online course, I found several techniques that should be effective for my students, especially the "Role-play" technique. My students could practice not only English speaking and pronunciation via structure but also practice their listening skills".

4.5 Supplementary Results

Apart from the assessment of teachers' English proficiency findings, the supplementary results of students' pre- and post-test mean scores are shown in Table 3. To follow up on the extent to which the trained teachers applied the teaching techniques, activities, games and word networks to teach seven classrooms of students and to examine whether these students' English proficiency is better after learning with these trained teachers, the students are asked to do the pre-test and post-test. The two tests developed by researchers are based on the textbooks widely used by the participating teachers.

Table 3. Pre-test and post-test mean scores comparison of first-grade students who learned with the trained teachers

Students' English		Pre-test		Post-test				
achievement	n	M	S.D.	M	S.D.	t	df	p
Class A	17	17.06	2.05	24.00	1.27	2.784	16	.010
Class B	28	14.75	3.62	17.57	3.95	4.089	27	.000
Class C	11	10.64	2.58	14.64	2.46	3.862	10	.003
Class D	24	12.75	5.24	22.54	4.59	9.010	23	.000
Class E	27	9.37	3.20	13.33	7.14	13.787	26	.000
Class F	33	16.33	4.57	20.94	5.70	3.188	32	.004
Class G	13	10.54	5.58	12.69	6.90	0.054	12	.958

Note: n = 153

Table 3 shows a significant difference in the mean post-test and pre-test scores for six groups of students (Class A, Class B, Class C, Class D, Class E, and Class F) out of seven. Therefore, the students from Class A to Class F achieved higher levels of English after they studied with the teachers who attended an online training course. However, there was no significant difference in the post-test mean scores (M = 12.69, S.D. = 6.90) and pre-test mean scores (M = 10.54, S.D. = 5.58) conditions; t(12) = 0.054, p = 0.958 of Class G students.

5. Discussion and Conclusion

The findings of this study, addressing the first and second research objectives, involved surveying the needs and developing a customized online training course for non-English major English teachers of first graders. The results revealed that the teachers prioritized speaking and listening skills, vocabulary knowledge, techniques for using materials and designing lesson plans, and teaching methodologies such as Communicative Language Teaching (CLT) and Game-based Learning. The developed course comprehensively addressed these needs.

Teaching English presents challenges, especially in rural areas where most teachers are not English language graduates. Although they possess basic concepts of English, there is a regular need for developing their "adaptive expertise" in terms of teaching techniques, methodologies, and materials to improve students' English proficiency.

As McCarthy (1990) argued, without vocabulary to express a wide range of meanings, communication in a second or foreign language cannot happen meaningfully. Therefore, vocabulary knowledge is the foundation of all English skills and essential for learning and teaching English. Saraiwang and Worawong (2023) and Shariq (2017) studied the effect of adjusting Communicative Language Teaching (CLT) and Game-based Learning in English classrooms, and both studies highlighted that these methodologies focused on learners' active involvement and participation through activities such as games and role-playing, which can significantly accelerate language development. This present study found that many teachers needed to learn word pronunciation and techniques to translate word meanings into English and the adaptation of teaching techniques and methods. However, existing courses provided by educational organizations or school directors often fail to meet teachers' diverse needs based on their varying teaching experiences and abilities (Noom-ura, 2013). Consequently, it is clear that training courses tailored to teachers' specific needs can significantly enhance their proficiency in the teaching profession.

Teachers' teaching skills can be improved through training activities, seminars, workshops, and discussion groups during office hours (on-the-job training). An online platform offers an alternative way to enhance the quality of language teaching and learning using various multimedia tools such as images, animation, video, and audio. The ADDIE model, a popular and widely accepted instructional model, focuses on participants' needs as the first step in developing instructional content. Hence, online training courses enable teachers to self-study at their own pace, anytime and anywhere, according to their availability. Teachers can train, practice, and modify the provided content to effectively prepare their English teaching materials using multimedia tools.

These results align with previous studies. For example, Camuzcu and Duruhan (2011) found that teachers' needs often focus on activities that engage students' interest in teaching and learning. Mede and Işık (2016) reported similar findings in their study on the needs of primary English teachers in an in-service teacher training program, where teachers expressed high needs for methodology, language skills, use of technology, material development, and classroom environment. Additionally, AL-Qahtani's (2015) study found that developing teachers' professional training based on their needs improved teaching performance and student proficiency. This study's findings support the importance of needs analysis in training course design to enhance teachers' pedagogical knowledge and their ability to improve students' English learning outcomes.

However, this study's findings contrast with those of Koc (2016), which offered in-service teacher training (INSET) activities to primary school English teachers in Turkey. In that study, most teachers (62.2%) indicated that the training activities were not sufficiently relevant to their needs, making it difficult to apply the knowledge gained from INSET activities in their classrooms. Factors such as irrelevant content, inappropriate training approaches, heavy school workloads, and limited facilities and infrastructure can lead to ineffective professional development.

Regarding the third research objective, which evaluated the effectiveness of the customized online training course, the findings showed that all participating teachers were satisfied with the course and demonstrated higher proficiency in English after attending. Additionally, six out of seven groups of students had been taught by the teachers who had received training achieved higher scores in English. Teacher quality is crucial to student achievement (Engida et al., 2024). The course featured a "Discussion Board" where teachers could upload video clips of their teaching performances, engage in discussions with peers, and receive feedback from English experts. This platform facilitated the exchange of knowledge and experiences among teachers, thereby enhancing the quality of English language instruction (Yumru, 2015). As a result, students' English proficiency improved following the implementation of effective teaching techniques, activities, games, and word networks by the teachers.

Despite the lack of a significant difference between pre-test and post-test mean scores for students in small-sized rural schools, challenges persist. According to Tuminah et al. (2022), these rural primary schools often struggle with limited funding, which affects their ability to provide adequate teaching materials and support for English education. Teachers in these settings face several obstacles, including students' limited academic vocabulary in English and insufficient time for course preparation and instruction. These factors contribute to less effective English learning outcomes.

In conclusion, the study successfully identified the needs of non-English major English teachers of first graders, developed a customized online training course to address these needs, and demonstrated its effectiveness in improving both teacher proficiency and student learning outcomes. Furthermore, the study highlighted the challenges rural schools face in providing adequate resources and support for effective English language instruction.

6. Limitations and Recommendations

The researchers were aware of many limitations of this present study. This should be considered in order to provide suggested directions for future research. Firstly, participants involved in the study were from only public elementary schools under Songkhla Primary Educational Service Area Office 1. Thus, future studies should focus on the participants in primary school levels under Educational Service Area from other districts or provinces to cover the primary school teachers in all parts of Thailand. Secondly, the methodologies used in the needs analysis phase of the study were the survey questionnaire and the semi-structured interview. However, adding the "Open-ended questions" to the teachers' needs analysis questionnaire in this study phase would have been more interesting in getting more information apart from the given specific points. Thirdly, the 15 hours of a developed online course was too short, so a 30-hour course should be made for future studies. Lastly, the needs of the participating teachers were investigated only regarding the primary school levels in this study. A replication study of high school teacher's levels could be the option for further research in a different context to crosscheck the results of this study.

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Authors' contributions

Dr. Soranastaporn was responsible for study design. Dr. Liang-Itsara and Ms. Tianchai were responsible for data collection and analysis, conducting experiments, drafted and revised the manuscript. All authors read and approved the final manuscript. All authors contributed equally to the study.

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References

Allen, M. (2017). *Designing online asynchronous information literacy instruction using the ADDIE model.* In T. Maddison, & M. Kumaran (Eds.), *Distributed Learning*. Chandos Publishing: Elsevier. https://doi.org/10.1016/B978-0-08-100598-9.00004-0

Almelhi, A. M. (2021). Effectiveness of the ADDIE model within an e-learning environment in developing creative writing in EFL students. *English Language Teaching*, *14*(2), 20-36. https://doi.org/10.5539/elt.v14n2p20

Al-Qahtani, H. M. (2015). Teachers' voice: A needs analysis of teachers' needs for professional development with the emergence of the current English textbooks. *English Language Teaching*, 8(8), 128-141. https://doi.org/10.5539/elt.v8n8p128

Boudersa, N. (2016). The importance of teachers' training and professional development programs in the Algerian educational context:

- Toward informed and effective teaching practices. Expériences Pédagogic: Oran.
- Bucata, G., & Babos, A. (2023). Advantages and disadvantages of onsite learning compared to online learning. *Scientific Bulletin*, 1(55), 14-25. https://doi.org/10.2478/bsaft-2023-0002
- Camuzcu, S., & Duruhan, K. (2011). Primary school teachers need in-service training about the teaching-learning process. *e-International Journal of Educational Research*, 2(1), 15-29.
- Chatzikyriakou, M., & Zafiri, M. (2019). Needs analysis in EFL teaching in Greece: The teachers' stance. *Education and Linguistics Research*, 5(1), 1-20. https://doi.org/10.5296/elr.v5i1.14191
- Chen, N. S., & Hwang, G. J. (2014). Transforming the classrooms: Innovative digital game-based learning designs and applications. *Educational Technology Research and Development*, 62, 125-128. https://doi.org/10.1007/s11423-014-9332-y
- Dewie, S., Norman, H., & Yunus, M. M. (2021). Boosted with online learning to improve English language teachers' proficiency. *Arab World English Journal*, 12(3), 507-523. https://doi.org/10.24093/awej/vol12no3.34
- Doungprom, U., Phusee-on, S., & Prachanant, N. (2016). The development desire of Non-English major teachers in small rural primary schools in Thailand: Participatory action research. *Educational Research and Reviews, 11*(16), 1612-1621. https://doi.org/10.5897/ERR2015.2415
- Engida, M. A., Iyasu, A. S., & Fentie, Y. M. (2024). Impact of teaching quality on student achievement: Student evidence. *Frontiers in Education*, 9(1), 1-10. https://doi.org/10.3389/feduc.2024.1367317
- Ferri, F., Grifoni, P., & Guzzo, T. (2020). Online learning and emergency remote teaching: Opportunities and challenges in emergency situations. *Societies*, 10(4), 86-104. https://doi.org/10.3390/soc10040086
- Flores, M. A., & Gago, M. (2020). Teacher education in times of COVID-19 pandemic in Portugal: National, institutional and pedagogical responses. *Journal of Education for Teaching: International Research and Pedagogy, 46*(4), 507-516. https://doi.org/10.1080/02607476.2020.1799709
- Hansen-Thomas, H., Grosso Richins, L., Kakkar, K., & Okeyo, C. (2016). I do not feel I am properly trained to help them! Rural teachers' perceptions of challenges and needs with English-language learners. *Professional Development in Education*, 42(2), 308-324. https://doi.org/10.1080/19415257.2014.973528
- Harmer, J. (2001). The practice of English language teaching. Harlow: Longman. https://doi.org/10.1177/003368820103200109
- Harmer, J. (2007). How to teach English. Harlow: Pearson Education Limited.
- Hyland, K. (2006). *English for academic purposes: An advanced resource book*. London: Routledge. https://doi.org/10.4324/9780203006603
- Jia, Z. Y., Tang, Y., Xiong, J. J., & Zhang, Y. C. (2018). Quantitative learning strategies based on word networks. *Physica, A 491*, 898-911. https://doi.org/10.1016/j.physa.2017.09.097
- Joshi, D., Adhikari, K. P., Chapai, K. P. S., & Bhattarai, A. R. (2023). Effectiveness of online training on digital pedagogical skills of remote area teachers in Nepal. *International Journal of Professional Development, Learners and Learning*, 5(2), 1-7. https://doi.org/10.30935/ijpdll/13666
- Kabilan, M. K., & Veratharaju, K. (2013). Professional development needs of primary school English-language teachers in Malaysia. *Professional Development in Education*, 39(3), 330-351. https://doi.org/10.1080/19415257.2012.762418
- Koc, E. (2016). A general investigation of the in-service training of English language teachers at elementary schools in Turkey. *International Electronic Journal of Elementary Education*, 8(3), 455-466.
- Kusumoto, Y. (2008). Needs analysis: Developing a teacher training program for elementary school homeroom teachers in Japan. *Second Language Studies*, 26(2), 1-44.
- Larsen-Freeman, D. (2000). Techniques and principles in language teaching. New York: Oxford University Press.
- Lestari, S. (2020). An analysis is needed to design a set of English teaching materials for non-English subject teachers. *Education and Linguistics Knowledge Journal*, 2(1), 67-84. https://doi.org/10.32503/edulink.v2i1.996
- Marsh, C. J., & Willis, G. (2003). Curriculum: Alternative approaches, ongoing issues (3rd ed.). New Jersey: Prentice-hall.
- McCarty, M. (1990). Vocabulary. East Kilbride: Oxford University Press.
- Mede, E., & Işık, M. (2016). The needs of primary English teachers for an in-service teacher training program. *Turkish Online Journal of Qualitative Inquiry*, 7(2), 1-30. https://doi.org/10.17569/tojqi.80909
- Misesani, D., Janggo, W. O., & Wuwur, M. S. N. (2020). Need analysis in ADDIE model to develop academic speaking materials. *Ethical Lingua*, 7(2), 438-446. https://doi.org/10.30605/25409190.226
- Mishra, P. (2022). Effectiveness of remote teacher training program: Implication for integration of technology in teachers' professional development. *International Journal of Research Publication and Reviews*, 3(10), 1830-1835.

- Mizell, H. (2010). Why professional development matters. Oxford: Learning Forward.
- Noom-Ura, S. (2013). English teaching problems in Thailand and Thai teachers' professional development needs. *English Language Teaching*, 6(11), 139-147. https://doi.org/10.5539/elt.v6n11p139
- Nopiana, N., & Hikman, S. (2020). Model on-the-job training based on increasing teachers' competence in basic school. *International Journal of Advanced Science and Technology*, 29(5), 1103-1113.
- Office of the Basic Education Commission. (2008). Basic Education Core Curriculum B.E. 2551 (A.D., 2008). Bangkok: Ministry of Education.
- Richards, J. C. (2013). Curriculum approaches in language teaching: Forward, central and backward design. *RELC Journal*, 44(1), 5-33. https://doi.org/10.1177/0033688212473293
- Safi, S. (2015). In-service Training Programs for Schools Teachers in Afghanistan [Master's thesis, Karlstad University]. Karlstad University Research.
- Saraiwang, S., & Worawong, K. (2023). The use of task-based and game-based learning in English learning at small primary schools in Nakhon Pathom, Thailand. *PASAA*, 67, 101-138.
- Shariq, M. (2017). Interactive teaching techniques for communicative language teaching in EFL environments: A survey. *International Journal of Language and Linguistics*, 4(2), 89-94.
- Surayatika, D. (2022). Teachers' strategies in teaching English to young learners. *Global Expert*, 10(1), 47-58. https://doi.org/10.36982/jge.v10i1.2229
- Tamayo Cano, L. H., Riascos Gómez, A. F., & Pineda Hoyos, J. E. (2023). Needs analysis to design an English blended learning program: Teachers' and administrators' voices. *Profile: Issues in Teachers' Professional Development, 25*(1), 193-210. https://doi.org/10.15446/profile.v25n1.1013
- Tuminah, T., Selong, Y., & Cahyoko, K. N. (2022). The impact of online learning for teachers in remote areas. *Journal of Education, Teaching, and Learning*, 7(1), 60-65. http://doi.org/10.26737/jetl.v7i1.2733
- Ulla, M. B. (2016). Pre-service teacher training programs in the Philippines: The student teachers practicum teaching experience. *EFL Journal*, *1*(3), 235-250. https://doi.org/10.21462/eflj.v1i3.23
- Ulla, M. B., & Winitkun, D. (2018). In-service teacher training program in Thailand: Teachers' beliefs, needs, and challenges. *Pertanika Journal of Social Science and Humanities*, 26(3), 1579-1594.
- Wichadee, S. (2011). Professional development: A path to success for EFL teachers. *Contemporary Issues in Education Research*, 4(5), 13-24. https://doi.org/10.19030/cier.v4i5.4234
- Youn, S. J. (2018). Task-based needs analysis of L2 pragmatics in an EAP context. *Journal of English for Academic Purposes*, *36*, 86-98. https://doi.org/10.1016/j.jeap.2018.10.005
- Yumru, H. (2015). EFL Teachers' preferences for teacher learning activities in a professional development course. *Procedia-Social and Behavioral Sciences*, 199, 178-183. https://doi.org/10.1016/j.sbspro.2015.07.503