

Building Bilingual Expertise: Evaluating Professional Development Program for Elementary Teachers in Taiwan

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Abstract—This study evaluates a professional development program for in-service elementary school teachers in Taiwan, focusing on bilingual education through the CLIL approach. The research aligns with Taiwan’s “Bilingual 2030” policy, aiming to enhance English proficiency and global competitiveness among the citizens. The six-credit, 108-hour program includes workshops, collaborative planning sessions, and micro-teaching activities. Using a mixed-methods approach with quantitative surveys and qualitative open-ended questions, the study found significant improvements in teachers’ understanding of bilingual education. Participants moved away from the belief that native-like English fluency and native speakers are essential for effective bilingual teaching, and recognized the benefits of using students’ first language flexibly. Teachers initially sought practical strategies and a deeper understanding of bilingual education, but upon completion of the program, their focus shifted to practical application, collaborative planning, and student motivation. The findings highlight the program’s success in enhancing teachers’ bilingual teaching capabilities for both English-teaching-related and non-English-teaching-related background teachers and underscore the need for ongoing support and resources. This study provides valuable insights for international audiences, suggesting that well-structured professional development programs can significantly improve teachers’ ability to deliver bilingual education. Continuous evaluation and adaptation are crucial to addressing educators’ evolving needs and ensuring sustained effectiveness.

Index Terms—bilingual education, CLIL, teacher professional development, Bilingual 2030 in Taiwan

I. INTRODUCTION

Teachers’ professional development is essential to bring success to education. Education policies and new educational approaches must be accompanied by teacher preparation and professional development to realize the ideas and trends in the real classroom. Taiwan launched the “Bilingual 2030” (National Development Council, 2021) national development policy for two purposes: making Taiwan a more English-friendly region to attract international business and talent, and enhancing Taiwanese youth’s English proficiency to increase global competitiveness and mobility. Teaching English as a school subject in an English-as-a-foreign-language context is no longer sufficient to achieve these goals. In this background, bilingual education has begun to be promoted in schools of all levels in Taiwan.

Pre-service bilingual teacher preparation programs and in-service bilingual teacher professional development courses were launched shortly after the “Bilingual 2030” policy was released in 2018. It is estimated that by the end of 2030, 5000 pre-service teachers will graduate with an endorsement in bilingual teaching, and 50% of content teachers in elementary and secondary schools will receive on-the-job training in bilingual education (Ministry of Education, 2018). All authors of this paper teach at the same university that trains elementary teachers. Starting in 2020, the university has been offering a bilingual teaching endorsement program for pre-service teachers and a bilingual teaching professional development program for in-service teachers. This paper reports the latter, a six-credit, 108-hour professional development program for in-service elementary teachers (hereafter, the Program), and how in-service elementary teachers (hereafter, the Participants) in this program responded to the training.

II. BACKGROUND

A. Background and Rationale

Since the announcement of Taiwan's "Bilingual 2030" policy in 2018, there has been a significant push towards integrating bilingual education across all educational levels. This policy aims to transform Taiwan into a bilingual nation by enhancing English proficiency among its citizens, thereby increasing international competitiveness and attracting global talent. As part of this initiative, the government has recognized the necessity of equipping teachers with the skills and knowledge required to effectively deliver bilingual education. Research indicates that teacher preparedness is a critical factor in the successful implementation of educational reforms, underscoring the importance of comprehensive professional development programs (Wang & Lin, 2018; Hsieh, 2021).

Internationally, similar efforts have been undertaken to enhance bilingual education through targeted professional development. European countries within the CLIL Network have also invested in extensive teacher training programs to support bilingual education by integrating content and language learning objectives (Lasagabaster & Doiz, 2016). Taiwan's approach aligns with these international efforts by emphasizing the need for teacher preparedness in delivering bilingual education. However, the local context presents unique challenges, such as the need for English proficiency among content teachers and the adaptation of CLIL methodologies to Taiwan's educational system. The professional development program described in this paper, a six-credit, 108-hour course, addresses these specific needs by providing in-depth training on CLIL strategies, practical teaching methods, and collaborative lesson planning.

In response to the "Bilingual 2030" policy, there has been an urgent need for bilingual teaching practices and professional development, especially at the elementary school level. Elementary school teachers, who play a crucial role in the foundational stages of education, require specialized training to adapt to the demands of bilingual instruction. Studies have shown that early exposure to bilingual education can significantly enhance language acquisition and cognitive development in young learners (Garcia & Wei, 2018). Consequently, the government and educational institutions have prioritized the development of both pre-service and in-service training programs to ensure that teachers are well-equipped to meet these new educational demands.

The implementation of these training programs has highlighted several challenges and areas for improvement. For instance, teachers need ongoing support and resources to integrate bilingual teaching methods into their classrooms effectively. Professional development programs, such as the six-credit, 108-hour course offered by the university mentioned in this paper, are designed to address these needs by providing in-depth training and practical strategies for bilingual instruction. Preliminary feedback from participants indicates a positive response to these programs, with teachers expressing increased confidence and competence in their ability to deliver bilingual education (Chen et al., 2022). However, continuous evaluation and adaptation of these programs are necessary to ensure they remain relevant and effective when meeting the evolving needs of educators and students alike.

This professional development program in Taiwan, while sharing common goals with international efforts, is tailored to address the unique challenges of the Taiwanese educational context. It aims to build a robust bilingual education framework by equipping teachers with the necessary skills and knowledge, thus contributing to the global discourse on effective bilingual education practices.

B. CLIL Professional Development Demand

The professional development needs of elementary school teachers embarking on bilingual teaching, particularly through the Content and Language Integrated Learning (CLIL) approach, have been extensively documented in the research literature. CLIL, which integrates content and language learning objectives, requires teachers to possess a dual skill set: subject-specific expertise and language teaching proficiency. Research indicates that teachers often face challenges in balancing these dual roles, highlighting the necessity for targeted professional development programs that address both content and language instruction (Coyle et al., 2010). This is echoed by Mehisto et al. (2008), who emphasized that successful CLIL implementation relies on teachers being equipped with integrated pedagogical strategies and deep conceptual understanding of bilingual learning processes. Effective CLIL professional development programs typically include comprehensive training on CLIL methodology, strategies for integrating content and language, and techniques for assessing student progress in both areas (Lasagabaster & Doiz, 2016).

CLIL professional development programs are designed to equip teachers with the necessary pedagogical skills and theoretical knowledge to implement this approach successfully. These programs usually encompass workshops, collaborative planning sessions, and classroom observations. Key topics covered include scaffolding techniques, language support strategies, curriculum design, and the use of authentic materials to enhance language learning within content lessons (Dalton-Puffer, 2011). Additionally, many programs emphasize the importance of reflective practice and peer collaboration, encouraging teachers to share experiences and best practices. Studies have shown that teachers who participate in these programs generally report increased confidence in their ability to deliver CLIL instruction and a greater understanding of how to support students' language development within the context of content learning (Pérez-Cañado, 2016).

The effectiveness of CLIL professional development programs varies, with teachers' disciplinary backgrounds playing a significant role in their perceived usefulness. Teachers with a background in language teaching often find these programs beneficial as they provide strategies to integrate language skills into content areas, thereby enhancing their instructional repertoire (Morton, 2018). Conversely, teachers from content area backgrounds, such as science or mathematics, may

initially struggle with the language component but appreciate the practical techniques for embedding language support within their subject teaching. Research by Banegas (2020) indicates that while content teachers may require more time and support to adapt to CLIL, they ultimately recognize the value of the approach in making their subjects more accessible and engaging for students. Overall, CLIL professional development programs are seen as crucial for helping teachers navigate the complexities of bilingual education, though ongoing support and tailored training are essential to address the diverse needs of educators. To further explore the impact and outcomes of such professional development programs, this study addressed the following questions:

1. Upon completing the Program, how did the Participants change their understanding of bilingual education? Are there differences between English- and non-English-background teachers?
2. Upon completing the Program, what aspects of bilingual teaching did the Participants still think they needed?
3. Based on the study's results, what suggestions about bilingual teaching professional development for in-service elementary teachers can be provided?

III. THE PROGRAM

The Program was planned and based on guidelines provided by the Ministry of Education. The guidelines, originally developed by the Foreign Language Center at the National Cheng Kung University in Taiwan, include the hours, course contents, and some course materials. It is a 108-hour program delivered in three stages that adopts the CLIL approach to bilingual education in elementary and secondary schools. When finishing the coursework, participants are awarded a course completion certificate. A CEFR B2 level English proficiency is required along with course completion to get the bilingual education endorsement. The authors consulted the instructor's manual for the in-service bilingual teacher training program of MOE (Foreign Language Center, 2021), a resource prepared by the Foreign Language Center at the National Cheng Kung University for instructors in all teacher training institutes that offer this program.

Stage 1 was a 9-day (54 hours) intense session that started during the summer break. It was the stage to help the Participants build a core knowledge base of CLIL. Session contents included the foundation of bilingual education, English as a lingua France, CLIL methods and materials, CLIL task design, CLIL assessment, translanguaging, multimodality and scaffolding, etc. In the afternoons, teachers from different disciplinary backgrounds collaborated and practiced CLIL lesson planning. On the last day of this stage, teachers presented their CLIL unit plans and microteaching.

After the summer break, the new semester started in September. Stage 2 of the Program was delivered synchronously online in the fall semester to avoid the transportation hassles and time demand that in-person meetings would incur. Teachers and facilitators met for 2 hours each week for 18 weeks (36 hours total in Stage 2). Sixteen videos (15- to 25-min in length) filmed by internationally prominent bilingual education scholars were provided by the Foreign Language Center at the National Cheng Kung University for class discussion. The Participants also practiced CLIL in their own school settings and shared their classroom practice and reflection during the 2-hour online meeting.

In the last stage (3 days, 18 hours) that took place after the fall semester in the winter break, teachers presented their CLIL unit design and microteaching. Unlike stage 1 where unit plans and microteaching were practiced in interdisciplinary groups, stage 3 required that each participant develop a unit plan and present a microteaching individually. Table 1 shows the overall structure of the Program.

TABLE 1
COURSE SCHEDULE OF THE PROGRAM

Stage 1 (In-Person)		
Day	Morning Topic (9:00-12:00)	Afternoon Topic (13:00-16:00)
1	Introduction to Bilingual Education	Introduction to English as a Lingua Franca
2	Competence-Based Bilingual Education Curriculum Design	Competence-Based Bilingual Education Curriculum Design: Practice
3	Interactive and Instructional Language; Translanguaging	Interactive and Instructional Language; Translanguaging: Practice
4	Competence-Based Bilingual Education Activity Design and Material Development	Competence-Based Bilingual Education Activity Design and Material Development: Practice
5	Multimodality and Multimedia in Bilingual Education	Multimodality and Multimedia in Bilingual Education: Practice
6	Competence-Based Bilingual Education Task Design	Competence-Based Bilingual Education Task Design: Practice
7	Bilingual Education Exemplary Case Analysis	Bilingual Education Exemplary Case Analysis: Practice
8	Competence-Based Bilingual Education Assessment	Competence-Based Bilingual Education Assessment: Practice
9	Bilingual Teaching Unit Design and Microteaching Presentation and Feedback	Bilingual Teaching Unit Design and Microteaching Presentation and Feedback
Stage 2 (Online)		
Week	Speaker of the Pre-recorded Video	Topic
1	None	Introduction and Orientation
2-4	Nicos Sifakis (Greece)	<ul style="list-style-type: none"> ■ English as a Lingua Franca: Introducing the Concept ■ Integrating ELF within EFL: The Concept of ELF Awareness ■ Developing ELF-aware Activities in EFL Classroom
5-6	Yuen-Yi Lo (Hong Kong)	<ul style="list-style-type: none"> ■ Content and Language Integrated Learning (CLIL) Pedagogy ■ Content and Language Integrated Learning (CLIL) Assessment
7-10	Angel M. Y. Lin (Canada)	<ul style="list-style-type: none"> ■ Genre-based Pedagogy in Content and Language Integrated Learning (CLIL) ■ Genre-based Pedagogy in Content and Language Integrated Learning (CLIL): Advanced ■ Teaching CLIL through a Multilingual Lens: Translanguaging Pedagogy in CLIL ■ Using the MEC to Plan a Unit of Work in CLIL
11-13	Will Baker (UK)	<ul style="list-style-type: none"> ■ Intercultural and Transcultural Communication Through Global Englishes ■ From Communicative Competence to Intercultural Communicative Competence and Awareness ■ Intercultural Education in the Classroom
14-17	Inmaculada Pineda Hernández (Spain)	<ul style="list-style-type: none"> ■ CLIL Multimodality ■ CLIL & Multiliteracies ■ CLIL Multimodal Users ■ Gamification
18	None	Final Reflection
Stage 3 (In-Person)		
Day	Morning Topic (9:00-12:00)	Afternoon Topic (13:00-16:00)
1	Microteaching Lesson Plan Preparation	Microteaching Lesson Plan Peer Feedback
2	Microteaching Rehearsal Preparation	Microteaching Rehearsal Peer Feedback
3	Microteaching and Reflection	Microteaching and Reflection

After successful completion of the Program, participants who met the CEFR B2 English proficiency would be awarded the bilingual teaching endorsement. A three-year grace period was granted for participants who needed more time to reach the CEFR B2 English proficiency.

IV. METHODS

The survey research method was adopted to answer the first and second research questions. Participants were invited to voluntarily answer a survey, which was written in Chinese, at the start and end of the Program. Open-ended questions asked in the survey provide qualitative data to consolidate and complement quantitative data. A total of 66 participants completed both surveys. Research participants, instruments, and data analysis are described in what follows.

A. Participants

The Program as offered by the authors' university was for teachers from Taichung City and nearby counties including Nantou and Changhua. Some participants applied for participation voluntarily and some others were appointed by their schools to participate. All applications had to be approved first by the education bureau of the local government and then by the Ministry of Education.

Among the 102 participants who completed the Program successfully, 66 (56 females and 10 males) of them completed both surveys voluntarily. Most of them (76%) were either English teachers or had English Language Teaching as part of their pre-service teacher preparation. The number of years of teaching ranged quite widely: 29% no more than 5 years; 41% between 6 and 15 years; 30% more than 16 years. Regarding their English language proficiency, 59% of the participants were able to present proof of CEFR B2 or above English proficiency. It needs to be noted, however, that

classroom teachers, especially content teachers, in Taiwan are not required to take standardized English proficiency tests. The fact that some participants could not present a B2 English proficiency test result did not necessarily mean they did not have that level of English proficiency. Last, only 30.6% of the Participants had bilingual teaching experiences.

B. Instruments

A survey was developed by the authors to collect information from the Participants. The first of the three sections of the survey is personal information. The results of the nine items of this section were reported earlier above in description about the Participants. The second section consists of ten five-point Likert scale type items that are statements about bilingual education, including the purposes of bilingual education, factors that might influence the effectiveness of it, and who would be better bilingual teachers. The final section includes three open-ended questions where the Participants shared their professional development experiences in the Program. Please refer to the Appendix to see the complete survey.

This research adhered to ethical standards in accordance with guidelines for human subject research. At the beginning of the online survey, respondents were informed that their names would be recorded, but the survey results would be used solely for teaching and research purposes. It was explicitly stated that the respondents' identities and personal information would remain confidential and would not be disclosed in any reports or publications. Participation in the survey was entirely voluntary, and teachers were free to choose whether or not to participate. The study was conducted with the utmost respect for the privacy and autonomy of all participants.

C. Data Analysis

Simple frequency analysis was conducted to understand the background of the teachers who completed the survey both times voluntarily, including the distribution of gender, educational background, years of teaching, and English proficiency. Repeated ANOVA tests were conducted to answer research question 1, which is about possible changes in the Participants' understanding of bilingual education before and after the Program, and whether there are differences between English- and non-English-background teachers. Qualitative responses to the open-ended questions in the third section were analyzed deductively.

V. RESULTS AND DISCUSSION

A. Section Two Results and Discussion

Results of the respondents' personal information in Section One are already reported in The Participants. Section Two contains ten five-point Likert-type scale items that are statements about bilingual education.

The line graph in Figure 1 illustrates the comparison between the pre-survey and post-survey responses to the 10 items in Section Two of the survey. The means of responses indicate a shift in perceptions or understanding about bilingual education before and after the program. Notably, all items show an increase in the post-survey. This comparison provides valuable insights into the effectiveness of the program and how it influenced the participants' perspectives over time.

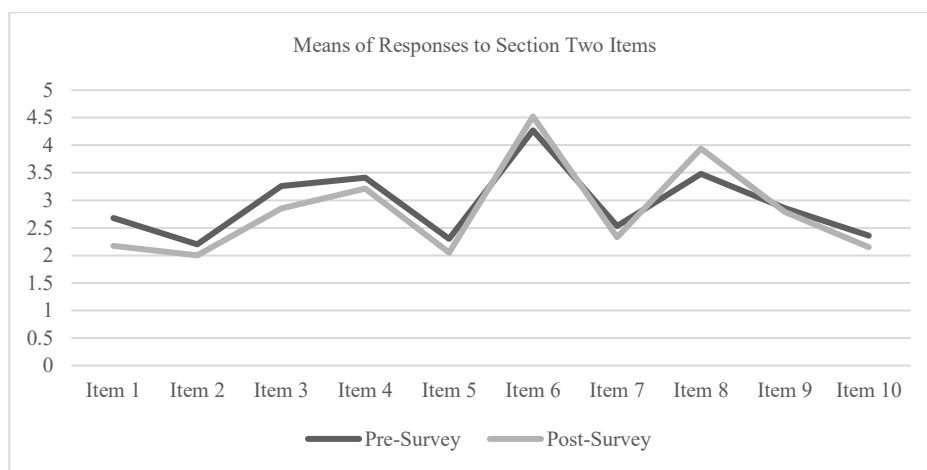


Figure 1. Means of Responses to the 10 Items in Section Two (Note: Items 6 and 8 are reverse-coded items.)

Repeated ANOVA tests were conducted to examine the Participants' understanding about bilingual education before and after the Program and whether there were differences between participants with and without English background. Among the 10 items in this section, 5 items show significant differences in pre- and post-survey results, but no significant differences were found between English and non-English background participants (Table 2).

The repeated ANOVA test results demonstrated significant changes in the teachers' understanding of bilingual education before and after participating in the Program. The survey, consisting of 10 items in Section Two measured on a 5-point Likert scale, yielded five items (1, 4, 5, 6, and 8) that showed statistically significant differences. For Item 1

(Bilingual teachers need to have native-like English fluency), there was a significant decrease in agreement after completing the Program ($F = 8.708$, $p = 0.005$), indicating that teachers recognized that native-like fluency is not a prerequisite for effective bilingual teaching. Similarly, Item 4 (The teacher's level of English determines the effectiveness of bilingual education) and 5 (Bilingual lessons will be more effective if taught by English native speakers) also showed decreased agreement post-program, with F -values of 5.151 ($p = 0.028$) and 4.935 ($p = 0.031$), respectively. These results suggest a shift in perspective, where teachers began to see the value in bilingual education beyond the native speaker model. This aligns with Lo's (2020) findings that CLIL teacher development should include reflection on teacher identity and the deconstruction of native-speaker ideologies to fully embrace bilingual goals.

Conversely, items 6 and 8 showed increased agreement after the program. Item 6 (Students' first language can be used flexibly in bilingual lessons) had an F -value of 5.368 ($p = 0.025$), indicating a higher recognition of the facilitating role of students' first language in bilingual teaching. This change reflects an understanding of the pedagogical benefits of leveraging students' linguistic repertoire to enhance learning. Similarly, Item 8 (It is better for bilingual lessons to be taught by content teachers) had an F -value of 8.920 ($p = 0.005$), highlighting a shift towards recognizing the importance of content knowledge in delivering effective bilingual instruction.

The analysis also showed no significant interaction effects between pre-test and post-test responses based on the teachers' disciplinary backgrounds, with all interaction p -values above the 0.05 threshold. This suggests that the professional development program was effective across different teaching backgrounds, ensuring that both English teachers and non-English subject teachers benefited equally from the training.

TABLE 2
REPEATED MEASURES ANOVA RESULTS

Item	Pre vs. Post		Interaction	
	F -value	p -value	F -value	p -value
1	8.708	0.005	0.010	0.922
4	5.151	0.028	2.782	0.102
5	4.935	0.031	1.688	0.200
6	5.368	0.025	1.837	0.182
8	8.920	0.005	0.403	0.529

Note: Item 1: Bilingual teachers need to have native-like English fluency. Item 4: The teacher's level of English determines the effectiveness of bilingual education. Item 5: Bilingual lessons will be more effective if taught by English native speakers. Item 6: Students' first language can be used flexibly in bilingual lessons. Item 8: It is better for bilingual lessons to be taught by content teachers.

B. Section Three Results and Discussion

To analyze the written responses to the three open-ended questions in the pretest and post-test survey administered to 66 elementary school teachers, we employed an inductive content analysis approach. This qualitative method was chosen to allow for a detailed and nuanced understanding of the teachers' experiences and perspectives regarding bilingual teaching professional development. The analysis process began with the initial reading of all responses to gain an overall sense of the data. Subsequently, open coding was conducted, where key phrases and concepts were identified and labeled. These codes were then grouped into categories that reflected common themes and patterns across the responses. To ensure the reliability of the coding process, one of the authors and a research assistant independently coded a subset of the responses and then compared and discussed their codes to reach a consensus. This iterative process continued until all data were coded and categorized. The final step involved synthesizing the categories into broader themes that captured the essence of the teachers' experiences and insights. This method allowed us to systematically explore the specific knowledge and skills the teachers wished to acquire (Question 1), the support and resources they needed in the practice of bilingual teaching (Question 2), and the crucial factors influencing students' learning in bilingual lessons (Question 3).

Regarding Question 1 (What specific knowledge and skills about bilingual teaching do you wish to acquire), Pre-test responses showed that teachers expressed a strong desire for practical teaching strategies, a deeper understanding of bilingual education, bilingual teaching methods, classroom management skills, and effective lesson planning for bilingual education. After completing the Program, teachers highlighted classroom practice and course design as the most important aspects of skills they wanted to grow more. For example, a teacher wrote, "I want to learn more about how to plan suitable learning tasks to reinforce content area learning and encourage more English use." Another teacher wrote, "I've learned a lot about the important concepts about bilingual teacher. I feel now I need to build or join a community of practice so that I can put these concepts and theories into practice." The shift from a broad desire for various skills to a focused emphasis on practical application and course design suggests that the Program successfully addressed the initial needs and helped teachers develop concrete skills. This indicates a significant improvement in their ability to implement bilingual education effectively.

Regarding Question 2 (What support and resources do you wish to have when practicing bilingual teaching), pre-test responses showed that teachers requested high-quality bilingual teaching materials, collaborative planning opportunities, professional development workshops, and mentorship from experienced bilingual educators. The post-test responses showed a continued need for collaborative planning and administrative support. More than half of the respondents mentioned the need for collaborating with other teachers to plan bilingual lessons and develop teaching materials. Additionally, teachers mentioned the importance of technological integration and support from parents and school

administration. The continued emphasis on collaborative lesson planning and the new mention of technological integration reflect evolving needs as teachers begin to apply their training. This underscores the necessity for ongoing support and resource availability to sustain effective bilingual teaching practices.

Regarding Question 3 (What do you think are the most influencing factors that might shape student's bilingual learning results), key factors identified in the pre-test survey included curriculum design, students' motivation, teachers' professional competency, and the learning environment. Post-program responses emphasized student motivation, the learning environment, and the attractiveness of course activities as crucial factors. These are common responses to this question in the post-program survey: *"how teachers raise students' learning motivation," "support from school administration and parents," "learning environment,"* and *"the teacher's passion and teaching strategies."* The increased emphasis on student motivation suggests that teachers have become more attuned to the affective aspects of learning, recognizing the importance of engaging and motivating students in bilingual education. This highlights a more holistic understanding of the factors influencing student success in bilingual settings.

The qualitative analysis of the pre-test and post-test responses indicates significant shifts in teachers' bilingual teaching perceptions and professional development needs following their participation in the Program. Initially, teachers sought a wide range of skills and support, which, according to post-test responses, were effectively addressed by the Program. Teachers now emphasize practical application, collaborative planning, and student motivation, reflecting a more refined understanding of bilingual education. These evolving teacher needs underscore the importance of sustained, practice-oriented professional development, as supported by Ball et al. (2015), who advocate for ongoing mentorship and feedback cycles in CLIL programs. These findings underscore the program's success in equipping teachers with the necessary skills and knowledge while also highlighting areas for ongoing support and resource provision to ensure sustained effectiveness in bilingual teaching.

VI. CONCLUSION

This study aimed to evaluate the effectiveness and impact of a bilingual teaching professional development program on in-service elementary school teachers' understanding and implementation of bilingual education. The investigation was guided by three research questions: (1) How did the participants' understanding of bilingual education change upon completing the program? (2) What aspects of bilingual teaching did participants still find challenging? (3) What suggestions can be made for future professional development programs based on the study's results?

The repeated ANOVA test results showed significant improvements in teachers' understanding of bilingual education, particularly in recognizing that native-like fluency is not essential for bilingual teachers and appreciating the importance of using students' first language in bilingual lessons. These changes indicate a shift from native-speaker-centric views towards a more inclusive and holistic approach to bilingual education. Importantly, no significant differences were found between English and non-English-background teachers, suggesting that the program effectively addressed the needs of teachers regardless of their training background.

The qualitative inductive content analysis revealed that before the program, teachers were primarily concerned with acquiring teaching strategies and resources. In post-program survey, the emphasis shifted to the practical application of these skills, collaborative planning, and the importance of student motivation. This shift indicates that the program successfully provided teachers with the foundational skills they sought and helped them recognize the ongoing need for collaboration and support in bilingual teaching.

Based on these findings, several implications and suggestions for bilingual teaching professional development for in-service elementary school teachers can be drawn. First, the topics in the Program are effective for the growth of bilingual teaching expertise, which include the foundation of bilingual education, English as a lingua France, CLIL methods and materials, CLIL task design, CLIL assessment, translanguaging, multimodality and scaffolding, interdisciplinary and collaborative lesson planning, and microteaching. A recommended structure for such programs could be a six-credit, 108-hour course, as seen in the current study, which includes workshops, collaborative planning sessions, and micro-teaching. Second, it is fine to have teachers of different training backgrounds to participate in the same program as long as interdisciplinary groups are created for collaborative lesson planning practice. Last, participants in this study showed deeper and more comprehensive understanding about bilingual teaching, and more aspects of bilingual teaching preparation or practice became better understood after completion of the Program. This suggests that ongoing support and resources, such as access to bilingual teaching materials and mentorship from experienced educators, are crucial for sustained success. Furthermore, Cenoz and Gorter (2017) recommend incorporating translanguaging practices into professional development to help teachers use students' full linguistic repertoires as assets in bilingual instruction.

While the study provides valuable insights, it has limitations. One limitation is the relatively small sample size of 66 teachers, which may not fully represent the diverse experiences and needs of all elementary school teachers. Future studies could involve a larger and more diverse sample to enhance the generalizability of the findings. Another limitation is the reliance on self-reported data, which may be subject to biases. Future research could incorporate classroom observations and student performance data to provide a more comprehensive evaluation of the program's effectiveness and impact.

Overall, this study highlights the importance of well-structured professional development programs in enhancing teachers' understanding and practice of bilingual teaching. By addressing the identified needs and challenges, such programs can significantly contribute to the effectiveness of bilingual teaching in elementary schools.

APPENDIX. THE SURVEY

<p>Section One: Personal Information</p> <ol style="list-style-type: none"> Your name Gender: Female Male Areas of study: English related Non-English related Years of teaching: 5 years or less 6-15 years 16 years or more English proficiency: CEFR B2 None
<p>Section Two: Understanding about Bilingual Education (BE)</p> <ol style="list-style-type: none"> BE teachers need to have native-like English fluency. BE lessons need to use English exclusively to reach the best BE goals. Students' level of English determines the effectiveness of BE. The teacher's level of English determines the effectiveness of BE. BE lessons will be more effective if taught by native English speakers. The students' first language can be used flexibly in BE lessons. It is better for BE lessons to be taught by English subject teachers. It is better for BE lessons to be taught by content area teachers. The purpose of BE is to improve the English proficiency test scores of the country's citizens. The purpose of BE is to make the English pronunciation of the country's citizens closer to that of the native English speakers.
<p>Section Three: Professional Development Experiences in the Program</p> <ol style="list-style-type: none"> What specific knowledge and skills about bilingual teaching do you wish to acquire? What support and resources do you need in the practice of bilingual teaching? What do you think are the most influencing factors that might shape student's bilingual learning results?

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