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**EXPLORING THE EFFECTIVENESS OF PRIMARY
SCHOOL TEACHERS' PRE-SERVICE TRAINING IN
DEVELOPING THEIR 21ST CENTURY SKILLS TOWARDS
CITIZENSHIP ENHANCEMENT:
A PROGRAM EVALUATION STUDY**

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Option: Language and Culture

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Meriem Dedication

This work is dedicated to:

The soul of my dear father though he left us but his words always enlighten my path .

My dear mother who fostered my confidence and ambition.

*My sisters whose support, care, and understanding were the
source of my strength to complete this work.*

My brothers taught me how to transfer dreams into realities.

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Abstract

This research evaluates a recently implemented educational program introducing English as a Foreign Language teaching in Algerian primary schools. The program's aims included the integration of 21st century skills among pre-service and in-service teachers. This aim was the main focus of this study. The evaluation employed the CIPP program evaluation model, focusing primarily on the training of 21st-century skills. Additionally, an intervention utilizing the Lesson Study approach and Teacher Observation Program was implemented to teach trainees these skills and observe their performance in addressing professional challenges. The findings indicated that the program exhibited various deficiencies as it was not specifically tailored to this particular context, but rather used for pre-service teachers of all subjects at the middle and high school levels. It presented an ill-suited syllabus, resulting in confusion among teachers, although its initial objectives were well-suited to the educational context's needs. The intervention demonstrated the positive potential of explicitly teaching 21st century skill to trainees, enabling them to develop professionally and apply these skills in their lesson plans and teaching practices. The study recommends that training programs should be aware that 21st century skills initially imparted by the program are crucial for both current and pre-service teachers to address professional challenges of teaching a new language to young learners. Other recommendations for both teachers and policy makers are presented.

Keywords: Program evaluation; EFL; primary education; 21st century skills; teacher training; professional development; quality assurance; competency-based education; CIPP; Lesson Study; Teacher Observation Program

ملخص :

يقدم هذا البحث برنامجاً تعليمياً تم تنفيذه مؤخراً يتعلق باللغة الإنجليزية كلغة أجنبية في المدارس الابتدائية الجزائرية. تضمنت أهداف البرنامج دمج مهارات القرن الحادي والعشرين بين المعلمين في التكوين التحضيري و التكوين أثناء الخدمة. كان هذا الهدف هو المحور الرئيسي لهذه الدراسة. استخدم التقييم نموذج تقييم برنامج CIPP ، مع التركيز بشكل أساسي على تدريب مهارات القرن الحادي والعشرين. بالإضافة إلى ذلك ، تم تنفيذ تدخل معالجة باستخدام نهج دراسة الدرس وبرنامج مراقبة المعلم لتعليم المتدربين هذه المهارات ومراقبة أدائهم في مواجهة التحديات المهنية. أشارت النتائج إلى أن البرنامج أظهر أوجه قصور مختلفة لأنه لم يتم تصميمه خصيصاً لهذا السياق المحدد ، بل تم استخدامه لمعلمي ما قبل الخدمة لجميع المواد في المدارس المتوسطة والثانوية. قدم منهجاً غير مناسب ، مما أدى إلى ارتباك بين المعلمين ، على الرغم من أن أهدافه الأولية كانت مناسبة تماماً لاحتياجات السياق التعليمي. أظهر التدخل الإمكانيات الإيجابية للتدريس الصريح لمهارات القرن الحادي والعشرين للمتدربين ، وتمكينهم من التطوير المهني وتطبيق هذه المهارات في خطط الدروس وممارسات التدريس الخاصة بهم.

توصي الدراسة بضرورة أن تدرك البرامج التدريبية أن مهارات القرن الحادي والعشرين التي نقلها البرنامج في البداية ضرورية لكل من المعلمين الحاليين وقبل الخدمة لمواجهة التحديات المهنية لتدريس لغة جديدة للمتعلمين الصغار. يتم تقديم توصيات أخرى لكل من المعلمين وصانعي السياسات.

الكلمات المفتاحية: نموذج تقييم برنامج ، التكوين التحضيري ، التكوين أثناء الخدمة ، مهارات القرن الحادي والعشرين ، التدريب ، التطوير المهني ، ممارسات التدريس ، مقارنة التدريس بالكفاءات ، شبكة تقييم المهارات . مشاهدة صافية .

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List of Abbreviations

CBA: Competency Based Approach

CIPP: The Context, Input, Process, Product program evaluation model

4 Cs: Communication and Collaboration, Critical Thinking , creativity , Citizenship.

CPD: Continuous Professional Development.

CTPD: Continuous Teacher Professional Development

DeSeCo: Definition and Selection of Competencies

HOTs :high order thinking skills

ICT's: Information, Communication, Technology.

MoNE: Ministry of National Education

PDP: Pre-listening/ Reading, During Listening /reading, Post Listening / Reading

PBL: Project Based Approach.

PPU: Presentation, Practice, Use.

SMART objectives : specific, measurable, attainable, relevant and time -bound

SOW: Schema of work

TBA: Task Based Approach.

The 4 Skills: Listening, Reading, Speaking, Writing

VAKT styles : Visual, Auditory, Kinesthetic, Tactile.

ZPD: Zone of Proximal Development.

CHAPTER ONE :
GENERAL INTRODUCTION

Introduction

1.1 BACKGROUND AND CONTEXT

In today's rapidly evolving educational landscape, it becomes crucial to empower teachers with the skills and competencies required to foster meaningful learning experiences for 21st-century students. As the demands of education continue to evolve, there is a growing recognition of the need to equip pre-service primary teachers with the skills necessary to address the challenges of modern teaching practices. By incorporating 21st century skills into the training of pre-service primary teachers, their ability to navigate the dynamic educational landscape effectively can be enhanced.

In the local context, these challenges are even greater. Indeed, the Algerian Ministry of Education has introduced the teaching of English as a foreign language in primary schools as recently as the year 2022-23, for the first time. The introduction of English as a foreign language in primary schools in Algeria is an ambitious educational reform that aims to enhance the linguistic and intercultural competencies of young learners. However, the implementation of this reform has faced many challenges and difficulties, especially in terms of the training and preparation of pre-service teachers who are expected to teach English to children. Indeed, there seem to be immense inadequacies in the way the Ministry had prepared this new policy, especially in the syllabus imposed on the pre-service teachers, as claims the professional evaluation of one of the present researchers. The training program for pre-service teachers was designed in

a hurry and had many deficiencies. One of them was that the training syllabus was not specifically designed for this particular context, but it was already at work since many years for middle and high school pre-service teachers of all subject matters, not specifically English.

In addition, this original program, supposed, targeted 21st century skills, such as critical thinking, creativity, collaboration, communication, information literacy, media literacy, technology literacy, flexibility, leadership, initiative, productivity, and social skills. These skills are considered essential for students to participate effectively in the increasingly complex societies and globalized economy that characterize today's world. However, the program was not well implemented, and its original objectives failed.

This research aims to explore the integration of 21st century skills into the training of pre-service primary school teachers, with a focus on enabling them to cope with professional challenges and ill-adapted training syllabi. Therefore, this study is an evaluation of this program. The present researchers claim that 21st century skills are vital for the current trainees in order to cope with the weaknesses of their newly conceived program, and the challenges of teaching children a new language. The evaluation mainly targeted 21st century skill training. The Context-Input-Process-Product (CIPP) program evaluation model was adopted to conduct this evaluative research and to achieve the following objectives:

- To evaluate the extent to which the training program for pre-service teachers integrates and fosters 21st century skills

- To evaluate the outcomes and impacts of the training program on the acquisition and development of 21st century skills by pre-service teachers

- To evaluate how 21st century skills affect the confidence, satisfaction, motivation, and readiness of pre-service teachers to teach English to children and face professional challenges

Subsequently to the evaluation process, a remediation intervention is conducted to explore the present researchers' suggestions as to the improvement of the program. To that end, this research adopted the collaborative professional development approach, referred to as Lesson Study. It involves a group of teachers working together to plan, observe, analyze, and refine a specific lesson or unit of instruction. The findings of both parts of the study: the CIPP program evaluation and the Lesson Study-Based Remediation Intervention will form the foundation of a suggested improvement model that the present researchers hope would contribute to a better integration of the 21st century skills in pre-service and in-service teachers of English in primary schools, and even in similar settings.

1.2 RESEARCH PROBLEM AND OBJECTIVES

The Algerian educational system, through the Ministry of National Education (MoNE), has embraced the competency-based approach in order to empower learners to take responsibility for their own learning. Inspired by the social constructivist approach (e.g., Dewey, 1916; Vygotsky, 1986/1934) and embracing a 21st century skills conception, this model encourages learners to tackle problem-solving situations that

resemble real-life scenarios. They are expected to work collaboratively, communicate their projects, justify their choices, think critically about various phenomena, raise awareness about global citizenship, and take responsibility with their teams to create innovative products of great value to humanity. Additionally, these learners are expected to become conscious of digital materials and vigilant about the media's influence on humankind. They should also be open to other cultures while maintaining their own identity.

However, one of the present researchers, in her professional quality, has experienced a considerable defectiveness. This researcher has been acting as a member of the national delegated team of inspectors (consisting of 120 primary and English inspectors) since 2015. She has participated in a collaborative effort organized by the Ministry of Education in partnership with the British Council. The aim of this effort was to design a national framework of competencies for teachers and inspectors. The toolkit of competencies encompasses 21st century skills as a standard for quality assurance. The following sections list the aspects of the witnessed defectiveness. The other researcher is the trainee to whom the training program was designed and who shared her own experience while trying to put theory into practice. She observed her colleagues at work, the access to field work is practical and could participate in designing the observation checklist.

First, many trainers tend to associate 21st century skills only with digital literacy, using the excuse of limited technology availability in schools. These skills are rarely

incorporated deliberately in the curriculum, nor are they routinely assessed. “John Barell (2010) in his *21st Century Skills –rethinking how students learn*, explains that this status views these skills into “nice to have” rather than “must have.”

Second, the training materials were not originally designed for English teachers in primary schools. They were created in 2018, prior to the decision to integrate English into the primary school curriculum. Indeed, the content and material used were primarily targeted at middle and secondary school teachers in terms of didactics. Hence, this material was subsequently used as if it were designed for all levels and specializations, and did not have to target one specific audience. In fact, the designers thought of it as an urgent plan - a gap bridging for university graduates. This plan includes courses gathered in a training toolkit and covers modules such as legislation, psychology, classroom management, planning learning environment, assessment, etc.

Third, the syllabus design decisions seem to be intended for test attendance rather than practical application and observation in the field. Here, it is absolutely important that it require several ambitious strategies and trainings for every professional in the educational system, besides parents’ awareness of the necessity and urge to innovative practices far from summative achievements.

1.3 SIGNIFICANCE OF THE STUDY

The goal of educational improvement is to promote social and cognitive development, recognizing that changes within the educational system should have a positive impact on broader societal structures. This concept embodies the quality

assurance approach to education. However, in Algeria, the pursuit of educational reform faces numerous mental, organizational, and material challenges. The study aims to explore the training of both pre-service and in-service teachers, highlighting the key obstacles they encounter.

In the 21st century, teachers no longer conform to traditional norms but need to be academically and professionally prepared to effectively contribute to the creation of future learners in the knowledge economy era. The study's findings indicate that teachers require higher-order thinking skills to effectively manage learners' knowledge and life skills.

Inspired by the Dewey's (1916) and Vygotsky's (1986/1934) philosophy, pre-service training adopts a social constructivist education approach that emphasizes discovering one's aptitude and providing opportunities to pursue it, which is key to personal fulfillment. Dewey viewed schools as platforms for individual and civic development, where children could uncover their true calling.

Consequently, schools should emphasize project work, action learning, workshops, simulations, and community-based learning. According to Dewey (1916), individuals who apply problem-solving and experimental methods to govern their lives serve as the foundation for reasonable and ethical organizations. Schools should adopt a child-centered approach, tailoring the curriculum and instruction to facilitate individual development.

Teachers must develop skills to guide young learners through life's complexities and provide opportunities for solving relevant problems in a natural way. Additionally, teachers should equip learners with the ability to adapt to contemporary conditions and the challenges of an unpredictable future.

Nevertheless, the noticed weaknesses in this ambitious new program led the present researchers to perform a systematic program evaluation adopting the Context-Input-Process-Product model (CIPP). Representing the four main components of the evaluation process, each component focuses on specific aspects of the program being evaluated: its context, input, process, and product. After a systematic evaluation of the actual program has been conducted and areas of improvement have been identified, the need for a tryout of an alternative approach and methodology in addressing the essential goals of the program has been felt by the researchers. Hence, a phase of a remediation intervention has been performed adopting the Lesson Study framework to guide the process in a systematic and rigorous fashion. Based on the two phases of this research's findings, the researchers lay out a suggested model addressing the traditional one's weaknesses and applying the promising practices learned from the intervention.

The significance of the study lies in several key aspects:

- Addressing an Urgent Need: The study focuses on evaluating a newly launched educational program that introduces the teaching of English as a Foreign Language in Algerian primary schools. Given the recent implementation of this reform, there is a pressing need to assess the effectiveness of the program and identify areas for

improvement. By evaluating the integration of 21st century skills into the training of pre-service primary teachers, the study directly addresses the challenges and deficiencies in the current program.

- **Enhancing Teacher Competencies based on the Competency-based approach laid out by the Ministry of National Education (MoNE) :** The study recognizes the importance of equipping pre-service primary teachers with the skills/competencies necessary to navigate the dynamic educational landscape and meet the demands of modern teaching practices. By evaluating the impact of 21st century skill training on pre-service teachers' acquisition and development of these skills, the study aims to enhance their professional readiness, confidence, and satisfaction in teaching English to children, and ideally prepare better 21st-century citizens.
- **Contributing to Educational Reform:** The introduction of English as a foreign language in Algerian primary schools represents an ambitious educational reform aimed at enhancing linguistic and intercultural competencies. However, the implementation of this reform has faced challenges, particularly in terms of the training and preparation of pre-service teachers. By evaluating the program and proposing a remediation intervention based on Lesson Study, the study seeks to contribute to the improvement of the program and provide insights for similar educational reforms in other contexts.
- **Advancing Research on 21st-Century Skills:** The study's focus on evaluating the integration of 21st century skills in pre-service teacher training adds to the existing

body of research on this topic. By investigating the impact of these skills on pre-service teachers' readiness and their ability to cope with professional challenges, the study contributes to the understanding of how 21st century skills can be effectively incorporated into teacher education programs.

In conclusion, the study's significance lies in its potential to inform policy and practice by providing evidence-based recommendations for enhancing the training of pre-service primary teachers and improving the implementation of English as a Foreign Language programs in Algerian primary schools. It also contributes to the broader discourse on 21st century skills in education and has implications for similar contexts facing similar challenges in teacher training and educational reform.

1.4 RESEARCH QUESTIONS

This study's research questions address its main objectives, which include evaluating the training program's integration of 21st-century skills, assessing its outcomes and impacts, and exploring the role of these skills in pre-service teachers' confidence and readiness. Additionally, the questions acknowledge the need to identify strengths and weaknesses in the current program and investigate the effectiveness of the Lesson Study-based remediation intervention. They are as follows:

1. To what extent does the training program for pre-service primary teachers integrate and foster 21st-century skills?

2. What are the outcomes and impacts of the training program on the acquisition and development of 21st century skills by pre-service primary teachers?
3. How do 21st century skills affect the confidence, satisfaction, motivation, and readiness of pre-service primary teachers to teach English to children and face professional challenges?
4. What are the strengths and weaknesses of the current training program in terms of addressing the challenges of teaching English as a Foreign Language in Algerian primary schools?
5. How can Lesson Study be implemented as a collaborative professional development approach to enhance the integration of 21st -century skills in the training of pre-service primary teachers?
6. What are the effects of the Lesson Study-based remediation intervention on pre-service primary teachers' understanding and application of 21st century skills in their teaching practices?

1.5 RESEARCH FRAMEWORK

This section presents the theoretical basis of the study: the theoretical framework, the relevant models and the key concepts and variables. The theoretical framework of this study is based on social constructivism, which emphasizes the active construction of knowledge through social interaction and collaboration. Inspired by influential theorists such as Dewey (1916) and Vygotsky (1986/1934), this approach is consistent with the competency-based educational model and the notion of 21st-century skills. According to this framework, learners are encouraged to

engage in problem-solving situations that resemble real-life scenarios, work collaboratively, think critically, communicate effectively, and develop a global citizenship perspective. The integration of 21st century skills into the training of pre-service primary teachers aims to equip them with the necessary competencies to meet the demands of modern teaching practices.

One of the main conceptual models used in this study is the Context-Input-Process-Product (CIPP) program evaluation model, which serves as the guiding framework for the research. The CIPP model provides a systematic approach to evaluating educational programs by examining their context, design and implementation factors, processes, and outcomes. By using this model, the researchers can effectively assess the integration of 21st century skills in the training program and evaluate its impact on pre-service primary teachers' acquisition and development of these skills.

The key concepts and variables underlying this work are 21st-century skills, such as critical thinking, creativity, collaboration, communication, information literacy, media literacy, technology literacy, flexibility, leadership, initiative, productivity, and social skills. These skills serve as the focal point of the study, as they are essential for students' participation in complex societies and a globalized economy. It is worth noting that these skills go hand in hand with the Competency-Based approach adopted by the MoNE. Additionally, variables of interest include pre-service primary teachers' confidence, satisfaction, motivation, and readiness to teach English to children and face professional challenges. These variables will be examined to understand the influence of 21st century skills on the teachers' professional development and their ability to cope with the deficiencies of the training program.

CHAPTER TWO :
LITERATURE REVIEW

Literature Review

2.1 INTEGRATION OF ENGLISH AS A FOREIGN LANGUAGE IN PRIMARY EDUCATION

English as a Foreign Language (EFL) has gained global significance due to its role in international communication and trade. As a result, there is a growing interest in introducing EFL instruction at the primary school level. This section of the literature review examines the integration of English language teaching in primary schools, discussing the challenges faced by educators, the benefits experienced by students, and the best practices adopted in various educational contexts. By synthesizing existing research, this chapter aims to provide a comprehensive understanding of the current state of knowledge in this field.

2.1.1 Benefits of integrating EFL in elementary schools

The integration of EFL in elementary schools brings several advantages to students' language proficiency development and academic achievement. Research studies have demonstrated that early EFL learning has positive cognitive impacts, laying a foundation for long-term language proficiency development and enhancing students' motivation and self-concept. Furthermore, integrating EFL with reading comprehension and reading strategies improves students' academic performance and fosters their literacy skills. Additionally, integrating EFL with other competencies such as the 4Cs (communication, collaboration, critical thinking, and creativity) helps students develop not only linguistic but also cognitive and social skills crucial for the 21st century.

Strengths:

- Positive cognitive impact and long-term language proficiency development
- Enhanced motivation and self-concept among students
- Improved academic performance and literacy skills through integration with reading comprehension and strategies
- Development of 21st-century competencies (communication, collaboration, critical thinking, and creativity)

The benefits of integrating EFL in elementary schools have been supported by various studies. For example, Jaekel et al. (2020) conducted a study comparing early and late starters of EFL in Germany and found that early starters exhibited higher language proficiency and increased motivation. Pardede (2017) emphasized the integration of the 4Cs in EFL classrooms and provided practical tips for implementation. Al-Mahrooqi et al. (2019) explored the effects of EFL reading comprehension on academic achievement, highlighting the importance of reading strategies, motivation, and self-efficacy. Butler (2014) reviewed the implementation of communicative and task-based language teaching approaches in the Asia-Pacific region, emphasizing improved communicative competence and intercultural awareness. Courtney (2017) investigated the transition from elementary to secondary school in foreign language learning, highlighting the impact of early language learning on motivation and proficiency. Kohler (2017) discussed policies and practices for early language learning in Australia, emphasizing cognitive development and cultural awareness. Little (2022) explored learner autonomy in language learning and its positive impact on proficiency and learning outcomes. The Partnership for 21st Century Skills (2009) presented a framework integrating the 4Cs into various subject areas, including foreign languages.

Weaknesses:

- Professional challenges due to time constraints and resource limitations
- Need for better work conditions and regulations for teachers
- Limited availability of training for cross-curricular skills development
- Lack of a comprehensive guide for teachers' planning and feedback

To further enhance the effectiveness of EFL programs, it is recommended that frequent adaptation of the program be considered and that teachers be provided with better work conditions. The implementation of regulations and widespread training for cross-curricular skills development are also crucial. Additionally, the design of a comprehensive guide encompassing teachers' planning and feedback is necessary. Inspectors should be trained to disseminate knowledge about 21st century skills among teachers locally.

In conclusion, integrating EFL in elementary schools offers numerous benefits for young learners. These benefits include long-term language proficiency development, enhancement of academic achievement, and the cultivation of 21st-century competencies. Therefore, it is vital to implement effective strategies based on the findings from various studies to maximize the benefits of EFL education at the elementary level.

2.1.2 Integration timing and methodology

English as a foreign language (EFL) has become an important subject in many countries, as it is seen as a key to access global opportunities and resources. However, there are different opinions and practices regarding when and how to introduce EFL education to young learners. Some countries have implemented EFL education in early childhood, while others have started it in elementary school or later. The issue of integrating EFL in elementary school involves various factors, such as curriculum design, teacher training, technology use, parental involvement, and learning outcomes.

According to Lee and Kim (2020), the introduction of EFL education in early childhood can have both positive and negative impacts on elementary school EFL education. On the one hand, it can provide a boost for elementary school EFL education by exposing younger learners to English language skills earlier, enhancing their cognitive development and problem-solving skills, and increasing their motivation and interest in learning English. On the other hand, it can also pose a burden for elementary school EFL education by creating a shortage of qualified EFL teachers, degrading the quality of EFL education, and widening the gap between students with different levels of English proficiency and exposure.

Therefore, integrating EFL in elementary school requires careful planning and implementation to ensure its effectiveness and quality. One of the possible ways to achieve this is to adopt a gamified flipped classroom approach, as suggested by Zou (2020). This approach involves shifting the direct instruction from the classroom to the pre-class online activities, and using the classroom time for interactive and collaborative activities that are gamified to increase students' engagement and learning outcomes. Zou (2020) reports on a 1-year project on gamified flipped EFL classroom among 277 primary students and 8 teachers, and shows that both students and teachers agreed on the advantages of this approach, such as increased learning motivation and engagement, developed learning skills and confidence, and improved learning performance and outcomes.

Another possible way to integrate EFL in elementary school is to focus on developing students' writing skills, as argued by Geng et al. (2021). They contend that writing is a crucial skill for 21st century learning, as it can enhance students' language skills, cognitive development, problem-solving skills, creativity, critical thinking, communication and collaboration skills. They review 136 studies of EFL writing in primary and secondary school contexts from 2012 to 2019, and reveal that EFL writing can foster students' learning outcomes and interest in learning English. However, they also point out some challenges and suggestions for teaching and learning EFL writing in school contexts, such as providing adequate guidance and feedback, using technology-mediated tools and resources, and aligning with the curriculum standards and objectives.

In conclusion, integrating EFL in elementary school is an important issue that involves various factors and perspectives. It can have both benefits and challenges for both teachers and students. Therefore, it requires careful planning and implementation to ensure its effectiveness and quality. Some of the possible ways to integrate EFL in elementary school were shown to be the adoption of a gamified flipped classroom approach or the focus on developing students' writing skills. However, contextual factors can add more challenging features to the landscape. In the following section, light is shed on some Low-Income country's experiences.

2.1.3 Integrating EFL in elementary school challenges in Low-Income Countries

Introduction English as a foreign language (EFL) has gained significant importance worldwide as a means of accessing global opportunities and resources. However, the

implementation of EFL education in elementary schools varies across countries, leading to different opinions and practices. This section explores the challenges associated with integrating EFL in elementary school and presents two approaches that have been suggested to address these challenges. Additionally, the experiences of Low-Income countries in this context are discussed.

1. **Impact of Early Childhood EFL Education on Elementary School EFL Education** The introduction of EFL education in early childhood can have both positive and negative impacts on elementary school EFL education. It benefits students by exposing them to English language skills earlier, enhancing cognitive development, and increasing motivation and interest in learning English. However, it can also pose challenges such as a shortage of qualified EFL teachers and discrepancies in students' English proficiency levels.
2. **Approach 1: Gamified Flipped Classroom** The gamified flipped classroom approach suggests shifting direct instruction to online activities before class and utilizing classroom time for interactive and collaborative gamified activities. This approach aims to increase student engagement and learning outcomes. Research conducted by Zou (2020) demonstrates the advantages of this approach, including enhanced learning motivation, developed learning skills and confidence, and improved learning performance.
3. **Approach 2: Focus on Developing Writing Skills** Focusing on developing students' writing skills in EFL education can have multiple benefits. Geng et al. (2021) highlight the positive impact of EFL writing on language skills, cognitive development, problem-solving skills, creativity, critical thinking, communication, and collaboration. Adequate guidance, feedback, technology-mediated tools, and alignment with curriculum standards are crucial considerations for effective EFL writing instruction.

4. **Low-Income Countries' Experiences** The integration of EFL in elementary schools in Low-Income countries faces additional challenges due to limited resources, teacher training, and infrastructure. Contextual factors, such as language barriers and cultural differences, further complicate the landscape. Therefore, strategies tailored to the specific needs and constraints of these countries are necessary for successful integration.

Conclusion

Integrating EFL in elementary schools requires careful planning and implementation to overcome challenges and maximize its benefits. Approaches like the gamified flipped classroom and a focus on writing skills have shown promise in enhancing student engagement, motivation, and learning outcomes. However, contextual factors in Low-Income countries necessitate unique considerations. Further research and sharing of best practices can contribute to the effective integration of EFL in elementary education worldwide.

A third challenge of EFL integration in elementary school is the lack of inclusive education for students with diverse needs and backgrounds. Inclusive education refers to the provision of quality education for all students regardless of their abilities, disabilities, or other characteristics. Inclusive education can benefit both students and society by promoting equity, diversity, participation, and well-being. However, implementing inclusive education is not an easy task, especially in low- and lower-middle-income countries where resources and support are limited. A systematic literature review of studies focused on interventions aiming to improve inclusive education in these countries identifies 31 studies that evaluated interventions and included 20 or more respondents [3]. It analyzes the characteristics, methods, outcomes, and quality of these studies. It

finds that most of the interventions targeted students with disabilities or special educational needs, and that they involved teacher training, curriculum adaptation, assistive technology, peer support, or community involvement. It also finds that most of the studies reported positive outcomes for students' academic achievement, participation, or well-being.

In conclusion, integrating EFL in elementary school is an important issue that involves various challenges and requires careful planning and implementation. Some of the main challenges are the low level of learning and education quality and the lack of appropriate curriculum design, as this study aims to establish in the local context. The next section explores some of the Algerian experience aspects.

2.1.4 Integrating EFL in Algerian Elementary Schools

Similarly to a considerable number of countries, English as a foreign language (EFL) is a subject that has gained increasing importance and popularity in Algeria, where it is seen as a key to access global opportunities and resources. However, integrating EFL in elementary school poses various challenges and requires careful planning and implementation to ensure its effectiveness and quality. This section reviews some of the studies that have investigated the issue of EFL integration in Algerian elementary schools, and discusses their findings and implications.

One of the main challenges of EFL integration in Algerian elementary schools is the low level of learning and education quality in the country. According to a study by Ammour (2021), the Covid-19 pandemic has affected the teaching and learning of EFL

reading skills among beginners, as it has created several psychological and cognitive learners' difficulties, such as decreased motivation and lack of cognitive focus. The study also reveals that most teachers are aware of the importance of reading strategy-based instruction, but they do not teach them systematically or consistently. The study suggests that teachers need more training and support to implement reading strategy-instruction effectively and efficiently.

Another challenge of EFL integration in Algerian elementary schools is the lack of appropriate curriculum design, teacher training, technology use, parental involvement, and learning outcomes assessment. These factors are crucial for ensuring the effectiveness and quality of EFL education, but they are often neglected or insufficiently addressed in Algeria. A review of the literature on teaching EFL to primary school students in East Asia by Rao and Yu (2019) provides some insights and suggestions for improving EFL education in similar contexts. The review shows that EFL education has been introduced at younger and younger ages in East Asia, but there are still many issues and gaps that need to be addressed. The review also provides some suggestions for improving EFL education in East Asia, such as adopting a gamified flipped classroom approach, focusing on developing students' writing skills, and conducting more research on EFL teaching and learning in primary school contexts.

A third challenge of EFL integration in Algerian elementary schools is the lack of effective teaching and learning of writing skills. Writing is a crucial skill for 21st century learning, as it can enhance students' language skills, cognitive development, problem-

solving skills, creativity, critical thinking, communication and collaboration skills.

However, teaching writing in Algeria is still traditional and teacher-centered, and there is a need for a shift to a more learner-centered and communicative approach. A study by Bouabdallah (2015) provides a detailed account of the actual practices of writing from Algerian EFL teachers and examines the extent to which teaching rhetorical canons: invention, organization, style, memory and delivery can improve students' writing skills. The study argues that teaching writing in Algeria should be based on a process-oriented approach that involves pre-writing, drafting, revising, editing, and publishing stages.

Another Algerian study (Boudouaia et al. 2022) focuses on the beliefs of Algerian EFL teachers regarding learner autonomy and its importance in English language learning. The findings indicate that while the teachers recognize the significance of learner autonomy, they face challenges in implementing it due to factors such as the curriculum, motivation, and culture. The study offers recommendations for improving teacher education and practice in promoting learner autonomy.

Finally, a study by Benchanaa (2020) explores, early on, the possibility of teaching English at the primary school level in Algeria. It suggests that Algerian society is ready to accept English in primary schools due to its relevance in the economy and politics. However, there is a lack of clear guidelines for teaching English at this level. The study aims to provide basic guidelines through a tentative syllabus and does not present any clear arguments against teaching English at the primary school level in Algeria.

In sum, integrating EFL in Algerian elementary schools is an important issue that involves various challenges and requires careful planning and implementation. Some of the main challenges are the low level of learning and education quality. The following section explores more experiences in multiple foreign settings. The aim is to enrich the discussion that this research suggest.

2.1.5 Previous studies in other countries

Different contexts and cultures may pose different challenges and opportunities for EFL teaching and learning. Therefore, it is important to explore how EFL teaching strategies can support the development of students' English speech in primary schools in different countries. In this section, we will review some of the recent research studies on EFL teaching strategies and English speech development in primary schools in Indonesia, Saudi Arabia, Vietnam and Japan. These countries have different sociolinguistic situations and educational policies regarding EFL education in primary schools.

In Indonesia, Zein (2020) reviews the research on English language education in primary schools from 2011 to 2019. The author provides a comprehensive overview of the current situation and future prospects of EFL education in Indonesia, which has a complex and dynamic sociolinguistic situation with 707 living languages. The author highlights the influence of educational policies, ideologies, sociocultural and religious values on the practice and research of English language education in Indonesia. The author also identifies some of the challenges and issues faced by teachers and learners in EFL education in primary schools, such as curriculum design, teaching methods,

assessment, teacher training, learner motivation, and technology integration. The author suggests that more research is needed to address these challenges and issues and to improve the quality and effectiveness of EFL education in primary schools.

In Saudi Arabia, Esmail Mandili (2020) examines the development of students' English speech through investigating EFL teaching strategies in primary schools. The author analyzes the EFL teaching strategies used by Saudi teachers in English classes and argues that they should be oriented based on cultural-historical theory to support students' English speech development. The author also discusses the relationship between English language acquisition and English speech development, which are interrelated as the students need to acquire the English language in order to be able to construct correct English words and sentences to be used in meaningful communication. The author proposes a model of EFL teaching strategies based on cultural-historical theory that consists of four stages: orientation stage, exploration stage, internalization stage, and externalization stage. The author claims that this model can help teachers to create optimal conditions for students' English speech development.

In Japan, Nishino and Watanabe (2008) compare the communication-oriented policies and the classroom realities in primary schools. The authors report on a survey of 126 primary school teachers who teach English as a foreign language in Japan. The authors reveal that there is a gap between the policy goals and the actual practices of teachers, who face difficulties in implementing communicative activities due to factors such as class size, time constraints, lack of resources, and insufficient training. The

authors suggest that more support is needed for teachers to adopt communication-oriented teaching methods in primary schools. The authors also recommend that more research is needed to investigate the effects of communication-oriented teaching methods on students' English speech development.

In Vietnam, Nguyen and Nguyen (2017) report on a study of teaching with tasks in primary school EFL classrooms. The authors investigate how teachers design and implement tasks to promote students' English speech development. The authors observe and interview six primary school teachers who use tasks as the main teaching method in their English classes. The authors find that the teachers use various types of tasks, such as information gap, opinion gap, reasoning gap, and creative tasks, to engage students in meaningful communication. The authors also identify some of the challenges and benefits of using tasks in primary school EFL classrooms, such as time management, classroom management, learner motivation, and learner autonomy. The authors suggest that more training and support are needed for teachers to use tasks effectively and appropriately in primary school EFL classrooms.

These studies show that EFL teaching strategies and English speech development in primary schools are influenced by various factors such as context, culture, policy, curriculum, assessment, teacher training, teaching methods, learner motivation, assessment, teacher training, and technology integration.

In conclusion, this literature review chapter aimed to deepen our understanding of the integration of English language teaching in primary education, exploring its

challenges, benefits, and best practices. By examining the existing research on early language learning, cognitive development, language proficiency, and cultural awareness, this chapter will provide valuable insights that can inform educational practices and contribute to the advancement of language education in primary schools. The findings from this literature review will hopefully contribute to the identification of effective strategies and approaches that can enhance the local integration of English as a foreign language in primary education. This knowledge will not only inform the present study but also serve as a valuable resource for educators, policymakers, and curriculum developers who are dedicated to improving language education in primary schools.

As the main focus of the present study is pre-service and in-service training, and more specifically the central component of 21st century skills as an educational objective, the following sections will give detailed account of those frameworks respectively.

2.2 TWENTY-FIRST CENTURY SKILLS

In the dynamic and interconnected world of the 21st century, traditional academic knowledge is no longer sufficient for success. As societies undergo rapid technological advancements, globalization, and evolving work environments, a new set of skills has emerged as essential for individuals to thrive in this complex landscape. These skills, known as 21st-century skills, encompass a range of competencies that go beyond subject-specific knowledge and focus on preparing individuals for the challenges and opportunities of the modern era. The cultivation of 21st century skills is not only advantageous for individual students but also for society at large (Trilling & Fadel,

2009). A report by the World Economic Forum highlights the potential of these skills to address critical global challenges such as climate change, poverty, inequality, health, and security (World Economic Forum, 2016). Furthermore, the integration of 21st century skills in education has the potential to enhance the quality of teaching and learning outcomes, rendering education more relevant, engaging, and meaningful for students (Griffin, Care & McGaw, 2012). In this section, we will explore the concept of 21st-century skills, delve into their key components, and highlight their significance in primary education.

2.2.1 What are 21st century skills?

The proficiencies, commonly referred to as 21st-century skills, go beyond traditional academic knowledge and focus on preparing individuals to navigate the complexities of today's society and workforce. Twenty-first-century skills encompass a broad range of knowledge, skills, work habits, and character traits that are believed to be crucial for success in the contemporary world (Griffin, Care & McGaw, 2012; Good, 2008). However, there is no single widely-accepted definition of 21st-century skills, which is not surprising given the diverse range of attempts and frameworks held by different educationalists, policy makers, employers, teaching unions, and higher education institutions.

The purposes and goals of education form the foundation upon which the identity and processes of education are built. Four core purposes—economic, cultural, social, and personal—shape each educational system (Robinson, 2013). According to the Glossary of Education, 21st century skills encompass a broad set of knowledge, skills, work habits, and character traits that are considered crucial for success in today's world. Educators, school reformers, college professors, employers, and others emphasize the importance of these skills (Handbook, p14).

Among the skills outlined by educators and business owners as key for thriving in this challenging millennium are deep thinking, the application of knowledge in various contexts such as college and workplaces, and their relevance to other aspects of life. These skills include critical thinking/reasoning, creativity/creative thinking, problem-solving, meta-cognition, collaboration, communication, and global citizenship. Additionally, they encompass various literacies such as reading, writing, numeracy, informational literacy, and digital literacy. Collectively, these skills can be described as learning domains (Handbook).

Scott (2015, p.8) defines 21st century skills as the knowledge, skills, and attitudes necessary to be competitive in the twenty-first-century workforce, participate appropriately in an increasingly diverse society, and cope with rapidly changing workplaces. In other words, these skills go beyond ordinary use of information and knowledge, enabling individuals to succeed and compete in an ever-changing society and job market.

Voogt and Roblin (2010, 2012) see 21st century skills as new competencies demanded by society from the existing workforce and, in educational terms, from today's youth who require training for future jobs and careers. They emphasize the discovery and utilization of hidden abilities by learners in school, enabling them to adapt their skills, evolve, and develop proficiency in the workforce.

Considering these varied definitions, the term "21st-century skills" may seem vague and confusing. It can be approached from several angles, including non-cognitive skills, interpersonal skills, applied skills, and life workforce skills.

In one of the common frameworks used to understand and discuss these skills - "Framework for 21st Century Learning" developed by the Partnership for 21st Century Learning (P21)-, they can be categorized into three main groups. The three categories are:

1. **Learning and Innovation Skills:** This category encompasses the skills necessary for individuals to adapt, think critically, and creatively solve problems. It includes skills such as critical thinking, creativity, collaboration, communication, and problem-solving. These skills are essential for learners to engage with complex issues, analyze information, and develop innovative solutions. They also emphasize the ability to work effectively in diverse teams and communicate ideas clearly (Trilling & Fadel, 2009).
2. **Digital Literacy Skills:** With the increasing role of technology in our lives, digital literacy skills have become crucial for individuals to navigate and participate in the digital world effectively. This category includes skills related to using digital tools and resources, information literacy, media literacy, and technological proficiency. Digital literacy skills enable individuals to access, evaluate, and use digital information responsibly while adapting to the changing technological landscape (Trilling & Fadel, 2009).
3. **Life and Career Skills:** This category comprises skills that are necessary for success in both personal and professional contexts. It includes skills such as adaptability, leadership, social and cross-cultural skills, responsibility, and initiative. Life and career skills emphasize qualities and competencies that enable individuals to thrive in diverse settings, take initiative, and navigate the challenges of the modern world. These skills are not only valuable for personal growth but also for career development and lifelong learning (Trilling & Fadel, 2009).

Categorizing 21st century skills into these three groups may help educators and policymakers better understand and target specific skill sets that are essential for individuals to thrive in the 21st-century society. This framework provides a foundation for curriculum

development, instructional strategies, and assessment practices aimed at fostering these skills in educational settings. However, a set of other frameworks will be discussed in a subsequent section.

Notable examples of 21st century skills include critical thinking abilities, effective communication skills, collaborative competencies with diverse peers, problem-solving aptitude, a global perspective, and proficiency in utilizing information and communication technologies, among other requirements (Care, Griffin, & Wilson, 2012). A detailed descrip

- **Critical thinking:** It roughly entails the analysis of information and the application of logical and informed decision-making. According to the 21st Century Skills Critical Thinking organized by the Center for Assessment (2020), critical thinking involves both cognitive skills and dispositions. These two aspects are captured in a consensus definition reached by a panel of leading critical thinking scholars and researchers and reported in the Delphi Report: “purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or contextual considerations upon which that judgment is based” (Facione, 1990, p. 3).”
- **Creativity:** It involves the generation of novel and innovative ideas and solutions. In the context of 21st century skills, creativity goes beyond artistic expression and encompasses a broader range of domains, including scientific, technological, entrepreneurial, and social contexts. It involves the capacity to engage in divergent thinking, explore multiple perspectives, and embrace experimentation and risk-taking. Creativity encourages individuals to question assumptions, challenge the status quo, and find alternative approaches to traditional methods (British Council, 2019; Primi, 2018).

- **Problem solving** : It is recognized as a crucial 21st century skill. It involves the ability to identify, analyze, and resolve complex problems effectively and efficiently. This skill requires critical thinking, logical reasoning, creativity, and considering multiple perspectives. In the rapidly changing world of the 21st century, individuals encounter various complex challenges, and problem-solving skills are essential for finding viable solutions. Effective problem solvers can anticipate obstacles, adapt strategies, and collaborate with others. Developing strong problem-solving skills empowers individuals to confidently approach challenges, find innovative solutions, and contribute to personal and professional success. Overall, problem solving is highly valued in the 21st century as it enables individuals to adapt to change, navigate uncertainties, and make positive contributions to society (Griffin, Care & McGaw, 2012).
- **Decision making** : It is indeed a crucial 21st century skill. It involves identifying alternatives, evaluating options, and choosing the most suitable course of action based on careful analysis and judgment. In today's complex and rapidly changing world, individuals face an abundance of information and need to make timely and effective decisions. This skill requires critical thinking, problem analysis, weighing risks and benefits, and considering ethical implications. Decision making can be individual or collaborative, and it involves gathering relevant data, anticipating consequences, and aligning decisions with goals. Strong decision-making skills enable individuals to make informed choices, solve problems, and adapt to change. It empowers individuals to take responsibility, learn from experiences, and contribute to personal and professional success in the dynamic 21st century (Griffin, Care & McGaw, 2012).

More 21st century skills include:

- **communication**, which encompasses the ability to express oneself clearly and persuasively in various modalities and contexts;
- **collaboration**, referring to the capacity to work effectively with others towards shared objectives;
- **global citizenship**, entailing the understanding and appreciation of diverse cultures, perspectives, and values; and
- **information and communication technology (ICT) literacy**, encompassing the skills necessary to access, evaluate, use, and create digital media and tools (Griffin, Care & McGaw, 2012; Trilling & Fadel, 2009).

The current educational system was designed based on a clearly defined idea of academic and professional ability that aligned with the demands of the industrial revolution (Robinson, 2007). However, conditions have changed significantly since then. Globalized political, social, and economic systems, along with competitive market rules, have led to a massive growth in knowledge generation, management industries, and information communication technologies (ICTs). These factors have profoundly impacted educational institutions, challenging concepts that were once taken for granted, such as knowledge, information, and ability (Zajda, 2010).

To help practitioners integrate skills into the teaching of core academic subjects, experts have developed a unified, collective vision for learning known as the Framework for 21st Century Learning. This framework describes the skills, knowledge, and expertise that students must master to succeed in work and life. It encompasses content knowledge, specific skills, expertise, and literacies. Building on a foundation of core academic subject knowledge, students who can think critically and communicate effectively develop essential skills for success in

today's world, including problem-solving, communication, and collaboration. By incorporating the entire framework along with the necessary support systems such as standards, assessments, curriculum and instruction, professional development, and learning environments, schools and districts can enhance student engagement and better prepare students to thrive in today's global economy. While the graphic representation of the framework distinguishes each element for descriptive purposes, it is important to recognize that all the components are fully interconnected in the process of 21st-century teaching and learning.

2.2.2 Importance of 21st century skills in education

In the contemporary era, the definition of a successful learner, graduate or even a teacher has evolved to encompass skills beyond traditional academic subjects. While the acquisition of the foundational "three Rs" (reading, writing, and arithmetic) and proficiency in core academic disciplines were previously considered indicative of achievement, the demands of the 21st century necessitate a fundamental reorientation (Bellanca & Brandt, 2010). To thrive in today's increasingly complex societies and globalized economy, students must possess these set of competencies that are considered essential for success in the modern world. Consequently, it is imperative for education systems worldwide to incorporate 21st century skills into their curricula, pedagogy, assessment, and teacher training (Bellanca & Brandt, 2010; Griffin, Care & McGaw, 2012).

One of the key benefits of 21st century skills is their ability to foster a mindset of lifelong learning. In an era of constant technological advancements and expanding knowledge, individuals need to be adaptable, flexible, and capable of continuously acquiring new skills throughout their lives. Moreover, integrating 21st century skills in education enhances student engagement and motivation. By making learning more relevant and real-world oriented, these

skills establish a connection between students' lives and the curriculum, increasing their intrinsic motivation to learn (Bellanca & Brandt, 2010; Griffin, Care & McGaw, 2012).

In addition, developing problem-solving and critical thinking skills is crucial in today's complex world. Twenty-first-century skills enable individuals to analyze information, evaluate evidence, think critically, and develop innovative solutions to real-world problems. These skills are vital for addressing challenges and making informed decisions. What is more is that collaboration and teamwork are highly valued in the interconnected world of the 21st century. By promoting effective collaboration, these skills prepare students to work harmoniously in diverse groups and contribute meaningfully to collective goals. Furthermore, 21st century skills help bridge the gap between education and employment. These skills are closely aligned with the demands of the job market, and by developing them, education can enhance students' employability and career readiness (Bellanca & Brandt, 2010; Griffin, Care & McGaw, 2012).

All in all, education should aim to nurture well-rounded individuals. This entails developing cognitive, social, emotional, and practical skills. 21st century skills contribute to holistic development, fostering students' intellectual, social, and emotional competencies. Therefore, by recognizing the importance of 21st century skills in education, educators can better prepare students for the challenges and opportunities of the modern world, equipping them with the tools they need to succeed both academically and in their future careers (Bellanca & Brandt, 2010; Griffin, Care & McGaw, 2012).

2.2.2.1 Different frameworks of 21st century skills

There are several 21st century skiltheoretical frameworks that are commonly referenced and used in the field of education. Familiarity with these frameworks can be beneficial for policy makers, educators and individuals involved in education. Here are a few notable frameworks:

1. **Partnership for 21st Century Skills (P21):** P21 is a widely recognized framework that emphasizes a set of essential skills, known as the "Four Cs": critical thinking, communication, collaboration, and creativity. It also includes other skills such as information literacy, media literacy, and technology literacy (Partnership for 21st Century Skills, 2011 ; Griffin, Care & McGaw, 2012).
2. **Framework for 21st Century Learning (Framework for PBL):** Developed by the Buck Institute for Education, this framework focuses on 21st century skills in the context of project-based learning. It emphasizes the integration of core academic content with critical thinking, communication, collaboration, and creativity (Boss, 2013; Larmer, Mergendoller, & Boss, 2015).
3. **OECD's DeSeCo (Definition and Selection of Competencies):** The Organization for Economic Co-operation and Development (OECD) developed the DeSeCo framework, which identifies three categories of key competencies: knowledge, skills, and attitudes. It encompasses a broader range of skills, including cognitive and metacognitive skills, social and emotional skills, and practical skills (OECD, 2005).
4. **UNESCO's Four Pillars of Learning:** UNESCO's framework highlights four fundamental pillars of learning: learning to know, learning to do, learning to be, and learning to live together. It emphasizes the acquisition of knowledge, practical skills, personal development, and the ability to live and work harmoniously in diverse societies (Delors et al., 1996; Sobe, 2021).
5. **Hewlett Foundation's Deeper Learning Competencies:** The Deeper Learning Competencies framework focuses on six competencies: mastering academic content, critical thinking and problem-solving, collaboration, effective communication, self-

directed learning, and an academic mindset. It emphasizes the development of both cognitive and socio-emotional skills (Hewlett Foundation, 2013).

These frameworks provide different perspectives on the skills and competencies needed for success in the 21st century. While there may be variations in the specific skills emphasized, they share common themes of critical thinking, collaboration, communication, creativity, and adaptability. Educators are expected to explore these frameworks, adapt them to their local context, and use them as a guide for curriculum design, instruction, and assessment to foster holistic development in students.

2.2.3 Twenty-first century skills teaching and assessment

The teaching and assessment of 21st century skills are critical components of modern education, preparing students to thrive in a rapidly evolving world. Through effective instructional methods, such as project-based and inquiry-based learning, along with the integration of technology and collaborative approaches, educators can cultivate skills like critical thinking, communication, collaboration, and digital literacy. Similarly, the assessment of these skills requires authentic assessment methods, including performance-based tasks, rubrics, and self-reflection, to accurately evaluate students' abilities to apply their skills in real-world contexts. Through the application of these strategies and frameworks, educators can support the development and evaluation of 21st century skills in educational settings.

Firstly, authentic assessment methods are essential for evaluating 21st century skills accurately (P21, 2015). They are evaluation approaches that measure students' abilities to apply their knowledge and skills in real-world contexts or situations that closely resemble the complexities of the actual tasks they might encounter in the world outside the classroom. Unlike traditional assessments that focus on recall or regurgitation of information, authentic assessments

aim to assess students' higher-order thinking, problem-solving abilities, creativity, and practical application of knowledge. Performance-based assessments, portfolios, and other authentic assessment approaches are explored in the literature as means to assess students' proficiency in applying their skills in real-world contexts (Binkley et al., 2012; Griffin, Care & McGaw, 2012).

Secondly, collaborative learning strategies are discussed as effective approaches for teaching and developing 21st century skills (Darling-Hammond et al., 2017). Group work, cooperative learning structures, and collaborative problem-solving tasks facilitate the practice of collaboration, communication, and teamwork (Binkley et al., 2012).

In addition, the integration of technology is a vital aspect of teaching and enhancing 21st century skills (Mishra & Koehler, 2006). Extensive literature addresses effective ways to integrate technology into teaching practices, leveraging digital tools, platforms, and resources to promote skill development (Griffin, Care & McGaw, 2012; Trilling & Fadel, 2009).

Moreover, the importance of teacher-student interactions in fostering 21st century skills is widely emphasized (Ingersoll & Strong, 2011). Teachers play a crucial role in facilitating, guiding, and providing feedback that creates a supportive learning environment for skill development.

Shifting the focus to assessment, the literature extensively explores various aspects of evaluating 21st-century skills. Assessment frameworks, such as the Partnership for 21st Century Skills (P21) framework and the DeSeCo framework developed by the OECD, provide structures for defining and measuring these skills (Binkley et al., 2012). Also, performance-based assessments, including performance tasks, projects, and portfolios, are highlighted as effective methods for capturing students' abilities to apply 21st century skills authentically (Pellegrino &

Hilton, 2013). Plus, the use of rubrics and criteria to assess 21st-century skills, ensuring clear expectations and reliable evaluation can provide valuable insights (Pellegrino & Hilton, 2013).

Another evaluation strategy is self-assessment and reflection. That are, similarly, recognized as valuable components of the assessment process, allowing students to take ownership of their learning and monitor their skill development (Darling-Hammond et al., 2017). Obviously, technology plays another significant role in digital assessment methods, providing opportunities for administering assessments, collecting and analyzing data, and offering feedback on complex skills (Pellegrino & Hilton, 2013).

There are, evidently, many challenges involved in assessing 21st-century skills. Examples are ensuring validity and reliability, integrating assessments within existing curricula and systems, and considering cultural and contextual factors (Binkley et al., 2012). These challenges are to be acknowledged and dealt with by educators and researchers, as is the goal of the present work.

In conclusion, as education continues to adapt to the demands of the 21st century, the teaching and assessment of 21st century skills play crucial roles in equipping students with the competencies needed for success. By embracing effective teaching methods that foster collaboration, critical thinking, and technological fluency, educators can empower students to navigate complex challenges and opportunities. The assessment of these skills through authentic methods, frameworks, and reflective practices ensures a comprehensive evaluation of students' abilities. With a focus on teaching and assessing 21st-century skills, educators can better prepare students for a future characterized by rapid change, innovation, and global connectivity. Several teaching and assessment approaches that foster 21st century skills were highlighted in this

section. The following section will present an overview of the aspects and challenges of primary education that relate to the 21st century skills.

2.2.4 Twenty-first century skills and primary education

As the world is evolving at an unprecedented pace, primary education must prepare students to navigate future challenges successfully. By prioritizing the development of 21st-century skills, primary education equips students with the essential competencies needed to thrive in an ever-changing landscape. Many aspects of primary education highlight the importance of introducing these skills at that stage.

One aspect is that the primary years of education hold immense significance in shaping a child's development, making it an opportune time to cultivate essential 21st-century skills. By introducing and nurturing these skills from an early age, primary education establishes a solid foundation for future learning and growth. In line with its holistic approach, primary education seeks to foster the overall development of students, encompassing cognitive, social, emotional, and practical skills. By integrating 21st century skills into the curriculum, educators address multiple facets of a child's growth, equipping them with a well-rounded skill set for the future (Vivekanandan, 2019).

Additionally, instilling a lifelong learning mindset in students is another key goal of primary education. This is where the integration of 21st century skills plays a vital role. By emphasizing skills such as curiosity, adaptability, and self-directed learning, primary education helps students develop a genuine passion for continuous learning from the earliest years (Cambridge Primary, 2020).

Furthermore, integrating 21st century skills in primary education has a profound impact on student engagement and motivation. By creating meaningful and relevant learning

experiences, primary education actively involves students in their own educational journeys, leading to deeper learning and heightened motivation to succeed (Cambridge Primary, 2020 ; Griffin, Care & McGaw, 2012).

Moreover, in recognition of the increasing role of technology in society, primary education provides an ideal opportunity to introduce students to technology and foster digital literacy skills. By familiarizing students with technological tools and resources at an early stage, primary education prepares them for the digital demands of the 21st century (Trilling & Fadel, 2009).

In sum, given the formative nature of the primary years, integrating 21st century skills into primary education becomes an imperative consideration for educators and policymakers alike. However, this endeavor is not without its challenges.

There have been some controversies and debates surrounding the definition and scope of 21st-century skills, which are important to consider in defining, measuring, and teaching 21st century skills in the specific context of Algeria and its primary education system. These debates arise from different perspectives and interpretations regarding which skills should be included in the framework of 21st century skills (Griffin, Care & McGaw, 2012; Bellanca & Brandt, 2010). Some of them include skill selection, curriculum overload, assessment methods, teacher preparation, and cultural and contextual factors. First, determining which specific skills should be considered as 21st century skills can be challenging. Different researchers and educators may emphasize different skills based on their particular contexts and priorities. The selection process requires careful consideration and may vary across cultures and educational systems. Second, incorporating 21st century skills into the curriculum can be challenging due to concerns about an already overcrowded curriculum (Griffin, Care & McGaw, 2012). Some argue that focusing on

these skills may detract from core subject content, while others believe they can be integrated and taught alongside existing content (Trilling & Fadel, 2009).

Third, assessing 21st-century skills, also, poses its own set of challenges. Traditional standardized testing may not adequately capture these skills, which are often multifaceted and require performance-based assessments. There is ongoing debate about how to effectively and reliably assess these skills in a fair and valid manner. A sixth challenge is cultural and contextual factors that could influence the very notion of 21st-century skills. Indeed, different countries and regions may prioritize certain skills based on their unique societal and economic needs (Griffin, Care & McGaw, 2012; Bellanca & Brandt, 2010). It is vital to consider the local context and adapt the framework accordingly. Finally, and of particular relevance to the present study, is teacher preparation. Educators play a crucial role in fostering 21st century skills in students, but there may be varying levels of understanding and preparedness among teachers. Providing appropriate professional development and support for teachers to integrate and assess these skills can be a challenge (Griffin, Care & McGaw, 2012), which brings the discussion to the question of teacher training as far as 21st century skills are concerned.

2.2.5 Twenty-first century skills and teacher training

Teacher training is a key factor in supporting 21st century skills integration in primary education. Teachers are the main agents of change and innovation in the classroom, and they need to have the knowledge, skills, and attitudes to foster 21st century skills among their students. Indeed, in teacher education, the importance of 21st century skills cannot be overstated. Educators play a critical role in preparing students for the demands of the modern world, and their training should reflect this need. To effectively promote 21st century skills in the classroom, several key areas should be addressed.

Firstly, pedagogical approaches need to be prioritized in teacher training programs. Educators should be equipped with knowledge and skills in employing instructional strategies that foster critical thinking, collaboration, communication, and other relevant skills (Binkley et al., 2012). By using learner-centered and inquiry-based methods, teachers can engage students in activities that develop these skills and promote deep learning (Darling-Hammond et al., 2017).

Secondly, curriculum design should integrate 21st century skills across different subjects and grade levels. Teachers should learn how to design learning experiences and assessments that align with subject content and learners' needs while promoting the development of 21st century skills (P21, 2015). This approach ensures that these skills become an integral part of the curriculum and are not treated as separate entities.

Effective assessment and feedback practices for 21st century skills are another crucial aspect of teacher training (Pellegrino & Hilton, 2013). Teachers need to understand how to assess and provide feedback on skills such as critical thinking, collaboration, and creativity. Moving beyond traditional forms of assessment, they should utilize performance tasks, portfolios, and self-assessment methods to gauge student progress in these areas.

Furthermore, technology integration plays a pivotal role in promoting 21st century skills in the classroom. Teacher training programs should address the effective use of digital tools and resources to enhance student engagement, collaboration, and digital literacy (Mishra & Koehler, 2006). Educators should be trained on integrating technology seamlessly into their instructional practices to create authentic learning experiences.

Continuous professional development is vital for teachers to keep pace with evolving educational needs. Teacher training should provide ongoing opportunities for professional growth in fostering 21st century skills (Darling-Hammond et al., 2017). Workshops, conferences,

online courses, and collaborative learning communities can support teachers in enhancing their instructional practices related to these skills.

Lastly, teacher training should encourage reflection and self-evaluation. Educators should regularly reflect on their instructional practices and evaluate their competency in fostering 21st century skills (Ingersoll & Strong, 2011). By engaging in self-reflection, teachers can identify areas for growth and continuously improve their ability to support student skill development.

Addressing these areas in teacher education, can ensure that educators are equipped with the knowledge, skills, and strategies necessary to promote 21st century skills in their classrooms. This comprehensive approach will empower teachers to prepare students for success in the rapidly changing world.

2.3 PRE-SERVICE TEACHERS TRAINING

Pre-service teacher training is the process of preparing future teachers for their profession through formal education and practical experience. Pre-service teacher training can involve various forms of learning, such as coursework, research, and practicum. Pre-service teacher training can also aim to develop various competencies, such as teaching skills, subject knowledge, and adaptive teaching. In this section, we will review some recent studies that have examined different aspects of pre-service teacher training.

One aspect of pre-service teacher training is conducting practitioner research. Practitioner research is a form of inquiry that involves teachers investigating their own practice to improve their teaching and learning. Van Katwijk et al. (2021) examined the relationships among the quality of inquiry, the quality of teaching and pre-service teachers' perception of research. The authors used data from assessments and surveys of graduating pre-service teachers in primary teacher education in the Netherlands. The authors found that pre-service teachers had positive

perceptions of practitioner research and a positive correlation between the quality of inquiry and quality of teaching. The authors also identified four profiles of pre-service teachers based on their perceived learning outcomes of research. These profiles were: (1) confident researchers and teachers; (2) confident researchers but insecure teachers; (3) insecure researchers but confident teachers; and (4) insecure researchers and teachers. The authors suggested that pre-service teacher research can help future-proof teachers by enhancing their professional competence and identity.

Another aspect of pre-service teacher training is observing teaching situations during practicum. Practicum is a period of supervised teaching practice in real classrooms that allows pre-service teachers to apply their theoretical knowledge and skills in authentic contexts. Lozano Cabezas et al. (2022) investigated how future teachers constructed their professional knowledge based on the teaching situations they observed during their practicum. The authors used a qualitative approach to analyze the narratives of 43 pre-service teachers in primary education in Spain. The authors focused on the subjects of reading/writing and mathematics. The authors found that the educational interactions observed by pre-service teachers were far from representing collaborative and dialogic teaching/learning models. The authors also found that the pre-service teachers' narratives lacked critical professional reflection and did not provide support for possible alterations to the instructional design they observed. The authors suggested that pre-service teacher training should promote a more collaborative model, in which critical and reflective skills are developed based on active student participation.

A third aspect of pre-service teacher training is making planning decisions related to adaptive teaching. Adaptive teaching is the ability to adjust one's teaching to the needs and characteristics of different students and situations. Van den Akker-Scheek et al. (2019) explored

pre-service teachers' generic and subject-specific planning decisions during induction that are related to adaptive teaching. The authors used a mixed-methods approach to analyze data from 30 pre-service teachers in secondary education in the Netherlands. The authors focused on the subjects of biology and history. The authors found that pre-service teachers made more generic than subject-specific planning decisions related to adaptive teaching, and that these decisions were influenced by their beliefs, knowledge, and experiences. The authors suggested that pre-service teacher training should foster both generic and subject-specific competencies for adaptive teaching, as well as provide opportunities for feedback and reflection.

These studies show that pre-service teacher training can involve various forms of learning, such as research, observation, and planning, and can aim to develop various competencies, such as teaching skills, subject knowledge, and adaptive teaching. Pre-service teacher training can also have different impacts on pre-service teachers' perceptions, quality, and professional development.

The ongoing training and professional development of teachers is critical for ensuring quality education and improving student outcomes. Teacher training approaches can be divided into two categories: pre-service training and in-service training. Pre-service training refers to the initial preparation of teachers before entering the profession, while in-service training refers to the ongoing training that teachers receive throughout their careers. This section provides an overview of some training approaches for both pre-service and in-service teachers.

2.3.1 Approaches to pre-service teacher training

Pre-service teacher training plays a crucial role in equipping aspiring teachers with the necessary knowledge and skills to become effective educators. Over the years, three main

approaches have emerged in the field of pre-service teacher training: the traditional approach, the project-based approach and the online or blended approach. Each approach has its own characteristics and benefits; however, the following sections are giving concise descriptions of the first and the third, in favor of a more detailed account of the project-based approach for its particular interest in the present study.

The traditional approach to pre-service teacher training is typically classroom-based and relies heavily on face-to-face instruction. In this approach, prospective teachers attend lectures, participate in group discussions, and engage in practical activities such as microteaching or classroom observations. This method has long been the dominant model in teacher education. Traditional lecture-based approach involves classroom-based lectures and other instructional methods such as group discussions and projects. This approach is still prevalent in many teacher training programs, but its effectiveness has been questioned due to its lack of engagement, low interaction, and teacher-centeredness.

According to Johnson and Aragon (2003), the traditional approach provides a structured learning environment, where aspiring teachers receive direct guidance from experienced instructors. They argue that this approach allows for immediate feedback and clarification, fostering a sense of security and support for pre-service teachers. Moreover, the traditional approach promotes face-to-face interactions among peers, facilitating collaboration and the development of a professional network.

On the other hand, the online or blended approach to pre-service teacher training combines traditional face-to-face instruction with online components and activities. This approach capitalizes on the advantages of technology and aims to enhance the learning experience for aspiring teachers. It uses digital technology and online platforms to deliver

training and instruction to students. In a blended program, pre-service teachers engage in a mix of in-person classes, online discussions, virtual simulations, and independent study. This approach is becoming increasingly popular due to its flexibility, accessibility, and affordability.

Research by Archambault and Crippen (2009) highlights the benefits of the blended approach in pre-service teacher training. They found that blended programs provide flexibility and convenience, allowing pre-service teachers to engage with course materials at their own pace and from various locations. The integration of online components also offers opportunities for multimedia-rich instruction, interactive simulations, and collaborative projects, which can enhance pre-service teachers' understanding and application of pedagogical concepts.

Furthermore, a study by Ramanau, Sharpe, and Benfield (2011) indicates that the blended approach promotes self-directed learning skills and digital literacy among pre-service teachers. The online components of the blended approach require learners to take responsibility for their own learning, navigate digital platforms, and engage in online discussions and reflection. These skills are considered essential in the modern teaching landscape, where technology is increasingly integrated into educational practices.

In conclusion, pre-service teacher training can be approached through either the traditional or blended method. The traditional approach offers structured instruction, immediate feedback, and face-to-face interactions, while the blended approach combines face-to-face sessions with online components, providing flexibility, multimedia-rich instruction, and opportunities for self-directed learning. Both approaches have their merits and considerations, and the choice between them should be based on the specific needs and goals of the pre-service teacher education program. However, the present researchers will focus on the Project-based approach for its 21st century skills baring. The following section will be devoted to this approach.

2.3.1.1 Project-based approach to Pre-Service Teacher Training

In recent years, there has been a growing emphasis on preparing teachers who are equipped with the necessary skills and competencies to meet the demands of the modern classroom. One approach that has gained significant attention in pre-service teacher training is the project-based approach. This innovative method shifts the focus from traditional lecture-based instruction to a more hands-on, student-centered approach, allowing aspiring teachers to develop a wide range of skills while actively engaging in authentic teaching and learning experiences. This approach focuses on hands-on experience and practical application of teaching methods. It helps students to develop critical thinking, problem-solving, and teamwork skills, all of which are essential for teaching careers (Larmer, Mergendoller, & Boss, 2015).

The project-based approach in pre-service teacher training revolves around the concept of learning by doing. It encourages future educators to design and implement projects that require students to actively explore real-world problems, apply critical thinking skills, collaborate with peers, and develop solutions. By engaging in project-based learning themselves, pre-service teachers gain firsthand experience in creating meaningful and relevant learning experiences for their future students (Blumenfeld et al., 1992).

One key advantage of the project-based approach is its ability to foster the development of essential 21st century skills in pre-service teachers. These skills include critical thinking, problem-solving, collaboration, communication, and creativity. Through project-based learning, aspiring teachers have the opportunity to hone these skills as they design and implement projects that align with curriculum goals and objectives. This approach not only enhances their own abilities but also equips them with the tools to cultivate these skills in their future students (Blumenfeld et al., 1992).

Moreover, the project-based approach in pre-service teacher training promotes a deeper understanding of subject matter. Rather than passively receiving information, future educators actively immerse themselves in a project, conducting research, analyzing data, and applying concepts in a practical context. This hands-on approach not only solidifies their understanding of the content but also allows them to explore interdisciplinary connections and engage in authentic problem-solving (Kolodner, 2002).

Research has shown that the project-based approach positively impacts pre-service teacher self-efficacy. As they engage in project-based learning experiences, aspiring teachers gain confidence in their abilities to plan and implement effective lessons, manage classrooms, and assess student learning. This increased self-efficacy contributes to a greater sense of preparedness and competence as they transition into their own classrooms (Kolodner, 2002).

To effectively implement the project-based approach in pre-service teacher training, it is essential for teacher education programs to provide the necessary support and resources. This includes professional development opportunities for teacher educators to enhance their own understanding and implementation of project-based learning strategies. Additionally, collaboration and reflection should be encouraged among pre-service teachers, allowing them to share their experiences, exchange ideas, and learn from one another (Kolodner, 2002).

In conclusion, the project-based approach offers a valuable framework for pre-service teacher training. By engaging in hands-on, student-centered learning experiences, aspiring teachers develop essential 21st-century skills, deepen their understanding of subject matter, and enhance their self-efficacy. Teacher education programs should embrace this approach and provide the necessary support to empower pre-service teachers to become effective and innovative educators.

In conclusion, teacher training approaches vary based on the needs of both pre-service and in-service teachers. Pre-service training focuses on foundational teaching skills, preparing teachers for their future roles. In-service training aims to support and enhance their existing skills, providing teachers with opportunities to develop and improve their teaching practice. A mix of traditional and modern approaches would be beneficial to support teacher professional development, promote pedagogical practices, and ensure that teachers remain motivated and inspired in their careers.

2.3.2 Primary education teacher training approaches

Primary education teacher training programs prioritize the development of aspiring teachers' pedagogical knowledge and skills, focusing on the unique needs of young learners. A comprehensive understanding of various approaches, theories, and practices is vital for creating a coherent and effective teacher training experience. This section explores the key components of primary teacher training approaches and examines relevant sources that support their importance. Those components include the following:

Pedagogical Foundations: A solid grounding in pedagogical theories and practices is critical for primary education teachers. These programs aim to equip trainees with an understanding of child development, learning theories, and instructional strategies specific to young learners. Trainees delve into curriculum design, lesson planning, assessment methods, and classroom management techniques tailored to the primary education context (Johnson, 2015).

Subject-Specific Instruction: Primary teachers need subject-specific expertise to teach a range of subjects effectively. Literacy, numeracy, science, social studies, arts, and physical education are among the subjects covered in teacher training programs (Macdonald & Moore,

2017). Trainees acquire subject-specific knowledge, pedagogical strategies, and resources to engage and support primary students' learning in these areas.

Differentiated Instruction: Recognizing the diverse needs and abilities of primary students, teacher training programs emphasize differentiated instruction. Aspiring teachers learn to customize their teaching methods, materials, and assessments to cater to individual learning styles, abilities, and interests. This approach fosters inclusive classrooms, ensuring equitable opportunities for all students to succeed (Tomlinson, 2017).

Play-Based Learning: Incorporating play-based learning approaches is crucial in primary education. Trainees explore the significance of play in young children's development and learn effective ways to integrate play into the curriculum. They acquire techniques for designing and facilitating play-based activities that promote creativity, problem-solving, social interaction, and cognitive development (Bodrova & Leong, 2017).

Language Development and Literacy: Primary teacher training places great emphasis on language development and literacy instruction. Trainees acquire strategies to promote language acquisition, develop oral language skills, foster early reading and writing abilities, and support emergent literacy. Techniques for phonics instruction, vocabulary development, and cultivating a love for reading are also covered (Senechal & LeFevre, 2014).

Classroom Management and Behavior Support: Effective classroom management techniques and behavior support strategies are fundamental in primary education. Teacher training programs prioritize the development of skills to establish and maintain positive and inclusive classroom environments. Trainees learn to set clear expectations, implement behavior management systems, promote positive discipline, and support students' social and emotional well-being (Jones & Jones, 2016).

Integration of Technology: Given technology's increasing role in education, primary teacher training programs address the effective integration of technology into the classroom. Trainees gain knowledge about educational software, digital resources, and strategies for leveraging technology to enhance instruction, engage students, and facilitate learning (Mouza, 2017).

Field Experience and Practicum: Practical experience is an integral part of primary teacher training. Trainees engage in field experiences, such as observations, teaching practicums, and student teaching, to apply their knowledge and skills in real classroom settings. These experiences provide opportunities for reflection, feedback, and professional growth under the guidance of experienced educators (Darling-Hammond, 2017).

It is worth noting that primary teacher training approaches may vary across institutions and countries, and additional components may exist within these programs. However, the aforementioned components provide a comprehensive overview of the key aspects emphasized in primary education teacher training approaches, ensuring that aspiring teachers are equipped with the necessary tools and strategies to thrive in the classroom. In addition, this study's findings aim to provide insights that are specific to the local context.

2.3.3 Primary education EFL pre-service teacher training

Pre-service teacher training programs for EFL (English as a Foreign Language) primary education play a critical role in preparing future educators with the necessary knowledge, skills, and competencies to effectively teach English to young learners. Several studies provide valuable insights into the key components and best practices of pre-service EFL primary education teacher training.

One essential aspect of pre-service teacher training is the development of language proficiency and pedagogical content knowledge. Kocaman (2016) explores the significance of language proficiency in EFL teacher training programs. The study emphasizes the importance of enhancing prospective teachers' language skills to ensure their competence in effectively communicating and instructing in English. Language proficiency development should be integrated into pre-service teacher education programs through immersive language experiences, extensive reading, and authentic language use.

Furthermore, the inclusion of pedagogical content knowledge is crucial in pre-service EFL primary education teacher training. Kim (2020) investigates the effectiveness of an EFL pre-service teacher education program in South Korea, emphasizing the integration of pedagogical content knowledge. The study suggests that pre-service teachers need opportunities to observe and practice language teaching techniques, reflect on their teaching experiences, and receive feedback from experienced mentors. This approach enhances their pedagogical content knowledge and prepares them to address the specific challenges of teaching English to young learners.

Another important aspect of pre-service EFL primary education teacher training is the integration of technology and digital literacy. As technology continues to play a significant role in education, pre-service teachers must be equipped with the skills to effectively integrate digital tools into their teaching practices. Zandi and Goździewska (2020) examine the impact of technology integration training on pre-service EFL teachers' confidence and readiness to use technology. The study emphasizes the need for pre-service programs to provide practical training on utilizing digital tools, online resources, and educational platforms, enabling future teachers to create engaging and interactive learning environments.

Moreover, practical classroom experiences and teaching practicum are fundamental components of pre-service EFL primary education teacher training. Tsui (2017) discusses the significance of practicum experiences in developing pre-service teachers' pedagogical skills and classroom management strategies. The study emphasizes the importance of providing opportunities for pre-service teachers to observe experienced teachers, engage in micro-teaching sessions, and gain hands-on experience in planning and implementing EFL lessons. Such practical experiences enable pre-service teachers to apply theoretical knowledge and develop their teaching abilities.

Incorporating these insights into pre-service EFL primary education teacher training programs can significantly enhance the quality and effectiveness of preparing future EFL teachers. By focusing on language proficiency development, pedagogical content knowledge, technology integration, and practical classroom experiences, pre-service programs can equip teachers with the necessary skills and competencies to promote language learning and foster the development of English proficiency among young learners. In the following section, a short discussion of in-service teacher training will be provided, only as an enrichment of the picture that this research aims to present.

2.3.4 In-service teacher training

In-service teacher training plays a crucial role in the professional development of educators, equipping them with the necessary knowledge and skills to meet the evolving demands of education. Several studies shed light on different aspects of in-service teacher training and offer valuable insights for improving its quality and effectiveness.

One key consideration in designing teacher training programs is the integration of alternative curricula and evaluation methods that are responsive to students' needs and interests.

Bullough and Kridel (2003) delve into the history and significance of the Eight-Year Study, a comprehensive research project conducted in the 1930s and 1940s. This study aimed to explore innovative approaches to secondary education by involving key participants who contributed to its design, implementation, and evaluation. The findings of this study continue to have implications for current curriculum issues and practices, emphasizing the importance of curriculum integration, teacher autonomy, student-centered learning, and democratic education.

Digital technologies have become increasingly prevalent in education, making digital pedagogy training a vital component of in-service teacher education. Pongsakdi et al. (2021) investigated the impact of digital pedagogy training on teachers' attitudes towards digital technologies. Their study focused on a training program that utilized the ViLLE learning platform, which integrates collaborative learning and automatic assessment. The findings revealed that the training program had varying effects on teachers' confidence in using ICT, depending on their initial confidence levels. Teachers with low initial confidence showed significant improvements, while those with high initial confidence displayed no significant changes. These results emphasize the importance of tailoring training programs to address specific needs and building on teachers' existing competencies. Furthermore, the study highlighted the challenges and benefits associated with using digital technologies in teaching, including time and classroom management, learner motivation, and learner autonomy.

In-service education of teachers faces numerous challenges that need to be addressed to ensure its effectiveness. Oloruntegbe and Odutuyi (2016) identified several problems hindering the success of in-service education, such as limited funding, poor planning, inadequate facilities, low motivation, irrelevant content, and ineffective delivery methods. To overcome these challenges, the authors propose various solutions and recommendations, including involving

teachers in decision-making processes, providing adequate resources, adopting flexible delivery modes, ensuring continuous evaluation and feedback, and fostering collaboration and networking among stakeholders.

These were examples of studies investigating aspects of in-service teacher training. By incorporating insights from these studies into the design and implementation of in-service teacher training programs, education systems can enhance the professional development of teachers, promote effective pedagogical practices, and ultimately improve student learning outcomes. The comprehensive approach to in-service education, considering curricular innovations, digital pedagogy, and addressing challenges, contributes to the continuous growth and success of teachers in their professional journey.

2.4 CONTINUOUS TEACHER PROFESSIONAL DEVELOPMENT (CTPD)

CTPD refers to the ongoing learning and of teachers throughout their careers. It includes formal and informal learning opportunities that enable teachers to keep up-to-date with current research, teaching methodologies, and practices and improve their pedagogical skills (Edmondson, 2018). For example, formal learning opportunities may include courses, workshops, seminars, or conferences, while informal learning opportunities may include peer observation, mentoring, coaching, or self-study. CTPD is important because it enables teachers to grow as professionals, enhances their job satisfaction, and improves teaching quality and student outcomes (Sánchez & Sáinz, 2017). However, teachers may face some challenges or barriers in accessing or participating in CTPD, such as lack of time, resources, support, or motivation (Guskey & Yoon, 2009).

2.4.1 Importance of CTPD in primary education

In primary education, CTPD plays a vital role in shaping teaching quality and overall student achievement. The aim of this dissertation is to explore how CTPD can be implemented effectively in primary schools and what factors influence its impact on teachers and students. Some of the reasons why CTPD is essential in primary education are:

1. To keep up-to-date with current research and teaching trends - CTPD provides teachers with the opportunity to engage with current research, teaching practices, and innovative methodologies. This enables teachers to improve their teaching practice and provide their students with a relevant and high-quality education.

2. To improve classroom practice and student outcomes - CTPD can lead to significant improvements in classroom practice, teaching quality, and student outcomes. Effective CTPD initiatives can provide teachers with the necessary tools and resources to teach challenging subjects, leading to better student achievement. For instance, a study by Desimone et al. (2002) found that teachers who participated in a mathematics reform program improved their mathematical knowledge and instructional practices, which resulted in higher student test scores.

3. To address teacher shortages and retain skilled teachers - CTPD can help to address teacher shortages by providing teachers with the skills and knowledge they need to remain effective in their roles. This, in turn, can help to reduce teacher burnout and improve teacher retention rates. According to Ingersoll (2001), one of the main reasons why teachers leave the profession is dissatisfaction with their professional development opportunities.

4. To promote lifelong learning - CTPD can promote lifelong learning as it encourages teachers to develop and maintain their skills and knowledge. This, in turn, helps to keep teachers motivated, engaged, and enthusiastic about their work, leading to better student outcomes.

In conclusion, CTPD is critical in ensuring the development, growth, and well-being of teachers and students in primary education. It enhances teaching quality, improves student achievement, and promotes lifelong learning for teachers. Therefore, it is essential that schools and policymakers prioritize CTPD initiatives and provide teachers with access to high-quality and targeted professional development opportunities.

CHAPTER THREE :
METHODOLOGY

Methodology

3.1 RESEARCH DESIGN

The objectives of this study encompassed a twofold approach: firstly, to conduct a program evaluation, and secondly, to test a suggested remediation strategy. To achieve these objectives, the research was divided into two distinct parts. The first part involved an educational program evaluation, utilizing the CIPP (Context, Input, Process, Product) model. The second part entailed a remediation intervention employing the Lesson Study approach combined with a Teacher Observation Program (TOP). This comprehensive design enabled an examination of the effectiveness of pre-service teacher training in enhancing 21st century skills within the course design process, ultimately contributing to the development of competent 21st-century citizens. Furthermore, it aimed to improve the implementation of 21st century skills during lesson planning, preparing trainees to meet the challenges they may face in the classroom and ultimately convey it to the young learners for the promotion of a better 21st century citizenship. The selection of this research design by the researchers was driven by their motivation to obtain authentic and reliable results, facilitating a clear understanding of the topic at hand.

Program Evaluation Framework (CIPP Model)

4.1 INTRODUCTION AND FRAMEWORK SELECTION

According to Scriven (2007), the purpose of an evaluation is to determine the merit, worth, or significance of a product or service. Robinson (2002) argues that all evaluation models share at least one common factor: they require reliable and systematic evidence to support any

conclusions. For Stufflebeam and Shinkfield (2007), evaluations are therefore a process of quality improvement, while Scheerens and Glas (2003) and Stufflebeam (2008) add that this process also serves to emancipate and empower key stakeholders.

Many evaluation designs and models have been used for evaluating various projects, programs or institutions. One notable evaluation model for curriculum evaluation is the CIPP model, which was introduced by Stufflebeam in 1983. The CIPP model consists of four elements: C- Context, I- Input, P- Process and P- Product.

This model can be effectively applied for evaluating the quality of education at school. Context refers to the goals, objectives, history and background of the school; input refers to material, time, physical and human resources required for effective school functioning; process refers to all the teaching and learning processes; and product examines the quality and usefulness of teaching and learning outcomes as well as their societal impact (Stufflebeam, 2003). Recent authors believe that the CIPP model can be effectively applied for school evaluation, as it enables comprehensive and significant assessment activities.

In this study, the researchers aim to use the CIPP model to evaluate the training of English teachers at the primary school level, including curriculum implementation. The study will identify the aspects to be evaluated based on the dimensions of context, input, process, and product. The conceptual framework is intended to guide the evaluation study of teacher training, exploring the effectiveness of in-service training in developing decision-making and problem-solving skills within the course design process, ultimately contributing to the development of better 21st-century citizens. The next sections will describe each element of the CIPP model in detail and explain how they will be applied in this study.

The model allows for comprehensive and meaningful assessment activities. The researchers chose Stufflebeam's CIPP evaluation model because it can produce formative and summative results, support decision making, and enhance problem solving skills. In this work, the researchers aimed to apply the four dimensions and elements of context, input, process and product to the training of primary school English teachers and the curriculum implementation.

The results will show the aspects of the study based on the context, input, process and product dimensions. The conceptual framework is intended to evaluate the effectiveness of the teacher training in improving their decision making and problem solving skills in designing courses that prepare better 21st century citizens. This aspect of the study can also be used to assess the performance and impact of the primary school English teaching program.

Stufflebeam's CIPP evaluation model is not only designed to justify a decision, but also to improve a program based on the gathered information.

4.2 THE CIPP PROGRAM EVALUATION MODEL

In an ever-changing educational landscape, researchers continuously seek ways to enhance the teaching of English at the primary school level. Recognizing the need for improvement, researchers are constantly exploring how to improve primary school English education. To achieve effective improvements, it is important to identify which aspects and how to evaluate them. Therefore, the appropriate evaluation method can facilitate the enhancement of education.

There are various evaluation models, such as objective-oriented, management-oriented, performance-oriented, expertise-oriented, participant-oriented, and adversary-oriented evaluation models. The objective-oriented evaluation approach sets goals in advance and measures how well they are achieved. However, this approach only focuses on evaluating the

teachers' training on problem solving skills and the students' learning outcomes, which can neglect the evaluation of the teaching and learning process itself.

The management-oriented evaluation approach uses evaluation to support decision making by providing relevant information to the decision makers. The limitation is that it is rather complex to implement fully, but this approach allows the evaluator to assess all aspects of the program implementation. Moreover, it helps to clarify the focus of the evaluation by helping the evaluator formulate important questions to address at each stage.

The expertise-oriented evaluation approach is the oldest and most common model, and it relies on expert judgment to evaluate education. The limitations of this approach are that it can lead to irrational deliberations, since the criteria for the trivial and the important are not weighted. Also, the manager's bias can influence the selection of a review team.

Therefore, various evaluation designs and models have been employed to assess projects, programs, and institutional operations. One notable evaluation model for curriculum evaluation is the CIPP model, introduced by Stufflebeam in 1983. The CIPP (Context, Input, Process, and Product) model serves as a comprehensive framework for program evaluation. (See Figure 1). The CIPP model's four essential elements : Context, Input, Process, and Product are explained in the following paragraphs:

- I. Context Evaluation: This stage involves evaluating the overall goals, mission, and contextual factors that influence the program's implementation and outcomes.
Understanding the program's context helps in assessing its relevance and alignment with the needs of stakeholders and the broader educational landscape.
- II. Input Evaluation: In the input evaluation stage, the focus is on evaluating the plans, resources, and inputs that contribute to the program's implementation. This includes

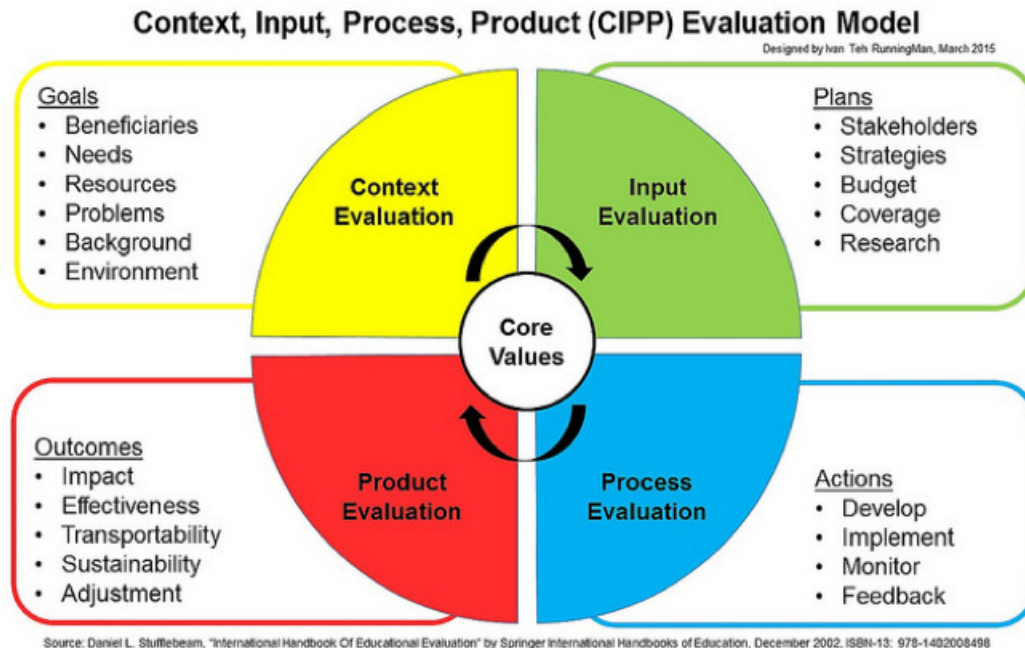
assessing the adequacy and appropriateness of resources, such as curriculum materials, funding, infrastructure, and staff support, to determine their impact on program outcomes.

III. Process Evaluation: The process evaluation stage involves evaluating the activities, procedures, and components of the program. It examines how the program is implemented, the quality of instruction and support provided, and the extent to which the program adheres to established standards and best practices. This evaluation sheds light on the effectiveness of program delivery and identifies areas for improvement.

IV. Product Evaluation: The final stage, product evaluation, focuses on assessing the outcomes, achievements, and objectives of the program. It examines the extent to which the program has achieved its intended outcomes and whether it has made a positive impact on participants, stakeholders, and the broader community. Product evaluation helps to determine the overall effectiveness and success of the program.

Figure 1:

CIPP Conceptual Framework (Stufflebeam,2000 c)



Hence, the CIPP model is a cyclical evaluation model that can be modified at any time by detecting errors or deficiencies at each stage. It provides information for decision making about program planning, structuring, executing, and improving as well as evaluating.

4.3 PREVIOUS STUDIES EMPLOYING THE CIPP

Evaluation is a continuous and comprehensive process that involves judgments covering all aspects of quality education. As the number of educational institutions increases, there is a need to focus on evaluating the quality of education they provide, because education shapes the future of individuals and society (Karmel and Karmel, 1978).

Therefore, it is important to investigate how evaluation teaching strategies can enhance students' English speaking skills in primary schools in different countries. In this section, we will review some of the recent research studies on using the CIPP Model-Based Evaluation on Integrated English Learning (IEL) Program at Language Center.

Noor Qomaria Agustina and Fanni Mukhtaruddin (2019) examine the research on the challenging situation in the workforce that requires educational institutions to create suitable

programs that help learners to be more competitive in the world of work, especially in mastering English. Language Training Centre of a university offers service on teaching language skills, especially English. The research purpose is to evaluate the program conducted by the Centre, namely Integrated English Learning (IEL), using the CIPP Model developed by Stufflebeam.

This study describes the IEL program from its context, input, process and product (CIPP Evaluation model) from the students' experience and perspective. The context was described from the effectiveness of the program, while the input considered the quality. The process revealed the program implementation and the product described the achievement of the goals.

As the main focus of the present study is pre-service and in-service training, and more specifically the evaluation of an educational objective, the research provided useful input for improving the program and finding possible solutions to any problems. For the teachers who participated in this training program and for teachers in general, it is to illustrate how a language program at primary school should be conducted. The information given in this research may inspire the teachers to do better and more in the teaching learning process.

4.4 THE CIPP EVALUATION OF THE PRE-SERVICE TEACHER PROGRAM

4.4.1 Introduction: Brief overview of the educational program being evaluated

Countries around the world recognize the need to reform their education systems to ensure they are fit for the 21st century. Education systems are looking for the knowledge, understanding and skills that children and youth need to grow and lead prosperous lives. At the international level, tremendous efforts have been made to identify and design what Called 21st century skills or core skills, systems choose slightly different ways of identifying those skills to fit their priorities. However, all recognize that the interdependent global economy places unprecedented demands on youth and their cultural adaptability, and that children and youth

must be equipped with the knowledge, skills, and understanding to be global citizens and learners.

The Algerian Ministry of National Education has launched an ambitious reform process - a project to support the reform of the educational system in Algeria. This reform process includes work on the areas of school leadership, training and development of teachers and inspectors, and quality assurance. The program is supported by the British Council and funded by the United Kingdom's Foreign and Commonwealth Office. The Ministry of Education is committed to raising aspirations and expectations in schools to improve the country's performance in international assessments such as the Program for International Student Assessment (PISA) and Trends in International Mathematics and Science (TIMMS).

PISA: is an International Student Assessment Program of the Organization for Economic Co-operation and Development (OECD). It aims to measure the ability of 15-year-old learners to use their knowledge and skills in reading, mathematics, and science to meet real-life challenges. The Program for International Student Assessment aims to shape educational reform by making educational systems more inclusive, drawing the attention of low- and middle-income countries to improve the quality of learning. equal opportunity and prepare their youth to become global citizens. The International Trends in Mathematics and Science (TIMMS) program is concerned with following up international trends in the achievement recorded in mathematics and science every four years, in the fourth primary and second intermediate levels. (Translated and adapted from the official document March 2020).

4.4.2 Purpose and significance of the evaluation

The role of teachers and their practices in the department is crucial for implementing change. To deliver a curriculum that values both knowledge and understanding and fosters skill development, teachers need to undergo a major transformation of their teaching practice.

The principles that guide this transformation are:

- Putting the learner at the center of the teaching process

In Algeria (as in many other countries), education has been focused on the content of the “what” of education. Teachers were transmitting information, rather than facilitating learners' learning and growth. This requires a shift not only in how departments teach, but also in a deeper philosophical change in the teachers' perception of the nature and purpose of teaching.

- Traditionally, teaching was based on delivering knowledge and testing recall, a process that makes teaching something that is done to the learners and that often results in short-term memorization and superficial comprehension. This approach cannot enable learners to engage in reflective and independent thinking.
- Putting learning and the learner at the core of the educational process allows learners to be more agile and to engage in more complex cognitive thinking, and to move from being passive receivers of knowledge to active participants in learning.
- Using effective methods in teaching strategies
- To enable young people to actively participate in their learning, effective learning strategies need to be developed, refined and standardized at the local level. Effective learning strategies do not replace existing processes.

- They include involving the development of teaching and learning methods that require the learner to take responsibility for their learning by engaging in meaningful activities and by applying their knowledge in various contexts.

- **Technology**

In the global digital economy, money, knowledge, and ideas flow freely around the world, and to participate effectively in it, learners need not only acquire the skills to use digital tools, they should also be proactive, perceptive, reflective, critical and savvy about information and how to verify and use it effectively.

4.4.3 Context Evaluation

As a reminder, the context evaluation component of the CIIP model allows for the analysis of the context in which the program is implemented. It guides the assessment of the needs and challenges faced by pre-service teachers in teaching English as a foreign language at the primary level. It considers factors such as the existing curriculum, resources, support systems, and cultural considerations that may impact the program's effectiveness.

In this section, we will explore the context of introducing English as a foreign language in primary schools in Algeria. We will discuss the rationale behind this initiative, the challenges and opportunities it presents, and the expectations and goals of the stakeholders involved. Accounts of focus groups, interviews with stakeholders, and official documents will also be provided.

The introduction of English as a foreign language in the Algerian education system is driven by various social needs and considerations.

- **Social Needs:** The Algerian society has experienced significant changes due to globalization and increased openness to the world. This has necessitated the integration

of English language earlier in the education system, i.e., in primary schools, in order to equip students with the necessary tools to navigate the globalized world. The following social needs have been identified as crucial:

- **Life Skills Necessities:** The modern world demands individuals who possess essential life skills such as effective communication, decision-making abilities, and collaboration in both national and international contexts.
- **Business Development:** With the expansion of business opportunities on a global scale, the proficiency in English among the Algerian population becomes a key factor in attracting foreign investments and fostering multinational collaborations.
- **Cultural Preservation and Tourism:** English proficiency plays a role in preserving and promoting the local and regional heritage of Algeria through cultural events and tourism, enhancing national identity while engaging with the global community.
- **Language of Science and Development:** English serves as the language of science, technology, and innovation, facilitating knowledge exchange and collaboration between nations.

Through addressing these social needs, the introduction of English as a foreign language in Algerian primary schools aims to prepare a new generation of citizens capable of thriving in an interconnected and competitive world. Background and contextual information about the program

Algerian educators recognize that in order to adequately prepare their society to respond to global economic and cultural competition, and to prepare individual learners to adequately address new and emerging challenges and opportunities, 21st century skills must be developed.

Accordingly, it was agreed that one of the projects to support the reform of the educational system in Algeria should focus on developing 21st century skills.

International experts were brought in to work with local inspectors from across the country with the aim of developing an approach tailored to the Algerian context.

The first year was devoted to working with inspectors from around the country on:

- Identifying priority skills and preparing a guide on these skills, with a clear indication of how to include them in the school curricula and in line with the priorities set by the government.
- Developing approaches to include 21st century skills in both science and social science curricula so that knowledge, skills and understanding are effectively taught to enable young people to apply them in practice.
- Subjecting skills to experience within practice through small projects with professors in some states.

4.4.3.1 Evaluation of the program's alignment with the educational context

Following the huge increase in the number of new teachers entering the teaching profession between 2016 and 2018, and in response to this situation , in November 2016 , the MoNE worked with the British Council and Ruskin education to prepare the framework for teaching standards and professional skills, 'preparing the framework for teaching standards and professional competencies , which will serve as the basis of performance expectations for new teachers to help them learn and achieve a baseline of expectations to ensure their continued professional growth, it may also be adopted as a professional development program for teachers at all levels, beginner, advanced, expert and leader.

The teaching 'standard' is what combines a teacher work with its impact on learner learning. Teaching and learning are closely linked. While the 'standard' embodies this combined

effect of teaching instruction and learning outcomes, competences are the knowledge, skills and attitudes that are brought to bear and clearly put into practice by the teacher to ensure effective learning and ensure that all learners progress. for the curriculum, as well as for the subject matter, but he must also have a good knowledge of the learners' needs to motivate and encourage them.

This framework is based on a set of international standards and best practices in teaching, while understanding and recognizing the weaknesses and difficulties shared by new teachers in Algeria, as well as covering the diversity of the teacher's tasks which consists of to help learners succeed and progress, both academically and personally.

A teaching tool kit is created; it is a training program that includes several modules and covers several areas related to the profession (classroom management , evaluation, legislation, didactics, psychology , etc. The toolkit targets three main areas ; professional practice, professional knowledge, and professional engagement . The tool kit consists of coaching strategies for the trainers during pre-service, can inspire for designing other ones for in-service training (INSET) these strategies, while being trained on, can be applied in the classroom, .most of which highlights the 21st century skills mainly the 4C's (communication, collaboration ,critical thinking ,creativity) and digital literacy besides citizenship as a purpose .

4.4.3.2 Analysis of the program's goals, objectives, and intended outcomes

The first step in integrating skills into the training toolkit was to identify the skills that are relevant to the Algerian context (legal and pedagogical). There are different approaches to formulate the 21st Century Skills Framework. One approach is to categorize skills into: learning skills, literacy skills, and life skills.

Each skill category enriches a specific aspect of the curriculum. Learning skills include critical thinking, creativity, communication and collaboration. They aim to equip learners with the mental processes needed to adapt and improve themselves in a modern work environment. Literacy skills (including information, media, and technology) focus on how students can access, evaluate, and use information from various sources and technologies. There is a strong emphasis on identifying reliable sources and information, as well as distinguishing them from misinformation (fake news) that is prevalent on the Internet.

Life skills include resilience, leadership, initiative, productivity and social skills. These are some of the intangible aspects of a student's learning and ability to thrive. Citizenship is based on a set of skills, attitudes, and values that encompass both national and global citizenship. Citizenship skills build learners' awareness of how to respond to global crises, act responsibly and respect diversity. They will also help students to succeed in a fluctuating global market in the future. After consulting with the Ministry and the inspectors, it was decided that the initial priority skills for employment in Algeria would be:

- Communication and collaboration
- Creativity
- Critical thinking and problem solving
- Citizenship

4.4.3.3 Examination of the program's relevance and responsiveness to stakeholder needs

The observation rubric in the framework has targeted standards of observation and the toolkit aims to meet them. Some of the observation criteria are: whether the teacher designs learning activities that create an organized and enriching environment that values the

contribution of all students and promotes active learning, motivation and curiosity; whether the teacher achieves learning and curriculum outcomes while developing a desire to succeed.

The focus of observation while teachers are teaching are: teachers' practice, students' learning and the learning environment. These are the criteria for evaluating and assuring quality. When observing learners of a beginner teacher, students should show positive behavior by working collaboratively. Positive behavior should be reinforced through dialogue and engaging activities that meet their interest.

On the other hand, as the teacher develops professionally, his/her students will feel supported, engaged and confident in working together, making suggestions, and working independently. Students' positive behavior is reinforced through engaging them in meaningful activities and constructive dialogues. Meanwhile, moving from a classroom where there is limited teaching of the 21st century skills: collaboration, communication, creativity, critical thinking, effective use of technology; to a classroom where the teacher is progressing, we can notice more problem solving and higher order thinking forms as an integral part of the lesson and the lesson plan. Students should reach a status of being engaged and enjoying working on creative activities and using technology.

4.4.4 Input Evaluation

As a reminder the input evaluation component of the CIIP model focuses on the resources and strategies used in the program. The researchers evaluate the adequacy and relevance of the training syllabus, instructional materials, and teaching methodologies provided to pre-service teachers. They also examine the alignment of the program's inputs with the desired 21st century skills and the specific needs of primary school English language teaching.

The introduction of English as a foreign language in Algerian primary schools involves various factors in the input stage of the educational program, including legislative and official decisions, public views, and a focus on quality assurance, particularly the integration of 21st century skills.

Legislative and official decisions have played a significant role in supporting the introduction of English language instruction in primary schools. The Education Directive Law No. 04/08, enacted in 2008, highlights the mission of Algerian schools to educate citizens with a strong foundation in national values, global understanding, and openness to international civilization. Subsequently, a presidential decision was made on June 19, 2022, ordering the adoption of English language instruction at the primary stage, followed by a presidential decree that officially included English in primary education from the third grade onwards. These legal measures provide the necessary framework for the implementation of English language primary school education.

The decision to introduce English as a foreign language has garnered positive feedback from parents, educational unions, and various stakeholders who have long advocated for this change. The support and recognition of the importance of English language education at the primary level underscore the need to prepare students for effective global communication and collaboration.

Quality assurance in education is another crucial aspect of the program, with a specific focus on integrating 21st century skills. These skills can be categorized into three types. Firstly, there are learning and innovative skills, which encompass critical thinking, creativity, communication, and collaboration (the 4 Cs). These skills empower students to become lifelong learners and innovative problem solvers. Secondly, digital literacy is emphasized, including

information literacy, media literacy, and ICT literacy, equipping students with the necessary skills to navigate and utilize digital technologies effectively. Finally, there are career and life skills, promoting flexibility, adaptability, initiative, self-direction, social interaction, productivity, accountability, leadership, and responsibility. By incorporating these 21st century skills into the educational program, pre-service teachers and students will be better prepared to meet the challenges of the modern world and contribute to the knowledge-based economy.

To successfully implement the competency-based approach and ensure effective integration of these skills, careful planning and training are necessary. It is crucial to observe the field, assess current practices, and establish a professional community that supports teachers in incorporating these skills into their classrooms. The ultimate goal is to create an environment that fosters innovation, collaboration, and global awareness among learners, thereby improving the overall quality of education in Algeria.

The 2018- toolkit: this toolkit was designed by the MoNE since 2015 and tried and validated to be a reference for training newly appointed teachers. The training period was 4 weeks (winter and spring holidays) and the courses were: legislation, psychology, classroom management, computing and ICT's use, evaluation and remediation, science of education, didactics, ethics and deontology.

In our case, the initial training program for primary school focused on courses in English language designed by inspectors and cascaded regionally for all trainers (didactics, planning, curriculum) besides other courses. As a result, the August 2022 toolkit was an adaptation of the 2018 toolkit to fit the context of primary school education to some extent.

The trainees were divided into groups of approximately 25 and worked in groups in an active training, coaching and targeting the 21st century skills. Trainers (inspectors of middle and

primary education) were trained regionally through a national cascading program of the national framework of professional competencies, in order to use active strategies in conducting workshops. The program's facilities, equipment, and other physical resources were prepared beforehand for that purpose. Besides that, the use of technology to display workshops (datashow) and the use of flip chart were also employed.

This is an analysis of some quantitative data, such as:

- **Attendance records:** during the national first meeting on 22 August 2022, there were 44 inspectors from different disciplines, which shows the national aspect of the project. 13 primary Arabic and 2 French, 16 middle English and 12 secondary English inspectors worked on preparing training workshop materials for cascading. The 15 inspector trainers of primary school had already good experience in designing and delivering quality training days during their participation in previous projects; TCF/ICF teacher and inspector competencies framework and development besides 21st century skills. With other 2 inspectors of middle schools and one of secondary school, they formed the team of middle school. Regarding the remaining members, they had positive attitudes during other national cascading training and online meetings. The majority had experienced the training toolkit of 2018 which emphasized active training and strategies targeting 21st century skills and it was still the practical reference for training.

- In order to ensure the presence and effectiveness of regional cascading, the trainer inspectors were motivated enough to accomplish the mission despite the challenges with the presence and supervision of the Ministry of Education in Constantine for the east, Blida for the center and Tiaret in the west.

- There were representatives from different regions of the country without exception. The cascading, even though short in duration, was effective and targeted inspectors of English middle

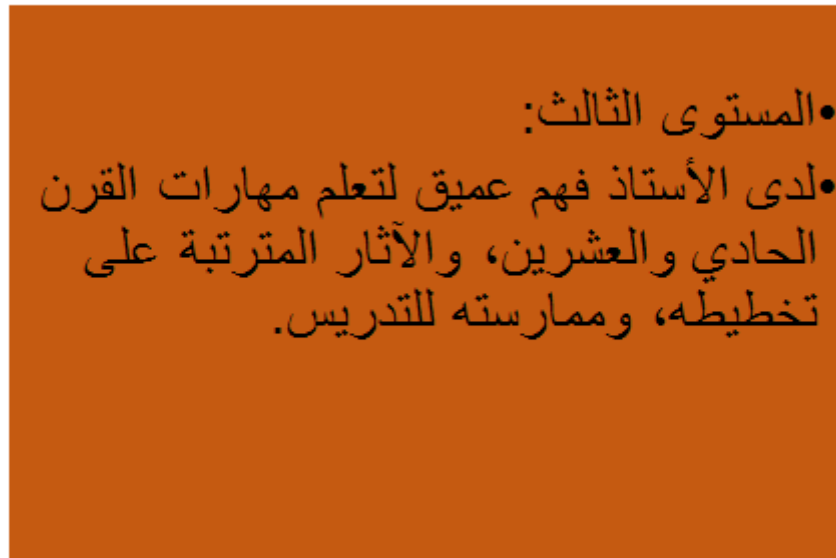
and secondary education. The trained team would join their wilaya to train the new teachers of English in primary education, in collaboration with primary school inspectors who already benefited from TCF/ICF.

- **Trainee performance data:** a quantitative assessment of the program's effectiveness and impact. The training program focused mainly and urgently on basics in teaching. Despite some weaknesses like the absence of the syllabus, inspector trainers could manage to make the leap from theory to practice and enact active strategies and interactive techniques among trainees.

- The training program focused, first ,on reviewing and enhancing prior knowledge and activating their schemata concerning key educational terms; second, on developing main skills; third on creating a positive attitude towards the project as a mission not only a job for long-term unemployed people. These are the main components of any competence. As an example, looking at some modules training, we notice a PowerPoint slide from a presentation of the TCF. See figure 2.

Figure 2:

Example PowerPoint Presentation Slide explaining one of the program's rubrics



4.4.5 Process Evaluation

As a reminder, the process evaluation component allows to examine the implementation and delivery of the program. It assesses how the training was conducted, the pedagogical approaches employed, and the support provided to pre-service teachers during their training. The researchers also observe the strategies used to integrate 21st century skills into the training process and evaluate their effectiveness in preparing teachers for the challenges of teaching a new language.

4.4.5.1 Examination of the program's implementation procedures and practices

Pre service

An official meeting was held by the ministry of education in Algiers on 23/24/25 August 2022 to introduce the language in primary school. The decisions and instructions were set and a

ToT (training of trainers) program for a team of inspectors was prepared to create material for training in the modules: planning, didactics, classroom management. Then a regional cascading program was conducted during 29-31 August for middle and secondary school inspectors, a few days before the school year opening. Just before joining their classes, an initial training program was conducted for them.

The first stage was a pre-course questionnaire containing general questions about teachers' readiness to teach and especially young learners. Its objective was to activate novice trainees' schemata about their unexpected profession, and to have an overview of their needs and expectations. The 64 would-be teachers were divided into two groups for whom three inspectors of English were to train them in didactics, planning and classroom management. More inspectors of Arabic (already trained in toolkit 2018) were in charge of other courses in Arabic: psychology, legislation, evaluation, ethics and deontology.

By the end of the ten days training, they could differentiate between main educational concepts, they could plan lessons in the four skills, they could assimilate in front of their colleagues and they could have a look at the coursebook as a means not an end, until they received the didactic guide. It was decided on a 45-minute session twice a week. Teachers were to be in charge of many schools at once to reach approximately the official work hours, about four to six schools. They were appointed according to each town's needs.

Teachers were supported with a didactic guide (few pages are attached) and inspectors of middle school were assigned to control, train and mentor the primary school teachers.

In-service training program: its objective was to help newly appointed teachers to acquire new understanding and instructional skills to develop their effectiveness in the classroom. The

main themes were: competency-based approach, project based learning, active strategies, Bloom's taxonomy and setting SMART objectives; 21st century skills.

A whole day training for Khenchela province teachers (64) was held in Agoun Salah secondary school on 26 January 2023. Primary school teachers were presented with the 21st century skills by two trainers, who had already benefited from a national online program on the topic. The program was a cross-curricular online training during 2021-2022 that consisted of primary, middle and secondary school teachers. Another inset was held on 9 May 2022 on evaluation and assessment; designing tests and remediation of learners' weaknesses.

The workshop opening

During the training day, primary school teachers practiced critical thinking and creative activities, assimilated classroom practices and observed real situations. They were exposed to a variety of strategies that enhanced learners' higher order thinking skills.

In order to pursue a professional development program, one of the duties of an inspector, besides being a class observer, is that he/she has to follow a national training plan. The 'national plan de formation' has focuses according to the national policy in education and the suggested topics of the inspectors according to the field needs within a set amount of time. The CPD program focuses on the ongoing professional development. Thus, the team specialized in 21st century skills and after being trained as a small team, the chosen teachers start their cascading phase. The workshop presenter is typically someone knowledgeable about the subject being addressed. The purpose of a workshop is to provide teachers with the opportunity to learn more about 21st century skills, try out practical applications of the topic and to contemplate how they might use or adapt elements of the activity in their own classrooms. One teacher, who has been observed many times in class, either being informed or during a sudden visit, has been chosen to

demonstrate a training day for newly appointed primary teachers on the topic. Such collaborative technique allows more peer work and reflection.

The inspector, being the official one to conduct a training workshop, checks the logistics with the responsible of the training center which is a school in this case. Though it has to be well scheduled, a school can provide learners for a demonstration class. Explaining the agenda and expectations of work. The topic is known earlier before joining the workshop; having a good deal of knowledge about it has its positive and effective effect on the CPD.

In a coaching session, the trainees need to be aware of the objectives which should be SMART, and outcomes which in this case are of high level thinking according to Bloom's Taxonomy.

An icebreaker is set. In this stage, the trainees are supposed to use their creative thinking to imagine a magic tool. Some answers are exceptional, funny and enhance critical thinking. The objective of the task is socializing both trainees and the trainer, getting to know each other, besides getting motivated. Thus, the establishment of a healthy atmosphere; people like to be given a chance to express themselves. While exteriorizing and knowing each other's moods, for the trainer it is a supportive stage to gain self-confidence as facing the public is not an easy task.

At first, the trainees were timid and not communicative, but they became quick and spontaneous. They could recognize how creativity is learned and "contagious" too. Some answers were unique: design a magic pen that corrects copies and writes remarks; design a magic bag that communicates; design a magic flash card that changes according to the themes etc.

A general presentation of the 21st century skills was done through datashow presentation and a brainstorming technique was used. Second, presentation of the trainer (Mrs BENDJEDOU

Hanene) + demonstration class (member of the national delegate of teachers trained online on the 21st century skills).

Here the trainer focused on the fact that such skills go beyond the ordinary and routine skills, for instance the reading, writing skills and basics of counting, to underpin aspects of competitiveness and develop analytic reasoning, ethical understanding, artistic talents. These skills are from bottom: communication, collaboration, critical thinking, step by step toward creativity on the top of the pyramid of the first 4Cs and side by side with advanced data skills "digital literacy" and life skills "citizenship" and further career skills "leadership" and "productivity".

The 21st century skills are considered as a revolution in the field of education that its results extend to reflect on career life and business markets. In this sense, learners need to develop some essential and vital skills in order to live in harmony in a complex and unexpected world and learn and thrive in the widely different 21st century environment and to succeed in schools, college and careers.

After being exposed to various materials, trainees were supposed to work collaboratively to do the tasks, in order to differentiate and apply various tasks themselves. Then the trainer divided the participants into two groups: a focus group to simulate a study class and observers. The focus group would pretend to be pupils, and the observers would observe the trainer -the teacher in the process. The areas of observation would guide them to design an observation card which could be used in self and peer observation. Here the highest thinking skills were targeted: evaluation and creation. And then evaluation of the designed product to decide on one which might be the most efficient. During this stage, communication and collaboration skills were developed, as well as negotiation and decision making.

4.4.5.2 Analysis of the program's instructional strategies and delivery methods

The program has followed the modeling structuring process, in which the main elements have to be taken into account, such as:

- Content: well prepared and developmental
- A starter (an icebreaker can be a lead in), with some energizers from time to time.
- Objectives clearly stated SMART, and vary from low thinking skills to high thinking skills. Generally, three objectives in each workshop (in this case identifying skills, evaluating a lesson according to skills, and designing a checklist for class observation)
- Topics (no more than three) conducted through practical strategies tasks followed by summary of the learning
- Handouts for the activity and the tasks to enhance various skills, save time and organize work in case of cross checking
- Core competencies and standards in relation to official documents, curriculum
- Other competencies, link to inclusion and provision for special education needs and gifted. Consider equity and citizenship principles
- Differentiated activities, reflection, self-assessment and action plan. VAKT / VARK to add enthusiasm, motivation and target different styles
- Vocabulary to be added to the glossary of the training workshop can be agreed on and written to be supporting. References and further reading; installing positive attitudes towards research and reading habits in the work field

By the end of the workshop, the inspector uses a training assessment checklist for the trainer through a discussion, to help her conduct better workshops, such as limiting time taking,

enhancing tasks and getting materials prepared beforehand, checking action plans and looping strategy to see how the workshop can be used in classroom practices (ToT techniques).

4.4.5.3 Assessment of the program's assessment and feedback mechanisms

Trainer summary and feedback: the trainer was given the chance to reflect on the spot through a learning debate, and then a delayed feedback summarizing her lesson demonstrated. Here was her summary; sent after a month via social media.

A Summary of The Training Lesson (Teachers of Primary School) Lesson:

Practice Objective: Learners will be able to identify the parts of the house.

Warm up:

- A. The teacher pins parts of a puzzle image on the white board and invites the learners to put them together to form a complete image. Learners put the parts together and form a picture of a house and try to pronounce it correctly.
- B. The teacher displays a video (English Sing Sing: "Parts of the house") and invites Ls to identify each room and repeat.
- C. The teacher shows the Ls a doll's house and invites them to touch the called room each time.

Task 1: (Group Work)

The teacher divides the learners into 4 teams of 5 (Red/ Blue/ Green/ Purple) according to the learners' styles. Ls wear colorful T-shirts. T appoints a leader for each team who wears a badge. T invites Ls to form words of rooms out of the given tool or material.

Red Team: "kitchen" Ls form letters of the room and make them from 'magic clay'

Blue Team: "Bedroom" Ls form the word by putting 'lego blocks' together paying attention to the right size

Green Team: "Bathroom" Ls choose the right colorful wooden sticks to form the word on the envelope

Purple Team: "Living room" Ls put the plastic pieces (a letter is written on each piece) of jewelry together in the transparent string to form a beautiful bracelet.

The team that finishes first wins a gift.

Task 2: (Group Work)

The teacher distributes worksheets of parts of the house (with 2 furniture) to Ls and invites them to cut the image of each room and paste it in the right part of the image of the house.

Task 3: (Individual Work)

The teacher puts the sports circles on the floor and puts some pictures of rooms inside them. Then T invites Ls to jump and name the image then spell it. One volunteer from each team. (See Appendix 3 for a lesson sample)

4.4.5.4 Evaluation of the program's collaboration and communication processes

Observers and focus group (both) had two hats: learner and teacher during workshop. They reflected on their attitudes and the way they recognized the skills (using the hat of the learner).

Immediate feedback: trainees reflected in a task "two stars and a wish" to evaluate today's lesson study. This would help them to develop their critical thinking from one side, and help the presenter to develop her own skills from another side. This also gave an idea about the effectiveness of the training for the inspector.

- During the lesson study, the focus group (learners chosen at random) isolated and described their learning. The inspector discussed in L1 with learners what they liked most, what

they couldn't get and what they would prefer. They emphasized on how they learnt new vocabulary and what for this would help them in studies or life.

- The observer group worked using TPS (think, pair and share) strategy to design first draft of an observation checklist. Their first attempt was defining areas of observation which included:

The teacher's role who needed to use subskills: they were recognized in setting SMART objectives, guiding learners, motivating and supporting them, arranging healthy atmosphere for learning, using variety of strategies and materials, grouping students.

The learners' role: more active, working in groups, sharing, showing understanding through activities, more creative, doing tasks easily, analyzing and evaluating each other's products.

Strategies/materials: using games, variety, differentiation, using puzzle flashcards, praising and ICTs.

Delayed feedback via social media discussion on June 4th: screen shot pictures attached.

Both the focus group and the observers reflected on the lesson plan; using their critical thinking to review the synopsis of the lesson, compared it to the lesson study.

- First, since the trainer was a middle school teacher, the observers recognized that there was only one sequence in the third year primary education according to the didactic guide.

- Second, according to the official document (p.9), the division of lessons for elementary level differed from that of the more advanced one as follows: there was only one learning sequence along the third year primary education. It included six units and each unit had two sections. Each section contained four lessons whose focus was listening, reading, writing.

The teachers noticed now that a lesson called having fun or role play were rather stages not lesson focus and thus a critical spirit was raised among them. Their remarks were:

- Using the puzzle in the warm up activated their critical thinking
- Differentiation and grouping
- Communication and collaboration
- Some writing tasks could be changed by miming tasks (guessing game)
- It was vocabulary based
- Integrating the four skills (language skills; listening; speaking; reading and writing)
- Using 'whisper and name' game could be beneficial as well. A communicative game to transfer knowledge from one to another.

The delayed feedback became more constructive, well-structured and more focused.

Here, observing the lesson plan and analyzing it, reviewing the synopsis differently and using their critical thinking to match it with the teachers' planning. Reflecting and seeing how it could be applied in their own context (primary school). See the Lesson Study Intervention.

4.4.6 Product Evaluation

As a reminder, the product evaluation component of the CIPP model focuses on the outcomes and impact of the program. The researchers evaluate the extent to which the program has achieved its intended outcomes, such as the development of 21st -century skills among pre-service teachers and their ability to cope with the challenges of teaching English as a foreign language in primary schools. They also consider the effects on students' language learning outcomes and their overall engagement in the learning process.

The information provided about the product stage highlights the collaborative efforts of teachers in designing a checklist for self-observation and peer class observation. Here's an integrated report based on the information:

The product stage of the evaluation process involved teachers working collaboratively to design a checklist for self-observation and peer class observation. Rather than being given a pre-existing model, teachers were encouraged to use their creative thinking and answer the inquiry question: "What makes the lesson you attended effective, successful, beneficial, and enjoyable?" This critical thinking task allowed teachers to observe demonstration classes from different perspectives, cross-check their answers, and collectively decide on the top-ten elements that contribute to an effective lesson.

By engaging in this collaborative process, teachers reached a stage of self-evaluation and continuous professional development (CPD). It fostered a sense of professional consciousness and created a professional community where teachers could share their expertise and experiences. This approach emphasized the importance of creating materials and strategies that fit the specific needs, interests, and levels of their learners, rather than relying on ready-made materials.

Designing the checklist and engaging in self-observation and peer class observation allowed teachers, especially novice teachers, to familiarize themselves with key concepts related to the teaching profession. It also provided them with a sense of ease and self-confidence, eliminating stressful situations caused by a lack of efficient planning. Consequently, teachers were able to progress to the proficiency stage in a shorter time, and the impact on learners' language achievement was noticeable.

The checklist for self-observation and peer class observation included criteria such as teachers' role, learners' role, materials, strategies, use of ICTs, active learning, critical thinking tasks, and the 4Cs (communication, collaboration, critical thinking, and creativity). The checklist

provided indicators or standards of quality for each criterion, enabling teachers to evaluate their own performance and receive constructive feedback from their peers.

To ensure the implementation of effective teaching practices, classroom visits were conducted by inspectors, who observed different classes, including those in rural and suburban areas. The visits aimed to encourage the use of high-order thinking skills tasks, foster learner autonomy and self-reliance, promote effective time management, and ensure that teachers set and achieved SMART objectives. The visits also focused on assessing the well-structured methodology of work in the classroom.

In addition to in-person visits, online training played a significant role in supporting teachers' professional development. Teachers were part of an online training group, where they cross-checked and reviewed their work together, fostering a mentorship-like environment. By rewarding teachers for publishing high-quality tasks, a motivating atmosphere of competition and creativity was created. The shared professional worries and experiences among the group reduced tension and fostered a healthy learning environment.

The positive impact of the evaluation process was evident in the attitudes of teachers and learners. Teachers demonstrated increased professional consciousness, as reflected in their initiatives to request visits from inspectors themselves. Attitudes toward inspector visits and mentorship improved among most teachers, and learners displayed positive attitudes toward learning English, as evidenced by their project work, handwriting, and problem-solving abilities.

As a result of the evaluation process, a more developed and designed checklist was created, which can serve as a valuable tool for teachers and inspectors during class observations. This unique and high-quality checklist enhances the overall research and contributes to the ongoing improvement of teaching practices.

In sum, the product stage of the evaluation process demonstrated the collaborative efforts and professional growth of teachers, leading to the creation of effective observation tools and the adoption of impactful teaching strategies that positively influenced both teachers and learners.

4.4.6.1 Assessment of the program's immediate and intermediate outcomes

The training program has produced a checklist that teachers can use in their self-reflection, proofreading lesson plans and peer evaluation. This checklist is characterized by the focus on sub skills of the 21st century skills. Teachers can now consider them as indicators of the presence or absence of a skill in a task/lesson/course.

The teachers, while using such a tool, will consider their forward planning and become more proficient. They will also be able to mentor other novice teachers and/or conduct workshops on any topic. The checklist designed was a contribution of many teachers translated into a more academic language that respects international standards of quality.

Although a lot of efforts were invested in order to achieve a high quality training program for primary school teachers, the outcomes seem to be outstanding. However, the program results need more time to be achieved.

Post observation program (what was noticed during class visit by the inspector after the lesson study):

The tendency to change in the practices among 13 teachers visited in April and May was positive. They showed positive attitudes towards the program, in terms of planning, using creative materials to enhance critical thinking, more communicative tasks and variety of collaborative activities.

The design of their written tests, though no official guide was available, most of the present trainees designed outstanding and good materials of assessment. They focused on communicative support, variety of activities, differentiation and critical thinking.

4.4.7 Summary and conclusion

This section sums up the researchers' evaluation of the program's overall effectiveness and efficiency.

Due to the conception time constraints, many professional conditions were challenging. For example, a teacher had to be in charge of many schools at once and had to move to each twice a week, lack of material, etc. However, learners' reactions were very positive and their achievement was high.

This program could have more effective results if:

- It was adapted frequently. Its effect could be observed in a few years period.
- Teachers were motivated through better work conditions
- More regulations were set in order to organize
- Widespread training for other subjects was provided for a more cross-curricular skills development

A guide should be designed that includes teachers' planning and feedback. A participatory development of 'a guide' would benefit teachers in order to enable them to understand the philosophy of the 21st century skills, its purpose and the practical aspects of its development. The inspectors would continue to prepare a program of training courses to prepare their fellow inspectors to spread this learning among teachers locally. The following section describes the intervention that these researchers conducted in order to test the proposed strategies

of teaching trainees 21st century skills. The adopted design is the Lesson study approach, combined with Teacher Observation Plan.

Lesson Study-Based Remediation Intervention

5.1 OVERVIEW OF THE LESSON STUDY APPROACH AND SELECTION RATIONALE

The Lesson Study approach is a collaborative professional development model used in education, primarily in the field of teaching. It originated in Japan and has gained popularity worldwide due to its effectiveness in improving teaching practices and student learning outcomes.

The Lesson Study approach involves a group of teachers working together to collaboratively plan, observe, analyze, and refine a single lesson. The process typically includes four main stages: planning, implementation, observation, and reflection. The emphasis is on in-depth planning, student-focused observation, and reflective discussions among teachers. This focus meets the rationale of this intervention in many points.

Indeed, research on professional development is steadily mounting to facilitate a shift from traditional 'sit-and-get' workshops towards teacher-driven approaches that foster reflection, inquiry, and collaborative teamwork. Historically, teachers have not been provided sufficient opportunities to share knowledge, implement new strategies, or evaluate their learning (Darling-Hammond et al., 2017; Lauer et al., 2013). However, there is now a paradigm shift towards emphasizing self-reflection, critical thinking, and the use of digital media for professional development. Collaborative approaches to professional development have the power to enhance student performance and cultivate skills that are crucial both in school and in life.

The development of reflective skills among teacher trainees has a profound impact on their early professional growth in language teaching. Researchers have recognized the significance of connecting observational research with advancements in English language teaching (ELT). Bower (1986) argued, "Observational research serves as an intermediary in the debate between theory and practice. In twenty years' time, the major advance in our understanding of ELT will be seen as coming not from the psycholinguistic end of our profession, but from this sociologically inspired sphere of investigation—the scientific study of what actually happens in classrooms" (Bower, 1986 cited in Sheal, 1986, p. 92). Consequently, numerous studies have been conducted, employing classroom action research to examine how teachers develop their skills through the observation and evaluation of various approaches, methods, and techniques. This bridges the gap between theory and practice.

Classroom observation of in-service teacher trainees by supervisors and trainers aligns with this action research trend. However, observations often involve the observer entering the classroom, silently observing for a brief period, taking notes, and leaving, resulting in little benefit beyond anxiety and confusion. Collaborative classroom observation, on the other hand, can be conducted with constructive feedback that promotes trainee development. It allows trainees to critically evaluate the theories and classroom techniques they have studied in their training courses, fostering a more comprehensive learning experience.

Therefore, the common focus points between the present remediation intervention and the Lesson Study approach are as follows:

1. Enhanced Teacher Collaboration: Lesson Study fosters a culture of collaboration among teachers, promoting shared responsibility and a collective learning experience.

2. Improved Teaching Practices: Through collaborative lesson planning, observation, and reflection, teachers can refine their teaching strategies, experiment with new approaches, and incorporate evidence-based practices.

3. Increased Student Engagement and Learning: Lesson Study aims to create engaging and effective lessons tailored to students' needs, leading to improved student engagement and learning outcomes.

4. Professional Growth: Lesson Study provides opportunities for teachers to reflect on their teaching practices, receive feedback from peers, and develop professionally.

In the following section, an overview of some previous studies employing the Lesson Study model will be presented.

5.1.1 Previous studies employing Lesson Study approach

As explained above, Lesson study is a form of professional development that originated in Japan and has been widely adopted and adapted in various countries, including the U.S. Lesson study involves a group of teachers who collaboratively plan, observe, analyze, and refine a research lesson based on a shared goal and student learning data. Lesson study aims to improve both teaching practice and student learning through a cycle of inquiry and reflection.

According to Lewis et al. (2009), lesson study can enhance mathematics teacher education by providing prospective teachers with opportunities to deepen their mathematical knowledge, develop their pedagogical skills, and cultivate their attitudes toward teaching and learning. The authors report on a case study of lesson study implementation in a U.S. mathematics teacher education program and describe its influence on the participants' learning outcomes and experiences.

Takahashi and McDougal (2016) argue that lesson study can also improve mathematics and science education in the U.S. by fostering a culture of continuous improvement and innovation among teachers. The authors provide an overview of lesson study in mathematics and its potential for educational improvement in the U.S. They explain how lesson study has been adapted and implemented in various contexts in the U.S. and highlight some of the outcomes and impacts of lesson study on teachers' professional development, students' learning, and school culture.

Fernandez et al. (2003) offer a comprehensive guide to lesson study as a professional development approach for teachers in any subject area and grade level. The book covers the theoretical foundations, practical steps, and examples of lesson study in different disciplines and settings. The book also addresses some of the common questions and concerns about lesson study, such as its feasibility, sustainability, and impact on student achievement. The book aims to help teachers learn how to use lesson study to improve their teaching practice and student learning.

Stigler and Hiebert (1999) present an international video study of mathematics teaching in Japan, Germany, and the U.S. that reveals significant differences in how teachers teach mathematics across these countries and how these differences affect student learning outcomes. The book argues that one of the key factors that contribute to Japan's success in mathematics education is lesson study, a collaborative process of planning, observing, analyzing, and refining lessons based on student thinking. The book suggests that lesson study can be a powerful tool for improving teaching and learning in any subject area and any country.

More recently, Hanfstingl & Zehetmeier (2019) published an article that explores the similarities and differences between lesson study, learning study, and action research as forms of

teacher-researcher collaboration. The authors argue that these approaches share a common goal of improving teaching and learning through a cycle of inquiry and reflection, but they differ in their theoretical foundations, methodological steps, and contextual factors. The authors suggest that these approaches can be seen as complementary rather than contradictory and that they can benefit from mutual learning and exchange. The authors also identify some of the challenges and opportunities for conducting lesson study, learning study, and action research in different educational settings.

In summary, these sources provide evidence and insights into the methodology and benefits of lesson study as a form of professional development for teachers. Lesson study can help teachers improve their content knowledge, pedagogical skills, collaborative competencies, and reflective abilities. This approach can also help students improve their conceptual understanding, problem-solving skills, engagement, and achievement. Lesson study can be applied to various subject areas, grade levels, and contexts to foster a culture of continuous improvement and innovation in education.

5.2 DESIGN OF THE INTERVENTION

1.1.1. Population

To investigate this study a comprehensive sample of all the 64 teachers was included. In addition, four teachers were chosen to present models of lessons, then participate in the observation to check their development after the training program.

1.2.1. Procedure

As a pre-test, they answered a short survey before joining training and classrooms. Pre-service teachers were then trained on 21st century skills in an explicit fashion, and following the steps described below. Then to assess the training impact, they were

observed (both randomly and through planned visits as a practical training for small groups). Subsequently, a post-test was conducted through a long and detailed questionnaire, designed in Google Forms and sent through emails. Then a comparison of the development they reached in 9 months of training period was done.

The methodology of this approach involves the following steps:

1. Lesson Planning: The group of pre-service teachers along with trainers and the present researcher/inspector collaboratively plan a lesson by identifying learning goals, selecting appropriate instructional strategies, and designing assessment methods.

2. Lesson Implementation: One teacher teaches the lesson to a class while other teachers in the group observe pupils' responses and collect data.

3. Observation and Data Collection: Observing teachers carefully document student interactions, responses, and any unexpected outcomes during the lesson.

4. Post-Observation Discussion and Reflection: The group of teachers and trainers come together to analyze the data collected, discuss observations, reflect on the effectiveness of the lesson, and identify areas for improvement.

5. Lesson Revision and Iteration: Based on the analysis and reflection, the lesson is revised, and the cycle can be repeated with further iterations to continually improve the lesson.

Throughout the intervention, thus, Teacher Observation Program (TOP) was employed. It is a structured and systematic approach to observing and evaluating teachers in educational settings. It involves the process of observing teachers during their instructional practices, collecting data, providing feedback, and supporting their professional growth and development. The main purpose of a Teacher Observation Program is to improve teaching quality and effectiveness by providing teachers with constructive feedback, identifying areas for

improvement, and promoting reflective practice. The program typically involves trained observers, such as experienced educators or administrators, who visit classrooms and observe teachers in action.

In the context of Lesson Study, a Teacher Observation Program can be used to observe and provide feedback on the lessons being taught by teachers. Observers, who may include fellow teachers, instructional coaches, or external experts, can observe the lesson in action and collect data on various aspects of teaching and learning. This data can include observations of student engagement, instructional strategies, classroom management, and student learning outcomes.

By integrating a Teacher Observation Program within Lesson Study, teachers can benefit from both the collaborative nature of Lesson Study and the specific feedback and insights gained from the observations. It provides an opportunity for teachers to receive targeted feedback on their instructional practices, engage in reflective dialogue with their colleagues, and collectively work towards improving teaching and learning in their classrooms.

This Teacher Observation Program (TOP) was designed for pre-service teacher trainees. It aimed at benefiting teachers' practice through reflective learning. The rationale behind this program and a proposed implementation plan will be discussed in this section. Ur (1992, p. 56) highlights that the teaching of classroom observation and practice is often regarded as less prestigious compared to teaching theory. Some teacher training courses place excessive emphasis on theory, neglecting its practical application in the classroom. This over-reliance on theory can create insecurity among teacher trainees regarding teaching practices.

Classroom observation can also be intimidating for teachers, especially when they have to present a lesson in front of an observer perceived as an "expert." This sense of intimidation

becomes even more pronounced when the observer's evaluation directly impacts the teacher's professional qualification or promotion (Tsui, 1993). However, under the appropriate guidance of trainers and observers, classroom observation can instill confidence in trainees, enabling them to apply new ideas learned in their in-service teacher training course. A TOP should be a compulsory component of every long-term teacher training course, particularly for trainees who have had no prior observed practical teaching or pre-service training.

The aim of TOP is thus to facilitate focused, critical, and reflective practice among trainees by providing opportunities to observe different teaching styles and reflect upon their own teaching. By the end of TOP, trainees should be able to plan reflective lessons, utilize various techniques and methodologies, justify the use of different teaching procedures, and engage in self-reflection to make necessary changes (See Appendix 5). The TOP model encompasses the following characteristics:

1. Reflective: Wallace and Woolger (1991) propose three models of teacher education that can be applied to teacher observation. The reflective model emphasizes trainees' development, requiring them to constantly reflect on their practice rather than simply following directions or imitating a master teacher.

2. Collaborative: In this model, the teacher observer plays a supportive role in helping trainees develop and refine their reflective practices. A true dialogue between the observer and trainees is essential for effective reflection, where there is agreement on what was intended to occur and what actually took place (Wallace and Woolger, 1991).

3. Developmental: A developmental model of observation ensures that teachers have the opportunity to develop their own judgments of what transpires in their classrooms. It sharpens their awareness of student interactions and classroom dynamics, enabling them to evaluate their

teaching practices (Williams, 1989). Detailed post-observation sessions and the flexibility for trainees to design observation tools, including the option to involve peers or colleagues, enhance the developmental aspect of TOP. This approach replaces the unreflective "learn-the-theory-and-then-apply-it" model described by Ur (1992).

Throughout the observation process, trainees should be consistently reminded that their professional development is their responsibility, and observers are present not only to evaluate but also to provide support and assistance.

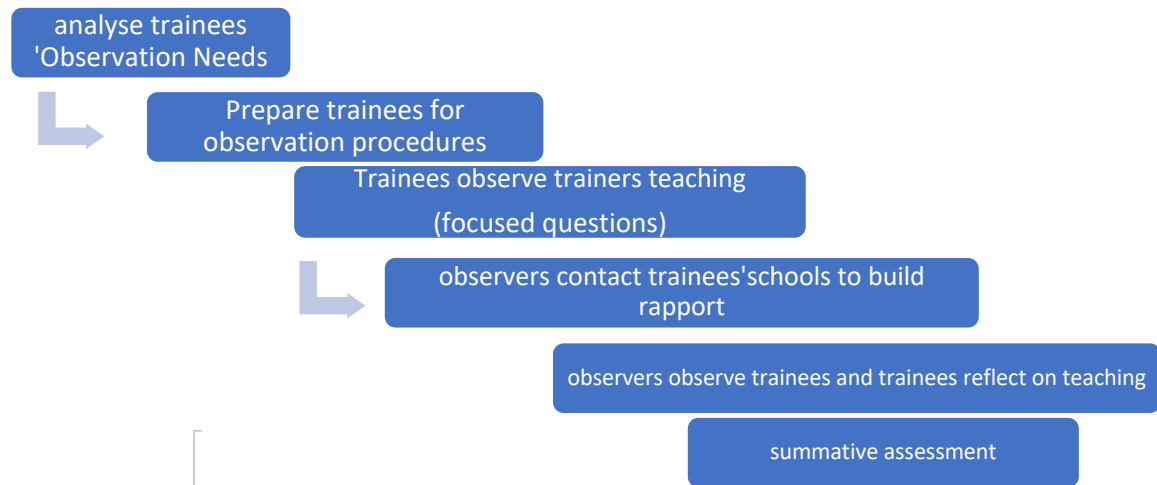
By implementing the TOP model, teacher trainees can engage in reflective practices that enhance their teaching abilities and promote professional growth. The collaborative and developmental nature of the program ensures a meaningful dialogue between trainees and observers, fostering a deeper understanding of effective teaching strategies and classroom dynamics.

5.3 TOP IMPLEMENTATION PROCESS

In order to implement TOP, six steps are suggested and discussed with the trainees beforehand (See Appendix 5). This proposed Reflective Teacher Observation Program can be modified as shown in Figure 3.

Figure 3:

Six Steps of a Reflective Teacher Observation Program.



Step 1: Investigate the needs of the teacher trainees

Observers gather data about trainees' level of knowledge and their expectations for the observed lesson. This can be done through surveys, interviews, and visits to the trainees' schools. Observers aim to understand the instrumental context, including the textbooks used, curriculum followed, and the flexibility trainees have in implementing new approaches in their classrooms. Based on this information, observers create a rough draft of the trainee observation plan.

Step 2: Prepare trainees for observation procedures

Observers share the results of the needs analysis with the trainees and seek their feedback. Together, they design the observation procedure, determining the number of observations, the type of observation tools to be used, the inclusion of peer observers, scheduling of feedback sessions, and assessment criteria.

Step 3: Trainees observe trainers teaching

Trainees take on the role of observers and observe their trainers teaching in various contexts. This provides an opportunity to observe diverse classes at different levels. To focus their observations, trainees use observation tools and specific questions related to methods, techniques, materials used, student participation, and error correction. These tools should be focused and less complex to aid trainees' development.

Step 4: Observers establish rapport with trainees' schools

Observers must build a collaborative relationship not only with the trainees but also with their schools. Neglecting the educational context could skew observation results. By coordinating with the schools, observers gain a better understanding of the situations under which the trainees are required to teach.

Step 5: Observers observe trainees and reflect on their teaching

This step involves the observer visiting the school and observing the trainees teach their classes. It includes a pre-observation conference, the observation itself, and a feedback session. During the pre-observation conference, the observer and trainee discuss the lesson plan, objectives, and evaluation criteria. The observation becomes a collaborative and non-judgmental process, where the observer acts as a partner. Feedback sessions can be immediate or delayed, allowing trainees time to digest their lessons and engage in self-evaluation.

Four post-observation feedback stages proposed by Wallace and Woolger (1991) relate well to the reflective TOP:

- Establishing the facts: Trainee and observer describe and interpret different steps of the lesson.

- Objectives and achievements: Evaluate how objectives were achieved and what learners have learned.

- Generating alternatives: Encourage trainees to consider alternative procedures or strategies for future improvement.

- Self-evaluation: Trainees reflect on their learning and indicate their capacity for self-improvement.

See Appendix 4 for trainees evaluation rubrics

Step 6: Summative assessment

If observation assessment is included as part of the final evaluation for a teacher training course, it is suggested to make it summative rather than formative. Summative assessment should only occur during the final observation and feedback session, after trainees have had the opportunity to reflect and improve their teaching. Multiple sources of evaluation, including peer and student feedback, can be considered. Alternatively, trainees can develop observation portfolios containing lesson plans, reflective notes, and observer suggestions, or use video recordings or webcam-based observations in situations where physical observation is impractical.

To summarize, seven principles of teacher observation by Williams (1989, pp. 86-87) are reflective of the TOP approach:

1. Developmental: Teachers develop their own judgments about their classrooms.
2. Limited and focused content: Observations focus on one or two specific items per visit based on teachers' needs.
3. Course-link: Visits are linked to the course and topics being discussed.

4. Teacher-centeredness: Teachers are actively involved and responsible for the observations, contributing to the rationale behind the visits.

5. Future development: Teachers gain tools for self-development from their interactions with observers.

6. Positiveness: Visits should be helpful and constructive, with an emphasis on identifying strengths to build upon.

7. Flexibility: Observers demonstrate flexibility in responding to teachers during post-observation discussions.

The incorporation of these principles and the involvement of trainees throughout the observation process allows the reflective TOP to promote collaboration, understanding, and professional development. Trainees who perceive observations as based on their real instructional context and actively participate in all stages of the process are more likely to reflect on their roles as teachers and experience growth.

5.4 DATA COLLECTION DURING THE INTERVENTION

Lesson study data collection process occurred during the practical training days. After visiting some teachers and observing them at work, a planning of more practice based on coordination was done. There were district coordination sessions, according to the calendar in

Table 1 :

Date /place	Schools concerned	Teacher presenter
26 /02 (primary school brothers Bouselsla Yabous	Chelia ,Bouhmama ,yabous ,lamsara	Achika Arbia
27/02 (Merdaci Mohamed khenchela	Metoussa ,khenchela	Boussalem Naima

01/03 Haftari elhamma elhamma	Baghai ,Elhamma ,Tamza	Mahboubi Sana
01/03 Badra Messaouda kais	Kais ,Remila ,Touziert	Medargnarou Sihem

Table

- The district coordination sessions and mentorship program were under the responsibility of the inspector of English of middle school. Four teachers were designated to prepare and present lessons in front of a small group of teachers - 10-15 teachers who had attended previously the training workshop (integrating the 21st century skills). Here the objective had multiple functions:
- Presenting a lesson collaboratively (planning via social media)
- Self-reflection and peer evaluation
- Designing a checklist sheet of quality assurance to be used for self and peer observation (suggested ones are attached)

Analysis, Results and Interpretation

Pre-test tested trainee’s perspectives and preliminary thinking potential orientations and also complexity, while post-test questionnaires targeted the skills and reflective thinking that the training was designed to enhance. A comparison will be presented subsequently in this section. Now, this section will present the results of a concise selection of the most revealing questions in both questionnaires:

6.1 PRE-TEST QUESTIONNAIRE RESULTS

This table present a concise summary of 50 participants’ perceptions of the presented questions (see Appendix 1). In this table questions are groups into 4 sections:

Table 2:**Summary of pre-test questionnaire results**

Items	Coursebook is more necessary than own preparation			Competition of languages		Collaboration of languages		Use of mother tongue	
	Agree	disagree	Both	Agree	Disagree /partially agree	Agree	disagree	Agree /partially agree	Disagree
Number 50	09	26	15	39	11	40	10	26	24

As we have mentioned, the questionnaire designed had 11 items that could be summarized into four main areas of observation. All items had three possible answers besides explanation if possible. Each one was designed to provide a particular set of information but with a specific aim, following a deductive order. Here is a brief description of each section:

- **Section one: relation with other foreign languages**

It contained questions about the relation of English with previous languages used. Most teachers agreed that a collaborative work could be done between French and English and that it would help learners to learn better due to similarities that already existed, motivation and eagerness as well. The others who disagreed thought that it would create a chaotic situation and confusion among learners and teachers.

- **Section two: preparation**

In this section, teachers were asked to decide whether preparation required the use of the course book or their own material or even both. Here only nine thought that they couldn't work without the course book either because of lack of experience, no readiness to teach in primary school, or they thought it was obligatory to do so. Those who disagreed explained that preparing their own material that fit their lessons was more useful and practical. For the 15 others, who

thought both were necessary, added that the course book was just a means among other ones. It depended on the situations or tasks.

- **Section three: the use of mother tongue either in class or in assessment**

Teachers' views on the use of mother tongue were approximately equally divided between agreeing and disagreeing. With more additional explanations like: alternatives could be better such as non-verbal means, data show and realia.

6.2 POST-TEST QUESTIONNAIRE RESULTS

This questionnaire was long because we tried to capture both states of trainees, before and after the training concerning their perceptions towards the program, its challenges, . Plus, we have captured their perceptions of their own 21st century skills in both phases. Before analysis, this section will present the results of a concise selection of the most revealing questions in both questionnaires:

Figure 4:

Trainees confidence in their ability to teach English as a foreign language in the new pre-service training program before starting out

4. How confident did you feel in your ability to teach English as a foreign language in the new pre-service training program before starting out?

19 réponses

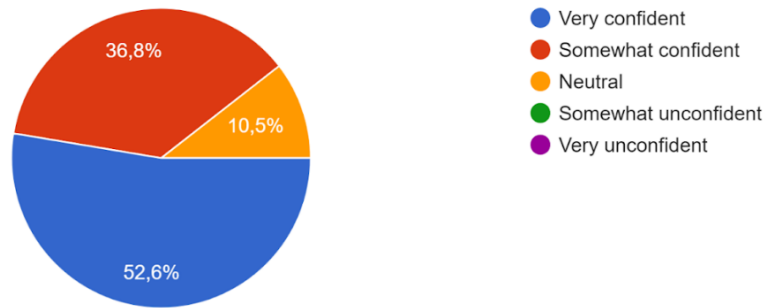
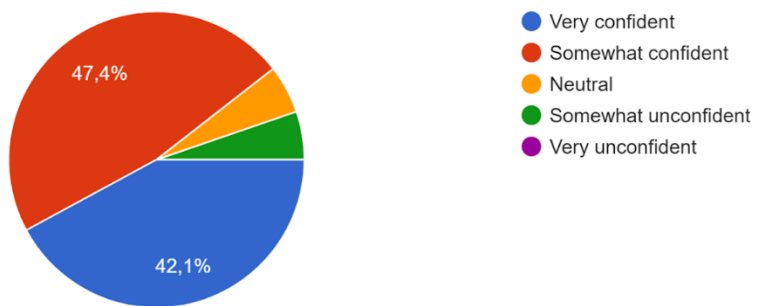


Figure 5:

Trainees' confidence in their efficiency of the new English as a foreign language pre-service training program before starting out.

5. How confident were you in the efficiency of the new English as a foreign language pre-service training program before starting out?

19 réponses



6. What made you feel so?

-More knowledge and more skills

-I haven't experience in traching primary school

-The training process was entrusted fascinated by a wide range of expertise. Certainly, it was a reason for my satisfaction. It is not possible for this process to take place without a goal. On the contrary, the goal was to train us and improve our capabilities as much as possible. that is what gives me the confidence

-my experience in teaching English for the both levels middle and secondary

-Trust the inspector

-Teaching English at primary school is top new, so it's a challenge in itself.

-Love teaching and love who I teach

-I am not new in this field .Moreover, teaching in the primary school doesn't need a high linguistic -proficiency .It needs rather patience and organization

-Good

-Responsible

-We get the essentials

-Natural

-Having a long experience in teaching teaching English as a forcing language

-After the first look at the book, it became clear to me that it is comprehensive, diverse and vital

-Because I feel more confident than before and I start using the right methods that I need.

-The love of teaching as well as the didactic package acquired so far.

These, above, are the perceptions of teachers of the training program before starting out.

It is clear that teachers had positive expectations of the program, given their needs and those of the new ambitious policy. Below are some individual answers to a follow-up question.

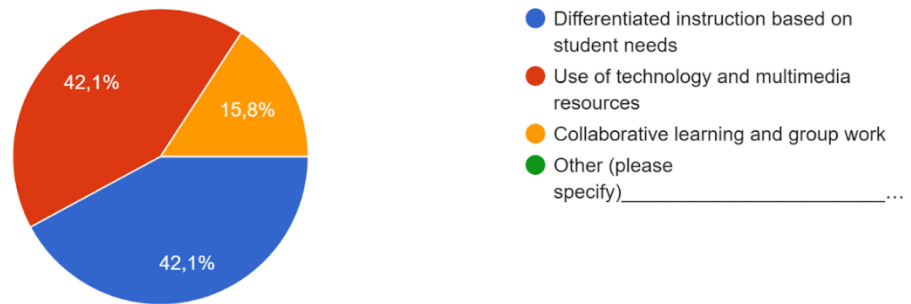
The following question reveals most trainees' familiarity and reliance on technology during the program. This can be positive in that it is one of the 21st century skills, but potentially negative if it would appear to be total reliance.

Figure 6:

The teaching adapt to meet the diverse needs of your learners in the new English as a foreign language pre-service training program.

4. How do you adapt your teaching to meet the diverse needs of your learners in the new English as a foreign language pre-service training program?

19 réponses



Following are questions about their perceptions of the training program process:

Figure 7:

The training program provided clear objectives and expectations.

The training program provided clear objectives and expectations.

19 réponses

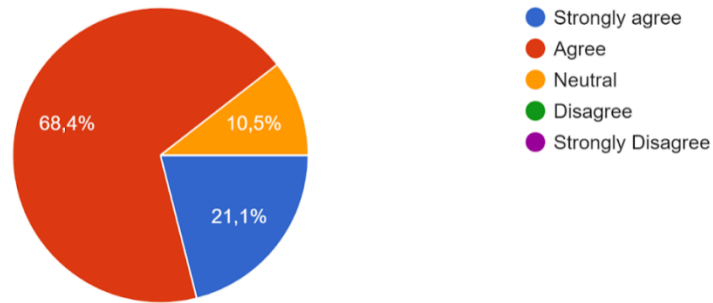
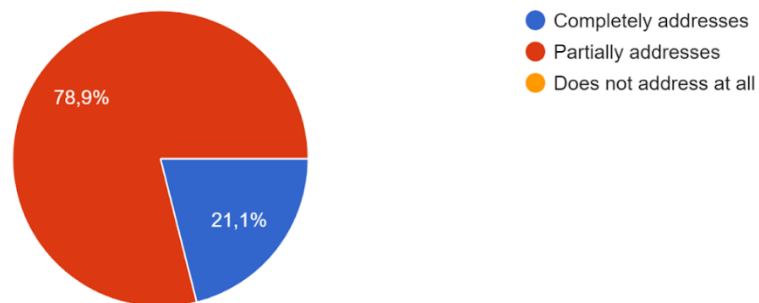


Figure 8:

The extent that Trainees believe the training program adequately addresses the challenges and needs specific to TEFL in primary schools. The results meet the resent stdy's evaluation findings.

1. To what extent do you believe the training program adequately addresses the challenges and needs specific to teaching English as a foreign language in primary schools?

19 réponses



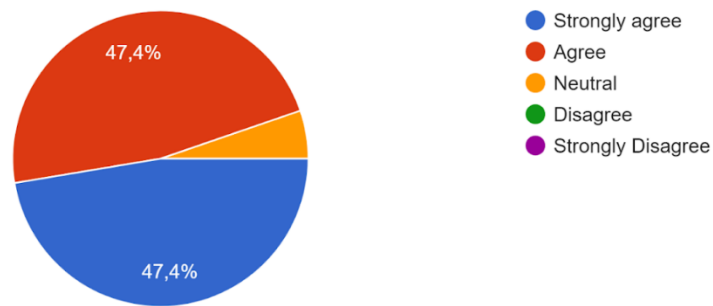
Concerning the Lesson Study effectiveness perceptions here is one revealing question:

Figure 9:

The extent that Trainees believe the training methods used are effective in enhancing their understanding of training practices

The training methods used (lectures, workshops, group activities, etc.) were effective in enhancing my understanding of teaching practices.

19 réponses



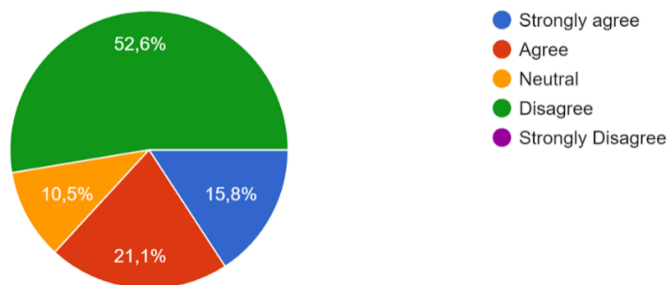
Concerning the coursebook this question reveals an alignment of the coursebook with learner’s needs according to the trainees’ perceptions.

Figure 10:

The extent that Trainees agree that coursebooks are not adequate for their learner’s needs

The coursebooks were not adequate for my learners' needs.

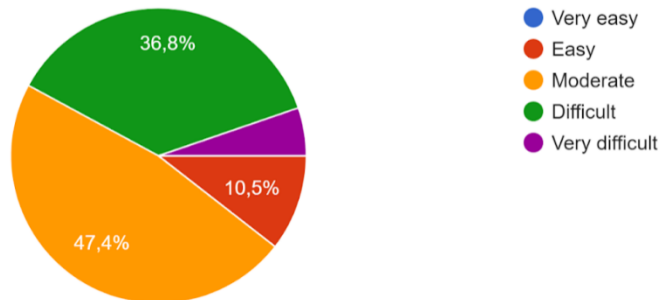
19 réponses



Concerning challenges level of difficulty, this question suggests a balance between “difficult” and “moderate” in their perceptions:

Figure 11:

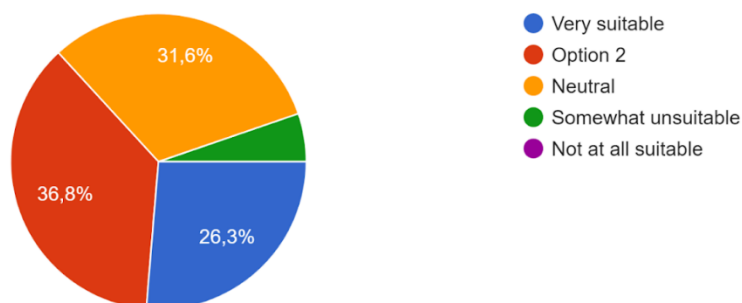
Teaching learners with different levels of English proficiency.
19 réponses



Concerning the syllabus appropriateness, the result contradicts the study’s findings. Here is what trainees think:

Figure 12:

1. On a scale of 1 to 5, how would you rate the suitability of the prescribed syllabus for the new English as a foreign language program for primary schools?
19 réponses



The follow-up question, though, indicates more nuances:

Figure 13:

2. How well do you feel the prescribed syllabus aligns with the overall goals and objectives of the new English as a foreign language program for primary schools?

It is to some extent adequate

somewhat fitting .

It collects all the information we need and sets goals

to somewhat adequate

.

No idea

Accepted

It needs more adjustments

Usefull one as a basic stage for learners

It is suitable

There were huge efforts made by specialists in the field to make English in primary education a success. But there are some shortcomings that we hope to be rectified as soon as possible

it is good

1

The program is compatible with the goals set in the syllabus to a large extent

I think very well since we can achieve a good result.

The syllabus is somehow suitable and it targets the young pupils' goals.

The prescribed syllabus contains the instructions of the program..ans the good way to achieve the objectives of the lesson

It is somehow suitable

We can touch this overall goals in learners'feed back ,their bank of new vocabulary , understanding and speaking new language through simple words

This question about 21st century skills training during the Lesson Study intervention is important:

Figure 14:

2. If yes, please rate the quality and effectiveness of the training you received on a scale of 1 to 5, with 1 being poor and 5 being excellent.

19 réponses

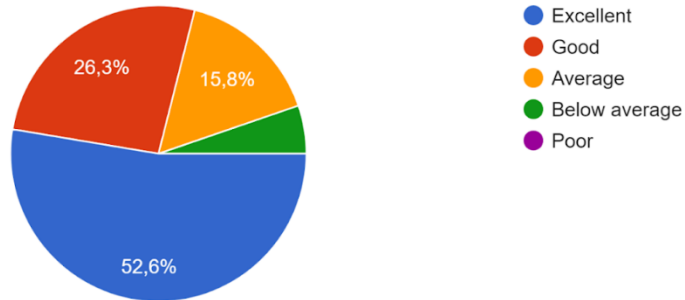


Figure 15:

I am aware of the specific 21st-century skills relevant to teaching.

19 réponses

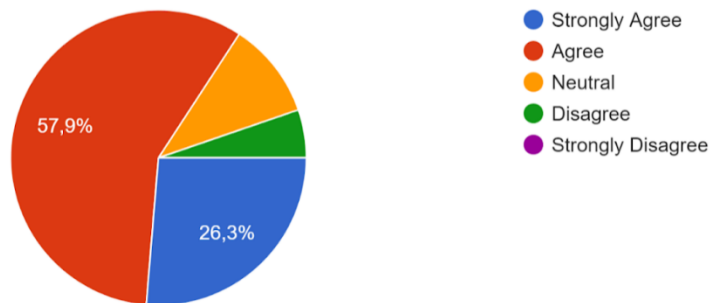


Figure 16:

I feel confident in applying 21st-century skills in my teaching practices.

19 réponses

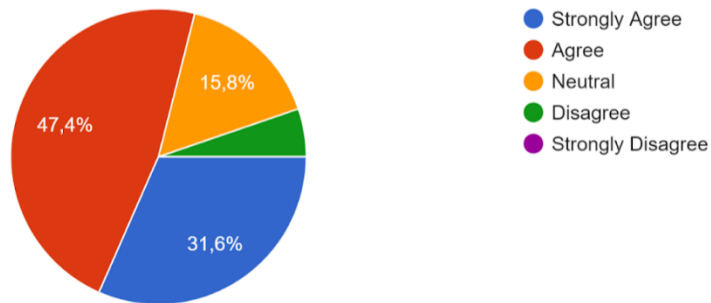


Figure 17:

I have received sufficient training and guidance on developing 21st-century skills.

19 réponses

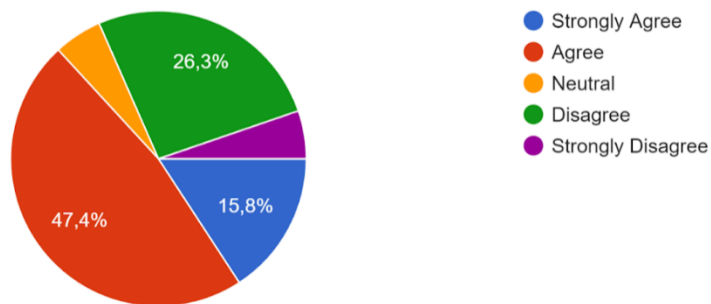


Figure 18:

1. To what extent do you believe that the decision making component of the 21st century skills training program helped you to make better decisions in your teaching practice?

19 réponses

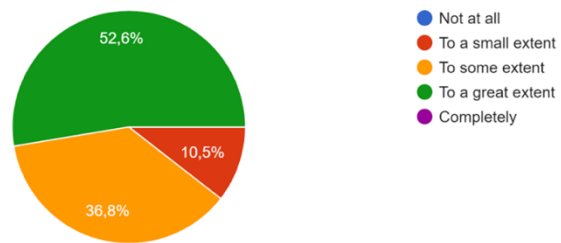


Figure 19:

3. In what ways did the decision making component of the 21st century skills training program help you to improve your teaching practice? (Select all that apply)

19 réponses



Figure 20:

4. In what ways did the 21st century skill training help you to better teach English as a foreign language to primary school students?

21st century skills training helps us to know how to deal with our learners to encourage them to think outside the box, working together; asking questions, solving problems of each other....

It was a good way to highlight and create movement in the class and diversify

In using the four Skills*L,R,S,W.

Good way

cope the difficulties ,adjust to the situation inorder to find solutions

It helps me in practicing and in getting more deeply into the process of teaching

Learners feel comfortable and motivated with new strategies.

The 21st century skills classroom focuses on asking questions to encourage critical thinking, inquiry, and reasoning. In all courses, students evaluate, synthesize, and translate ideas to solve problems and complete projects. Teachers also encourage students to hone their reasoning and inquiry skills.

It helps me to make the lesson more attractive

It helps me to think in classroom practices that involve my learners in the learning process and make them more autonomous and collaborative and also enhance their ways of thinking and acting in including such skills during the teaching sessions.

Setting the goals

how to meet individual needs when teaching

Creativity: I use my own song in teaching I create simple words with melodies

When I vary my methods and use useful methods which improve teaching .

Communcative tasks (playing roles..

In motivating learners

The questions are about the critical thinking training:

Figure 21:

4. Do you feel that the critical thinking training has helped you to better assess your students' critical thinking abilities?

19 réponses

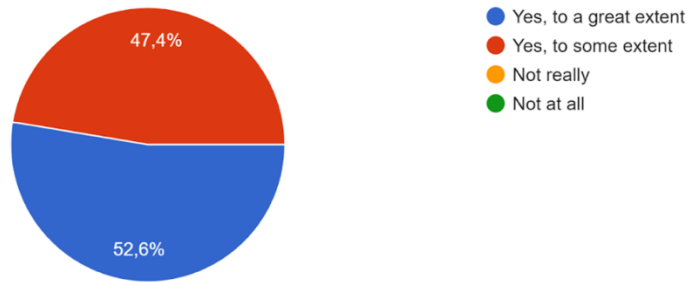


Figure 22 :

How do you rate the effectiveness of the critical thinking training you received in the 21st century skills program?

19 réponses

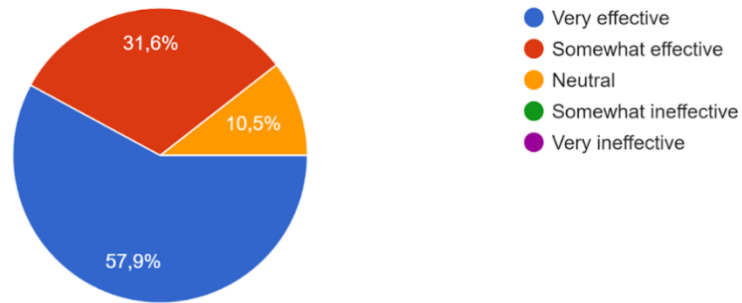


Figure 23 :

How do you rate the effectiveness of the critical thinking training you received in the 21st century skills program?

19 réponses

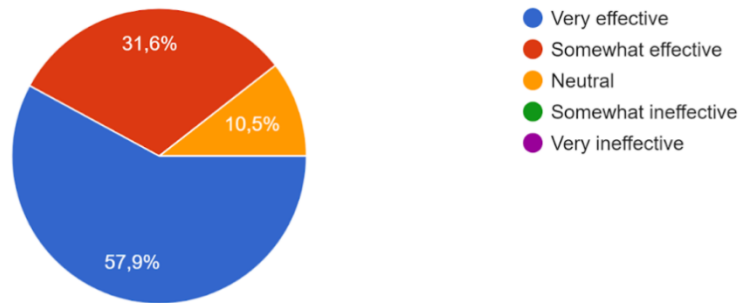


Figure 24

3. Do you feel that the critical thinking training has helped you to better support your students in developing their own critical thinking skills?

19 réponses

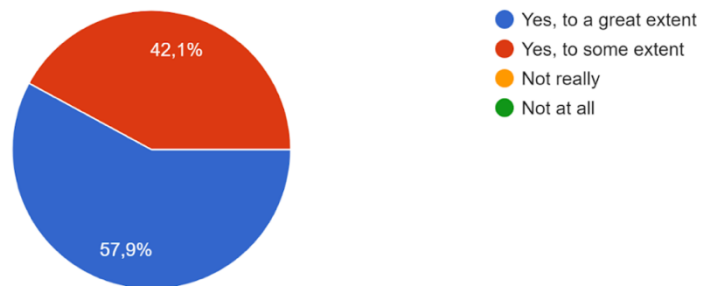


Figure 25

How do you rate the effectiveness of the critical thinking training you received in the 21st century skills program?

19 réponses

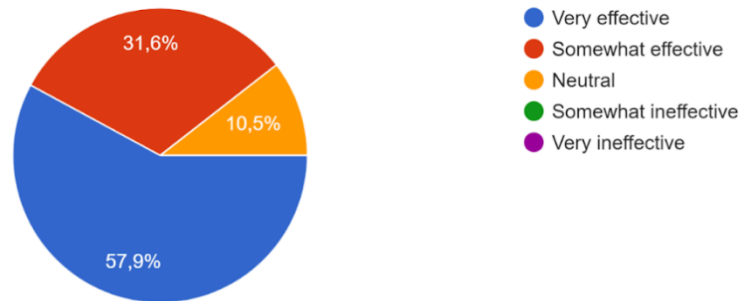


Figure 26:

5. What suggestions do you have for improving the critical thinking component of the 21st century skills in this training program?

using more intensive workshops

This helps us to identify possible problems ahead of time.

more training sessions and variant strategies are far extent helpful

I don't have any suggestions for now because It is good to make critical thinking applied in practical activities and make them more diverse and that is really happening

No idea

working through problems, solving puzzles, and similar activities, critical thinking also includes an element of scepticism. This is important in the 21st Century because it's harder than ever to verify accurate information

More critical activities to use them in class

Allowing more time for discussions

making room for young learners and involving them in real situations.

Giving learners more situations

By varying teaching activities dealing with group work .

The practice, the collaborating work between teachers ,(lesson plans,exam)

to give more oppportunity to learners to discover everything without helping them most of time.

Making it more clear

Put teaching themselves in problem solving situation during training sessions.

..

6.3 ASSESSMENT OF THE INTERVENTION'S IMPACT

This case of teacher trainees in their first beginnings was different from previous ones. They were timid, unfamiliar with professional situations, sometimes even non-collaborative and unable to communicate in public. This was clearly noticeable during the first pre-service training. The variety of strategies that targeted collaborative work has reduced that kind of attitude to some extent. Among the strategies, there were brainstorming, jigsaw, gallery walk, the hot potato, give one and take one, etc. Here teachers could overcome their own areas of improvement - specific to everyone - through participating in their own progress or the team progress. The shared challenges created such a team spirit and a project to realize.

According to Zeichner and Liston (1987:34), reflective action "entails the active, persistent and careful consideration of any belief or supposed form of knowledge. Routine action is guided primarily by tradition, external authority and circumstances." They define teaching as "taking place when someone (a teacher) is teaching someone (a student) about something (a curriculum) at some place and sometime (a milieu)." Dewey (1916) sees a further distinction in teaching when he says "routine teaching takes place when the means are problematic but the ends are taken for granted." However, he sees reflective action as entailing "active, persistent and careful consideration of any belief or supposed form of knowledge in light of the grounds that support it and the further consequences to which it leads."

Reflective practice has been used to refer to technical rationality. It examines teaching behaviors and skills after an event, such as a class. The focus of reflection is on effective application of skills and technical knowledge in the classroom. It also focuses on cognitive aspects of teaching. Many beginner teachers start to examine their skills from this perspective in controlled situations with immediate feedback from teacher trainers. They later develop

reflection-in-action, which is concerned with thinking about what we are doing in the classroom while we are doing it. This thinking is supposed to reshape what we are doing, with an on-spot experimentation. It has a critical function that will lead to reflection-on-action. This deals with thinking back on what we have done to discover how our knowing-in-action may have contributed to an unexpected outcome (Schon 1987). There is also reflection-for-action, which is proactive in nature. Killon and Todnew (1991:15) argue that reflection-for-action is the desired outcome of both previous types of reflection.

Teachers practicing these stages of reflection can reach action research, which is the investigation of those craft knowledge values of teaching that hold in place our habits when we are teaching (McFee 1993). He says "it is research into 1) a particular kind of practice and 2) based on a particular model of knowledge and research with action as outcome... this knowledge is practical knowledge."

Action research is "a form of self-reflective inquiry undertaken by the participants (teachers, or principals, for example) in social situations in order to improve the rationality and justice of a) their own social or educational practices, b) their understanding of these practices, and c) the situations and institutions in which these practices are carried out" (Kemmis and McTaggart 1988:5).

In this context, teachers, after reflection, were working collaboratively to design a checklist without being given a model (See Appendix 4). They used their creative and critical reflective mind to answer the inquiry: what makes the lesson you attended effective/successful/beneficial and enjoyable? Such critical thinking tasks allowed them to observe the demonstration class from different perspectives. They cross-checked their answers and decided on top-ten elements. While doing so, teachers reached a stage of self-evaluation and

CPD (continuous professional development). Meanwhile, working collaboratively allowed a certain degree of professional consciousness. They created a professional community instead of getting ready-made material that might not fit their learners' NIL (needs, interest and level). They familiarized novice teachers with concepts related to the profession. They allowed a kind of easiness and self-confidence to eliminate stressful situations caused by lack and non-efficient planning. They moved forward to proficiency stage in short time. Learners' achievement in the language was clearly noticeable. The criteria they suggested in the checklist of the self-observation and peer class observation were -in this order-:

- 1- Teacher's role
- 2- Learner's role
- 3- Material
- 4- Strategies
- 5- With indicators/standards of quality
- 6- The 4Cs
- 7- Use of ICTs
- 8- Active learning
- 9- Critical thinking tasks

Classroom visits: After that, the inspector visited different classes with sudden visits, rural and suburb, and checked the practices:

- HOTS (High order thinking skills) tasks were encouraged
- Autonomy and self-reliance
- Time management
- SMART objectives set and achieved

- Well-structured methodology of work

The reports after the class visits were written with the remarks on the 21st century skills, so that teachers would consider and emphasize their use while future planning. During the learning debate, first the inspector focused on encouraging reflection-on-action and suggesting future action plans to remediate his/her own specific areas of development. The teachers started to use professional specific terms related to specific situations such as: slow learners instead of weak learners, problem solving situations instead of warm up, brainstorming instead of revision, activating prior knowledge instead of remembering, and so on.

6.3.1 Interepretation of the training impact

Throughout the various stages of the program, most teachers - mainly those who attended trainings and participated in lesson study - have developed a reflective spirit at different rates. Considering personal differences, previous professional experiences and conditions of work.

As Pennington (1992:47) defines reflective teaching as "deliberating on experiences." She also extends this idea to reflective learning. Pennington relates development to reflection where "reflection is viewed as the input for development while also reflection is viewed as the output of development." She further proposes a reflective/developmental orientation "as a means for (1) improving classroom processes and outcomes, and (2) developing confident, self-motivated teachers and learners." The focus here is on analysis, feedback and adaptation as an ongoing and recursive cycle in the classroom.

Whether fresh novice teacher trainees, or having little experience as supply teachers in middle or high school, or even being practicing other jobs different from education, trainees showed little positive attitude to self-reflection and peer evaluation during the pre-service training. Their behaviors have become more open to discussion with no timid or ashamed

reactions. This was clearly noticed throughout the year, as first none of the trainees had the willingness to either discuss or mention the reflective journal on their lesson plans.

Teacher change and development require an awareness of a need to change. Teacher development is defined as "a metastable system of context-interactive change involving a continual cycle of innovative behavior and adjustment to circumstances" (Pennington 1990:5). She also sees two key components of change: innovation and critical reflection.

The first questionnaire given to teachers, the pre-course task, showed that a) they had general readiness to deal with the unexpected profession b) they were unprepared for such profession c) they were jobless for years d) most of them had family responsibilities or practiced other jobs.

Now there was a kind of unifying the profiles at the professional knowledge (integrating in media groups and activating their prior knowledge), professional practice (sharing lesson plans and inquiries) and professional engagement (managing learning environment and motivating learners).

As Richards (1990:5) sees reflection as a key component of teacher development. He says that self-inquiry and critical thinking can "help teachers move from a level where they may be guided largely by impulse, intuition or routine, to a level where their actions are guided by reflection and critical thinking." In referring to critical reflection in an interview with Farrel (1995:95), Richards says: "critical reflection refers to an activity or process in which experience is recalled, considered and evaluated, usually in relation to a broader purpose. It is a response to a past experience and involves conscious recall and examination of the experience as a basis for evaluation and decision-making and a source for planning and action."

In this context, teachers during post observation sessions were given the chance to express their weaknesses clearly in such a conscious manner. One of them said she couldn't control learners' participation. Instead of expecting a recipe to apply, the debate was conducted in such a way through questions: Is it a matter of lack of preparation or learners' motivation? Do you think there must be a way to overcome? What can you suggest as an action plan? Here this novice teacher started to think thoroughly about her own class, suggesting that the instructions were not clear because of her voice and she should set class routines and get learners' attention. Using gestures and repeating the instruction before task.

CHAPTER FOUR :
DISCUSSION AND CONCLUSIONS

Discussion and Conclusions

7.1 THE CIPP PROGRAM EVALUATION FINDINGS: ASSESSING EFFECTIVENESS AND EFFICIENCY

The following section provides a comprehensive summary of the findings derived from the CIPP program evaluation. This evaluation aimed to assess the overall effectiveness and efficiency of the program in the given educational setting. The evaluation identified both strengths and weaknesses, shedding light on areas for improvement, and answering the fourth research question: What are the strengths and weaknesses of the current training program in terms of addressing the challenges of teaching English as a Foreign Language in Algerian primary schools?

7.1.1 Strengths of the Program

- **Alignment with Educational Needs**

One of the significant strengths of the program was its alignment with the specific needs of the educational setting. The initial objectives of the program were well-tailored to address the challenges and requirements of the context, demonstrating a clear understanding of the educational landscape.

- **Positive Learner Reactions and High Achievement**

The program received positive feedback from learners, who reacted favorably to the implemented initiatives. Notably, learners achieved high levels of academic success, indicating the program's effectiveness in facilitating their learning and growth.

7.1.2 Areas for Improvement

- **Adaptability for Long-Term Impact**

To enhance the program's effectiveness, it is crucial to prioritize adaptability. Regular adaptation and refinement of the program would enable educators to observe and measure its long-term impact on student learning outcomes. A dynamic approach that considers evolving educational needs would ensure sustained improvement over time.

- **Motivation and Work Conditions for Teachers**

Improving teachers' motivation and work conditions is vital for the program's success. By addressing challenges such as excessive workload and the need for professional development opportunities, the program can enhance teachers' engagement and commitment, leading to more effective instructional practices.

- **Regulations and Organizational Structure**

Establishing clear and comprehensive regulations and an effective organizational structure would contribute to the program's efficiency. Well-defined guidelines and protocols would assist in streamlining program implementation, ensuring consistency across different educational institutions.

- **Cross-Curricular Skills Development**

Promoting cross-curricular skills development is essential for a holistic educational experience. By providing widespread training opportunities for teachers in various subjects, the program can foster the integration of 21st century skills across different disciplines, facilitating a more comprehensive and interconnected learning experience for students.

- **Development of a Comprehensive Guide**

Designing a comprehensive guide that encompasses teachers' planning and feedback processes would greatly benefit program implementation. This guide should facilitate teachers'

understanding of the philosophy behind 21st-century skills, outline its purpose, and provide practical strategies for its integration into instructional practices.

- **Training Courses for Inspectors**

To effectively disseminate the program's principles and practices, it is recommended that training courses be developed specifically for inspectors. Equipped with the necessary knowledge and skills, inspectors can serve as advocates and trainers, empowering teachers at the local level and ensuring widespread adoption of the program.

7.1.3 Conclusion

The evaluation findings revealed both strengths and areas for improvement in the assessed program. While the program demonstrated alignment with educational needs and received positive learner reactions, certain aspects require attention and refinement. By addressing adaptability, teacher motivation, regulatory frameworks, cross-curricular skills development, and the development of a comprehensive guide, the program can be enhanced to better meet the needs of the educational setting and maximize its overall effectiveness and efficiency. Additionally, investing in training courses for inspectors would facilitate effective program dissemination and implementation at the grassroots level. Therefore, in summary, the related research questions are answered in the following concise way:

1. To what extent does the training program for pre-service primary teachers integrate and foster 21st-century skills?
 - The findings suggest that the training program displays considerable deficiencies as regards the integration of those skills, conversely to the explicit objectives it initially set. It thus needs to be reviewed and enhanced to better align with the needs of primary school teachers and promote 21st century skills effectively.

2. What are the outcomes and impacts of the training program on the acquisition and development of 21st century skills by pre-service primary teachers?
 - The findings indicate that many areas related to teachers' learning and development, as well as work conditions were deficient and in need of serious improvement reforms. Examples are the necessity of designing supportive materials for self-reflection and peer observation to improve the acquisition and development of 21st century skills among pre-service primary teachers.

7.2 THE LESSON STUDY REMEDIATION INTERVENTION

An intervention was conducted to test the potential and efficiency of teaching 21st century skills to pre-service teachers. The intervention was based on the Lesson Study approach along the methodology laid out in previous sections, answering the 5th research question of the present study, namely: 5. How can Lesson Study be implemented as a collaborative professional development approach to enhance the integration of 21st century skills in the training of pre-service primary teachers?

In this section, we will describe the results of the pre- and post- questionnaires designed to describe trainees' perceptions towards the variables this study addressed. The 6th research question of this study will be answered accordingly.

7.2.1 The intervention pre-test

The questionnaire consisted of 11 items, which can be summarized into four main areas of observation. Each item provided three possible answers, along with an opportunity for explanation. These items were designed to gather specific information with a particular aim, following a logical order. Here is a brief description of each section:

- Section one: Relation with other foreign languages This section explored the connection between English and previously learned languages. Most teachers agreed that collaborative work could be done between French and English, as it facilitates learning due to existing similarities, motivation, and eagerness. On the other hand, some teachers disagreed, believing that it would create confusion among learners and teachers, leading to a chaotic situation.

- Section Two: Preparation In this section, teachers were asked about their preference for using the course book, their own materials, or a combination of both for preparation. Nine teachers expressed their inability to work without the course book due to lack of experience, unreadiness to teach in primary school, or considering it obligatory. Those who disagreed stated that preparing their own materials, tailored to their lessons, was more practical and useful. Fifteen other teachers believed that both the course book and supplementary materials were necessary, depending on the situation or task at hand.

- Section Three: Use of mother tongue in class or assessment Teachers' views on the use of the mother tongue were divided, with an approximately equal number of teachers agreeing and disagreeing. Some provided additional explanations, suggesting that alternatives such as non-verbal means, visual aids, and real-life examples could be better substitutes for the mother tongue.

By analyzing the responses to these questionnaire sections, valuable insights were gained regarding the relationship between foreign languages, preferences for preparation materials, and views on the use of the mother tongue in the classroom or assessment.

7.2.2 The intervention post-test questionnaire

A questionnaire was sent as a google form to the emails of the trainees. It was required to be completed by the end of the school year to check their progress. The challenge was that they had lots of professional commitments and thus only 19 could respond positively out of 63.

It included the introductory statement as follows:

'The purpose of this survey is to gather your perceptions regarding the training process that you have been part of, the integration of 21st century skills, and the challenges you face as pre-service teachers in teaching English to primary school children. Your responses will contribute to our research on the effectiveness of the training program and the role of 21st century skills in professional development.'

It was divided into eight sections.

In the demographic section, we found out that most teachers were female: 17 compared to only two male teachers. Ten of them were more than 35 years old. One was 41, one was 45 and two were 43.

It was an exceptional case to find newly appointed teachers belonging to this age category. The criteria of recruitment required to start with the oldest and the ones with the oldest degree.

Their educational background was mostly bachelor's degree. Seven had master's degree. Those who mentioned other with specify remark did not mention anything. This was an unwilling answer.

The questionnaire's result revealed :

- High expectations on behalf of the trainees before starting out the program
- Positive perceptions of the extent to which the programs objectives meet their learners' needs

- Positive perceptions of the program's syllabus, in spite of the different hypothesis of this study
- Positive feedback so as to the 21st century skills delivery during the Lesson Study intervention
- Positive perceptions as to the efficient contribution of those skills in their lesson planning, design and management
- Claims that the skills helped them deal with professional challenges

7.2.3 Conclusion

In conclusion, these findings answered the 3rd and 4th research question as follows:

3. How do 21st century skills affect the confidence, satisfaction, motivation, and readiness of pre-service primary teachers to teach English to children and face professional challenges?
 - The findings highlight the positive effects of 21st century skills training on teachers' attitudes, sense of preparedness and professional practice, including more effective planning, classroom practices, designing reliable testing tools, and creating differentiated classrooms.
6. What are the effects of the Lesson Study-based remediation intervention on pre-service primary teachers' understanding and application of 21st century skills in their teaching practices?
 - Findings indicate a self-reported high awareness of the nature and importance of 21st century skills and considerable readiness to apply them in their classroom practices on a daily basis. Results also suggested that learning these skills helped teachers considerably to face the professional challenges they face on various levels, like the inadequacies of the syllabus,

complex and unpredictable problems to solve, or the individual differences among the young learners.

7.3 IMPLICATIONS FOR PRACTICE

After clarifying the competencies to be developed in this key stage, a framework for the 21st century skills was set. The observation sheet used by inspectors or even teacher trainers should consider the skills.

Besides being a researcher on the topic, as a practitioner in the field of education, I benefited from this favor while visiting classes of primary education, as an extra additional duty. Here observing the attitude towards the language had a great effect on teachers' readiness to overcome challenges. The socio-cultural background had paved the way. Most of the parental community encouraged the use of the language, with the fear of using both foreign languages at once, however. The 62 teachers of English in primary education had frequent contact with their inspectors (trainers/supervisors/tutors) as it was clarified in the official document of in-charge inspectors.

Many of them were visited. Half had professional debate on their lessons and drew an action plan after a reflective thinking stage. Teachers were learning to use the reflective journal on their plans (what worked?/what hindered?/what is the action plan?) as a developmental strategy. Second, an online survey was conducted, analyzed and a plan for future in-service training was set to remediate and foster urgent areas of improvement.

Via the CDP 3ps SOCIAL MEDIA group, teachers of the whole state were members. They were developing the attitude of sharing material and discussing inquiries. Only few still needed efforts to become proactive. Most of the material shared were flash cards, tests and learners' grouping and products. This indicated their self-satisfaction of products they realized,

neglecting time constraints, lack of material and resources. They sought motivation and encouragement from the whole society and especially from the responsible.

7.4 RECOMMENDATIONS FOR PROGRAM IMPROVEMENT

Online training: Teachers were members of the same group of an online training. Cross-checking and reviewing their work together created a kind of mentorship. Being rewarded while publishing any of the tasks of high quality created a motivating atmosphere of competition and creativity. Sharing same professional worries reduced tension and created a healthy environment. Teachers' initiatives to demand visits themselves were another indicator of their professional consciousness.

- Attitudes to inspectors' visits and mentorship have improved among most of the teachers.

- Learners' attitudes to learning English have shown positive impact through projects realized, their handwriting, and their problem solving situations.

- A more developed checklist (attached to this humble research) that may help teachers and inspectors for class observation. This will make our research of quality and uniqueness.

The training program has produced a checklist that teachers can use in their self-reflection, proofreading lesson plans and peer evaluation. This checklist is characterized by the focus on sub skills of the 21st century skills. Teachers can now consider them as indicators of the presence or absence of a skill in a task/lesson/course.

The teachers, while using such a tool, will consider their forward planning and become more proficient. They will also be able to mentor other novice teachers and/or conduct workshops on any topic. The checklist designed was a contribution of many teachers translated

into a more academic language that respects international standards of quality. The following questions are analyzed in the table.

Criteria	Focus area	With	Against	Comments And action plan suggested
Background	Familiarity with the job	*	*	Teachers have equal chances
	Familiarity with trainings	**	*	More familiar case
	Coping with challenges	***	*	Various challenges encountered
Learners needs	Learners challenges	***	*	Teachers awareness
	Adapting teaching	***	*	Usefulness to their practices
Perception of the training process	Fits the needs	***	*	Consciousness about it
	The process adequacy	****	*	Limited prior exposure to the lge

	New training program conditions	***	*	Technology as a handicap
	Adequacy of the content	***	*	More resouces needed
The21st century skills training	Program content	***	**	Skill based training
	Impact on practices	**	*	More strategies needed
	Decision making impact on practices	**	**	More supporting documents requirement
	Critical thinking helps to cope with situations	***	*	More time is required
	Digital literacy usefulness	***	**	Social media participation in collaborative work
	Creativity and classroom	***	*	Creativity require

				resources but helps in motivation
Preparedness to teach English		***	*	The attitude to the teaching English

Final Conclusion

The CIPP program evaluation findings provide valuable insights into the effectiveness and efficiency of the assessed program in the educational setting. The evaluation identified strengths that highlight the program's alignment with educational needs and positive learner reactions, leading to high achievement. However, several areas for improvement were also identified, which are crucial for enhancing the program's overall effectiveness and efficiency.

To improve the program's effectiveness, it is recommended to prioritize adaptability for long-term impact. Regular adaptation and refinement of the program based on evolving educational needs would ensure sustained improvement over time. Additionally, addressing teacher motivation and work conditions is essential for success. By tackling challenges such as excessive workload and providing professional development opportunities, teachers' engagement and commitment can be enhanced, resulting in more effective instructional practices.

Establishing clear and comprehensive regulations and an effective organizational structure would contribute to the program's efficiency. Well-defined guidelines and protocols would streamline program implementation and ensure consistency across different educational

institutions. Promoting cross-curricular skills development is also crucial for a holistic educational experience. Providing widespread training opportunities for teachers in various subjects would foster the integration of 21st century skills across different disciplines, enhancing students' comprehensive and interconnected learning experience.

Moreover, the development of a comprehensive guide that encompasses teachers' planning and feedback processes would greatly benefit program implementation. This guide should facilitate teachers' understanding of the philosophy behind 21st-century skills, outline its purpose, and provide practical strategies for its integration into instructional practices. Furthermore, investing in training courses specifically designed for inspectors would facilitate effective program dissemination and implementation at the grassroots level.

The intervention pre-test and post-test questionnaires provided valuable insights into the relationship between foreign languages, preferences for preparation materials, and views on the use of the mother tongue in the classroom or assessment. These insights can guide instructional approaches and decision-making to improve the teaching and learning process.

The implications for practice include the incorporation of the 21st century skills framework into observation sheets used by inspectors and teacher trainers. By considering these skills, the evaluation and development of teaching practices can align with the desired competencies. Additionally, fostering a collaborative and supportive environment among teachers through professional development platforms, such as online training and social media groups, can enhance motivation, creativity, and the sharing of best practices.

Based on the program evaluation, recommendations for program improvement include online training opportunities that promote mentorship and collaborative learning among teachers. These platforms can serve as a space for sharing materials, discussing inquiries, and addressing

professional concerns. The development of a more comprehensive checklist based on the sub-skills of 21st century skills can aid teachers in self-reflection, lesson planning, and peer evaluation. This checklist will facilitate forward planning, mentorship of novice teachers, and the conduct of workshops.

In conclusion, the CIPP program evaluation findings shed light on the strengths and areas for improvement in the assessed program. By addressing the identified areas for improvement, such as adaptability, teacher motivation, regulatory frameworks, cross-curricular skills development, and the development of a comprehensive guide, the program can be enhanced to better meet the needs of the educational setting and maximize its overall effectiveness and efficiency. Furthermore, investing in training courses for inspectors and providing platforms for collaboration and professional development can contribute to the successful implementation and dissemination of the program.

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Appendices

11.1 APPENDIX 1 : PRE-TEST SUEVEY QUESTIONS

Survey on EFL Primary School Teachers' Perspectives

Please indicate your level of agreement with the following statements:

1. The coursebook is more necessary than my own preparation.
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree
2. My own preparation is more necessary than the coursebook.
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree
3. The taught foreign languages (French and English) will greatly interfere with each other.
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree
4. There will be collaboration between the taught foreign languages (French and English).
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree
5. We should use the mother tongue in teaching.
 - Strongly Agree
 - Agree

- Neutral
 - Disagree
 - Strongly Disagree
6. Using the coursebook is essential for effective teaching.
 - Please provide a specific example or scenario where the coursebook enhances the effectiveness of teaching.
 7. Using my own materials is essential for effective teaching.
 - Please provide a specific example or scenario where your own materials enhance the effectiveness of teaching.
 8. Both the coursebook and my own materials are necessary for effective teaching.
 - Please explain how the integration of the coursebook and your own materials can lead to more effective teaching practices.
 9. How do you ensure a balance between using the coursebook and incorporating your own materials in your teaching?
 10. In what ways can collaboration between the taught foreign languages (French and English) benefit student learning?
 11. Reflecting on your teaching experience, share an example of when using the mother tongue in teaching had a positive impact on student understanding and engagement.
Please select the option that best represents your viewpoint for statements 1-5. For statements 6-11, please provide thoughtful responses based on your professional experience.

Thank you for your participation!

11.2 APPENDIX 2 : POST-TEST SURVEY QUESTIONS

Dear Participant,

Thank you for taking the time to complete this survey. The purpose of this survey is to gather your perceptions regarding **the training process that you have been part of, the integration of 21st century skills, and the challenges you face as pre-service teachers in teaching English to primary school children.** Your responses will contribute to our research on the effectiveness of the training program and the role of 21st century skills in professional development.

Please answer the following questions to the best of your ability. Your responses will remain confidential and anonymous.

Section 1: Demographic Information

1. Gender:

- Male
- Female

2. Age:

- Under 20
- 20-24

- 25-29
- 30-34
- 35 and above

3. Educational Background:

- Bachelor's degree
- Master's degree
- Other (please specify)

4. How long have you been enrolled in the pre-service teacher training program?

Section One: Background Questions

1. How familiar were you with teaching English as a foreign language prior to this pre-service training program?
 - Very familiar
 - Somewhat familiar
 - Not at all familiar

2. Have you previously encountered any challenges in teaching English as a foreign language before this new pre-service training program?
 - Yes
 - No

3. If the answer is "Yes," please describe the challenges you have encountered in the space provided below.

.....

4. How confident did you feel in your ability to teach English as a foreign language in the new pre-service training program before starting out?
 - Very confident
 - Somewhat confident
 - Neutral
 - Somewhat unconfident
 - Very unconfident

5. How confident were you in the efficiency of the new English as a foreign language pre-service training program before starting out?
 - Very confident
 - Somewhat confident
 - Neutral
 - Somewhat unconfident
 - Very unconfident
6. What made you feel so?
.....

Section Two: Perception of Learners' Needs

1. How well do you feel the new English as a Foreign Language pre-service training program meets the needs of your learners?
 - Very well
 - Somewhat well
 - Neutral
 - Somewhat poorly
 - Very poorly

2. Which of the following do you think are the biggest challenges your pupils face in learning English as a foreign language? (Select all that apply)
 - Limited prior exposure to English language
 - Lack of interest or motivation
 - Difficulty understanding new vocabulary
 - Difficulty understanding grammar concepts
 - Difficulty with pronunciation
 - Difficulty with reading and writing in English
 - Other (please specify) _____
3. How would you rate the overall level of English language proficiency of your learners thanks to the new English as a foreign language pre-service training program?

- Advanced
 - Intermediate
 - Beginner
 - Not sure
4. How do you adapt your teaching to meet the diverse needs of your learners in the new English as a foreign language pre-service training program?
- Differentiated instruction based on student needs
 - Use of technology and multimedia resources
 - Collaborative learning and group work
 - Other (please specify) _____
5. Do you feel you have adequate resources and support to effectively teach English as a foreign language to your pupils in the new English as a foreign language pre-service training program?
- Yes, I have all the resources and support I need
 - No, I need more resources and support
 - Not sure

Section Three: Overall Perception of the Training Process

1. To what extent do you believe the training program adequately addresses the challenges and needs specific to teaching English as a foreign language in primary schools?
- Completely addresses
 - Partially addresses
 - Does not address at all
2. Please rate the following statements about **the training process**, on a scale of 1 to 5, where 1 indicates "strongly disagree" and 5 indicates "strongly agree."
- The training program provided clear objectives and expectations.
 - The training materials and resources were relevant and useful.
 - The training sessions were well-organized and structured.
 - The training activities and assignments were engaging and interactive.
 - The trainers effectively facilitated discussions and provided guidance.
 - The training program adequately addressed the needs and challenges of teaching English as a foreign language.
 - In general, I feel satisfied with the training process.
3. Please indicate your level of agreement with the following statements about **the training effectiveness**, on a scale of 1 to 5, where 1 indicates "strongly disagree" and 5 indicates "strongly agree."

- The training methods used (lectures, workshops, group activities, etc.) were effective in enhancing my understanding of teaching practices.
- The use of technology in the training program facilitated my learning experience.
- The opportunities for practical application and classroom observations were beneficial for my professional development.
- The feedback provided by trainers during the training process was helpful and constructive.
- Overall, I believe the training methods used were effective in preparing me for teaching English as a foreign language.

Section Four: The Challenges Faced with the New Training Program:

1. Please indicate how much you agree or disagree with the following statements about the challenges you faced with the new English language pre-service training program:
 - The coursebooks were not adequate for my learners' needs.
 - The syllabus lacked a clear vision and goals.
 - There was a lack of training and support for teaching English as a foreign language.
 - The class size was too large, making it difficult to provide individual attention to learners.
 - The learners had a wide range of abilities and needs, making it difficult to cater to everyone's needs.
 - The learners' motivation to learn English was low.
 - There was a lack of resources and materials to support teaching and learning.
 - The school did not provide sufficient time for planning and preparation for English language lessons.
 - Other (please specify):

2. Please rate the following challenges you faced with the new English language pre-service training program in terms of their level of difficulty:
 - Teaching learners with different levels of English proficiency.
 - Managing student behavior in the English language classroom.
 - Meeting the language needs of learners with special needs.
 - Encouraging student participation and engagement in English language activities.
 - Designing appropriate assessments for English language proficiency.
 - Other (please specify):

3. What were the biggest challenges you faced when teaching English language in the primary school setting?

4. Do you have any suggestions for how the school could better support you in your teaching of English as a foreign language?

Section Five: Teachers' Perception of the Prescribed Syllabus in the

New Program :

1. On a scale of 1 to 5, how would you rate the suitability of the prescribed syllabus for the new English as a foreign language program for primary schools?
1 - Not at all suitable 2 - Somewhat unsuitable 3 - Neutral 4 - Somewhat suitable 5 -

Very suitable

- How well do you feel the prescribed syllabus aligns with the overall goals and objectives of the new English as a foreign language program for primary schools?
- To what extent do you feel the prescribed syllabus allows for flexibility in meeting the individual needs of learners and adapting to diverse classroom settings?
- How easy or difficult is it for you to incorporate the prescribed syllabus into your daily lesson plans and classroom activities?
- Have you identified any gaps or areas for improvement in the prescribed syllabus? If so, please describe them below.
-
- What suggestions do you have for improving the prescribed syllabus to better meet the needs of learners and support effective teaching and learning in the classroom?
-

Section Six: 21st Century Skill Training

1. Have you received any training related to 21st century skills in the context of pre-service English as a foreign language to primary school students training?
 - Yes
 - No
2. If yes, please rate the quality and effectiveness of the training you received on a scale of 1 to 5, with 1 being poor and 5 being excellent.

.....

3. Please rate your level of agreement with the following statements:
- The training program effectively introduced and explained the concept of 21st century skills.
 - 1 (Strongly Disagree)
 - 2 (Disagree)
 - 3 (Neutral)
 - 4 (Agree)
 - 5 (Strongly Agree)

 - I understand the concepts and importance of 21st-century skills.
 - 1 (Strongly Disagree)
 - 2 (Disagree)
 - 3 (Neutral)
 - 4 (Agree)
 - 5 (Strongly Agree)

 - I am aware of the specific 21st century skills relevant to teaching.
 - 1 (Strongly Disagree)
 - 2 (Disagree)
 - 3 (Neutral)
 - 4 (Agree)
 - 5 (Strongly Agree)

 - I have received sufficient training and guidance on developing 21st-century skills.
 - 1 (Strongly Disagree)
 - 2 (Disagree)
 - 3 (Neutral)
 - 4 (Agree)
 - 5 (Strongly Agree)

- The training program provided sufficient opportunities for developing and practicing 21st century skills.
 - 1 (Strongly Disagree)
 - 2 (Disagree)
 - 3 (Neutral)
 - 4 (Agree)
 - 5 (Strongly Agree)

- The integration of 21st century skills in the training program has improved my ability to cope with professional challenges as a pre-service teacher.
 - 1 (Strongly Disagree)
 - 2 (Disagree)
 - 3 (Neutral)
 - 4 (Agree)
 - 5 (Strongly Agree)

- I feel confident in applying 21st century skills in my teaching practices.
 - 1 (Strongly Disagree)
 - 2 (Disagree)
 - 3 (Neutral)
 - 4 (Agree)
 - 5 (Strongly Agree)

- 4. In what ways did the 21st century skill training help you to better teach English as a foreign language to primary school students?

- 5. In what ways do you think the 21st century skill training could be improved to better prepare you to integrate these skills into your teaching practices?
- 6. What additional support or training do you think you need to better integrate 21st century skills into your teaching practices?

Decision making training

1. To what extent do you believe that the decision making component of the 21st century skills training program helped you to make better decisions in your teaching practice?
 - a. Not at all
 - b. To a small extent
 - c. To some extent
 - d. To a great extent
 - e. Completely
2. How often do you use the decision making strategies that you learned in the 21st century skills training program in your teaching practice?
 - a. Never
 - b. Rarely
 - c. Sometimes
 - d. Often
 - e. Always
3. In what ways did the decision making component of the 21st century skills training program help you to improve your teaching practice? (Select all that apply)
 - a. It helped me to identify and analyze problems more effectively
 - b. It helped me to consider different options and make more informed decisions
 - c. It helped me to involve my students in the decision making process
 - d. It helped me to anticipate and prepare for potential challenges in my teaching practice
 - e. It did not help me to improve my teaching practice
4. Do you believe that the decision making component of the 21st century skills training program should be continued in future teacher training programs?
 - a. Yes
 - b. No
 - c. Not sure
5. If yes, how could the decision making component of the 21st century skills training program be improved in future teacher training programs? (Open-ended question)

.....
6. If no, why do you think the decision making component of the 21st century skills training program should not be continued in future teacher training programs? (Open-ended question)

.....

Decision making training and designing lessons

7. To what extent do you agree with the following statement: "The 21st century skills in the training program have helped me make better decisions while teaching and designing lessons."

- Strongly agree
 - Somewhat agree
 - Neither agree nor disagree
 - Somewhat disagree
 - Strongly disagree
8. Please describe how the 21st century skills training program has impacted your decision-making process while teaching and designing lessons.

9. Have you applied any of the skills or strategies you learned in the 21st century skills training program in your classroom? If so, please provide examples.
- Yes
- No
- Examples
10. How confident are you in your ability to integrate 21st century skills into your teaching practice?
- Very confident
 - Somewhat confident
 - Neither confident nor unconfident
 - Somewhat unconfident
 - Very unconfident
5. What support or resources do you feel you need in order to effectively incorporate 21st century skills into your teaching practice?
- Professional development opportunities
 - Access to technology or instructional materials
 - Time to collaborate with other teachers
 - Other (please specify)

Critical Thinking Training

1. How do you rate the effectiveness of the critical thinking training you received in the 21st century skills program?
- a. Very effective
 - b. Somewhat effective
 - c. Neutral
 - d. Somewhat ineffective
 - e. Very ineffective

2. In what ways has the critical thinking training helped you to improve your teaching practice? Please select all that apply:
 - a. Encouraged me to ask more thought-provoking questions in class
 - b. Helped me to develop more engaging and challenging lesson plans
 - c. Improved my ability to identify and address misconceptions among learners
 - d. Enhanced my own critical thinking skills
 - e. Other (please specify): _____
3. Do you feel that the critical thinking training has helped you to better support your students in developing their own critical thinking skills?
 - a. Yes, to a great extent
 - b. Yes, to some extent
 - c. Not really
 - d. Not at all
4. Do you feel that the critical thinking training has helped you to better assess your students' critical thinking abilities?
 - a. Yes, to a great extent
 - b. Yes, to some extent
 - c. Not really
 - d. Not at all
5. What suggestions do you have for improving the critical thinking component of the 21st century skills in this training program?

Digital Literacy Training Component

1. To what extent do you believe the digital literacy component of the 21st century skills training program have helped you integrate technology in your teaching practices?
 - Not at all helpful
 - Slightly helpful
 - Moderately helpful
 - Very helpful
 - Extremely helpful

2. How confident do you feel in your ability to use technology effectively in your teaching after participating in the digital literacy component of the 21st century skills training program?

1. Not at all confident
2. Slightly confident
3. Moderately confident
4. Very confident
5. Extremely confident

3. In what ways do you think the digital literacy component of the 21st century skills training program could be improved to better support your teaching practices?

.....

4. Have you faced any challenges in integrating technology in your teaching practices after completing the digital literacy component of the 21st century skills training program? Please explain.

.....

Individual 21st Century Skills

Please indicate the extent to which you believe each of the following 21st century skills has helped you cope with the challenges of teaching English to primary school children. Use a scale of 1 to 5, where 1 represents "Not at all helpful" and 5 represents "Extremely helpful."

10. Critical thinking:

- 1 (Not at all helpful)
- 2 (Slightly helpful)
- 3 (Moderately helpful)
- 4 (Helpful)
- 5 (Extremely helpful)

11. Communication and collaboration:

- 1 (Not at all helpful)
- 2 (Slightly helpful)

- 3 (Moderately helpful)
- 4 (Helpful)
- 5 (Extremely helpful)

12. Creativity and innovation:

- 1 (Not at all helpful)
- 2 (Slightly helpful)
- 3 (Moderately helpful)
- 4 (Helpful)
- 5 (Extremely helpful)

13. Information literacy:

- 1 (Not at all helpful)
- 2 (Slightly helpful)
- 3 (Moderately helpful)
- 4 (Helpful)
- 5 (Extremely helpful)

14. Problem-solving:

- 1 (Not at all helpful)
- 2 (Slightly helpful)
- 3 (Moderately helpful)
- 4 (Helpful)

- 5 (Extremely helpful)

Concluding questions:

1. In your experience, how have the 21st century skills you acquired during the training program helped you cope with the challenges of teaching English to primary school children? Please provide specific examples or scenarios.
.....
2. Do you have any additional comments or feedback regarding the training program or the role of 21st century skills in teaching English to primary school children?
.....

Section Seven: Preparedness to Teach English as a Foreign Language

Please rate your level of agreement with the following statements on a scale of 1 to 5, where 1 indicates "strongly disagree" and 5 indicates "strongly agree."

1. I feel adequately prepared to teach English as a foreign language.
2. The training program equipped me with the necessary knowledge and skills to handle challenges in the classroom.
3. I am confident in my ability to design lesson plans that promote language learning and 21st-century skills.
4. I feel prepared to adapt my teaching methods to meet the needs of diverse learners.
5. Globally, I believe the training program has prepared me well for teaching English as a foreign language.

Section Eight: Additional Comments

Please provide any additional comments or suggestions you may have regarding the training process, the integration of 21st-century skills, or your preparedness to teach English as a foreign language.

.....

Based on your training experience, what improvements would you recommend to enhance the integration of 21st century skills into the pre-service teacher training program?

.....

Thank you for taking the time to complete this survey. Your feedback is valuable in assessing the effectiveness of the training program and improving future teacher preparation initiatives.

11.3 APPENDIX 3 : CLASSROOM LESSON PROCEDURE EXAMPLE

<i>Level:</i> Third year primary school	<i>Teacher:</i> BOUSSALEM Naima
<i>Schools :</i> Nsaibia Belgacem / Boukehil Khemisi / Merdaci Mouhamed / Gouari Said	

UNIT 4 : MY PLAYTIME

<i>Section:</i> 01	<i>Lesson:</i> 01 I sing and have fun/ I listen & repeat	<i>frame work:</i> P.D.P
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Learning objectives: By the end of the session, learner will be able to name and identify toys.

<i>Taeget compntences :</i> interact/ interpret/ produce.	<i>Domains:</i> Oral/ Written/ both
<i>Materials:</i> Flashcards, white board, authentic objects (realia) <i>Target structure:</i> names of toys.	

Core values: be an attentive listener; respect the interlocutor.

Cross-curricular competencies

Intellectual: Discover different toys.

Communicative: Exploit the linguistic repertoire and paralinguistic feature to interact orally.

Methodological: Use the context of a song to know more about toys.

Personal and social: respond an oral message.

Time	Framework	Procedure	Focus	Objectives	V.A.K
------	-----------	-----------	-------	------------	-------

					<i>.T</i>
15m	Warm-up	<p>*Teacher greets learners and welcomes them.</p> <p>*Teacher puts on his desk some toys (doll, car, computer, ball, puzzle, train...) (using Realia).</p> <p>*Teacher asks her ppls to guess the topic through played song using data show.</p>	T.	Initial situation.	V-A
15m	Pre-listening	<p>*A song related to toys https://www.macmillanenglish.com</p> <p>*Each time the teacher holds a toy, she names it than pupil's repeats after him chorally.</p> <p>* Teacher asks her ppls to come one by one and take the favorite toy than name it.</p>	T.L	To interpret new vocabularies.	V
15 m	During listening	<p>*teacher invites her ppls to play in groups some games like hops catch, jump rope; when they finishes they names a toy.</p>	T.L	Check lesson performance	A.V. K
10m	Post listening	<p>*Teacher asks her ppl to close his/ her eyes while the second ppl puts a toy in front of him and asks him to touch it and guess what is it?(toy)</p>	T.L	Checking lesson understanding.	V.A

Teacher's comments

<i>What worked</i>	<i>What hindered</i>	<i>Action points</i>
.....
.....
.....
.....

11.4 APPENDIX 4 : TRAINEES' EVALUATION RUBRICS

Meeting students' individual needs	<u>Very successful</u>	<u>Highly effective</u>	<u>Effective</u>	<u>Adequate</u>	<u>Does not meet</u> <u>needs</u>
How high are teacher's expectations?	<u>High expectations</u> of all groups. Provides <u>challenging</u> work and excellent support	Provides <u>specific</u> level of challenge and support	Provides <u>appropriate</u> levels of challenge and support	Provides <u>generic</u> challenge and support	<u>Does not provide</u> appropriate challenge and support
Development of critical thinking, problem solving, innovation and independent learning skills?	<u>Skillfully</u> develops these skills	<u>Purposefully</u> develops these skills	<u>Systematically</u> develops these skills	<u>Sometimes</u> develops these skills	<u>Rarely</u> develops these skills

Learning Skills	Outstanding	Very Good	Good	Acceptable	Weak
Students take responsibility for their own learning	<u>Enthusiastic</u> and take responsibility for their own learning in <u>sustained</u> ways	<u>Keen to learn</u> and take responsibility for their own learning	<u>Enjoy learning</u> and take <u>increasing</u> responsibility for their own learning	Have <u>positive</u> <u>attitudes</u> & can work for short periods without teachers' intervention	<u>Easily distracted</u> and work only with teachers' direction
Students knowledge of their strengths and weaknesses	Evaluate their strengths and weaknesses <u>accurately</u> . Take <u>targeted</u> actions to improve.	Know their strengths and weaknesses and <u>act purposefully</u> to improve	Know their strengths and weaknesses and <u>takes steps</u> to improve	<u>Passive</u> learners. Know how to improve their work in <u>general terms</u>	<u>Rarely reflect</u> their learning and are <u>unsure</u> how to improve work

Students' interaction and collaboration	Interact, collaborate <u>very effectively</u> to achieve goals.	Interact, collaborate <u>purposefully</u> to achieve goals	Interact, collaborate <u>well</u>	Can work in groups but <u>limited</u> collaboration	Work together with <u>teacher supervision</u>
Students' communication of their learning	Communicate their learning <u>very clearly</u>	Communicate their learning <u>effectively</u>	Communicate their learning <u>clearly</u>	Communicate their learning <u>adequately</u>	<u>Find it difficult</u> to communicate their learning
Students making connections with other learning & real world	<u>Consistent</u> meaningful connections made & used to <u>deepen</u> world understanding	<u>Regular</u> meaningful connections made & <u>related</u> to understanding of the world	<u>Clear</u> connections made & <u>related</u> to understanding of the world	Few connections made & <u>related</u> to understanding of the world <u>in simple ways</u>	<u>Find it difficult</u> to make connections & <u>them</u> to understanding of the world
Innovation & enterprise, enquiry & research	<u>Innovative and enterprising</u> . <u>Independent</u> learners. Can find things out for themselves from <u>multiple sources</u> .	<u>Innovative and enterprising</u> . Use enquiry and research skills <u>effectively</u> .	<u>Enterprising</u> . Can find things out for themselves.	Can do <u>basic research</u> with teachers' direction	<u>Find it difficult</u> to do basic, independent research
Students' use of technology	Use <u>independently</u> and <u>very effectively</u>	Use <u>effectively</u>	Use to support learning	Use to support learning in <u>limited</u> ways	<u>Find it difficult</u> to use effectively
Critical thinking & problem solving skills	<u>Intrinsic</u> features	<u>Key</u> features	<u>Common</u> features	<u>Developing</u> features	<u>Underdeveloped</u> features

11.5 APPENDIX 5 : CHECKLIST FOR DEVELOPMENTAL PROFESSIONAL PRACTICES

Criteria	Characteristic	Not yet	Just beginning	We're trying	Almost there	This is us !
standards of quality	Set SMART objectives					
	And action oriented -objectives which learners should be aware of					
	plan lessons with in-depth understanding and knowledge considering the syllabus, course, unit ,sequence ,,,					
	Consider skills required of the learners besides cross- curricular competences					
	Plan alternatives that meet needs of different learners styles VAKT , (learners of special needs as well)					

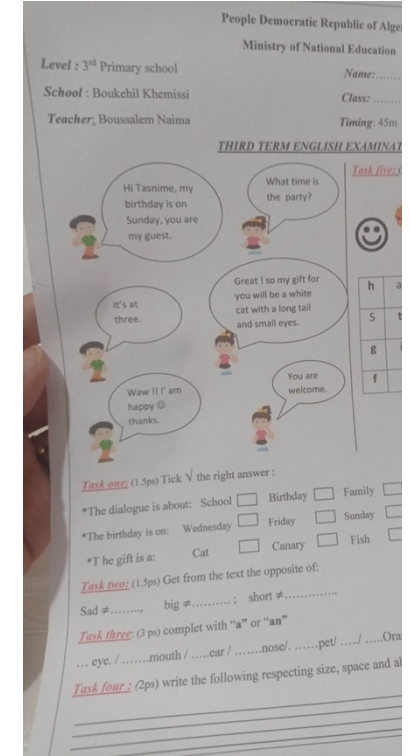
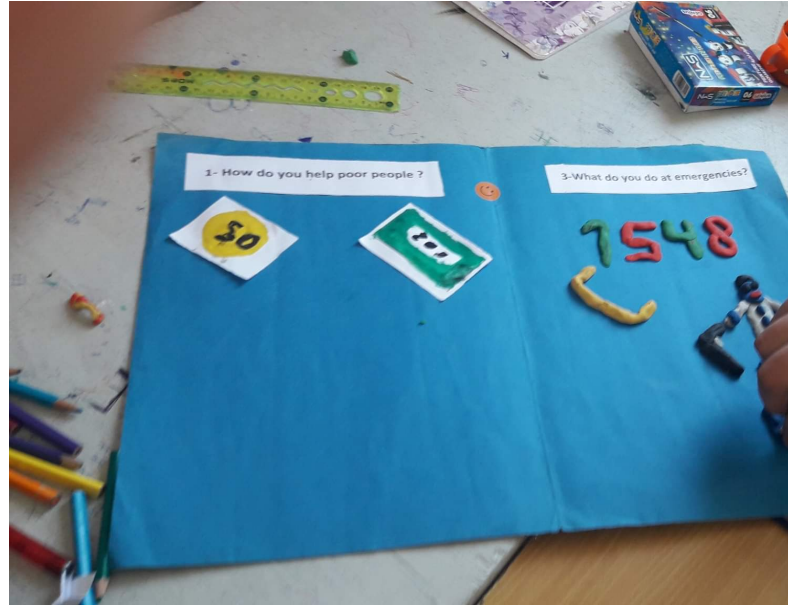
	Incorporate creativity and imagination					
2-Managing the lesson	Techniques to challenge learners thinking, individually and as a group to enhance effective questioning					
	Resolve any discipline issues in an effective and sensitive manner ; attitudes and values considered					
	Develop classroom routines which ensure smooth transition from one stage to another					
	Establish an atmosphere of collaboration and citizenship ;supporting learners with different needs and background					
3- Understandin	Carry out needs analysis ,help them find their own styles and strategies for learning (responsibilize LL over their					

g learners	learning)					
	Adapt teaching materials to suit learners styles ;make best use of relia , visuals ,ICTs ,					
	Deepens your understanding of learners by reflection and discussion with colleagues Tasks that enhance critical thinking ,intellectual risk taking, problem solving ,					
4-Designing tasks	Focus on hard work not instant gratification; challenging and problem -solving situations					
	Provides all learners with choices and					

	empowerment (equity and differentiation)					
	Builds responsibility for learning, encourages projects and outside activities					
	Fosters relationships and community					
	Motivate learners through variety of means ;praise and value excellency					
5-Evaluating and assessing learning	Analyse learners performance and provide feedback to colleagues and authorities					
	Integrate feedback from learners on their own goals and their evaluation of their own performance into your planning and teaching					
	Apply evaluation of learners performance to further development of					

	the course					
6-Managing your professional development	Have clear development goals and plans to achieve those goals :					
	Be an example of professional expertise to other teachers ,in the quality of your practices ,and readiness to continually learning					
	Contribute to your profession by writing articles ,developing new materials, contributing to forums or network or leading workshops					

11.6 APENDIX 6 : ILLUSTRATIVE PICTURES OF ACTUAL CLASSROOM PRACTICES



11.7 APPENDIX 7 : CLASS OBSERVATION CHECKLIST

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Class observation tool

Fields of observation	1	2	3	4	5
1 Lesson planning and supporting documents	✓				
-The lesson plan contains a clear objective					✓
-The tasks serve the main objective (varied tasks).					✓
-Lesson plan contains LL's interests, abilities and learning preferences.					✓
2 Learner's achievements					
-Most learners achieve the objectives set.					✓
-Most LLs are given time and opportunity to interact/practice/ produce.			✓		
-Most LLs are motivated					✓
3 Selection and use of materials					
-Teacher chooses materials that meet LLs' needs.					✓
-Teacher exploits the board well .			✓		
-Teacher varies the material selected.					✓
4 Teaching techniques					
-Teacher uses a variety of activities in the lesson.					✓
- Teacher integrates the four skills in the lesson.					✓
-The teacher's methodology is eclectic.				✓	
5 Use of English					
-Teacher uses language at learners' level.					✓
-Teacher introduces new vocabulary.					✓
-Teacher offers opportunities for learners to express themselves in English.				✓	✓
-The teachers uses only English.				✓	

1. Yes 2.No 3.Partially 4.Not observed 5. Excellent/good

2. Feedback:

Areas of strength: *varying the activities and materials*

Areas for development: *managing the time and group work*

Conclusion:

11.8 APPENDIX 7 : RESEARCHER IN THE MIDDLE OF THE PRESENT COLLABORATIVE RESEARCH



