Reflective Teaching Impact Upon Pre-Service English Teachers’ Professional Development: A Systematic Review

MARCIA F. VELASQUEZ*
Faculty of Sciences of Education, San Agustin National University, Peru
ANGIE G. CAPAJAÑA
Faculty of Sciences of Education, San Agustin National University, Peru
PATRICIO H. RAMIREZ
Faculty of Sciences of Education, San Agustin National University, Peru
MARÍA D. C. CÓRDOVA
Faculty of Sciences of Education, San Agustin National University, Peru
Corresponding author email: mvelasquez@unsa.edu.pe

Abstract
This systematic review aims to document, analyze and synthesize the latest research related to reflective teaching and professional development in pre-service English teachers. The reasoning behind this review is to substantiate that acquiring a reflective teaching practice can be the best alternative for novice teachers to open their minds, renovate their teaching methodologies and knowledge, and adapt their teaching practice to be able to become outstanding language educators. Thirteen articles have been systematically reviewed following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guideline and five exploration issues emerged: (a) the relation between reflective teaching and professional development, (b) reflective teaching benefits, (c) the efficacy of reflective teaching, (d) the continuity of reflective teaching and (e) reflective teaching strategies. The obtained results show different advantageous benefits such as learning from peers by sharing similar experiences, structure and restructure of new teaching knowledge, and the development of continuous resilience to deal with and overcome difficulties in the professional practice. This review suggests that future research should concentrate on programs addressing the importance of being reflective by introducing the topic before teaching practicum which is key for faster integrated professional development.

INTRODUCTION
In an increasingly globalized world, fluency in English surpasses being a mere resume enhancement or an extra competitive edge; it embodies the capability to communicate internationally, given its status as one of the most widely spoken languages. As a result, English educators must undergo thorough preparation right from their initial teacher education to attain a high level of proficiency and effectiveness, crucial for addressing challenges of a constantly evolving...
education system. Consequently, an escalating number of English teachers are actively pursuing tools and strategies to enrich their educational practice and foster their professional development. This underscores the emergence of reflective teaching as an innovative pedagogical approach within teacher education at large, and, more specifically, in the training of pre-service English teachers.

This reflective practice process yields a deeper understanding of various educational strategies, fostering an impact on a teacher student learning. Through critical self-assessment and a review of past practices, pre-service teachers can identify areas for improvement and refine their teaching methods as a result of the reflection process.

This systematic review aims to investigate, analyze, and synthesize existing academic literature to comprehend how reflective teaching affects the professional development of practicing English teachers. This objective will be accomplished through a comprehensive and critical analysis of the literature, with the goal of achieving a deeper and organized comprehension. This comprehension aims to promote more effective and reflective pedagogical practices.

Reflective teaching has a positive impact on teaching practice and professional development (Nuraeni & Heryatun, 2021). Nevertheless, certain limitations and obstacles hinder the attainment of deep reflection among practicing English teachers (Hidayati, 2018).

In summary, this research aims to investigate and critically analyze the relationship between reflective teaching and the professional development of practicing English teachers, contributing to the current body of knowledge. To achieve this, the current review seeks to answer the following research inquiries:

1. What is the relationship between reflective teaching and professional development in pre-service English teachers?
2. What are the benefits and drawbacks of practicing reflective teaching concerning the professional development of pre-service English teachers?
3. How does efficient and continuous practice contribute to pre-service English teachers?
4. What reflective teaching strategies are evident in the examined articles?

LITERATURE REVIEW

Over the last few decades, reflective teaching has garnered increasing attention in the realm of education, primarily as a tool for fostering professional development. Numerous studies have extensively examined various facets of this approach, laying a robust foundation to comprehend and demonstrate its impact on enriching teaching practices and student learning.

Schon (1984) emerged as one of the trail blazers in emphasizing the significance of reflection in professional growth, extending this importance to educators as well. He defined reflection as 'an internal dialogue that a professional maintains with oneself regarding the challenges and issues within their practice. Following a comprehensive analysis of their teaching practice,
educators can choose to modify or even entirely reshape it, resulting in improved outcomes. This reflective practice culminates in the cultivation and refinement of skilled professionals (Moon, 2004).

This reflection encouraged research into how educators can leverage reflection to develop a deeper awareness of their pedagogical decisions and their influence on the learning process.

This reflection can occur in four phases: description, inspiration, confrontation, and reformulation which constitute the “reflection cycle” established by Smyth (1991). In this cycle, educators play an important role in each phase, as they need to reflect on their educational practice to bring about positive changes in their professional performance. Moreover, these reflection activities should be integrated into both initial and ongoing teacher training to transform them into practical-reflexive professionals (Smyth, 1991).

Gathering feedback from colleagues has proven to be advantageous in enhancing the efficacy of reflective practice among educators, thereby reinforcing their confidence in their own professional development (Ma & Ren, 2011). Consequently, collaborative reflection among educators can lead to improved learning through the adoption and adjustment of new strategies. Through dialogue, educators can comprehend, share, adapt, and employ effective strategies in the classroom, resulting in enhanced learning outcomes (Akkerman & Meijer, 2011).

Moreover, exchanging experiences, perspectives, and ideologies can help emerging pre-service teachers avoid adopting a fixed and one-sided outlook. This practice also uncovers shared concerns or challenges, validating not only a teacher’s achievements but also providing new angles and insights for effective problem-solving and the enhancement of teaching strategies (Ma & Ren, 2011).

Nevertheless, the depth and caliber of reflection exhibit variations among educators. Research indicates that educators with more experience engage in a more profound and critical introspection of their educational practices in comparison to practicing or novice educators, who tend to engage in reflection at a more superficial level (Veenman, 1984). In this pursuit of deeper understanding, it becomes evident that some educators may encounter resistance when questioning their established practices and might even experience a sense of being overwhelmed by the process of self-assessment (Zeichner & Liston, 1996).

METHODS

In this study, we conducted a systematic literature review focusing on the use of reflective teaching for professional development among pre-service English teachers. To ensure the comprehensive and transparent reporting of our review, we followed the Preferred Reporting Criteria for Systematic Reviews and Meta-Analyses (PRISMA) guidelines as outlined by Page et al. (2021). The PRISMA guidelines are designed to facilitate rigorous and unbiased literature synthesis, incorporating recent advancements in systematic review methodology and terminology. By adhering to these guidelines, we aimed to synthesize relevant research effectively within this domain.
Inclusion and exclusion criteria

To ensure a successful selection and analysis process, we created and implemented the following criteria based on our research inquiries into reflective practice for professional development in pre-service English teachers.

Inclusion criteria:

IC1. Articles pertaining to reflective teaching in pre-service English teachers.
IC2. Articles pertaining to professional development.
IC3. Published articles in English or Spanish language.

The articles limited the discussion on EFL pre-service and in-service teachers.

Exclusion criteria:

EC1. Articles not pertaining to pre-service English teacher education, reflective practice, or professional development.
EC2. Documents other than journal articles, such as conference proceedings, dissertations, and books.

Database selection

For the collection and analysis of articles in this systematic review, we selected the following research databases: Scopus, Web of Science, ERIC, and Dimensions. These databases were chosen for their reliability, extensive coverage, user-friendly interfaces, and the availability of up-to-date research in various languages and disciplines, including education, languages, and literature. To ensure a comprehensive search, we identified alternative related terms for the research keywords and constructed a final search string using Boolean connectors. We customized the search strings for each database to match their unique indexing and search methods. Since each database has a slightly different search format and indexing system, we tailored our search strings to meet their specific requirements. This approach ensures that we obtain more relevant and accurate results in each database, addressing the nuances and particularities of their search mechanisms. This customization allows us to access a higher percentage of educational material that directly pertains to the observed problem. The search terms and strings for each database are provided in Table 1 and Table 2, respectively.
Table 1

<table>
<thead>
<tr>
<th>Term</th>
<th>Alternative terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reflective teaching</td>
<td>Reflective practice, self-reflection</td>
</tr>
<tr>
<td>Pre-service English teachers</td>
<td>Training teachers, aspiring teachers,</td>
</tr>
<tr>
<td></td>
<td>pre-service language teacher, novice teachers,</td>
</tr>
<tr>
<td></td>
<td>ELT pre-service teacher, ESL pre-service teacher</td>
</tr>
<tr>
<td>Professional development</td>
<td>Professional growth</td>
</tr>
</tbody>
</table>

Note: The table shows the keywords and alternative terms used for the elaboration of the research equations.

Table 2

<table>
<thead>
<tr>
<th>Database</th>
<th>Search string</th>
</tr>
</thead>
</table>
| Scopus        | TITLE-ABS-KEY ("reflective teaching" OR "reflective practice"
|               | OR self-reflection) AND ("professional development"
|               | OR "professional growth") AND ("pre-service language teacher"
|               | OR "elt pre-service teacher" OR "novice teacher"
|               | OR "Esl pre-service teacher" OR "pre-service language teacher"
|               | OR "aspiring teacher")                                                      |
| Web of science| TS= ("reflective teaching" OR "reflective practice"
|               | OR self-reflection) AND ("professional development"
|               | OR "professional growth") AND ("pre-service English teacher"
|               | OR "elt pre-service teacher" OR "novice teacher"
|               | OR "Esl pre-service teacher" OR "pre-service language teacher"
|               | OR "aspiring teacher")                                                      |
| ERIC          | abstract: "reflective teaching" OR "reflective practice"
|               | OR self-reflection) AND ("professional development"
|               | OR "professional growth") AND ("pre-service language teacher"
|               | OR "elt pre-service teacher" OR "novice teacher"
|               | OR "Esl pre-service teacher" OR "pre-service language teacher"
|               | OR "aspiring teacher")                                                      |
| Dimensions    | ("reflective teaching" OR "reflective practice"
|               | OR self-reflection) AND ("professional development"
|               | OR "professional growth") AND ("pre-service English teacher"
|               | OR "elt pre-service teacher" OR "novice teacher"
|               | OR "Esl pre-service teacher" OR "pre-service language teacher"
|               | OR "aspiring teacher")                                                      |

Note: The table shows the search string used in each database.

Review process

The following steps were followed after the selection of the articles:

1. To be able to see duplicates, all results were filtered in the EndNote 20 program. Utilizing EndNote 20 allowed us to effectively manage and track a large volume of retrieved articles from multiple databases used. However, we know technology has limitations, therefore, we performed a manual filter of duplicates as an additional step to ensure the accuracy of our data.

2. The selected papers were analyzed based on the title and abstract, following the inclusion and exclusion criteria. One of the inclusion criteria we considered was articles published in
English and Spanish. However, our careful examination later revealed that these Spanish articles did not exactly match our specific research questions and goals. As a result, we did not include them in the final set of articles we analyzed.

(3) In the case where the title and abstract were not enough to decide, the authors analyzed and evaluated the total content of the paper.

(4) The candidate papers were read in depth to be analyzed following the research inquiries and thirteens articles were selected.

(5) Finally, the thirteen selected articles were examined and assessed according to the checklist criteria. The objective of the quality assessment checklist was to ensure the quality of the articles and minimize bias in the selection of studies. The checklist used a Yes, No, and Partial score, which were assigned the following rating:

- Yes: A score of 2 was assigned when the article fully satisfied the criteria of the question.
- Partial: A score of 1 was assigned when the article partially addressed the criteria but did not fully meet all the requirements described in the question.
- No: A score of 0 was assigned when the article did not provide any relevant information or evidence related to the criteria of the question.

Within the set of 13 articles, 10 met all the checklist criteria, but 3 only partially met the checklist criteria. Nevertheless, the authors decided to work with these three investigations because they satisfactorily addressed most of the research questions.

<table>
<thead>
<tr>
<th>Question</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Does the article show a relationship between reflective teaching and professional development?</td>
<td>Y/N/partial</td>
</tr>
<tr>
<td>2. Does the article give information on how continuous reflective teaching is?</td>
<td>Y/N/partial</td>
</tr>
<tr>
<td>3. Does the article present information about the efficacy of reflective teaching?</td>
<td>Y/N/partial</td>
</tr>
<tr>
<td>4. Does the article show reflective teaching benefits and drawbacks?</td>
<td>Y/N/partial</td>
</tr>
<tr>
<td>5. Does the article show reflective teaching strategies?</td>
<td>Y/N/partial</td>
</tr>
</tbody>
</table>

Note: The table shows the checklist based on the research questions.

**DATA COLLECTION RESULTS**

It is essential to conduct the data analysis process accurately and transparently to ensure the reliability and validity of the results. Therefore, we used an appropriate method for data analysis and documented the steps taken in a PRISMA flow diagram (see Fig. 1). We obtained a total of 353 documents (SCOPUS = 24, Web of Science = 8, ERIC = 290, and Dimensions = 31) through the search process. After removing 15 duplicate documents, we reviewed the remaining 338 documents, and 102 of them were excluded because they were not articles.
The data preparation stage involved organizing and cleaning the data for analysis, which included handling missing values and coding variables. We read each article individually and together in a group to ensure accurate and consistent coding.

Next, we applied the inclusion and exclusion criteria (IC and EC) to the remaining 236 articles and excluded 215 articles. Then, we further filtered the remaining 21 articles based on the criterion of being only related to “pre-service English teachers,” resulting in eight articles being excluded. Finally, we analyzed the 13 remaining articles in depth and included them in the systematic review.

Figure 1 PRISMA flow of data identification, screening, and included reports results
Data summary

1. A self-led approach to improving classroom management practices using video analysis

The research findings revealed that new teachers engaged in structured video analysis experienced a transformative process in their classroom management strategies. By meticulously recording, reviewing, reflecting upon, and revising their instructional practices based on video analysis, these educators achieved significant improvements in their classroom management techniques. The self-led nature of this approach empowered teachers to proactively identify areas of growth and make informed decisions to enhance their management strategies. This process not only resulted in heightened classroom management effectiveness but also fostered a self-driven pathway to professional development (Nagro et al., 2020).

2. Exploring the reflective typology of novice EFL teachers in a Thai university

The study uncovered that novice EFL teachers engaged in reflective writing, providing a unique window into their evolving perceptions and experiences. This reflective practice emerged as a powerful tool for enhancing their rationality, adaptability, and overall teaching effectiveness. By systematically documenting their challenges, triumphs, and teaching methodologies, these educators developed a heightened awareness of their instructional approaches and adapted to the evolving needs of their students. This reflective typology facilitated their journey from novice teachers to informed, reflective practitioners, resulting in a substantial contribution to their professional growth (Jumpakate et al., 2021).

3. A reflective teaching practicum as a platform for stimulating pre-service teachers’ professional development

The research underscored the significance of a reflective teaching practicum in shaping the professional development of pre-service teachers. Through a comprehensive approach involving peer observations, regular conferencing, and dedicated self-reflection, these educators experienced a transformational shift in their teaching identity. The immersive practicum experience not only honed their teaching skills but also cultivated a profound sense of self-awareness and adaptability. This, in turn, nurtured their identity as reflective practitioners, positioning them as innovators in the realm of classroom practices and preparing them holistically for their imminent roles as in-service teachers (Hendriwanto, 2021).

4. Engaging in reflective practice via vlogs: Experience of malaysian ESL pre-service teachers

The study addressed the transformative impact of using vlogs for reflective practice among Malaysian ESL pre-service teachers. The participatory vlogging process not only facilitated individual self-reflection but also fostered a collaborative environment for sharing teaching experiences and insights. Through vlogs and group discussions, participants experienced a holistic enhancement in their teaching practices. The immersive nature of vlogging enabled educators to delve deep into their teaching journeys, leading to a comprehensive understanding of their pedagogical approaches and enabling them to respond effectively to the complexities of classroom dynamics (Ong et al., 2020).
5. Exploring novice EAP teacher’s self-reflection as a platform for professional development

The research highlighted the essential role of self-reflection in the professional development of novice English for Academic Purposes (EAP) teachers. Through intentional introspection, these educators engaged in a process of adapting their instructional strategies to better cater to the unique challenges of EAP contexts. By systematically reflecting on classroom experiences, identifying effective strategies, and addressing challenges, novice EAP teachers achieved a notable enhancement in their teaching practices. This, in turn, translated into increased student engagement, showcasing the great impact of reflective practices on the efficacy of instructional delivery (Hidayati, 2018).

6. Exploring the effect of self-reflection through awareness raising on novice and experienced Iranian EFL teachers’ pedagogical beliefs enactment

The study demonstrated the substantial impact of self-reflection and awareness raising on the pedagogical beliefs and instructional practices of both novice and experienced Iranian EFL teachers. Engaging in deliberate self-reflection enabled educators to align their deeply-held beliefs with their actual teaching practices, resulting in a harmonious integration of theory and application. This alignment led to more effective instructional methods and heightened student learning outcomes, highlighting the transformative potential of reflective practices in refining teaching approaches across experience levels (Saeed & Meisam, 2018).

7. Promoting Thai pre-service English teachers’ reflective ability through microteaching lesson study

The research illuminated the pivotal role of microteaching in enhancing the reflective ability of pre-service English teachers. Immersed in a controlled teaching environment, these educators engaged in deliberate self-reflection and introspection. The microteaching experience facilitated the development of self-awareness and pedagogical insight, which subsequently translated into refined teaching practices. The heightened reflective ability cultivated during microteaching prepared these educators comprehensively for their future roles, underscoring the transformative influence of structured reflection on instructional efficacy (Nguyen, 2020).

8. Teaching practicum experiences: Pre-service English teachers’ self-reflections of their professional growth

The study showcased the transformative power of self-reflection during the teaching practicum for pre-service English teachers. Through consistent introspection, educators gained insights into their instructional methodologies, identified areas for growth, and fine-tuned their teaching practices. This reflective process led to heightened self-awareness, refined teaching skills, and a comprehensive preparation for the multifaceted demands of their impending teaching careers. The practicum experience served as a crucible for professional growth, enabling educators to evolve into confident, reflective practitioners (Astuti & Drajati, 2022).
9. Teachers’ perception of their code-switching practices in English as a foreign language classes: The results of stimulated recall interview and conversation analysis

The research addressed the intricate practice of code-switching among English language teachers in Indonesia. Driven by student needs and linguistic contexts, code-switching emerged as a nuanced tool for effective communication. Teachers’ perceptions played a role in determining the frequency and manner of code-switching, showcasing the delicate balance between facilitating comprehension and maintaining language standards. The study highlighted the adaptive nature of code-switching and its strategic deployment to enhance classroom communication and learning outcomes (Zainil & Arsyad, 2021).

10. The development of pre-service teachers’ teaching performance in the teaching practice program at English department of state Islamic university of Antasari Banjarmasin

The study underscored the multifaceted development of pre-service teachers’ teaching practices through focused observation and targeted feedback. By engaging in a cycle of instructional delivery, feedback reception, and subsequent refinement, these educators experienced a comprehensive transformation in their teaching approaches. The integration of mentorship, theoretical foundations, and practical application played a pivotal role in shaping lesson planning, communication strategies, and student engagement. This developmental process highlighted the intricate synergy between pedagogical theories and classroom dynamics, showcasing the transformative journey of emerging educators (Mufidah, 2019).

11. Using video-reflection and peer mentoring to enhance tutors’ teaching

The research illuminated the dynamic interplay between video reflection and peer mentoring in bolstering tutors’ teaching efficacy. Through guided observation, collaborative discussions, and introspective practices, tutors experienced a multifaceted enhancement in their instructional techniques. The video-driven reflective process allowed educators to critically evaluate their teaching strategies from an objective perspective, leading to targeted refinements. The integration of peer mentoring further enriched the learning experience, fostering a culture of continuous improvement and self-awareness among tutors (Wass & Rogers, 2019).

12. What sustains the novice Malaysian teacher of English: A case study

The study showcased the resilience and sustainability of a novice English teacher’s enthusiasm and dedication. Driven by intrinsic passion and a fusion of personal goals with professional identity, this educator demonstrated exceptional commitment to his role. (Adi Badiozaman, 2020).

13. Reflective practice strategies of pre-service English teachers during teaching practicum to promote professional development

The study examined the reflective practice strategies employed by pre-service English teachers during their teaching practicum to enhance their professional development. Through the
deliberate use of reflective techniques, such as journaling, group discussions, and mentor feedback, these educators engaged in a transformative process of self-assessment and growth. The reflective practice strategies facilitated the alignment of theoretical knowledge with practical classroom experiences, fostering a comprehensive understanding of pedagogical concepts. As a result, pre-service teachers emerged from the teaching practicum with enhanced teaching skills, a refined sense of self-efficacy, and a deepened commitment to lifelong learning and reflective teaching practices (Nuraeni & Heryatun, 2021).

FINDINGS AND DISCUSSION

This study provides an analysis of 13 articles in which the authors address four research inquiries related to reflective teaching and professional development. This section is dedicated to presenting the research findings, which answer our 4 research inquiries:

A. Relationship between reflective teaching and a teacher’s professional development.
B. Benefits and drawbacks of practicing reflective teaching
C. Efficient and continuous practice contribution to reflective teaching
D. Reflective teaching strategies

Relationship between reflective teaching and a teacher’s professional development

To address the first research inquiry, which corresponds to the relationship between reflective teaching and a teacher’s professional development, four aspects are mentioned: 1) Recognizing weaknesses, strengths, and areas for improvement, 2) Feedback, 3) Adaptation and innovation, and 4) Theory and practice.

Recognizing weaknesses, strengths, and areas for improvement

Firstly, teachers recognize and identify their strengths as well as their weaknesses and areas for improvement by reflecting on what happens in the classroom, examining their teaching methods, interactions with students, classroom decisions, and learning outcomes (Wass & Rogers, 2019). This reflective process fosters self-evaluation and self-awareness, which are fundamental aspects of teacher professional development (Richards & Lockhart, 1994, as cited in Zainil & Arsyad, 2021). Furthermore, this reflective process has a positive impact on student learning, as it allows teachers to address their weaknesses by implementing strategies and resources that meet students’ needs, achieving meaningful learning (Nagro et al., 2020).

In Zainil and Arsyad (2021) a group of language teachers meticulously examined video recordings of their classes to identify both the weaknesses and strengths of their teaching practices. They found that the main weakness was in language proficiency, which motivated them to look for ways to address this problem and improve their communicative skills. Self-reflection played an essential role in their professional development, as it allowed them to become aware of their strengths and specific areas that needed improvement, which contributed significantly to their growth as educators.
In another example, a group of teachers recorded their reflections on their teaching practice after each class in a reflective journal for two months. These journals reflected their thoughts about their experiences, and their areas of strength and weakness in teaching, addressing not only emotional difficulties but also intellectual challenges. This reflection allowed them to analyze and integrate theoretical knowledge and implement strategies for better job performance, which highlights the importance of reflective teaching in teacher professional development (Nuraeni & Heryatun, 2021).

**Feedback**

Secondly, educators engage in self-feedback, student feedback, and active participation in discussions with peers and mentor-tutors (Nuraeni & Heryatun, 2021).

Through these feedback mechanisms, educators gain critical insights into their teaching methods, empowering them to make informed, evidence-based adjustments that are instrumental in their professional development (Nagro et al., 2020). This feedback process not only enhances self-confidence but also sharpens their focus on the specific needs of their students. It enables teachers to consider immediate and contextually relevant input from their students, feedback from mentors, and input from their peers, to subsequently reflect on their learning experiences (Mufidah, 2019).

In the study by Wass and Rogers (2019) an example of feedback from students is presented. Natalie, a teacher, received suggestions from her students to enhance her management of group discussions. Natalie engaged in a reflective process, critically examining her approach and subsequently consulting with her mentor. After sharing her experiences and seeking external perspectives, a change in her approach was evident, involving self-reflection. After some time, Natalie reported that students responded positively to her new methodology. This active reflection and adjustment of teaching methods are key components of reflective teaching that contribute to the ability to effectively address student needs, thus strengthening teacher professional development.

In another example, Hendriwanto (2021) a group of 20 future teachers in Indonesia was analyzed. Initially, these future teachers viewed writing instruction as something simple and of little relevance. However, as they underwent processes of self-reflection and feedback, including peer observations and conferences with students, teachers, and mentors, they experienced a fundamental shift in their approach. This change occurred because they began to understand the importance of genre-based writing, which involved teaching students to write different types of texts while considering the specific characteristics of each genre. Additionally, they started to focus on the meaning-making process in writing, which means that students not only learned to write but also understood the purpose and audience of their writing.

These changes in their teaching methodology made writing more interesting and meaningful for the students, while also creating a more dynamic and student-centered learning environment. As a result, the students actively participated more and achieved greater success in their writing.
tasks. This case illustrates how self-reflection and the adoption of reflective approaches in teaching can transform the way educators approach the teaching of specific skills, such as writing, thereby significantly contributing to their professional development.

**Adaptation and innovation**

Thirdly, a fundamental aspect of reflective teaching lies in its ability to adapt and foster innovation efficiently in response to diverse educational situations and challenges.

Teachers, encountering a variety of classroom contexts, can reflect on their approaches and consider adapting or innovating different strategies in different contexts. This ability of teachers to adjust and embrace innovation not only enhances their own competence and effectiveness but also contributes significantly to their professional development in a constantly evolving educational environment (Farrell, 2016, as cited in Hidayati, 2018).

In Adi Badizaman (2020) the importance of reflection, innovation, and adaptability in the success of English teachers in challenging educational situations is illustrated. Emily, a novice teacher, serves as a compelling case study. Throughout her career, Emily effectively employed reflection, resource-seeking, collaboration with colleagues, and pedagogical flexibility to adapt to different teaching contexts. Initially, while working as a part-time tutor in Malaysia, Emily faced challenges such as isolation and lack of support. However, she demonstrated ingenuity by designing her courses from scratch and seeking guidance from her supervisor. As her career progressed, Emily continuously adapted to the changing demands of her role. Her transition to a more structured and organized institution after completing her master’s program in Malaysia provided her with a more positive work experience. Collaboration with colleagues and clear guidelines contributed to her professional growth.

Subsequently, Emily took on a teaching position in China, where she faced challenges due to the lack of materials and evolving educational requirements. However, her adaptability and innovation allowed her to overcome these obstacles. Emily’s continuous professional development and growth were facilitated by self-reflection, goal orientation, and assimilation of the ideas of others. This ongoing process of adaptation not only ensured her success as a teacher but also significantly enriched her professional development. Emily’s experiences highlight the importance of continuous learning, as well as collaboration and support in a teacher’s career.

**Theory and practice**

Fourthly, reflective teaching involves educators applying pedagogical theories and educational concepts in their teaching practice.

When teachers reflect on their classroom experiences, they can identify how they have implemented theories in practice and evaluate the effectiveness of these applications (Jumpakate et al., 2021). According to Carr and Kemmis (1986, as cited in Saeed and Meisam, 2018), they explain the connection between theory and practice by stating that theory is “grounded” in practice. This means that theory is developed on the basis of practical experience and cannot
be completely separated from it. In other words, theory is derived from real-world experiences and it is not simply a set of abstract ideas disconnected from actual actions. Practice, in turn, is not unreflective behavior that exists independently of theory; it is connected to a theoretical basis.

In short, reflective teaching promotes the connection between theory and practice in education. Reflective educators apply theoretical concepts in classroom situations and, in turn, use practical experiences to enrich their understanding of educational theories. This integration is essential for professional development, as it helps educators become more effective and understand why certain strategies work in practice.

In Hidayati (2018), a novice English for Academic Purposes (EAP) teacher in Indonesia demonstrated how theory and practice effectively intertwine, playing a crucial role in professional development. This teacher integrated the theoretical knowledge gained during their teacher training and practical classroom experience. Reflective practice serves as the bridge connecting these two aspects. Through self-reflection, the teacher internalized and applied theoretical concepts to their teaching methods, emphasizing that theory does not exist in isolation but is an essential part of real-world teaching situations.

Reflective practice not only enables the teacher to make evidence-based decisions in their teaching but also strengthens their professional identity as they carefully evaluate their teaching methods and materials. This interplay between theory and practice is essential for enhancing their effectiveness in the classroom, ensuring that their actions align with the educational theories they have learned. Ongoing self-reflection plays a fundamental role in their growth as an educator and in the close relationship between theory and practice.

The teacher’s active collaboration with experienced colleagues not only underscores the synergy between theoretical understanding and practical collaboration but also amplifies joint efforts to bridge the gap between theory and practice in their professional development. Through engaging in collaborative discussions, the teacher seamlessly integrates theoretical ideas into curriculum design. This cooperative dimension illustrates the importance of sharing knowledge and practice in shaping more effective teachers and promoting a stronger educational community ready to face the challenges of teaching.

Benefits and drawbacks of practicing reflective teaching

Reflective Teaching Benefits

To address the second research inquiry, focusing on the benefits of practicing reflective teaching concerning the professional development of pre-service English teachers, four benefits are outlined: 1) Adaptability and Resilience, 2) Enhanced Self-Reflection and Confidence, 3) Improved Teaching Methods, and 4) Community of Practice.
Adaptability and resilience

Firstly, the benefits of practicing reflective teaching for pre-service English teachers include increased adaptability and resilience.

Reflective teaching empowers practicing educators to become proactive agents in their professional growth and development. It cultivates a commitment to the future of education, instilling the resilience required to overcome initial challenges. This motivation drives the exploration and adaptability of innovative teaching methods, expansion of classroom resources and strategies, and ultimately contributes to the reduction in attrition rates among practicing educators (Yuan & Lee, 2014, as cited in Ong et al., 2020).

The narratives presented by Adi Badiozaman (2020) and the findings from the study conducted by Ong et al. (2020) collectively emphasize the transformative potential of reflective teaching in cultivating adaptability and resilience among pre-service and novice English teachers. According to Adi Badiozaman (2020), reflective teaching benefits pre-service teachers by enhancing their adaptability, resourcefulness, and resilience. Emily’s experience is a compelling illustration of this impact, as she overcame initial challenges and feelings of isolation in her teaching role, thanks to her engagement in reflective teaching practices. However, it’s essential to acknowledge that her journey also highlights a potential pitfall, as it emphasizes the need to strike a balance between well-structured teaching and the pursuit of ongoing growth.

In another example, the study by Ong et al. (2020) further underscores how reflective teaching contributes to the development of adaptability and resilience, particularly among novice teachers. These educators, initially confined by a rigid set of steps, without being flexible or adaptable to different situations or needs, underwent a significant transformation, adopting a more adaptable and flexible teaching style. This change involved a better understanding of how different parts of a lesson were connected and being aware of the student’s preferences. As novice teachers learned to address these components in specific and effective ways, they became better equipped to adapt to the dynamic nature of teaching.

Enhanced self-reflection and confidence

Secondly, the benefits of practicing reflective teaching for pre-service English teachers include enhanced self-reflection and confidence.

When teachers engage in critical analysis and reflection of their classroom experiences, they undergo a profound increase in self-awareness and self-confidence (Hendriwanto, 2021). This process of self-reflection enables them to identify both their strengths and weaknesses, empowering them to make informed changes in their teaching methods. This self-assessment strengthens the teacher’s professional self-image, contributing to a higher level of confidence in their ability to teach effectively. Furthermore, the study by Wass and Rogers (2019) highlights that reflective teaching can boost teachers’ confidence by providing them with confirmation that their classroom objectives align with what actually transpires in practice. This alignment between intention and action reinforces the teacher’s confidence in their capacity to achieve their teaching goals.
Research conducted by Mufidah (2019) also supports the idea that reflective teaching leads to increased self-awareness and self-confidence among teachers. By allowing them to analyze and adjust their methods and strategies according to students’ needs, self-evaluation enhances the teacher’s perception of their own effectiveness. Additionally, when teachers see evidence of a positive impact on student learning, their confidence further escalates. Collectively, these findings indicate that the practice of reflective teaching has a positive impact on teachers’ self-awareness and confidence. This boost in confidence is crucial for professional development and the continuous improvement of teaching methods, ultimately benefiting both students and the quality of education.

*Improved teaching methods*

Thirdly, the benefits of practicing reflective teaching for pre-service English teachers include improved teaching methods.

Frequently, practicing teachers are focused on maintaining classroom order and facilitating smooth activities. However, through the practice of self-assessment and reflection, they gradually establish an engaging and interactive communicative environment. Although this introspective process may initially be challenging and occasionally frustrating, it is indispensable for shaping pedagogical convictions and implementing innovative practices (Saeed & Meisam, 2018).

When teachers engage in critical analysis and reflection of their classroom experiences, they undergo a profound increase in self-awareness and self-confidence (Hendriwanto, 2021). This process of self-reflection enables them to identify both their strengths and weaknesses, empowering them to make informed changes in their teaching methods. This self-assessment strengthens the teacher’s professional self-image, contributing to a higher level of confidence in their ability to teach effectively.

Furthermore, the study by Wass and Rogers (2019) highlights that reflective teaching can boost teachers’ confidence by providing them with confirmation that their classroom objectives align with what actually transpires in practice. This alignment between intention and action reinforces the teacher’s confidence in their capacity to achieve their teaching goals, leading to improved teaching methods.

Research conducted by Mufidah (2019) also supports the idea that reflective teaching leads to increased self-awareness and self-confidence among teachers. By allowing them to analyze and adjust their methods and strategies according to students’ needs, self-evaluation enhances the teacher’s perception of their own effectiveness. Additionally, when teachers see evidence of a positive impact on student learning, their confidence further escalates. This heightened self-confidence, in turn, leads to a continuous enhancement of their teaching methods.

Collectively, these findings indicate that the practice of reflective teaching has a positive impact on teachers’ self-awareness and confidence, which directly translates to improved teaching methods. This boost in confidence is crucial for professional development and the continuous
improvement of teaching strategies, ultimately benefiting both students and the quality of education.

**Community of practice**

Fourthly, the benefits of practicing reflective teaching for pre-service English teachers include a community of practice.

This dynamic practice provides teachers with the collaborative opportunity to examine, observe, and refine their teaching methods and the depth of their reflection (Hidayati, 2018). As a result, an ideal scenario envisions the structuring and integration of reflective practice among future English teachers within a community setting that emphasizes interaction as a collective effort, rather than an isolated endeavor. This approach establishes a solid support network, fostering growth and inspiring continuous refinement (Bloomquist, 2016; Lin et al., 2013, as cited in Ong et al., 2020).

Engaging in reflective practice within a community context allows teachers to shift their perspective from viewing teaching as an individual endeavor to recognizing themselves as part of a broader community of practice (Burhan-Horasanlı & Ortaçtepe, 2016, as cited in Ong et al., 2020). This transition emphasizes the importance of collaborative learning and professional development within a community setting.

Moreover, Hidayati (2018) suggests that collaborative sharing of reflective teaching experiences among colleagues, whether through informal discussions or structured frameworks, is beneficial for teachers. It empowers teachers to become more assertive, decisive, and confident in their personal learning and problem-solving abilities, ultimately enhancing their teaching practices and outcomes (Kabilan, 2007; Murray, 2010 as cited in Hidayati, 2018, p. 447).

**Reflective teaching drawbacks**

To address the second research inquiry, focusing on the drawbacks of practicing reflective teaching concerning the professional development of pre-service English teachers, three disadvantages are highlighted: 1) Lack of guidance, 2) Time-consuming activity, and 3) Risk of misinterpretation.

Reflective teaching can be a valuable tool for pre-service English teachers to enhance their professional development and teaching practices. However, like any approach, it also has its disadvantages. Below are some potential drawbacks of reflective teaching.

**Lack of guidance**

Firstly, a lack of guidance is a key challenge in implementing reflective teaching among pre-service teachers. Without proper guidance or mentorship, they might struggle to effectively engage in reflective practices. This could lead to uncertainty about how to identify key areas for improvement and how to apply insights gained from reflection into practical changes in
their teaching methods. Additionally, the study conducted by Ong et al. (2020) highlights the need to provide pre-service teachers with more guidance on how to creatively and effectively reflect on challenges that arise in the classroom. Overall, while reflective teaching can be valuable for educators’ professional development, addressing challenges such as lack of experience and guidance is essential to maximize its effectiveness (Ong et al., 2020).

**Time-consuming activity**

Secondly, the practice consumes a considerable amount of time and effort, which can be problematic as teachers already face a substantial academic workload, including courses, lesson planning, and assignments. Engaging in reflective processes could add an extra burden to their already limited time.

**Risk of misinterpretation**

Thirdly, reflective teaching is built upon personal perceptions and interpretations, which carries a risk of misinterpretation or excessive self-criticism on the part of pre-service teachers, resulting in less productive reflections. This subjectivity can hinder the identification of strengths and weaknesses (Hidayati, 2018). Additionally, some teachers might feel uncomfortable reflecting on their practice and require additional support to do so effectively.

**Efficient and continuous practice contribution to reflective teaching**

**Efficient practice:**

To address the third research inquiry, which focuses on efficient practice, two fundamental aspects are highlighted: 1) Pedagogical skills development and 2) Improved problem-solving.

**Pedagogical skills development**

First, efficient teaching practice provides future teachers with the opportunity to refine their skills in lesson planning, classroom management, and instructional techniques, enabling them to become more competent, self-reflective, and self-critical. This process of continuous practice also contributes to cultivating a habit of reflecting on teaching behaviors, beliefs, and values, promoting self-awareness, a fundamental aspect of reflective teaching (Mufidah, 2019).

**Improved problem-solving**

Second, efficient practice enhances problem-solving abilities within the classroom when facing various teaching challenges and dilemmas. Furthermore, these experiences encourage future teachers to develop problem-solving skills and think critically about how to address challenges and difficulties in their teaching (Hidayati, 2018).

In Mufidah (2019), a study was conducted at a university’s English department, the development of pre-service English teachers’ teaching performance during their teaching practice program
was explored, shedding light on their reflective teaching. The case underscores the significance of efficient practice in lesson planning, emphasizing the need for time management and comprehensive planning. Many students grappled with grammar and pronunciation due to last-minute lesson planning, highlighting the importance of continuous, efficient practice in language proficiency. Additionally, the case discusses the use of diverse media and teaching methods, encouraging pre-service teachers to reflect on the effectiveness of these methods in their teaching. Despite their positive attitude toward the teaching practice program, challenges related to time management and language proficiency are acknowledged, underscoring the need for continuous reflection and improvement.

In conclusion, this case study underscores the importance of efficient and continuous practice in fostering the development of pre-service English teachers. By emphasizing efficient practice in lesson planning, continuous practice in language proficiency, and the exploration of diverse teaching methods, pre-service English teachers can enhance their reflective teaching practices, ultimately contributing to their professional growth and development as educators.

**Continuous practice:**

To address the third research inquiry, which focuses on continuous practice, two fundamental aspects are highlighted: 1) Gathering feedback and 2) Enhanced understanding of educational theories.

**Gathering feedback**

First, during continuous practice, future teachers often receive feedback from mentors, peers, or students, providing them with observations, advice, and constructive criticism based on their experience and knowledge (Astuti & Drajati, 2022). This feedback serves as valuable input for reflection, helping them identify areas for improvement and adjust their teaching strategies, a crucial aspect of reflective teaching.

**Enhanced understanding of educational theories**

Second, continuous practice deepens future teachers’ understanding of educational theories and strategies. Wass and Rogers (2019) mentioned that practicing teachers can identify areas that need improvement, such as communication skills, eye contact, and speech speed. This knowledge is essential for informed reflection, enabling them to make informed decisions about their teaching practices. This demonstrates an increase in self-reflection as a result of continuous practice.

In Astuti and Drajati (2022) three pre-service English teachers embarked on a journey of professional growth through continuous practice, which significantly contributed to their reflective teaching skills. Throughout their experiences, these aspiring educators realized that the process of continuous practice had a profound impact on their development. The case highlights how the pre-service teachers’ awareness of both internal and external factors, such as their ability, skill, creativity, learning environment, time management, and classroom management, played a pivotal role in shaping their reflective teaching abilities.
These educators emphasized that creating a conducive learning environment was essential for enhancing the quality of students’ learning outcomes. They noted that their students’ learning progress was heavily influenced by factors like the social environment and the arrangement of the learning environment in the classroom. By consistently practicing in different environments, including online teaching, they learned how to build good relationships with their students, understand their needs, and adapt their teaching methods accordingly. The continuous practice allowed them to fine-tune their teaching strategies and understand the significance of fostering creativity, which, in turn, contributed to more engaging and enjoyable learning experiences. Time and classroom management were identified as common challenges faced by pre-service teachers, highlighting the importance of efficient time utilization and creating well-organized classrooms. In summary, this real case vividly demonstrates the significant contribution of continuous practice to the development of reflective teaching skills among pre-service English teachers, emphasizing the necessity of hands-on experience in professional growth.

**Reflective teaching strategies**

To address the fourth research question, which focuses on reflective teaching strategies, strategies extracted from the 13 analyzed papers in this systematic review are segmented and presented to the reader into distinct categories, each contributing uniquely to the process of reflection, self-evaluation, and professional development.

**Written reflection strategies**

- Diary Writing: This strategy involves the regular practice of maintaining reflective diaries. This process entails the immediate documentation of ideas, insights, and thoughts following each teaching session. By providing educators the opportunity to capture the intricacies of their classroom experiences, diary writing becomes a vehicle for fostering reflective practice. It offers a dedicated space for the analysis and evaluation of teaching actions, establishing meaningful connections between pedagogical theories, actual classroom practice, and personal introspection (Nguyen, 2020).

- Reflective Journals: Building upon this notion, Cohen-Sayag and Fischl (2012, as cited in Jumpakate et al., 2021) proposed reflective journals as a tool for educators to critically scrutinize their pedagogical actions. This approach requires a thoughtful exploration of teaching methods and their impact, fostering learning through a reflective and inductive process. The act of documenting these reflections provides a tangible resource for educators to continuously refine their teaching strategies.

- Reflective Writing: Moreover, Wichadee (2011, as cited in Jumpakate et al., 2021) underscores the profound impact of maintaining a reflective writing journal during the formative years of teaching. This journal acts as a pathway for evaluating linguistic proficiency, assessing teaching performance, and refining instructional strategies. It becomes a repository of insights and realizations that contribute to ongoing professional development.
Peer interaction strategies

• Feedback Exchange: Leijen et al. (2012, as cited in Ong et al., 2020) explored the effectiveness of peer interaction as a mechanism for reflective practice. Through collaborative engagement, educators share their diverse teaching experiences, perspectives, and challenges. This dynamic exchange enhances self-awareness, enabling teachers to view their own practices through multiple lenses and leading to the cultivation of deeper, more substantive reflective practices.

• Learning Community: It is an educational approach that unites students with shared interests and goals to promote collaborative learning, engagement, and academic success. Expanding on this, Ong et al. (2020) emphasized the transformative potential of nurturing a learning community within which novice educators collaboratively navigate the complexities of teaching. Within this supportive ecosystem, teachers collectively explore innovative methods to address common pedagogical challenges. This collaborative environment nurtures professional growth by providing a platform for sharing creative solutions and best practices.

Video-based reflection strategies

• Video Stimulated Recall Interviews: Zainil and Arsyad (2021) promoted the incorporation of video-recorded class sessions for subsequent analysis. This strategy empowers educators to engage in self-assessment, enabling them to identify their teaching strengths and pinpoint areas that require refinement. The video serves as an unfiltered window into their instructional practices, fostering a heightened sense of self-awareness.

• Recorded Audio-Videos: Nagro et al. (2020) proposed a strategy that blends written reflections with video analysis. This synthesis not only augments teaching confidence but also intensifies self-awareness by affording educators the opportunity to visually observe their classroom interactions and teaching methodologies.

Reflection strategies in teacher education

• Recollection Strategy: A dynamic approach to reflection involves the utilization of personal knowledge and experiences to address specific teaching challenges. By drawing upon past encounters, educators bring a depth of insight that enriches their pedagogical decisions.

• Mentoring Strategy: At the heart of effective reflection lies mentorship, which cultivates a culture of conscious and critical examination of teaching practices in real-time. Mentors provide guidance, facilitating the development of skills required for thoughtful reflection (Adi Badiozaman, 2020).

• Reflection-in-Action Strategy: This strategy entails the progressive development of critical thinking, introspection, and confidence through an ongoing professional relationship, typically with a mentor. This approach encourages educators to embrace a continuous cycle of self-assessment and self-improvement (Wass & Rogers, 2019).
Examples:

- **Recollection Strategy Examples**: Nuraeni and Heryatun (2021) present tangible examples wherein participants effectively employed the recollection strategy. These educators drew upon their personal experiences to craft informed teaching decisions, enriching their instructional strategies.

- **Reflection-in-Action Examples**: Throughout the text, various examples demonstrate how teachers nimbly adapted their methods based on real-time student needs and engagement, showcasing the power of the reflection-in-action strategy.

- **Mentoring Strategy Examples**: The text underscores the transformative impact of mentoring relationships on teaching practices, citing instances where mentorship led to enhanced teaching efficacy and growth (Wass & Rogers, 2019).

In sum, the strategies discussed within this discourse represent a spectrum of approaches that cater to diverse aspects of reflective practice. These encompass written reflections, peer interactions, video-based methodologies, and broader strategies inherent to teacher education. When harnessed collectively, these strategies crystallize into a comprehensive framework that fosters not only effective reflective practice but also a robust culture of continuous professional growth among aspiring English educators.

**DISCUSSION**

Reflective teaching is a fundamental part of the professional development of practicing teachers, and this analysis focuses on establishing and demonstrating how it contributes to professional growth. We have found various studies that address this inherent relationship, highlighting different aspects that support the positive impact of reflective teaching on teachers’ professional development and the enhancement of students’ learning.

In this context, we have presented a variety of reflective teaching strategies that have been evidenced in the examined articles. These strategies, including reflective writing, peer interaction, video-based methods, and the use of reflective journals and records, provide educators with a dedicated space for self-assessment and collaboration to share experiences and innovative solutions. Together, these strategies form a comprehensive framework for effective reflective practice.

However, we acknowledge that teachers may face challenges in implementing reflective teaching, such as a lack of guidance, the additional time demand, and the risk of self-criticism or misunderstandings. To address these limitations, it is essential that teacher training programs provide the proper guidance and support to future educators to engage in reflective practices effectively.
CONCLUSION

The analysis of 13 selected studies highlights the transformative potential of reflective teaching as a trigger for significant professional development among educators. The journey toward becoming effective and reflective teachers demands commitment, time, and support. Through the cultivation of reflective practice, educators gain deeper insights into their teaching methodologies, enabling them to identify areas for improvement and implement novel strategies to enhance student learning outcomes. This reflection becomes a routine as teachers engage in constant questioning, analysis, and modification of their lessons, drawing from classroom experiences.

Nevertheless, the challenges faced by practicing teachers in implementing reflective practices are evident. Time constraints due to academic workload and limited understanding of effective reflective practices obstruct a well-developed self-reflection and professional development. However, amidst these challenges, the educators from the 13 reviewed articles were able to display a remarkable capacity for growth. They developed skills such as teamwork, peer idea comparison, critical self-assessment, and self-evaluation, showcasing their dedication to continuous improvement.

Our interpretation of the results addresses two pivotal recommendations. Firstly, the cultivation of reflective habits should start early in the career trajectory of pre-service teachers. Implementing programs, activities, and workshops that emphasize the significance of ongoing reflection before entering the teaching profession is crucial. These initiatives would establish a strong foundation for reflective practice that supports educators throughout their careers.

Secondly, we propose the integration of reflective teaching not only within the realms of in-service educators but from the inception of general teacher education. By incorporating reflective teaching as a core component of university programs, we can nurture a new generation of educators poised to foster innovative learning environments. Teacher educators play a critical role in fostering reflective thinking from the outset of training, ensuring that novice teachers understand the integral role of self-evaluation in their professional journey.

In conclusion, our exploration of diverse studies underscores that reflective teaching is not merely an academic exercise but a transformative approach that holds the potential to shape educators into reflective practitioners committed to their continuous growth. By embracing reflective practices early and integrating them into educational curricula, we can harness the power of reflective teaching to elevate the standards of education and empower educators to shape the future of learning.

LIMITATIONS

1. It is important to acknowledge that the distribution of articles, with a notably higher count from ERIC compared to other databases, as a notable limitation. Given ERIC’s specialized focus on education-related literature, it naturally hosts a larger number of articles directly pertinent
to the study’s emphasis on reflective teaching and professional development among pre-service English teachers. However, this uneven distribution of documents among the databases constitutes a limitation. The prevalence of ERIC-derived documents underscores its pronounced relevance to the research objectives, which center on education-focused exploration. The study is committed to comprehensively considering and transparently reporting this limitation.

2. The PRISMA framework offers different advantages. It establishes a structured approach to literature synthesis, which helps mitigate bias through rigorous search and screening processes, ultimately enhancing the credibility of our research findings. However, it’s important to acknowledge that PRISMA, like any methodology, has its limitations. Originally developed for healthcare research, the adaptation of PRISMA for use in other disciplines might not seamlessly align with the distinct characteristics and requirements of all fields. While PRISMA’s predefined checklist items and reporting criteria are valuable for maintaining consistency and clarity, they might inadvertently restrict researchers’ flexibility in presenting certain aspects of their review that don’t neatly conform to the established structure. We have chosen the PRISMA framework for its well-regarded systematic approach to literature review, as it aligns with our goal of objectively synthesizing research on reflective teaching for professional development among pre-service English teachers. However, we remain cognizant of the need to address potential limitations and ensure that our review fully captures the nuances of the literature in this specific context.

THE AUTHORS

Marcia F. Velasquez is an assistant professor in the Faculty of Sciences of Education at San Agustin National University. She teaches language subjects such as language history, language literature, and the English language. Her research interests involve language education, technology and learning, professional development, educational assessment, and higher education teaching.

mvelasquez@unsa.edu.pe

Patricio H. Ramirez is an English language teacher in an English Language institute accredited by the Commission on English Language Program Accreditation (CEA) and an alliance with National Geographic Education. His research interests involve language teaching, teaching development, reflective teaching, experiential learning, psychological learning, communicative approach development, and language assessment.

pramirez@unsa.edu.pe

Angie G. Capajaña is an assistant teacher at a high school in Arequipa. She is also a graduate student specializing in language at the Faculty of Sciences of Education, San Agustin National University. Her research interests involve language teaching, professional development, reflective teaching, and learning through robotics.

acapajana@unsa.edu.pe

María D. C. Córdova is a research professor at San Agustin National University. She is a recognized CONCYTEC researcher who has published extensively on digital technologies, e-learning, education, teacher education, and computational thinking across formal and informal contexts. Her research interests include research development, learning development, and learning through robotics.

mcordovam@unsa.edu.pe
REFERENCES


