A new practical based pedagogy approach to overcome weaknesses of traditional approaches at classroom environment

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Abstract

Effective, high-quality teaching depends on selecting appropriate teaching methods and techniques that meet students' diverse needs and support them in achieving learning objectives. Due to ambiguity in pedagogical terminology and inconsistent use of instructional methods and techniques continue hinder teaching quality and effectiveness. Sometimes, teachers/lecturers struggle to select appropriate teaching strategies, methods and techniques, or use traditional methods and techniques that lead their lessons ineffective. Traditional pedagogical approaches, which are sometimes suitable for young learners or more dependent learners, may be ineffective when applied across diverse learning contexts. One of the most frequently used methods, traditional lectures with PowerPoint slides are not effective for dependent students in the classroom, which disengage them and limit their active participation. Therefore, it is essential to critically evaluate of established teaching strategies, approaches, methods and techniques and refine them, as well as to develop new ones to support diverse learners and active participation, and enhance the overall learning experience and teaching quality. This paper presents the Practical Approach with Lecture, Image and Text (PAWLIT), as a potentially effective teaching technique for improving learner engagement and achievement, as well as quality in the Further and Higher Education. PAWLIT combines lecture, visual and textual elements to address challenges over teaching approaches, methods and techniques. This paper illustrates strengths and weaknesses of traditional pedagogy approaches and practices, and proposes a new technique, PAWLIT to apply across all learners including dependent and independent learners for overcoming weaknesses of traditional approaches and enhancing pedagogical culture and practices across the organization. It is anticipated that the PAWLIT technique will stimulate further discussion and research on the effective use of both classroom and online resources in in diverse learning environments.

1. Introduction

The most important task for teachers/lecturers is to select and use the suitable teaching techniques to make lessons effective and support students in achieving learning objectives. Dynamic student participation, the use of active teaching strategies, and the development of students' critical thinking skills are essential for lecturers, but confusion with different pedagogical terminologies and the use of ineffective or outdated teaching methods and techniques make their teaching more challenging and ineffective.

Most traditional teaching follows a one-way, passive approach, where lecturers deliver lecture-based information only to students. Modern pedagogies teaching overcomes the weaknesses of traditional teaching, but they are not always effective across all learning environments. Many researchers (Bidabadi, et al., 2016; Yli-Panula et al., 2018; Sivarajah et al., 2019; Strubbe et al., 2020) recommend small group discussions as one of the most effective teaching strategy for fostering critical thinking in disciplines such as business, law, philosophy, and politics. However, this strategy may not be as effective in STEM (Science, Technology, Engineering and Mathematics) fields, where practical, hands-on, and visually supported approaches often yield better learning outcomes than discussion. Professional teachers/lecturers should know and/or discover, through reflective practice, which teaching strategies and techniques are appropriate for their teaching environments. This highlights the essence of evaluating existing teaching methods and techniques, as well as proposing and assessing new ones.

In response to these challenges, this research evaluates the limitations of traditional pedagogical methods and proposes the Practical Approach with Lecture, Image and Text (PAWLIT) technique for adult learners in Further and Higher Education for effective teaching culture. PAWLIT integrates visual, textual, and interactive components to better support diverse learning contexts and needs. A few teaching professionals and some students have evaluated it for high achievement in a learning environment, which helps students learn individually and/or collaboratively and enhances their experiences. The PAWLIT may be a more effective and efficient teaching technique for particular subjects such as computing and engineering, but it needs to be evaluated and tested by many students and teaching professionals in different learning contexts.

After this introduction section, the paper is organised into five sections. Section 2 defines key teaching terms and discusses them in detail to avoid misunderstanding and ambiguity among teachers/lecturers. Section 3 reviews the literature to examine the limitations of traditional teaching methods and approaches, highlights the importance and effectiveness of selecting appropriate teaching methods and techniques, and discusses strategies for enhancing students' engagement and learning outcomes. Section 4 introduces the new PAWLIT technique to address the gaps identifued in the literature, and presents its methodology and implementation in two different educational settings, along with a discussion of the findings. Section 5 outlines the limitations of this research and its implications, and Section 6 concludes the paper.

2. Key teaching terms – pedagogy, andagogy, theory, approach, method, technique, strategy, style and tool

There are many teaching terminologies such as pedagogy, andragogy, approach, method, technique, strategy and tool. In academics, pedagogy and andragogy are the two broader teaching approaches, based on educational theories, where pedagogy is used for teaching children, young people and dependent learners, and andragogy is used for adults for collaborative and self-directed learning. There is also another term, Heutagogy approach, which can be used to teach interdependent learners, where they use their own and others' experiences and become proactive as well as problem-solvers. Teaching theories and teaching approaches are interrelated: teaching theories explain why learning occurs, and teaching approaches describe how these theories can be implemented in practice (Eggen & Kauchak, 2015; Schunk, 2012).

A teaching theory provides information on how teaching works and how it can affect learners' learning. For example, Bloom's Taxonomy, Growth mindset, flipped learning, Meutic theory and social learning theory are some of the popular teaching theories. Bloom's Taxonomy is one of the most powerful teaching theories or frameworks for teachers to meet students' needs and plan their lessons to manage classroom time (Krathwohl, 2002). Flipped theory opposes traditional lecturing; a reversal role between teachers and learners takes place, where learners learn new materials before class or outside classrooms and apply the new concept in the classrooms through discussion and problem solving (Ettien & Toure, 2023). The teaching theory of Meutic conceives that questioning techniques help learners recollect or unfold their knowledge. The social learning theory emphasises the role of observation, imitation, and modelling in learning, suggesting that much of human learning occurs through observing and imitating others, particularly role models or peers (Bandura, 1972).

A teaching approach refers to the broad and general principle, philosophy or framework that guides how teaching and learning will be constructed. It gives overall wisdom, direction, and expectations of the entire teaching process (Nasiba et al., 2021). Two broad approaches are student-centred and teacher-centred. The student-centre approach emphasises active participation, adaptation to needs, autonomy, relevant skills, power sharing and formative assessment of students in their own learning process, such as inquiry-based learning and discovery learning (Bremner, 2021). Another teaching approach, teacher-centred, focuses on the teachers as primary sources of knowledge, while students are passive receivers of information, such as traditional lecture-based teaching. Other widely recognised teaching approaches include constructivism, behaviourism and Humanism. A teaching methodology is a set of principles, beliefs, or ideas, and techniques about classroom teaching that provides a narrow and specific vision of how learning occurs and implements a particular teaching approach to benefit students. Using teaching approaches, a teacher sets general rules or principles for delivering teaching. Examples of teaching

approaches – cognitive refers to thinking, remembering and maximising the brain's potential; behaviourist refers to learners who learn through reinforcement and constant feedback; and constructive refers to learners constructing their own knowledge through negotiation, interactivity and collaboration.

A teaching method is an organized, orderly, structured and planned procedure to enhance learners' learning and experiences. The teaching methods used in the classroom depend on learners' needs, abilities and interests, as well as the requirements of the curricula. Sometimes, methods are employed by the teacher to achieve certain aims.

A teaching strategy is a set of methods or teaching activities, or an overall plan or approach that teachers use to deliver lessons, keep students engaged, and practise skill sets for achieving a specific goal or series of goals. Teaching strategies can be broken down into two broad categories – active and passive. An active teaching strategy gives more hands-on knowledge and skills through doing, while a passive teaching strategy allows students to learn on their own through reading, listening, or researching (Sinha, 2025). Teaching strategies can take different forms, such as inquiry-based, project-based, game-based, collaborative, experiential, and blended learning.

A teaching technique is a specific, or step-by-step, or actionable method within the teaching strategy to deliver a lesson or complete an activity for achieving objectives in a specific learning environment. In the classroom, a teacher uses a wide range of teaching strategies to meet all the needs of students, and which strategies should be used depends on the subject area and course requirements. Teaching techniques are the specific tools and activities that are used by a teacher to facilitate students' learning. A teaching technique reflects an individual teacher's unique approach and personal style, enabling them to develop, design, and implement instructional procedures or methods. Even when employing the same method, teaching techniques may vary from one teacher to another, highlighting the personalized nature of instructional delivery. For example, a learning technique could be a brainstorming, through which a variety of ideas can be generated and shared; concept mapping, which involves drawing graphical representations to highlight students' understanding and organization of conceptual structures; and role-playing, which can emphasize active learning in collaborative and experiential learning situations (Evangeolou, 2023). The implementation of a teaching technique in the classroom to achieve specific objectives depends on the teacher's knowledge, skills, and the learning environment. For instance, one teacher might implement the brainstorming technique by asking each student to individually generate a few ideas related to a given problem, drawing on their own strengths and prior experiences with the topic. In contrast, another teacher might encourage students to work in small groups, promoting collaborative discussion to generate and refine ideas collectively.

A teaching style refers to a teachers overarching approach or philosophy to instruction, influenced by their personality, beliefs, and perspectives on how students learn. A professional teacher uses a few different teaching styles in classrooms to meet students' needs. A few of the most popular teaching styles are authority or lecture style, demonstrator or coach style, facilitator or activity style, delegator or group style, and hybrid or blended style. For a teaching style, a teacher may need to apply one or more teaching techniques in classrooms depending on the teacher's teaching styles (McCoy, 2018).

A teaching tool is an object or technology that a teacher uses to facilitate learning and help students acquire knowledge and skills. Teaching tools depend on the subject and the needs of the students, and can include textbooks, computers, laptops, interactive or smart boards, interactive games, hands-on activities, multimedia and digital platforms. Modern teaching tools in classrooms can enhance students' cognitive abilities, critical thinking and problem-solving skills (Majewska, 2018).

Apart from teaching styles and tools, teachers should also consider learners' learning preferences: how they prefer to receive, process and engage with teaching content to deliver a successful lesson. For student to student, these preferences can vary widely, including visual, auditory or kinaesthetic (VAK) models of learning, as well as collaborative and independent learning style. A teacher should select appropriate teaching strategies, methods, techniques, and tools, prioritising their preferences to enhance their learning goals.

In other words, teaching theory informs and shapes teaching approaches, which serve as a foundational framework for the development of teaching methods. These methods, in turn, give rise to specific teaching strategies, which are ultimately operationalized through distinct teaching techniques. Teaching techniques

are influenced by various factors, including the teacher's teaching styles, students' learning preferences, and the tools or resources available in the teaching environment. Figure 1 illustrates the relationships among different teaching terms and how they are distinct from one another.

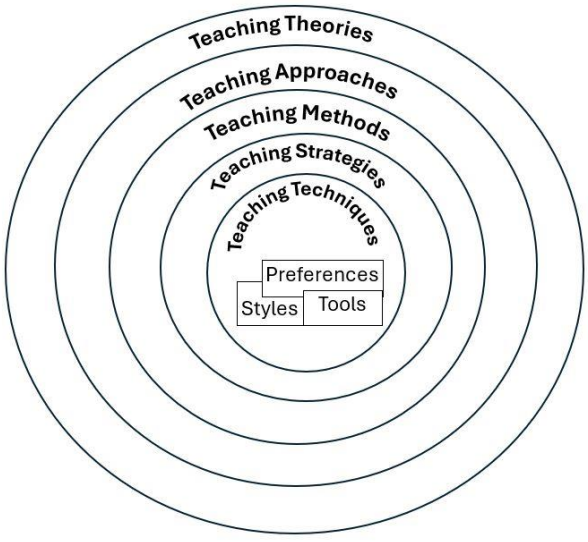

Figure 1: Relationships among different teaching terms and their distinctions

3. Literature reviews

Many literature reviews have raised doubts that traditional pedagogy approaches are not always effective in preparing students for the challenges of the 21st century. However, although the main focus in some subjects, such as mathematics, physics, and other sciences, is on calculation and comprehension, traditional lecture-style teaching can still be beneficial for students (Schwerdt & Wuppermann, 2011). For many other educational fields, including computer science and business, modern teaching methods such as discussions, simulations, case studies, educational games, and concept maps are very effective for developing students' problem-solving skills, cognitive and social skills, as well as critical thinking, and promoting active leaning and collaboration (Farashahi et al., 2018; Hazzan et. al., 2011). These modern teaching methods emphasize the use of technology to meet the needs of the education system while adapting to each student's unique needs, interests, and learning styles, rather than assuming a uniform level of understanding or requirement for all students.

Sometimes teaching professionals use the terms - teaching method and teaching technique interchangeably, and they are confused due to the overlapping nature of these terms and their contextual variability. Teaching methods are highly aligned with educational philosophies and models (Biggs & Tang, 2011). Due to the highly dynamic nature of the educational context, a professional teacher may need to apply multiple teaching techniques for a particular teaching method, creating ambiguity. Understanding all teaching terminologies, particularly teaching method and teaching technique, helps them implement effective strategies to enhance student learning outcomes.

For effective teaching, it is essential to focus on how to teach, rather than solely on what to teach, within the classroom contexts. How to teach refers to which teaching methods are used, how to interact with students in classrooms and how to give feedback (Dilekli & Tezci, 2016). Aktan (2012), Grasha (2002) and Baron (1993) argued that how to teach closely related to teaching professionals' self-efficiency and teaching styles. Teaching techniques depend not only on teachers' self-efficacy and teaching style, but also on teaching methods and specific teaching environment, which also add complexity and ambiguity. For example, teaching techniques such as a particular activity may be suitable for one course, but may not be effective for another. A professional teacher may need to apply one or more additional activities as teaching techniques depending on students' learning styles and classroom contexts.

Professional teachers/lecturers should assess and identify which teaching methods should be used according to students' needs, teaching goals and objectives, and potential barriers (Wang, 2022). Many

researchers suggest that, especially in higher education, a brief survey can be conducted before starting a course to determine what students need to learn and which teaching methods they prefer. Interaction with students can be increased or decreased based on the results of reflection and practice. Students learn more effectively when their chosen teaching methods, learning preferences, and relevant tools are aligned with their needs in the classrooms (Mazarin, 2021).

4. Proposed a new teaching technique – Practical approach with lecture, image and text (PAWLIT)

4.1 Introduction

A Practical Approach with Lecture, Image, and Text (PAWLIT) is an active teaching strategy designed for targeted educational contexts. Rooted in a student-centred pedagogy, this approach effectively enhances teaching and learning outcomes, particularly among Further Education (FE) and Higher Education (HE) students. PAWLIT addresses and mitigates several limitations associated with traditional teaching methods, promoting deeper engagement and comprehension.

The technique can be introduced through a simple example using Figure 2. In a traditional teaching approach, when introducing a new item, such as an apple, the teacher typically draws an image and writes it on the board, demonstrating its pronunciation and spelling. The PAWLIT is a novel, efficient techniques that combines three components – lecture or speech, image and text with or without technologies to enhance engagement and learning outcomes. Figure 2 shows the difference between the traditional method and the PAWLIT teaching application using the topic of "apple".

Using PAWLIT, a teacher can display an apple in various colours (e.g., green, red, pink, and yellow) to stimulate students' visual senses. Additionally, the teacher provides a concise textual and auditory description of the item, reinforcing the word's pronunciation and spelling to enhance learning and better engage students. How the technique will be used in an environment depends on the availability of tools or resources, teacher's style and learners' learning preferences. For example, if there is no speaker option available, the teacher may read aloud the names of different apples, their spellings, and descriptions multiple times if necessary. Similarly, if technology or resource is unavailable, the teacher can draw several apples of different colours on the board, providing a caption for each.

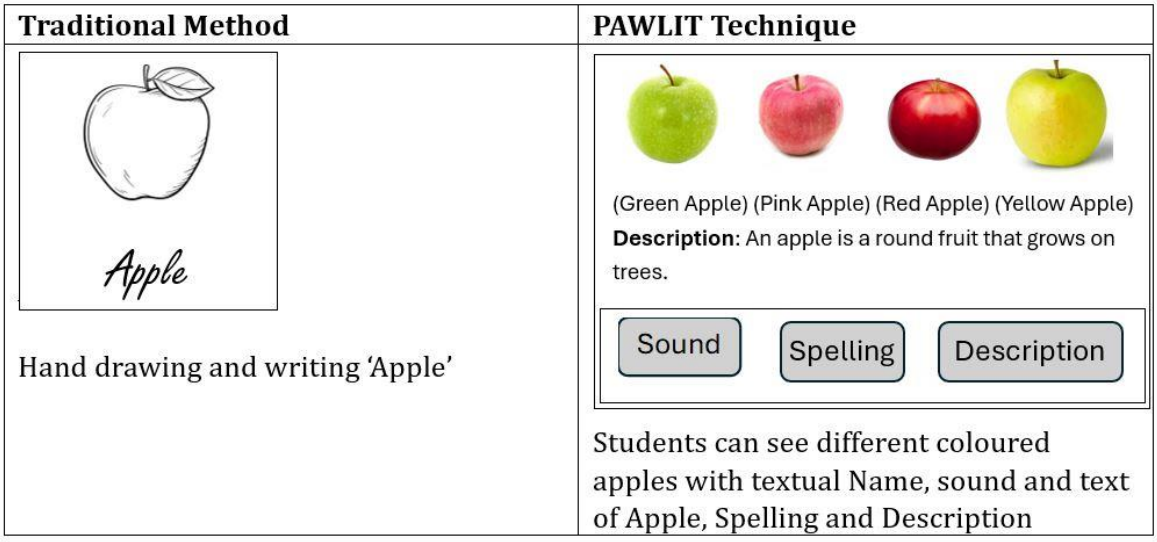

Figure 2: Application of the PAWLIT technique within an ESOL English Skills for Life course

4.2 Methodology

The PAWLIT technique was grounded in empirical research, which involved the collection and analysis of limited data to assess educational outcomes across two distinct educational settings. In the first setting, the PAWLIT technique was applied to a group of 30 adult ESOL (English for Speakers of Other Languages) learners, aged between 25 and 45, who were native speakers of various languages, including Bengali, Ukrainian, Arabic, and Portuguese. These learners were enrolled in the *English Skills for Life* course for Entry Level 1 (Elementary Level), at City College Stratford (London) and participated in a 12-week

instructional period covering various topics from mid-September to mid-December 2024. In the second setting, the technique was implemented within two distinct modules of a degree programme: *Computer Science Fundamentals* (for first-year students) and *Advanced Databases and Big Data* (for second-year students). The total of 30 students were divided into three smaller groups and engaged with the material—primarily focused on Python programming—between February and March 2025 at Regent College London.

4.3 Implementation

For the implementation of PAWLIT technique within the ESOL Skills for Life course for Entry level 1, a prototype program was developed. Over a 12-week period, a series of weekly lessons were delivered, during which learners were introduced to a variety of thematic objects, including fruits, shapes, birds, and animals. Student feedback was systematically collected throughout the period to support the evaluation of the PAWLIT technique's effectiveness.

For the implementation of the PAWLIT technique within a degree programme, skeletal structures of two distinct Python programs—corresponding to two different modules—were developed in advance and delivered to three smaller student groups. Each program skeleton was initially presented as a visual image to introduce the upcoming content, outline its purposes and objectives, and stimulate students' visual engagement with the full program. Subsequently, programming syntax and scripts were introduced through lectures and textual information, and provided to students incrementally, allowing them to practice step-by-step rather than receiving the complete code at once. This scaffolded approach was applied to several Python programs, and student feedback was systematically collected to inform the evaluation of the technique's effectiveness.

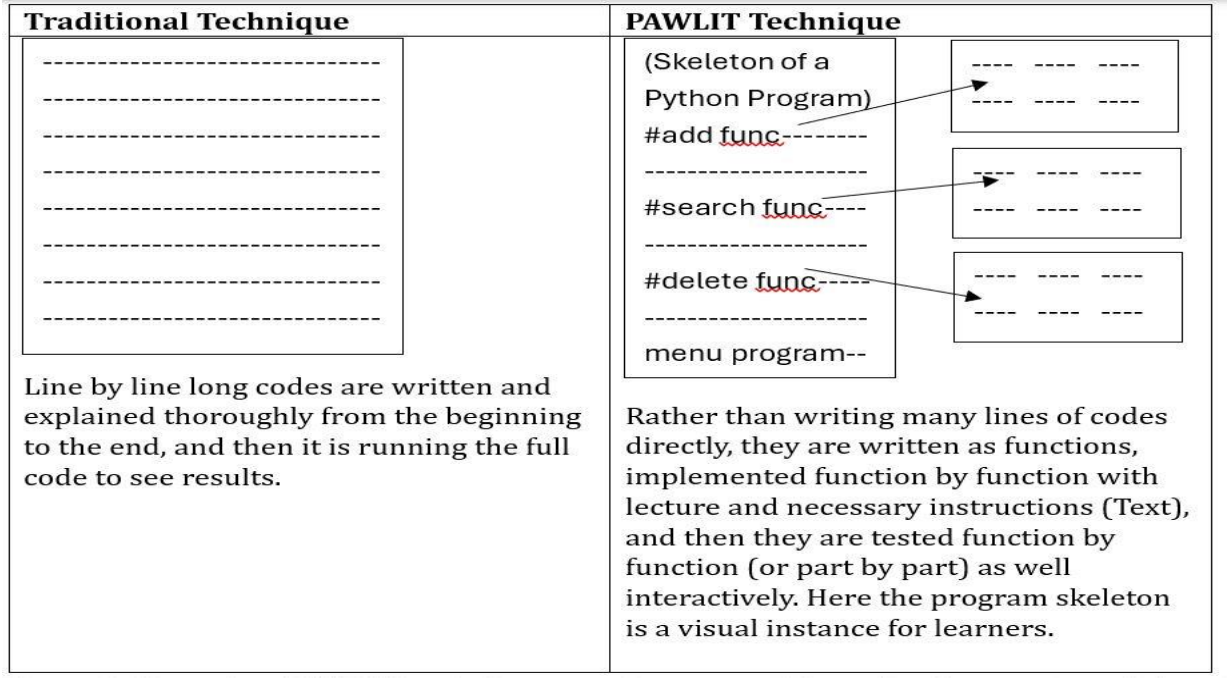

Figure 3: Application of the PAWLIT technique within a Computer Science Fundamentals module using Python program

Figure 3 illustrates how the PAWLIT technique was applied in the *Computer Science Fundamentals* module for first-year undergraduate students, alongside a comparison with the traditional teaching approach. Instead of adopting a traditional approach that involved presenting complete, lengthy code blocks, the lecturer initially introduced a program skeleton in visual form, systematically showing different parts or functions of the program to enhance students' understanding of the entire program and actively engage them. The program was then progressively developed, explained, and tested in an incremental

manner, typically function by function or part by part, to facilitate step-by-step comprehension and active student engagement.

4.4 Findings

Student feedback on the implementation of the PAWLIT technique in the *ESOL Skills for Life* course for Entry Level 1 was overwhelmingly positive across the 12-week period. Learners consistently reported improved and faster acquisition of new vocabulary related to objects, including their names, correct pronunciations, and brief descriptions. Many also noted enhanced recall, stating that they could retrieve information more quickly from memory. Additionally, most learners expressed that they found the teaching technique enjoyable and engaging.

Similarly, students enrolled in the degree programme reported that the PAWLIT technique was both effective and beneficial. They indicated that it facilitated a clearer and quicker understanding of complex programming tasks, enabling them to manage and comprehend lengthy code more efficiently. Most students actively engaged with the programming content and were able to follow the lecturer's pacing successfully. Many also remarked that they enjoyed the learning experience and praised the teaching technique for enhancing their learning.

The adaptability of the PAWLIT technique allows lecturers to tailor its resources to suit specific lesson contexts and learning environments, thereby optimizing educational outcomes. This flexibility represents a valuable asset for teaching practice and helps to avoid the weaknesses of traditional teaching approaches and methods. The teaching technique combines three elements – speech or lecture, text and images to create a lasting impact on learners' learning process. However, further evaluation involving a larger and more diverse student population is necessary to comprehensively assess the technique's overall effectiveness. Nonetheless, the PAWLIT approach demonstrates considerable promise in enhancing the student learning experience and supporting academic institutions in better addressing diverse learner needs.

5. Study limitations and implications

While the outcomes of the PAWLIT technique were largely positive across both educational settings, several potential limitations and challenges need to be acknowledged. First, effective implementation of this technique requires careful advance planning and the thoughtful selection of appropriate tools and resources to combine three elements – speech or lecture, text and images, and prepare lesson contents. Lecturers need to invest considerable time in designing activities, particularly in choosing suitable images and textual materials (including programming scripts, where applicable). If the selected materials are not contextually relevant or pedagogically appropriate, the technique may revert to more traditional teaching methods, thereby diminishing the intended benefits for students.

Moreover, the present study was conducted on a relatively small scale, involving limited cohorts in specific educational contexts. As such, the generalizability of the findings remains constrained. It is possible that applying the PAWLIT technique to larger or more diverse groups, or in different subject areas, may yield varied or even adverse results.

Despite these limitations, the technique shows significant promise for reinforcing the learning process. It highlights the importance of multimodal learning strategies and underscores the value of student-centred, active learning in both FE and HE. While this research demonstrates PAWLIT in ESOL English and selected Computer Science modules, the technique can be applied to other disciplines, such as business. Its three components—lecture or speech, image, and text—can be combined and tailored to suit specific lesson contexts and learning environments. Future research should explore the application of PAWLIT across broader and more varied educational settings to validate its effectiveness and scalability. Additionally, studies examining its impact on different learning styles and disciplines could offer further insight into how the approach can be refined and adapted to maximize its pedagogical potential.

6. Conclusions

Due to the dynamic nature of educational context and emerging technologies and tools, many researchers argue that evaluating teaching methods and techniques used in classrooms and developing new teaching strategies is a continuous process of educational development. Teaching methods provide a

structured framework that help students achieve specific learning objectives. On the other hand, teaching techniques are specific actions or activities within the framework of broader teaching methods that facilitate students' learning, engage them and reinforce their knowledge. Finding the right teaching techniques for a subject is a challenging task, and professional teachers should continue to research and develop themselves.

The PAWLIT is a proposed teaching technique for subject areas such as ESOL and Computer Science. It has been applied and evaluated by a limited number of students, with very positive outcomes. This technique can be applied in selected subjects as a good practice for achieving effective teaching outcomes. Its combination of lecture, image, and text provides a flexible, multimodal framework that can enhance student engagement, achievement, and comprehension across diverse learning contexts. With further research and broader implementation, PAWLIT has substantial potential to transform pedagogical practices and serve as a model for student-centred, active learning in both FE and HE.

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