

## Professional Development Needs of ESL Teachers for Effective AI Integration: A Quantitative Study

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**Abstract:** As several AI tools, such as ChatGPT, Grammarly, and AI-driven lesson planners, come into use in the ESL (English as a Second Language) setting, many teachers are eager to utilize them. Yet, absent pertinent professional development (PD), an ESL teacher may find themselves confused in integrating AI fairly and effectively. This paper uses survey data from 239 respondents to examine the current picture of AI-related professional development for ESL teachers. The study investigated teachers' awareness of AI, the frequency of their use of AI tools, whether or not such use was encouraged through training, and interest in further training. The results showed high interest among ESL teachers to learn about AI but virtually no formal training in the area. In fact, more than 80% indicated that their institution did not offer formal professional training in AI or that they did not even know of any. Such results demonstrate a glaring discrepancy between the expectation and realistic preparation of the teachers. The paper recommends that institutions offer professional development programs that are pragmatic, ethical, and aligned with the real needs of ESL teachers.

**Keywords:** AI in ESL, teacher training, professional development, ESL education, ChatGPT, teacher readiness, institutional support, AI literacy, digital teaching, classroom technology

## INTRODUCTION

### Background and Context

As AI has recently been marketed as part of educational technology, it has captured recent attention. Systems such as Grammarly which corrects grammar and generative AI platforms such as ChatGPT are being deployed by instructors in fields including ESL instruction. AI tools created new means of assisting student learning for ESL teachers through giving automated feedback, vocabulary practice, or even content generation (Alharbi & Khalil, 2023; Ding et al., 2024). Yet, this raises interest and curiosity about the opportunity to implement these tools. Training needs to centers and guidance need to be explored and how AI fits into language pedagogy.

Research shows that ESL teachers feel very excited about the possibilities of AI, but they do not always know how to use it appropriately (Kalra, 2024; Mohammad Ali, 2023). Some teachers do not consider the ethical risks involved, such as over-reliance of students or plagiarism. Others are skeptical about adopting AI due to the absence of institutional support that the school may offer or out of a fear of doing something wrong them. While AI continues to slowly transform the majority of language teaching disciplines, many teachers report that they have only a very limited scope for pursuing relevant professional development (Yang et al., 2024). This presents a challenge because the promise of AI can only be met by its purposeful use in everyday language teaching principles from technical and ethical standpoints.

## **Professional Development's Role in AI Integration**

The need for professional development has been one of the pillars of effective teaching with respect to AI integration. Professional development allows teachers to acquire not only the technical skills necessary to operate AI tools but also the critical skills required to use AI tools appropriately in the particularities of their teaching environment. It has been presented in the research that targeted professional development increases teachers' capacities to make decisions and exercise creativity in the classroom (Fakhar et al., 2024; Yang et al., 2024). For ESL teachers, this need is even more important: knowing how to employ AI to support language learning rather than supplant it.

Fakhar et al. (2024) stress that continuous professional training, which is always context-related, should build AI literacy over longer periods. Luria (2025) confirms this finding, discovering that ESL teachers within structured PD programs showed better strategies for balancing traditional methods with AI-supported ones. Both studies reveal the urgency of launching PD programs that transcend mere tutorials on using tools and that engage teachers in pedagogical, ethical, and engagement-related discussions.

The fact remains that, to date, when it comes to AI professional development, fewer institutions provide any kind of in-house PD. A large majority of ESL teachers are left to learn through self-initiated effort or informal peer sharing procedures on their own. Such informal learning may result in inconsistent implementation with a lack of confidence about managing a range of classroom situations that involve AI (Ding et al., 2024; He, 2013). Furthermore, teachers often have difficulty in evaluating the correctness or suitability of AI-generated content, especially in the case of diverse learners.

## **Statement of the Problem**

Many AI tools widely integrated into schools and education have left ESL teachers with challenged professional development programs that address AI integration specifically. The tools are there, and the teachers are willing, but support is not provided in a manner that introduces AI with efficiency in the theory and practice of day-to-day teaching.

## **Purpose and Objectives of the Study**

The main purpose of this study is focused on knowing the kind of professional development ESL teachers require working effectively with AI tools. Through quantitative analysis, this research aims to explore the survey data from 239 ESL teachers regarding:

How familiar are ESL teachers with AI tools?

1. What kind of formal professional development have teachers received regarding AI integration?
2. Frequency of current AI tools being used by ESL teachers in teaching.
3. Willingness of teachers to be provided with more training in the effective and ethical use of AI.

The study also aims to make recommendations to institutions, policymakers, and curriculum developers on the best professional development routes.

## **The Research Questions**

1. This study is guided by the following research questions:
2. What is the current level of ESL teachers' familiarity with AI tools used in the classroom?
3. How many ESL teachers have received formal professional development in AI integration?

4. What is the demand for further AI-focused professional development among ESL teachers?
5. How does the presence or absence of professional development affect AI tool usage and confidence?

### Significance of the Study

This study is crucial because it targets the minority that has an essential position in language acquisition and worldwide communication, i.e., ESL teachers. While much has been written about AI for the benefit of students, there has not been as much regarding what teachers require to effectively implement AI into real classrooms (Mohammad Ali, 2024; Dilzhan, 2024). By focusing on the teacher-side perspective, the study provides insights into how institutions can support the effective and ethical integration of technology.

Furthermore, the interest in programmatic offerings might help reduce the misalignment between the expectations of policy and the realities of classrooms. Whereas institutions typically roll out AI tools without adequate supporting frameworks, this study seeks to fill the void by clarifying what teachers require feeling confident and competent in this new setup (Liu & Chang, 2024; Kohnke et al., 2023).

## LITERATURE REVIEW

### AI in ESL Teaching

AI is beginning to affect how teachers design, deliver, and assess ESL lessons. Tools like ChatGPT, Grammarly, and AI-based programs help the ESL teachers by providing speedy grammar checking, developing reading assignments, or giving some kind of feedback (Mohammad Ali, 2023; Alharbi & Khalil, 2023). Meanwhile, these tools help students expand their vocabulary, improve fluency, and develop accuracy. Some studies state that these tools are regarded as useful by teachers, especially when the latter are dealing with large numbers of students or with time constraints (Luria, 2025; Abedi et al., 2025).

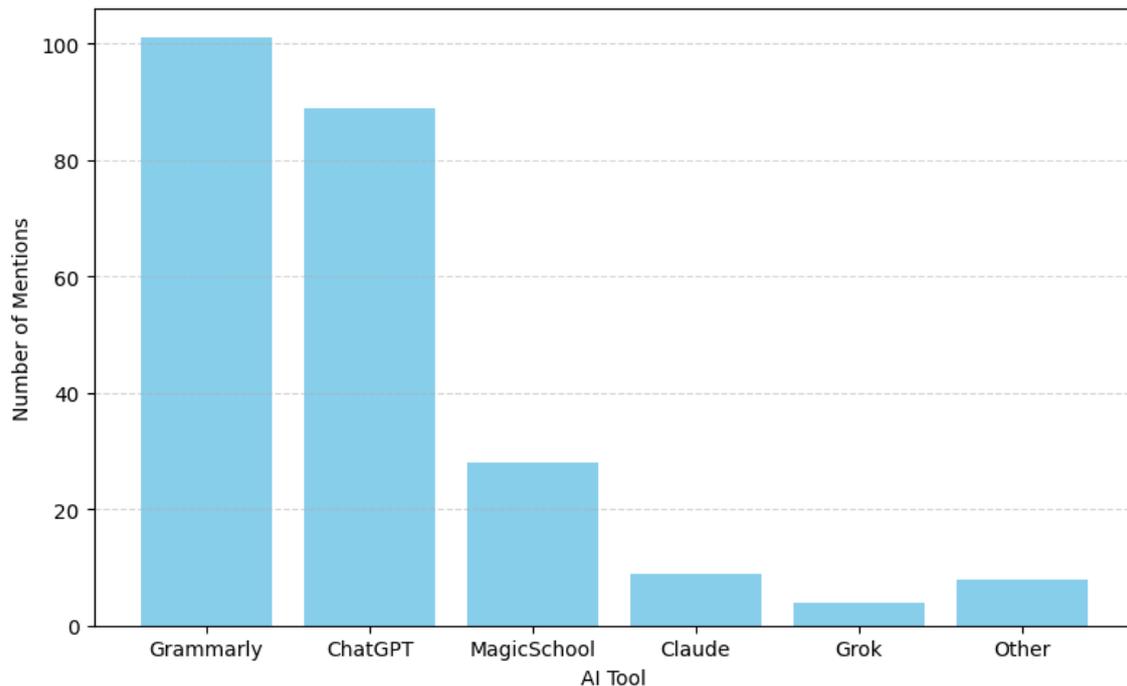
Teachers, however, do not always feel confident about the use of AI, many asserting that they are unsure about using these tools effectively and ethically. Some ESL teachers are concerned that students may become excessively dependent on AI or even use it to cheat (Kalra, 2024). This concern comes into play especially when, for example, AI is used in writing assignments or grammar exercises. Foremost, while AI brings new opportunities for ESL teaching, teachers need some form of assistance to use it properly.

**Table 1.** Common AI Tools Used by ESL Teachers

AI Tool	Number of Mentions	Percentage
Grammarly	101	42.3%
ChatGPT	89	37.2%
MagicSchool	28	11.7%
Claude	9	3.8%
Grok	4	1.7%
Other/Unclear	8	3.3%
<b>Total</b>	<b>239</b>	<b>100%</b>

**Source:** ESL Teachers' Perceptions of AI Tools Dataset (2025)

As the table shows, Grammarly and ChatGPT are the most popularly used from among the many tools used by ESL teachers. These findings align with others, which say that people normally use Grammarly for grammar checking and ChatGPT for lesson planning and content generation (Mohammad Ali, 2024; Chung & Jeong, 2024).



**Figure 1.** Most Used AI Tools  
**Source:** ESL Teachers’ Perceptions of AI Tools Dataset (2025)

### Importance of Teacher Professional Development

Professional development trains teachers with the aptitudes and knowledge needed to work on enhancing their craft. In AI cases, it is crucial because it is the untrained teacher who is mostly making use of these tools. Studies have found that once ESL teachers receive some AI training, these teachers felt confident and tended to use it in places that aid learning (Yang et al., 2024; Ding et al., 2024). Other teacher respondents, as groups, have also attested that they can have better classroom outcomes and realize ethical issues related to AI when they undergo teacher training.

Lacking PD, the majority of ESL teachers tend to figure it out on their own. Sometimes, they could misuse the tools, while at other times, they reject using them altogether. Luria (2025) discovered that novice teachers especially benefit from clearly structured training programs that enable them to meaningfully integrate traditional methods and new technology.

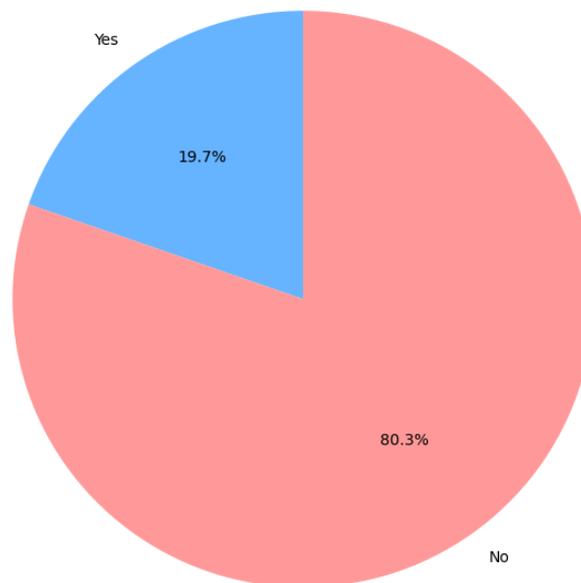
The current dataset lends support to this. A majority of the teachers stated that they had never had professional development related to AI, while many others were not even sure if such training existed in their own institutions.

**Table 2.** Have You Received AI-Related Training?

Response	Number of Teachers	Percentage
Yes	47	19.7%
No	192	80.3%
Total	239	100%

**Source:** ESL Teachers’ Perceptions of AI Tools Dataset (2025)

This table reveals a major gap in AI training. More than 80% of the ESL instructors surveyed have not been trained to use AI in the classroom. This evidence concurs with earlier studies that show that most institutions have not yet put PD programs in place so that teachers can gain an understanding of AI tools (Fakhar et al., 2024; Liu & Chang, 2024).



**Figure 2.** AI Training Received (Yes/No)

**Source:** ESL Teachers' Perceptions of AI Tools Dataset (2025)

### Gaps in Institutional Support

As AI is being deployed in more classrooms, many institutions have not provided support for the teachers. In the dataset, very few respondents said their schools had official policies or training on the use of AI. Most said either they were not aware of such policies or they did not exist. Such is the slow response of institutions to technological change, leaving teachers confused without clear instructions (Fakhar et al., 2024; Hamza et al., 2025).

Without institutional support, teachers have to rely on discussions with their peers or online resources to guide their use of AI. This leads to teachers applying AI inconsistently, raising some concerns as to its fairness. In some cases, depending on the application of AI by a teacher, some students may be more fortunate than others.

Teachers in the present study clearly indicated the need for leadership to create organized training events. They asked for clearer guidelines about when and how AI tools can be used. Most of them also expressed an increased feeling of confidence with institutional support for AI use and guidelines for ethical use in the classroom (Mohammad Ali, 2024; Tang & Foley, 2022).

## METHODOLOGY

### Research Design

This study followed a quantitative descriptive research design. The goal was to explore the experiences that ESL teachers have had with AI tools and how these have in turn affected their need to pursue professional development. The data were collected by means of a structured survey completed by teachers involved in the teaching profession in

different educational institutions. The survey questions were, thus, closed-ended and on a Likert scale so as to measure how often teachers use AI and how familiar they are with these tools and whether they have received any training in this regard. A quantitative research design was selected to identify trends that could be measured across a large sample (Fakhar et al., 2024).

### Participants

The survey collected responses from 239 ESL teachers. These participants came from diverse educational backgrounds, including public schools, private language centers, and universities. All participants were involved in English language teaching, and most had at least some exposure to AI tools, either personally or professionally. The dataset reflected an ideal balance between all ranges of experience from novice teachers to those who have been in the teaching profession for several years, thus broadening the scope of the study (Luria, 2025).

**Table 3.** Participants' Familiarity with AI Tools

Familiarity Level	Frequency	Percentage
Extremely Familiar	52	21.8%
Very Familiar	41	17.2%
Moderately Familiar	78	32.6%
Slightly Familiar	48	20.1%
Not at All Familiar	20	8.3%
Total	239	100%

**Source:** ESL Teachers' Perceptions of AI Tools Dataset (2025)

According to the given table, more than half the number of participants claimed that they were "moderately familiar" or "slightly familiar" with AI tools. Only a few participants perceived themselves as extremely familiar; this implies that many teachers feel there is much to be learned about AI integration (Yang et al., 2024; Ding et al., 2024).

### Instrument and Data Collection

The instrument utilized in this study was a survey with 26 questions, generated and shared through Google Forms. The questions in the survey aimed to give notice of the current uses of AI by teachers, their training backgrounds, and their own perception of being ready. It included:

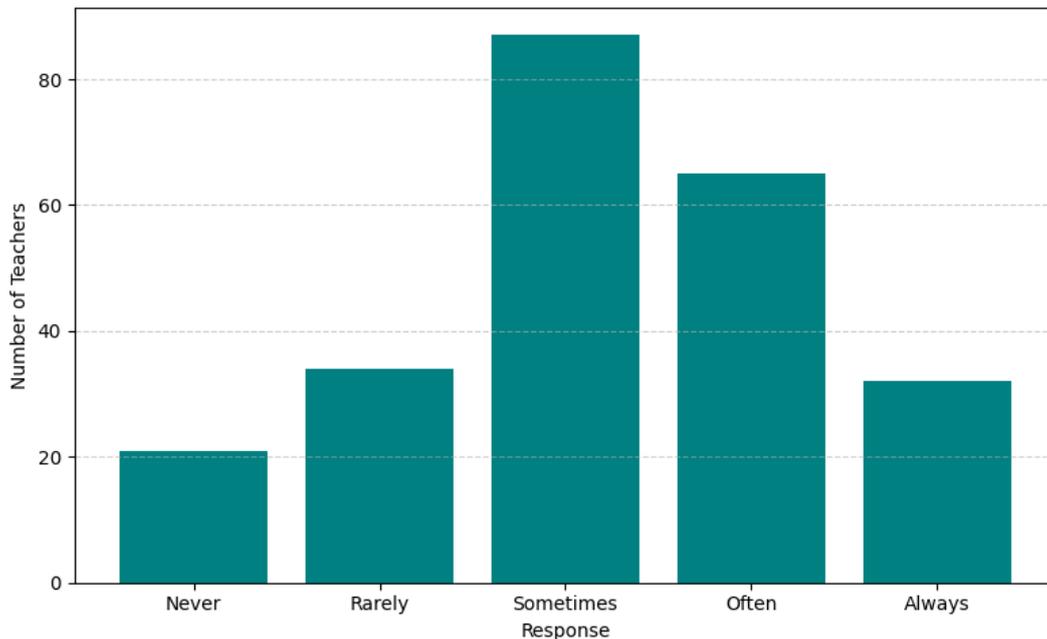
1. **Likert-type questions; for example:** How often do you use AI tools in lesson planning?
2. **Binary yes/no questions; for example:** Have you received AI training?
3. **Open-ended questions were there again;** these were optional for comments.

The invitation was sent through ESL teacher networks, email lists, and social media discussion forums. While submitting their answers, the participants' identities were kept anonymous. The data collection took a two-week slot in April 2025. Confidentiality was guaranteed throughout the research process, following ethical guidelines, including informed consent.

### Data Analysis

Once all responses were gathered, the data cleaned and analyzed through basic statistical operations in Python. The key focuses of analysis involved frequencies and

percentages to identify trends in training, use of tools, and readiness of teachers. Also, visualizations were created for an aesthetic and clearer interpretation of these trends.



**Figure 3.** AI Use Frequency for Lesson Planning

**Source:** ESL Teachers' Perceptions of AI Tools Dataset (2025)

The figure shows that the majority of teachers use AI tools at least occasionally in planning lessons. The option "Sometimes" was the most common response; and this implies that while the use of AI is not yet routine in ESL teaching, it is definitely becoming more considered (Mohammad Ali, 2024; Kalra, 2024).

### Ethical considerations

The study adhered to the ethical standards required for any research involving human participants. Participation was completely made voluntary and no names or any personal data were obtained. Respondents were told that the questionnaire was for research, and their answers would remain anonymously. The intention was to assess teachers' needs rather than judge the performance of individuals. Ethical protection becomes especially paramount in studies related to emerging technologies, such as AI, where teachers may feel uncertain or exposed (Gayed, 2025).

### Summary of Key Patterns

The early analysis shows a strong interest in AI and a rising trend in tool usage, especially among those who have a moderate level of familiarity. However, the data also shows that most have never received any formal training and that teachers must take the initiative when it comes to discovering AI tools. This lack of support in a structured manner could restrict the full integration of AI in classrooms (Ding et al., 2024; Shoukat et al., 2024).

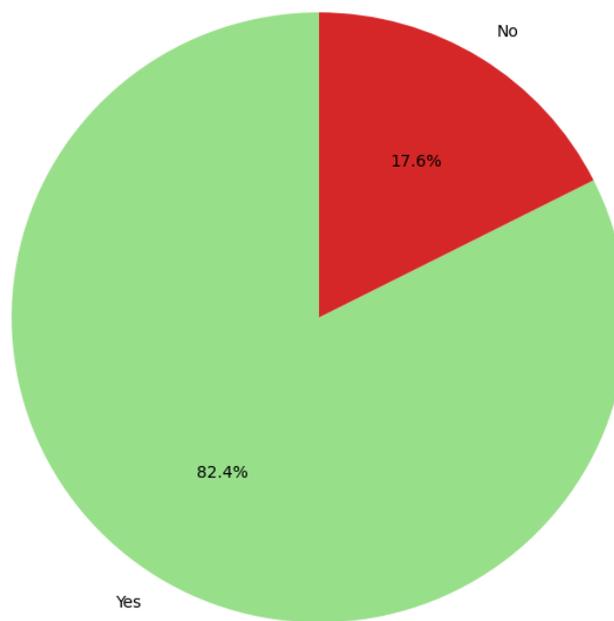
**Table 4.** How Often Do Teachers Use AI for Lesson Planning

Frequency	Count	Percentage
Never	21	8.8%
Rarely	34	14.2%

Sometimes	87	36.4%
Often	65	27.2%
Always	32	13.4%
Total	239	100%

**Source:** ESL Teachers’ Perceptions of AI Tools Dataset (2025)

The table corresponds to the above-mentioned figure and confirms that regular AI use is still somewhat limited. While a majority of instructors use AI occasionally, only a small minority use it "Always," which means consistent integration is still in its formative stages (Tang & Foley, 2022; Liu & Chang, 2024).



**Figure 4.** Teachers Who Want More AI Training

**Source:** ESL Teachers’ Perceptions of AI Tools Dataset (2025)

There are more than 82% of teachers willing to undergo more training on AI tools. This becomes a critical finding that shows an explicit need for some professional development. Teachers want to learn but really do need guidance to jump-start the process with the right resources and institutional support (Hamza et al., 2025; Abedi et al., 2025).

## Results

### Familiarity with and Use of AI Tools

The study established the varying levels of familiarity ESL teachers have with AI tools. Some teachers indicated they were very confident in using AI, while others expressed only basic knowledge of it. More than 30% of the respondents (32.6%) considered themselves to be moderately familiar with AI tools, whereas 21.8% stated that they were extremely familiar. This shows the fact that many teachers are willing to embrace the AI method but are still at a beginning stage of learning how to exploit it efficiently.

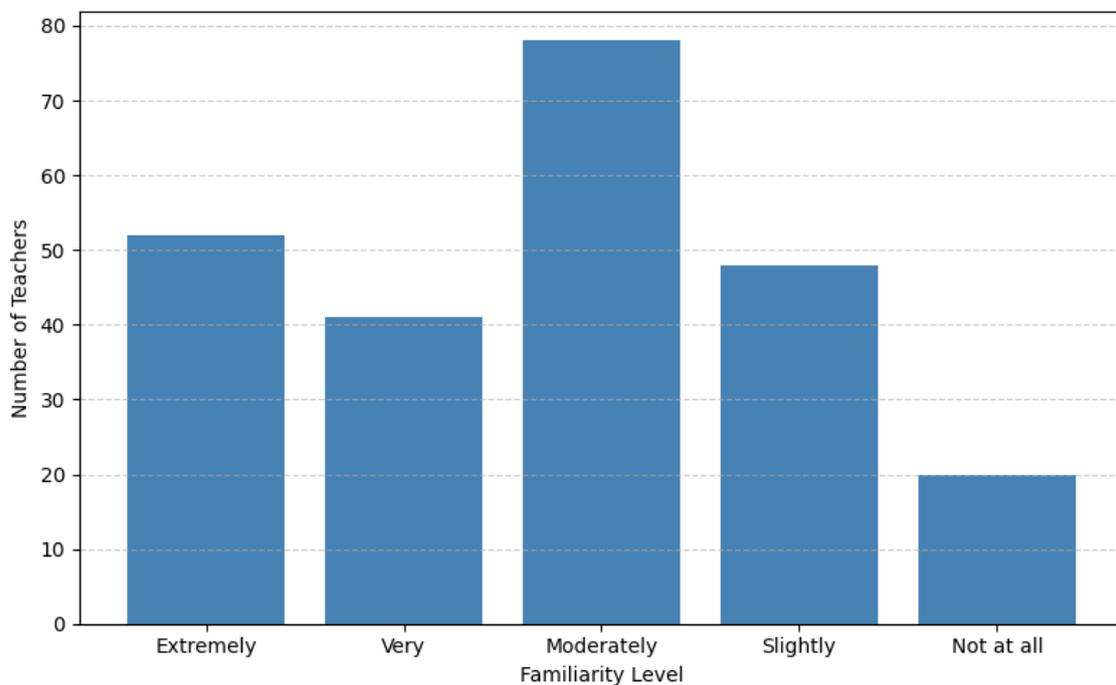
In terms of usages, the most popular AI tools were Grammarly and ChatGPT. Grammarly was primarily used for checking grammar, while ChatGPT was popular among teachers for lesson planning and brainstorming. Some teachers also mentioned using MagicSchool and Claude but to a lesser extent.

**Table 5.** Teachers’ Self-Reported Familiarity with AI Tools

Familiarity Level	Frequency	Percentage
Extremely Familiar	52	21.8%
Very Familiar	41	17.2%
Moderately Familiar	78	32.6%
Slightly Familiar	48	20.1%
Not at All Familiar	20	8.3%
<b>Total</b>	<b>239</b>	<b>100%</b>

**Source:** ESL Teachers’ Perceptions of AI Tools Dataset (2025)

These numbers are consistent with earlier findings that indicate that most ESL teachers are still developing the understanding of these AI tools but are willing to explore them (Yang et al., 2024; Liu & Chang, 2024).



**Figure 5.** Familiarity Levels with AI Tools

**Source:** ESL Teachers’ Perceptions of AI Tools Dataset (2025)

The figure supports the table and confirms that some ESL teachers do feel confident, yet the majorities are still in the learning stage regarding AI integration.

### Reported History of Professional Development

The results indicate a clear gap in professional development. When asked if they had undergone training in the formal use of AI tools in their teaching, only 19.7% replied "Yes." The remainder of 80.3% either said "No" or was uncertain. This means that most ESL teachers practice or explore using AI tools without any formal instruction or support from their institutions.

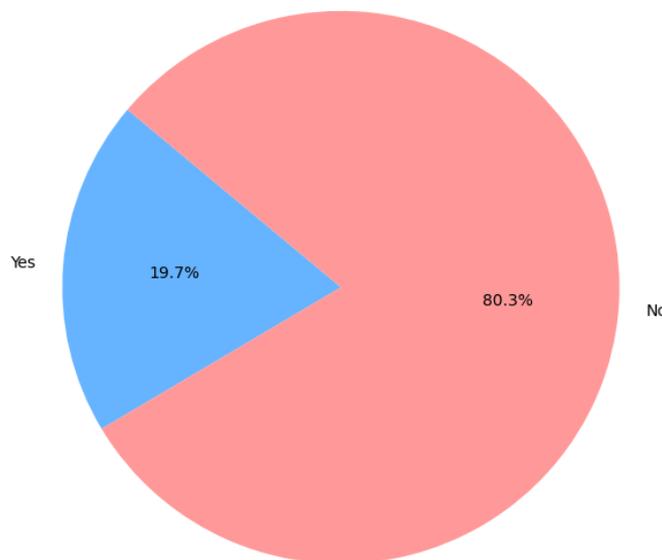
This is the same thing that other researchers have confirmed: that is to say, many educational institutions have yet to establish training programs to enable teachers to stay abreast of developments in AI (Ding et al., 2024; Elhambakhsh et al., 2024).

**Table 6.** Have You Received Professional Development in AI Integration?

Response	Frequency	Percentage
Yes	47	19.7%
No	192	80.3%
Total	239	100%

**Source:** ESL Teachers' Perceptions of AI Tools Dataset (2025)

A clear example of the absence of institutional preparation is exhibited here. Teachers are expected to use new tools for instruction, but little assistance is provided to enable them to use them effectively and responsibly (Fakhar et al., 2024; Hamza et al., 2025).

**Figure 6.** Professional Development Received (Yes/No)

**Source:** ESL Teachers' Perceptions of AI Tools Dataset (2025)

The pie chart depicts that the majority of teachers have not received any training on AI, a large professional gap exists.

### Desire for Professional Development in the Future

While the majority of teachers have not received any AI-specific training, they remain interested in the subject matter. One question was would you like to have more opportunities for professional development on AI? More than 82% replied in the affirmative. Teachers express considerable interest in workshops, webinars, and hands-on tutorials showing the practical ethical application of AI in ESL classrooms.

This corresponds with previous research revealing how levels of teacher confidence in using AI tools are increased when teachers are given access to very well-designed PD programs (Yang et al., 2024; Shoukat et al., 2024). Teachers want to learn practical strategies and ethical considerations in using AI and how they can immediately implement these tools in classes.

### **Relation between Familiarity and Desire for Training**

The survey results also give an indication of a relationship between teachers' familiarity with AI and their demand for training those rating themselves on the border of being "moderately" or "slightly" familiar with AI show the greatest demand for professional development. It appears that these teachers recognize the value of AI but also recognize their limitations.

Teachers, themselves included in this group, expressed a need to understand how to apply AI tools to various tasks like lesson planning, assessment, and feedback. They would like training on how to communicate AI use to students in a manner that is both ethical and straightforward. These findings once again emphasize the need for professional development being laser target-focused and meeting teachers where they are (Gayed, 2025; Kılıçaslan-Takva & Arslan, 2025).

### **Discussion**

#### **Teachers Are Interested in AI but Lack Training in the Area**

The study basically showed most of the ESL teachers inclined to using AI in their teaching. Teachers use several other tools such as Grammarly and ChatGPT for grammar checking and lesson planning mainly. However, while these tools are becoming widespread, many teachers have not received training. Only 19.7% of the respondents stated that they had undergone professional development pertaining to AI use. This is in line with Ding et al. (2024) who also reported that teachers are left to explore AI tools on their own in the absence of institutional guidance.

Teachers have the utmost interest in AI, especially those who perceive themselves as "moderately" or "slightly" familiar. These teachers appear to understand AI in theory while seeing the hazards of using it without proper understanding. Professional development, according to Yang et al. (2024), promotes confidence and improved usage of technology by teachers in classrooms. This means that without such, many ESL teachers will continue to use AI tools in uncertain or restrained ways.

#### **The Permeation of Professional Development Gap**

This study found that a little over 80% of ESL teachers have never been trained in anything notably related to AI. Interestingly enough, over 82% would currently like to see professional development within this area offered. These statistics highlight a gap between what teachers feel they need and what it is at present they get to access for themselves. According to Fakhar et al. (2024), professional development means not just learning how to use tools, but also how to use them effectively, ethically, and in ways that enhance learning.

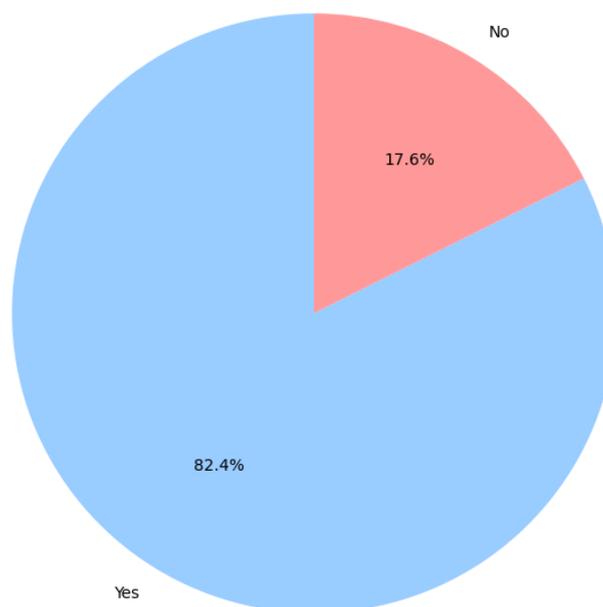
Teachers in this study said that they needed the greatest support with lesson planning, assessment and feedback strategies, and classroom activities using AI. They also wanted support with ethical concerns such as in instances of plagiarism and over-reliance. Without such formal training, teachers could misuse AI tools or completely avoid them due to fear. Such a gap creates bigger issues for teachers and limits the benefits new technology offers to students.

**Table 7. Do You Want More AI Training?**

Response	Frequency	Percentage
Yes	197	82.4%
No	42	17.6%
Total	239	100%

**Source:** ESL Teachers' Perceptions of AI Tools Dataset (2025)

This table mentions that there is strong interest in learning more about the field of AI. So teacher agencies want to prepare themselves and are thus seeking more institutional support (Shoukat et al., 2024; Gayed, 2025).

**Figure 7. Interest in AI Professional Development**

**Source:** ESL Teachers' Perceptions of AI Tools Dataset (2025)

### **Institutional Support Is Missing**

A notable concern is the lack of institutional support. Most teachers stated that their schools do not provide training or clear rules around the use of AI. In contrast, many others declared to have unsure opinions about the existence of such guidelines. It is indeed confusing. If clear guidelines or support do not exist, then it is up to teachers to judge for themselves when their use of AI is appropriate. This encourages unfairness or inappropriate use of AI tools or outright use that does not promote student learning (Abedi et al., 2025; Elhambakhsh et al., 2024).

Teachers certainly should not be left to struggle with these issues. Institutions must provide training, create clear policies regarding AI, and set up a forum where teachers can raise their doubts. Studies like those of Hamza et al. (2025) and Liu & Chang (2024) have indicated that schools which have established such support report better results in

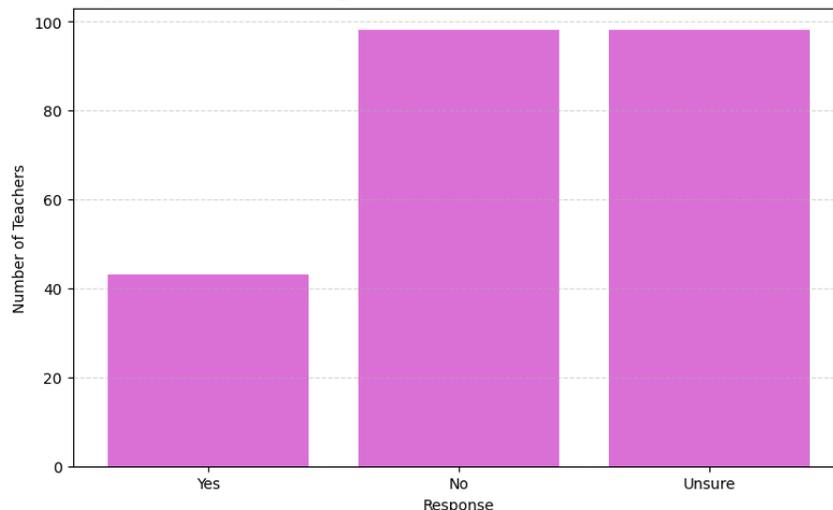
technology integration. Teachers in supported contexts feel more competent, benefiting the students more in turn.

**Table 8.** Does Your Institution Provide AI Guidelines or Training?

Response	Frequency	Percentage
Yes	43	18.0%
No	98	41.0%
Unsure	98	41.0%
Total	239	100%

**Source:** ESL Teachers’ Perceptions of AI Tools Dataset (2025)

That 82% of teachers responding No or Unsure is an alarming number. Lacking formal guidance from within the organization, teachers are forced to create their own AI policies, which may not always constitute best practices.



**Figure 8.** Institutional AI Support

**Source:** ESL Teachers’ Perceptions of AI Tools Dataset (2025)

This figure supports the earlier findings by other researchers that many schools are not yet prepared for AI integration in a fairly structured manner (Djamaliddinovna, 2025; Wahyungensih, 2025).

### Teachers as Key Agents for the Ethical and Effective Use of AI

This study shows that, despite problems, ESL teachers are willing and highly motivated to learn; they simply want to do what is right. They want to use AI tools that help learners without fostering their dependency on them. But to do so well, they need to be supported.

The previous research supports the idea that teachers greatly influence AI in education (Chung & Jeong, 2024; Yang et al., 2024). When trained, they can instruct students to use it in ethical ways, prevent misuse, and use the technology to make the lessons more interesting and personalized.

Institutions, thus, ought to acknowledge that teachers are the bridge between policy and practice. If not trained, AI tools might be used in manners that do not benefit learners

or, even worse, harm them. Supported, however, ESL teachers might just be the leading force in responsible AI integration (Mohammad Ali, 2024; Turgut, 2025).

## **CONCLUSION AND SUGGESTION**

### **Summary of Key Findings**

This study was conducted with the aim of finding out the professional development needs of ESL teachers in the field of the integration of artificial intelligence (AI). Data were collected from 239 teachers and analyzed. The study found that the majority of ESL teachers are already using AI tools such as Grammarly and ChatGPT, particularly for grammar checking and lesson planning. However, most do not feel confident using these tools in an effective or ethical manner as they have had no formal training. To be specific, more than 80% said they never had any professional development related to AI, and almost the same number said they would like AI-related training in the future.

These findings confirm previous studies which show AI is getting more and more popular in the educational field, yet teachers have little or no knowledge or institutional support to use it well (Yang et al., 2024; Ding et al., 2024; Mohammad Ali, 2023). The teachers polled in this research were very eager to learn how to use AI in ways that support their students and promote good teaching methods. However, many schools are not giving the support needed to teachers. A great proportion of those surveyed revealed that their institutions have no clear policy on AI or they were not sure if any such guidelines existed.

The results also indicated a very strong correlation between a teacher's level of awareness about AI and his or her interest in professional development. So, teachers who rated themselves as moderately or slightly familiar with AI were the highest on the list of those who want training, probably recognizing the value of AI as well as their own inadequacy with regard to its correct use.

### **Recommendations**

Based on the findings, it is clear that schools and educational institutions must provide structured professional development opportunities for ESL teachers. These trainings should not only deal with technicalities of how to operate AI tools but also focus on when and why to use them, ethical considerations related to their use, and teaching students in ethical AI use. Likewise, Fakhar et al. (2024) and Elhambakhsh et al. (2024) emphasize the importance of training addressing technical skills and ethical issues.

Institutions need to develop clear guidelines on the use of AI in schools, thus dispelling uncertainty among teachers about what constitutes proper or improper instructional use of this new tool. Teachers feel more comfortable in using AI when there is support and credible training at the school (Gayed, 2025; Shoukat et al., 2024).

It is recommended that this provision be continuous rather than intermittent. Continuous updates and opportunities for interaction, queries, and sharing of challenges will be the needs of ESL teachers with ongoing evolution in AI tools. Follow-up sessions and peer networking for collaboration along with well-tailored practical examples to the daily activities of ESL teachers can form a great foundation for their own professional development.

### **Limitations**

This study has been carried out with advantages; however, the following are the limitations to be considered. First of all, the data from only one survey was used. Thus, the responses were all self-reported, and this is sometimes detrimental to the reliability of the data: Teachers may have over- or under-estimated their familiarity with AI or their experience with training. Secondly, the study only focused on ESL teachers; hence, the results may not apply to teachers for any other subject. Thirdly, the survey did not collect any

information about regional differences or comparisons between institutions; therefore, it is difficult to conclude whether there are some better-performing areas in providing such support than others.

Also, student perspectives are not discussed in this research. That perspective should be taken into consideration in future research since they are affected directly by how the teacher uses AI in class. The study also neglected to examine the extent to which AI use has an actual impact on student outcomes, but this is an important subject for future research.

### **Suggestions for Future Research**

Future research should focus closely on the professional development, which evidently goes a long way into teachers' ability to use AI. An ideal research experiment would follow teachers one year before training and up to one year after completing that training to establish whether or not more reasonably confident and responsible AI use in the classroom is the result of said training.

Additionally, researchers should find out what types of training best fit different groups of teachers. For example, novices might require strict beginner's training; meantime, seasoned teachers might prefer advanced tactics or ethics workshops. Mapping schools or regions might lay out at least some of those best implementations for themselves to be shared further.

Another relevant aspect for future research on student experience would be to go along with all that and find out how students feel about using AI in their learning and whether they think it's helping or hindering their progress-even then: an alternative, well-rounded look at the limelight AI is throwing on the classroom experience.

Last but not least, future studies should explore the influence of factoring-out institutional policies and leadership. Do teachers use AI more often and effectively when schools offer clear support and guidelines? These kinds of questions may form the basis for further improving the design of training programs and policies for AI on a school-wide basis.

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