

Corpus Literacy Training for In-Service English Language Teachers

Alfabetización en corpus para profesores de inglés en servicio

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Corpus analysis offers a more accurate understanding of a language than intuition but is not widely used in foreign language instruction. This study uses a hermeneutic-phenomenology approach and content analysis to examine the impact of a corpus literacy course on the perceptions and performance indicators of 29 English language teachers. The results suggest that corpus literacy instruction is crucial for language teachers to incorporate corpus into their classroom practices effectively. Even a brief, intensive corpus literacy course can positively alter teachers' perceptions and abilities, increase their awareness of corpus usage in language teaching, and equip them with the skills needed, highlighting the importance of incorporating corpus literacy into the design of English language teacher education programs.

Keywords: corpus literacy, English language teachers, English language teacher education, teacher education programs

El análisis de corpus ofrece una comprensión más precisa del idioma que la intuición, pero no se utiliza ampliamente en la enseñanza de idiomas extranjeros. Este estudio examina, mediante un enfoque hermenéutico-fenomenológico y un análisis de contenido, el impacto de un curso de alfabetización de corpus en las percepciones y los indicadores de rendimiento de 29 profesores de inglés. Los resultados sugieren que la instrucción en el uso de corpus es esencial para que los profesores de idiomas lo incorporen efectivamente en su práctica. Incluso un curso breve e intensivo de formación en análisis de corpus puede alterar positivamente las percepciones y habilidades de los profesores, lo que demuestra la importancia de incorporar la alfabetización de corpus en el diseño de los programas de formación de profesores de inglés.

Palabras clave: alfabetización del corpus, formación de profesores de inglés, profesores de inglés, programas de formación docente

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Introduction

In any context, the quality of language education depends on the qualifications and competence of language teachers who continue to grow professionally beyond their initial preparation programs. To remain current in their expertise, language teachers need to update their knowledge through continuous engagement in professional development in which they learn about advances in their field, such as using a corpus in language teaching. With the proliferation and widespread availability of instructional computer technologies and affordances, acquiring corpus literacy skills has become important for updating foreign language teachers' repertoire of instructional methods. However, there is an enormous lack of corpus knowledge and skills among language teachers (Boulton, 2017; Chambers, 2019; Ma et al., 2022; Römer, 2011), indicating a need to provide professional education on how to use corpus technologies in teaching foreign languages (Frankenberg-García, 2012).

Literature Review

The Corpus and Its Uses for Language Teaching

McEnery et al. (2006) described a corpus in linguistics as a compendium of texts selected from written and spoken language and arranged according to certain principles to exemplify samples of language usage according to standard or conventional linguistic criteria. It is, therefore, a collection of language as a reference for describing the target language in a machine-readable form (McEnery et al., 2006; McEnery & Wilson, 2004). Corpora (plural of corpus) are considered valuable resources as they can show how language works in authentic linguistic contexts. Although the history of corpus-based studies is not new, rapid developments since 1960 have paved the way for using corpus in linguistic fields such as lexicography and language teaching.

Corpus tools provide opportunities for linguistics researchers and language teachers and students. Farr (2008) listed a range of potential benefits for language teachers, particularly EFL teachers, beyond the capacity of their intuitions. For example, a corpus could allow teachers to identify patterns (i.e., collocation lists, clusters), word lists, and other lexico-grammatical instances for teaching/learning contexts. It can be used for language teaching and curriculum development purposes, such as creating corpus-based reading materials, class dictionaries, classroom exercises, and assessments based on real language examples, or simply searching for a structure in the target language. In brief, in addition to fields ranging from sociolinguistics and discourse analysis to translation studies and pragmatics studies, the corpus is mainly used in the field of language pedagogy for various purposes and in many ways, such as preparing lesson plans, creating teaching materials and classroom activities, conducting assessment, and producing dictionaries and coursebooks (Johansson, 2009).

The Necessity of Using a Corpus

Introducing corpus use to pre- and in-service language teachers could provide a versatile tool for accomplishing critical aspects of a teacher's tasks, such as planning, materials development, and testing. Among a few of the opportunities, for example, materials created by a teacher for language instruction and based on authentic language use seem to stand out since scholars (see Feng & Byram, 2002; Gilmore, 2019; Külekçi, 2015) indicate that this will markedly contribute to developing learners' both general and intercultural communicative competence. Such materials developed based on actual and correct language uses are potentially exploitable by the learners to become familiar with standard and idiosyncratic target language features ranging from lexico-grammatical structures to collocational and pragmatic uses. Meunier and Reppen (2015) highlight that the intuition of the material developers (teachers, practitioners, and so on) appears

to fail and become “unreliable” as far as phraseology and patterns in language are considered, promoting the view that it is “both possible and desirable to adopt corpus approaches in the design and development of language teaching materials” (p. 513).

Traditionally, learners obtain most target language input from textbooks (Kim & Hall, 2002). However, the language samples in textbooks are artificially aligned with particular instructional purposes and do not reflect natural and contextualized language use in communicative situations or important and frequently used language features (Barbieri & Eckhardt, 2007). Aston (2000) highlighted that language teaching curricula and materials seem to fall short of familiarizing learners with widespread uses of the target language; this suggests that “teachers often lack adequate textbook materials that focus on pragmatic functions” (Bardovi-Harlig et al., 1991, p. 10). This situation results in a severe gap between the English taught in classes and the English used by native speakers (Mindt, 1996), causing potential communication problems. Learners can obtain accurate input through materials drawn directly from native usage of the target language (Boxer & Pickering, 1995). In this context, the necessity arises to use a corpus consisting of the “real language” as a source input in foreign language education materials, activities, tasks, exercises, and exams.

Corpus Literacy

According to McEnery and Xiao (2011), the place of the corpus in language teaching and learning is felt more indirectly because teachers’ limited knowledge of and skills in corpus use limit their ability to integrate it into their classroom practices. Corpus use has not become a general language teaching practice (Braun, 2005). English language teachers have been found to make little use of a corpus while preparing materials, activities, exercises, and exams (Mukherjee, 2004; Tribble, 2000). To use a corpus in their practices, English teachers would need to have acquired a set of skills such as corpus-linguistic, technical, and pedagogical skills (Callies,

2019; Mukherjee, 2006, as cited in Leńko-Szymańska, 2017). Language teachers’ acquisition of these skills will only be possible through undergraduate courses, training, and workshops.

Heather and Helt (2012) defined corpus literacy as “the ability to use the technology of corpus linguistics to investigate language and enhance the language development of students” (p. 417). As Zareva (2017) highlighted, for teachers to benefit from incorporating corpora into their teaching practices, they must foster their corpus literacy skills. Considering the definition by Heather and Helt about corpus literacy of a teacher, it is not a mere (in)direct use of the corpus in the classroom, whether occasionally or often. However, it is more of a combination of required technological knowledge and research skills to support students’ language learning. This is critical when the potential of corpora in teaching practices is considered.

Despite the recent emphasis on the significance of corpora’s role in language instruction, there is a dearth of research on corpus literacy. To the best of our knowledge, most previous studies have focused on the training of preservice teachers (Breyer, 2009, 2011; Farr, 2008; Heather & Helt, 2012; Leńko-Szymańska, 2014, 2017; Naismith, 2017; Zareva, 2017). Naismith (2017) suggested that when teacher trainees in CELTA were introduced to corpus use and tools, they could gain deeper language awareness and utilize them in planning their lessons. In a study of preservice EFL teachers, Bal-Gezegin et al. (2022) reported that the participants, trained to use corpus tools for various purposes, benefitted from consulting the corpora while giving corrective feedback to learners’ texts. The participants expressed that using corpora increased their sense of security and motivation while providing feedback.

Earlier studies on implementing corpora into classroom practices (Breyer, 2009; Chambers et al., 2011; Leńko-Szymańska, 2014) illustrate that teachers who were instructed explicitly in their use and encouraged to apply what they learned become highly skilled in using corpora to manage their instruction and make

appropriate language teaching decisions. Although researchers have also investigated corpus literacy for in-service language teachers (Çalışkan & Kuru Gönen, 2018; Chen et al., 2019; Karlsen & Monsen, 2020; Kavanagh, 2021; Lin & Lee, 2015; Ma et al., 2022; Mukherjee, 2004), there is still a need for further research. In previous studies, for example, Karlsen and Monsen (2020) interviewed four upper secondary school teachers to learn about their perspectives on integrating corpora in their teaching. They found that, although teachers had acquired corpus literacy, they avoided using corpora in class. The authors recommended the development of pedagogically appropriate and freely accessible corpora for use in class. Kavanagh (2021) investigated what four in-service English teachers found useful or challenging in corpora and found that they reported the same challenges, which the researcher considered a positive finding because “if the same problems exist for every type of teacher, successful solutions may apply to all” (p. 101). In-service teachers’ positive attitudes toward corpus use in their classes were found among teachers with different amounts of teaching experiences; for example, Lin and Lee’s (2015) study involved early career teachers, while Bunting’s (2013) study involved teachers with more than 20 years of experience. These findings also indicate commonalities in teachers’ perspectives on corpus use no matter how long they have been teaching and in what contexts.

One of the main reasons language teachers do not integrate corpus use into their practices is that they have not developed the necessary knowledge and skills, which Mukherjee (2006) suggested, ranging from understanding what a corpus is to using it as a source of valuable information supporting classroom practices. As Chambers (2019) stated, most language teachers are unaware that language classrooms are already equipped with various corpus-informed materials (i.e., textbooks and dictionaries). Leńko-Szymańska (2014) observed that there has been a very long-standing argument as to the need to create opportunities for in-service

teachers, and even teacher candidates, to develop what Breyer (2009) termed “teaching awareness” and language teaching methods using corpora. However, as widely reported, the rare use of corpora by language teachers and language teacher educators is not unique to particular contexts (see also Ebrahimi & Faghieh, 2017).

In the Turkish context, while there are some studies of the integration of corpus literacy into teacher education (Özbay, 2017; Şimşek, 2020) and university training of English language instructors (Çalışkan & Kuru Gönen, 2018), little is known about in-service teachers’ perspectives on the integration of corpus use into their teaching practices. Therefore, the present study explored how a short-term corpus literacy course influenced the perceptions and performances of in-service English teachers regarding integrating corpora and corpus tools into language education.

Method

This study investigated the perceptions and performance indicators of 29 in-service English teachers (three men and 26 women: mean age of 36.5) about a three-day corpus literacy training. The participants worked at different state schools in Türkiye and took part in a research project aiming to introduce and develop their corpus literacy and skills. No ethical approval was required for this study, as it did not include any intervention that affected the participants. However, ethical considerations such as confidentiality of the data, anonymity of participants, informed consent, and right to withdraw from the study were guaranteed. This study adopted a hermeneutic-phenomenology (interpretive) approach to investigate changes in the participants’ perceptions and performance indicators after completing the three-day course on both theoretical and practical aspects of corpus literacy.

Qualitative data were gathered with the same five open-ended questions asked before and after the training (see Table 1). The participants’ written responses were taken in Turkish and translated into English.

Table 1. Open-Ended Questions Asked Before and After the Training

Perception	What do you think of using corpora in English lessons?
	Do you believe in the effectiveness of corpus use in English lessons?
	What are the possible benefits of using corpora in English lessons?
	What may be the possible reasons that hinder the use of corpora in English lessons?
Performance	Do you consider developing corpus-based content (materials, activities, tasks, exercises) for English lessons?

Following the hermeneutic phenomenological (interpretive) approach, we not only identified themes that emerged but also made relevant deductions to interpret the data (Creswell, 2007). The open-ended questions were designed to elicit changes in the participants' perceptions and performances after the training. We conducted content analysis, described by Krippendorff (1980) as "a research technique for making replicable and valid inferences from data to their context" (p. 21), which, according to Weber (1990), "uses a set of procedures to make valid inferences from the text" (p. 9). For credibility, we applied researcher triangulation to our analysis (Creswell, 2009). The three researchers coded and categorized the participants' responses separately to determine common themes. After the initial examination of the data, we applied emergent coding (Silverman, 2013). We discussed the themes through comparisons and repeated readings, providing a holistic analysis using textural and structural descriptions of the participants' experiences (Creswell, 2007). Researcher triangulation countered the subjectivity of the emerging themes. Brief illustrative and representative excerpts were selected from the participants' responses to help clarify the emerging themes. The selection of excerpts was first done separately by the researchers and finalized after discussion.

The Course Design in the Training

Farr and O'Keeffe (2019) argue that if one accepts that language teaching is demanding, language teacher training is even more complex. In developing the syllabus for corpus literacy training, we benefitted from the suggestions of scholars in the field. Mukherjee (2006) suggested the following dimensions of learning corpus

literacy: (a) learning what a corpus is, (b) understanding the affordances of a corpus, (c) conducting data analysis with a corpus, and (d) drawing language-use conclusions from corpus data. Overall, the results indicate that there have been substantial changes in the perceptions and performance indicators of the participants toward the use of corpus linguistics and corpus tools. Aston (2000) proposed five phases: (a) introducing participants to corpus-related skills; (b) helping participants transform theory into practice using corpora (general, specific, and learner's corpora); (c) enabling participants to explore different ways of integrating a corpus into their teaching; (d) guiding participants in collaboratively preparing various course elements, such as materials, activities, and exams; and (e) organizing participants' presentation of their products and contents to other English teachers who are active in the field.

Based on the suggestions mentioned above, the aim of the corpus literacy training in the current study was to enable participant teachers to:

- acquire basic information on general and special corpora specially prepared for English (COCA, BNC, etc.),
- plan and develop English course materials (including corpus-based activities, language practice in the four primary skills and sub-skills, and exams) using corpora and corpus tools (AntConc, Skell, UAM Corpus Tool, Sketch Engine),
- use the materials, activities, and exercises they have created with a corpus,
- develop their skills for integrating corpus use into English lessons per the curriculum and practice context-oriented language teaching with the do-it-yourself corpora they create.

The lectures we provided included such topics as the history of the corpus, types of corpora, how to build and tag a corpus, how to consult corpora for different purposes, preparing teaching materials, activities, and tasks with the help of corpus, doing text analysis, and using concordance lines and corpus tools. Each day, the participants attended eight hours of theoretical and practical instruction provided by the researchers. The training was conducted in a computer laboratory where each participant had a computer during the sessions. At the end of the training, the participants presented the corpus-based products they had prepared.

Findings

The findings are presented with subtitles in line with the open-ended questions asked before and after the training (see Table 1).

Perception-Oriented Open-Ended Questions Before Training

Initially, the participants could not give satisfactory answers to our four questions about their perceptions of the use of corpus in English teaching, showing that they generally did not have any knowledge about it. They gave such answers as the following:

- I do not know about this. (Participant 5)
- I don't know much about using a corpus, so I believe this training will be instrumental. (Participant 6)
- I am not competent. (Participant 14)
- I have never used it before. (Participant 22)
- I have heard of the corpus in the undergraduate program but have not seen it in detail. I do not know much about it. (Participant 28)

Performance-Oriented Open-Ended Question Before Training

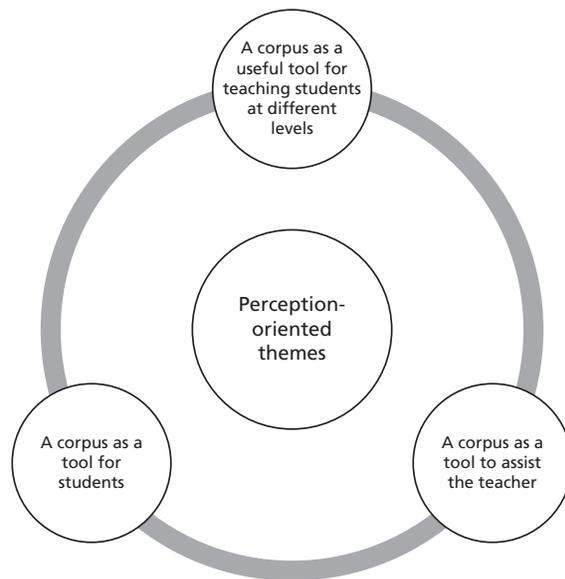
As deduced from the replies to the perception questions, most participants did not know about using a corpus or had only heard of it. Accordingly, in response

to the performance-oriented open-ended question, they all stated that they had not used a corpus in their teaching practices.

Perception-Oriented Open-Ended Questions After Training

In reply to Question 1 (What do you think of using corpora in English lessons?), the participants made positive comments from many different perspectives about using a corpus, from which three main themes emerged (see Figure 1).

Figure 1. Perception-Oriented Themes



A Corpus as a Useful Tool for Teaching Students at Different Levels

The participants found that integrating corpora offered a range of opportunities for language teaching. Responses concentrated on how using a corpus could benefit the language skill development of students at different levels. During the short training, some participants gained new insights into how they could use corpora in their teaching. As evidence of how much the training transformed teachers' perceptions, one participant cited an example, stressing a pre- and post-

training difference in her understanding of whether and how she would use a corpus at different levels. Comments included the following:

It should definitely be used, and I think it can be developed and applied to all skills. (Participant 3)

With this project training, I had the chance to discover more clearly that it is applicable to the lessons. (Participant 8)

At the beginning of the training, I thought that it could not be applied at all levels, but after the training, I saw that it could be applied to every class for *every skill*. I think I can integrate the corpus with new projects. (Participant 17)

A Corpus as a Tool to Assist the Teacher

After receiving the training and leveling up their corpus literacy, most participants found that using a corpus was highly useful as a support for teachers in dealing with the many challenges of EFL teaching. Most participants felt corpus tools boosted teaching efficiency, while the rest believed they offered innovative material and activity design methods. Participants also reported being motivated to use a corpus in their classes and enthusiastic about the different possibilities they had learned about in their training, as shown in the following statements:

It can be used for material development, adaptation, item creation, and evaluation of our curriculum. Using a corpus will make our job easier. I think it will help us to teach different sentence patterns and [define meanings] without relying only on the dictionary. (Participant 6)

While teaching the main components of the language such as vocabulary, reading, writing, grammar, and pronunciation, [a corpus] helps establish an organized background and prepare a good lesson plan. (Participant 9)

The corpus offers a very practical presentation and [means of] learning in teaching English. I can benefit from [using a] corpus; it makes my life easier in a professional sense. (Participant 17)

A Corpus as a Tool for Students

The participants also expressed that integrating corpora into language teaching would significantly enhance their students' motivation and provide a range of advantages offered by corpus use (i.e., understanding language use in context). This affordance paves the way for reinforcing students' learning and opening a space for autonomous learning. Comments included the following:

Very useful for reinforcing students' learning. (Participant 11)

I have students between the ages of 9–12. Since I think that my students are born and raised as “digital natives,” I think that corpus education will be beneficial and motivating in the school environment. Students will learn more permanently by exploring the examples themselves and by seeing which words (nouns, adjectives, etc.) are used together, not by memorizing. (Participant 19)

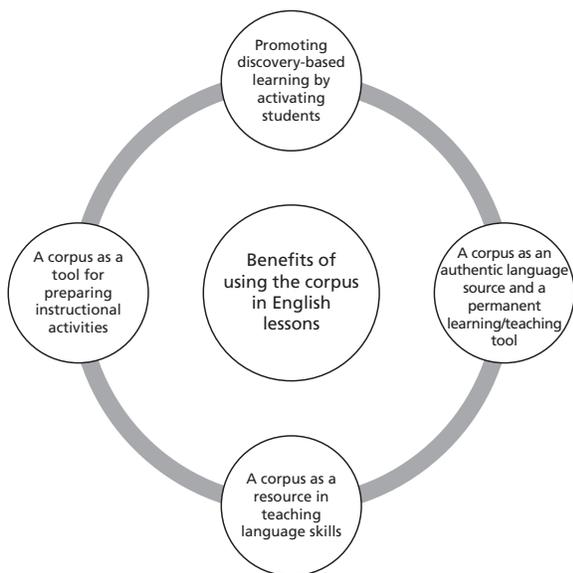
It enables students to choose the appropriate word, to see what to use in what context, to do many detailed vocabulary studies such as the frequency of use of words, etc. (Participant 24)

As for Question 2 (Do you believe in the effectiveness of corpus use in English lessons?), the teachers believed that using a corpus could be effective in various ways. One participant emphasized that he could use the corpus to prepare lesson plans and exams, and another commented that it could be used to “improve writing and reading skills, especially in fifth-grade English-based classes.” The teachers also expressed hesitations and concerns about issues, such as the possible difficulty of using a corpus with low-level students. The participants stated that teachers should thoroughly explore the corpus themselves before deciding how to use it with particular groups of students.

Regarding Question 3 (What are the possible benefits of using corpora in English lessons?), it was evident that the training had significantly increased the participants' awareness of the benefits of using a corpus

in their lessons. Among those benefits perceived by the participants were the promotion of discovery-based learning by engaging students, provision of an authentic language source, accessibility of a permanent learning/teaching tool, availability of a practical resource in teaching language skills, and convenience of having a tool for preparing instructional activities (see Figure 2).

Figure 2. Benefits of Using a Corpus in English Lessons



Promoting Discovery-Based Learning by Engaging Students

The participant teachers were highly focused on how corpus-based instruction could enhance students' English learning by supporting their development as autonomous learners. In this regard, the participants expressed that incorporating corpora and corpus tools into their teaching context would help them promote student-centered discovery-based learning. Some of their observations were:

- Students learn through exploration, and a horizon is opened for them. (Participant 1)
- Students do not memorize but learn by discovering examples themselves. They see with which nouns,

- adjectives, etc., words are used, and they study collocations. They will learn much more permanently. Students can learn by being involved in learning environments and by living and trying. (Participant 7)
- It is great for students to discover the meaning and uses of words. (Participant 16)
- Corpus tools with the right course design will support the student's discovery. (Participant 23)

A Corpus as an Authentic Language Source and a Permanent Learning/Teaching Tool

One of the issues in teaching EFL is the often insufficient amount and variety of real-life language that the learners are exposed to in and outside the classroom. Even though coursebooks and some other teaching materials provide some authentic language, they are limited in the range of structures they can present and do not convey how common a structure is in actual language use or whether there are alternative structures that might be pragmatically more appropriate in particular contexts. The participants appeared to recognize that corpora and corpus tools provide quantitative evidence of common usage in real-life language, which could provide them and their students with a more reliable source of authentic language use in the target language than the limited examples in textbooks and enable them to realize the power of contextually appropriate language. Among the teachers' comments were the following:

- By combining grammar rules and structures in their mother tongue, students have the opportunity to learn the structures in the target language more naturally and meaningfully from the real source, rather than speaking an artificial language. (Participant 2)
- The corpus provides a valid and reliable source for accessing authentic texts, applying discovery-based, problem-solving-based teaching, and preparing materials and content. (Participant 5)

The student has the opportunity to learn the structures in the target language in a more natural way from the real source. (Participant 18)

The corpus allows us to use a much more real language. (Participant 26)

Active and experiential learning by doing and through experience will likely trigger permanent learning. Consulting a corpus and using corpus tools can therefore support long-term retention of what is learned. As seen in the excerpts below, after becoming familiar with the corpus tools, the participants appreciated that the corpus-based approach could effectively support permanent learning.

Learning the language from a real context will trigger further learning. (Participant 12)

Using these tools actively will provide a permanent, reliable, and effective learning environment. (Participant 15)

It will provide a permanent, reliable, and effective learning environment when these tool are used actively. (Participant 22)

It provides a very important infrastructure for teaching grammar, vocabulary, reading, listening, and pronunciation. It helps [the teacher] to teach correctly and [the student to learn] permanently. (Participant 29)

A Corpus as a Resource in Teaching Language Skills

As they gained insight into how convenient a corpus and corpus tools could be as a language-teaching resource, the participants envisioned how these could be exploited to trigger students' active learning. Some emerging themes revolve around the potential effectiveness of corpus integration for helping students expand their vocabulary and repertoire of grammatical structures in the target language by actively exploring its usage in context. Participants' comments include the following:

A useful tool for vocabulary learning and teaching the use of words in texts and the structures they are used together. (Participant 2)

A corpus will be helpful for students to learn vocabulary and improve their writing and reading skills. It provides a very important infrastructure for teaching vocabulary, grammar, reading, listening, and pronunciation. (Participant 4)

I will be able to improve the students' communicative skills by using corpus tools and designing materials with the right course design. (Participant 13)

The corpus will be useful for the development of students' writing and reading skills. (Participant 21)

A Corpus as a Tool for Preparing Instructional Activities

Providing meaningful materials and engaging activities is crucial to effective language teaching; developing them is demanding and can pose a major challenge for many EFL teachers. In addition, relying on sources other than authentic language, such as commercially produced texts, can result in low-quality materials. As reflected in the following comments, the participants reported being encouraged by the possibility of using a corpus as a resource for designing materials that were both realistic and appropriate for their teaching contexts:

It provides a valid and reliable source for material and content preparation. (Participant 1)

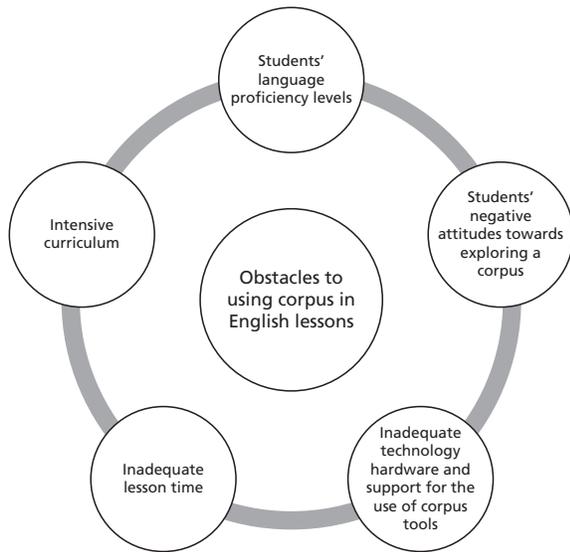
A corpus can be helpful in developing questions, exams, or materials. Performance homework and project homework can be given. (Participant 8)

I will be able to improve the students' communicative skills by using corpus tools and designing materials with the right course design. (Participant 16)

Although after training the participants reported many benefits in the use of a corpus and corpus tools, their responses to Question 4 (What may be

the possible reasons that hinder the use of corpora in English lessons?) showed an awareness of the factors that could challenge or prevent the use of a corpus in their teaching contexts, such as students' language proficiency levels, students' negative attitudes toward exploring a corpus, inadequate technology hardware and support for the use of corpus tools, inadequate lesson time, and an intensive curriculum (see Figure 3).

Figure 3. Obstacles to Using Corpora in English Lessons



Nevertheless, as indicated by their earlier comments, these negative factors did not discourage the teachers from considering the plausibility of integrating corpus use into their teaching. Indeed, some even suggested ways to eliminate possible barriers. As the following two teachers mentioned, with good planning and practice, most obstacles could be overcome over time, enabling them eventually to take full advantage of the benefits of corpus-based instruction in their teaching contexts.

Technological infrastructure and inadequacies can create obstacles. Therefore, good planning should be done in advance. Deficiencies in the practitioner's and the learner's literacy skills can create some difficulties. However, *these shortcomings will improve with the use of the corpus*. In

addition, it may not be necessary to have technology in the classroom to use corpora and compilation-based materials available. Some of the materials and tasks prepared by the teachers using the corpus tools *can be used with students in printed form*. (Participant 12)
 There may be a technical background, but *if I, as a teacher, do my own preparation/research well* and distribute the results to the class as course material, *I can use the corpus comfortably*. (Participant 25)

Performance-Oriented Open-Ended Question After Training

Based on the participants' replies to Question 5 (Do you consider developing corpus-based content—materials, activities, tasks, exercises—for English lessons?), it is reasonable to infer that after the training, the participants' beliefs about and attitudes toward the possibility of performing corpus-based teaching themselves had changed significantly. Before the training, the teachers were generally uninformed about corpora and corpus tools and had never considered using them in their teaching or lesson planning. After the training, the participants asserted they would use these tools to design materials and in their teaching. Therefore, it may be concluded that the teachers would likely use these tools to prepare and teach lessons. They were ready to integrate the corpus into their instructional practices. Some of the participants' responses in this regard are as follows:

Before the training, I did not know what could be done with a corpus, *but after the training*, I think that using a corpus is a vast field. *I can contribute to my students' language development with different tools and materials and produce good lesson plans*. Through these training sessions, I have learned to develop such materials. (Participant 9)

Yeah. I think *I can develop very effective worksheets*, especially for reading, writing, and language classes. (Participant 17)

I'm thinking about activities to make my students talk by working on phrasal verbs and collocations. With the help of the information I gained in the course, I can develop materials or activities in this direction. I will definitely include it in my classes. (Participant 22)

As seen in the excerpts below, the teachers reflected on how they could use corpora, including specific programs to which they were exposed, for preparing language learning materials and activities. Their reasons for consulting a corpus varied according to their contexts. For example, while the teachers in the first and the third excerpts below mentioned corpus use for vocabulary teaching, the teacher in the second excerpt anticipated creating a learner-corpus from her students' writings. Her interest in corpus use goes beyond prospective applications to plans for action research on the learner-corpus created.

Yes. For example, by using the word part of the COCA program, I can teach all the usages of the word from the videos created with native speakers and enable students to use new words actively. With the browse section, I can support my students in producing songs or poems according to their interests.

Yeah. Studies, where I can upload more texts, create a learner-corpus, and do item analysis, will be compelling. There will be studies that I will turn into action research. (Participant 13)

Yeah. I can prepare lesson plans through BNC, COCA, and Lextutor. For example, I can teach various vocabulary analyses and grammar on Sketch Engine and English-corpora. (Participant 20)

Discussion and Conclusion

Interest in using corpora and corpus tools for language learning and teaching has grown exponentially in the past decade. Despite this interest, using a corpus in language teaching and learning in various contexts is uncommon (Farahani & Pahlevansadegh, 2019).

Mauranen (2004) has argued that, to improve the quality of language education substantially, “corpora must be adopted by ordinary teachers and learners in ordinary classrooms” (p. 208). The present study also suggests that corpus use should become a mainstay of language learning and teaching practices, especially in contexts where teachers and students do not have immediate access to actual language use. However, research has consistently shown that language teachers lack the necessary knowledge and skills to use corpora and corpus tools in their practices (Mukherjee, 2004; Römer, 2011).

Moreover, English teachers have little opportunity to observe the use of a corpus and corpus tools in language teaching (Braun, 2005), and few have even heard of corpora and their applications (Chambers, 2019; Ma et al., 2022; Mukherjee, 2004). As for Türkiye, there have been no compulsory courses with respect to the use of corpus linguistics and corpus tools in language teaching for teacher candidates in teacher education programs. However, some elective courses are offered in a few English language teaching departments of universities. Nevertheless, researchers have demonstrated the need for language teachers to become familiar with corpus linguistics and aware of the benefits of using corpora and corpus tools before they graduate from their departments (McCarthy, 2008; Mukherjee, 2006; O’Keeffe & Farr, 2003). Therefore, the need for training language teachers about corpora use and corpus tools and raising their awareness of the benefits of including them in their practices has heightened (O’Keeffe & Farr, 2003).

Offering this type of training to language teachers could be crucial to encourage them to expose their students to natural and authentic language use. The present study extends the findings of previous research by documenting changes in the perceptions and performance indicators of English teachers in İstanbul, Türkiye, after an intensive, three-day (24-hour) training course on corpus linguistics and literacy and corpus tools. Acknowledging the importance of scaffolding

while training teachers on using corpora and corpus tools (Ma et al., 2022), the researchers developed the course to guide teachers through the novel content in a step-by-step fashion.

The corpus literacy training provided in this project was practical regarding the changes in the perceptions and performance indicators of the participating English language teachers. This finding underscores those in several earlier studies. For example, Farr (2008) found that the participants developed a positive perception of using corpora. Similarly, Ma et al. (2022) concluded that the participants in their recent study of corpus-based language pedagogy training for TESOL teachers gained satisfactory levels of corpus literacy and initial competence in using corpus-based language pedagogy. In their case study, Heather and Helt (2012) also concluded that their corpus course was generally effective in positively orienting teachers to corpus use. Çalışkan and Kuru Gönen (2018) found that corpus training de facto increased EFL instructors' awareness of the use of corpus-based pedagogy. The participants of the present study also developed positive perceptions of corpora and their uses in language teaching. They mentioned many benefits of a corpus as an authentic target language source, a tool to support permanent learning, and a resource for preparing instructional activities. Considering the changes in the perceptions of our participant teachers after they had experienced training in corpus literacy and instructional practices, we also confirm the importance, and indeed the necessity, of such training for increasing teachers' awareness, literacy, and skills. Besides, after the training, the teachers in this study reported that they had acquired substantial skills in using corpora and corpus tools to develop content, activities, and materials for language teaching. From our participants' feedback, it is evident that, even after just an initial introduction to the corpus, they felt confident about its potential applications and how it could benefit their language teaching. We also found that some teachers felt considerably inspired when they

realized the significant potential offered by corpora and corpus tools to showcase authentic language in their classes to help meet their students' needs for exposure to actual and contextual language use, especially in an EFL setting.

In parallel with our findings, Breyer (2009) concluded that a course on corpus-based teaching is necessary, as foreign language teachers are essentially novice corpus users. The 29 English language teacher participants in the current study also reported this need in their responses given before the training. Breyer suggested that teachers participating in such training increased their language awareness and practical knowledge of the target language and how to teach it. Naismith (2017) also found that CELTA trainees increased their language awareness and were able to utilize corpora and corpus tools in their practices. Our results are essentially in line with the results of these two studies. Our participants believe using a corpus enhances language teaching by aiding student engagement and developing instructional materials and assessments. Nevertheless, considerable time might be needed for language teachers to familiarize themselves and their students with the opportunities offered by corpus integration. This issue is of great importance, as teachers are also expected to implement some necessary technological and pedagogical knowledge to integrate corpus use into their teaching contexts.

Taken together, the results of the current study, along with the findings of previous studies, indicate that corpus literacy instruction is essential if language teachers are to use corpora and corpus tools in their classroom practices. As acknowledged by Davis and Russell-Pinson (2004), if teachers, as novices in corpus use, are to "embark on this linguistic journey" (p. 157) of benefitting from the corpus and its applications in their teaching, teacher educators and professional developers must first ensure that they have access to the instruction and guidance they need to become independent users of these resources. We believe such support is crucial

so they can acquire sufficient knowledge and skills to manage corpus-assisted language teaching successfully. Our findings suggest that even a short but intensive course on corpus literacy can effectively change the perceptions of English teachers, increasing their awareness of the potential use of corpora in language teaching and helping them acquire an initial set of skills for using corpus tools in their classroom practices. The overall positive reactions of the participants in this study to the corpus literacy course indicate the need for providing corpus literacy courses for both pre- and in-service foreign language teachers. In line with the findings of this study, we believe that corpus literacy courses provide opportunities for language teachers to experience the potential of corpora not only in their language teaching but also in their language development.

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