PODCASTS IN EFL: THE VIEWS OF PRE-SERVICE TEACHERS

Silvija Hanžić Deda[i]
University of Zagreb,
Faculty of Teacher Education,
Croatia

Abstract:

Podcasts are popular among listeners of all ages. In addition to being educational and entertaining, they are a source of authentic language, featuring a diverse range of speakers, which makes them highly effective in language teaching. The advantages of using podcasts in FL teaching and learning have been documented across different language domains. Additionally, the use of podcasts can have a positive impact on learners' emotional traits such as motivation, self-confidence, and attitudes. It also serves as a foundation for independent and lifelong learning. Therefore, it is crucial to thoroughly investigate and assess podcasts from the perspective of language teachers to maximize their potential as teaching resources. To achieve this, pre-service teachers are observed as both language learners and language teachers, evaluating podcasts as potential teaching materials in English as a Foreign Language (EFL). The first section of this paper provides an overview of research involving podcasts and their impact on foreign language learners' listening and speaking skills, lexical development, and intercultural communicative competence. The primary objective of this paper is to investigate the views and attitudes of pre-service English teachers regarding the implementation of podcasts in EFL, which are presented in the second part. The findings revealed that pre-service teachers are extensively exposed to podcasts in their private time, particularly in English. The majority of participants self-reported certain language improvements that could be attributed to podcast consumption. All participants shared a positive attitude toward using podcasts in their future teaching of EFL from the standpoint of language teachers, granting some boundaries when considering the ages and grade levels of EFL students. Potential differences between senior and junior pre-service teachers, as well as correlations between the included variables, are examined and discussed with respect to their exposure to teaching methodology courses and EFL teaching practice.

[i]Correspondence: email silvija.hanzicdeda@ufzg.hr, silvija.hanzicdeda@ufzg.eu

Keywords: English as a foreign language, language skills, mobile learning, podcast, pre-service teachers

1. Introduction

Recently, podcasts seem to have reclaimed popularity (e.g., Sullivan, 2019), so much so that many podcasters decided to switch to video podcasting (also known as video blogging or vlogging) to reach wider audiences and attract attention in the sea of digital content. Ever faster internet, versatile smartphones, and free or inexpensive streaming services have undoubtedly transformed the consumption of podcasts, making listening (or watching) possible virtually anywhere with good reception and preferably a pair of earphones. In the very beginning, it was not so simple. The pod part of the podcast refers to iPod, Apple's iconic portable media player launched in 2001 (Britannica; Gartenberg, 2016), whereas the cast part is coming from the broadcast. Due to the internet limitations of the early and mid-2000s, MP3 audio files needed to be downloaded to portable devices via computers to be available for listening elsewhere and at a later time (Kavaliauskienė, 2008; Kidd & Chen, 2009; Man-Man SZE, 2006). The concept of podcasting, as a welcome alternative to scheduled radio programs, was first introduced in 2004 (e.g., Berry, 2015) by Dave Winer and Adam Curry[ii]. As stated by Sullivan (2019, p. 2), a major advantage of podcasts is *"(…) the openness of its distribution mechanism. Because it emerged as a technology at the beginning of the 21st century before the advent of social media and the cloud, podcasting features a decentralized technical architecture, whereby audio content is stored all over the web and linked together via RSS[iii]"*.

In comparison, getting to a podcast used to take more effort than it takes now. *"Mobile consumption apps are critical to the infrastructure of podcasting because they provide a dual functionality as both tools of content discovery and consumption"* (Sullivan, 2019, p. 7). At present, the podcast-audience relationship is more direct because there are opportunities for immediate feedback through comments and ratings. Consequently, more streaming platforms and channels are now available worldwide, with limitless topics delivered in numerous languages. Listeners have multiple options, so many podcasters go all-out to interest their audiences with high-quality production and wisely composed content. Swanson (2012) found that the primary motivation of college students for listening to podcasts is to get information, be entertained, and social sharing. The main objective of this paper is to explore university students' experiences with podcasts and, based on their training, how they could use them for teaching English as a foreign language. With regard to the listeners of podcasts, a recent study by Chan-Olmsted and Wang (2022, p. 700) revealed that *"while listeners driven by affective, entertainment motives consume more intensively, those driven by cognitive, informational motives exhibit higher levels of long-term engagement and commitment."* The authors concluded that podcasts are nowadays

---

[ii] https://blubrry.com/manual/about-podcasting/history-of-podcasting-new/

[iii] Rich Site Summary (Real Simple Syndication), introduced by Dan Libby and Ramanathan V. Guha in 1999 (see Sullivan, 2019)

consumed in a different way than before when they were seen "*as a digital, mobile, and on-demand extension of radio.*" In other words, this entirely new mode of communication enables "*listeners to engage and build a relationship with the content and hosts, as well as to affirm personal and social identities*" (ibid., p. 699). Apart from commercial podcasts, many were created by "*private individuals who publish (…) for personal, social, and entertainment reasons*" (McBride, 2009, p. 155). The typical podcast format is talk radio with commentary, interviews, occasional music or jingle relief, and sometimes voice messages from listeners (ibid.). Therefore, podcasts, as web-hosted episodic content with a consistent structure, appear to hold considerable potential for pragmatic implementation in foreign language teaching, depending on curricula and teaching objectives.

2. Literature review

2.1. Podcasts and foreign language learning

As they were designed for broadcast, podcasts were promptly recognized as a source of authentic language (e.g., Alfa, 2020; Fox, 2008; Kavaliauskienė, 2008; Stanley, 2006), regardless of their topics. For that reason, they have been studied as possible teaching materials when it comes to foreign languages, especially English. For instance, Stanley (2006, p. 2) stated that "*podcasts offer language teachers and students a wide range of possibilities for extra listening both inside and outside of the classroom*". In addition, various speakers expose students to different varieties of language. For younger students or beginners, specially produced language podcasts intended for language learners are recommended, whereas more experienced learners could listen to entire podcast episodes followed by various tasks (Fox, 2008; Stanley, 2006). In recent years, a new blend has emerged-*kidcasts*[iv], which refers to podcasts that are made for children, or by children (see Bensfield & Rogers, 2021; Felde & Rogers, 2017).

Preparing a podcast for listening in class depends on the learners' needs and abilities, and it is down to the teacher to select appropriate strategies. Fox (2008) proposes strategies such as listening for pleasure, which can be homework with a follow-up discussion, listening with a vocabulary list prepared in advance, listening to a shorter chunk to make it more practical, listening to a version with reduced speed for better comprehension, or using chunks of podcasts for dictation practice. There is also an option of listening with a transcript, but the author considers that debatable. As an opportunity for creative work, some authors suggest creating student podcasts (Flanagan & Calandra, 2005; McBride, 2009; Shukurova & Khaydarova, 2021; Stanley, 2006; Yeh et al., 2021) and radio drama (Stanley, 2006), which can be challenging but also entertaining and rewarding when the final product is out.

According to Rosell-Aguilar (2007), there are two main categories concerning learners of a foreign language: firstly, podcasts that students and teachers create, and secondly, there are existing podcasts with authentic audio content and the ones designed as language-learning courses. Based on contemporary tendencies in education, various

---

[iv] Also, a brand name; https://www.kidcast.ie/

school projects and assignments may include students and teachers creating their own podcasts to teach, present, and also share experiences. On the other hand, the existing resources available on the internet can be used as authentic audio materials or structured language courses. Image 1 shows the classification of various podcasts available for learning a foreign language. To extend Rosell-Aguilar's (ibid., p. 7) model, peer learning and specific assignments were added to the category of student-made podcasts, whereas teaching, professional development, and sharing effective teaching practices were added to the category of teacher-made podcasts. Among many theories of foreign or second language learning, podcasting is quite lined up with the constructivist theory (e.g., Güler, S. & Özkan, Y., 2018; Rosell-Aguilar, 2007). Due to versatility and adaptability, it can also be related to lifelong learning, computer-assisted language learning (mobile learning), the use of authentic materials, etc. Two types from the category of existing resources are described in the following paragraphs.

Image 1: Classification of podcasts suitable for FL learners (adapted from Rosell-Aguilar, 2007, p. 7)
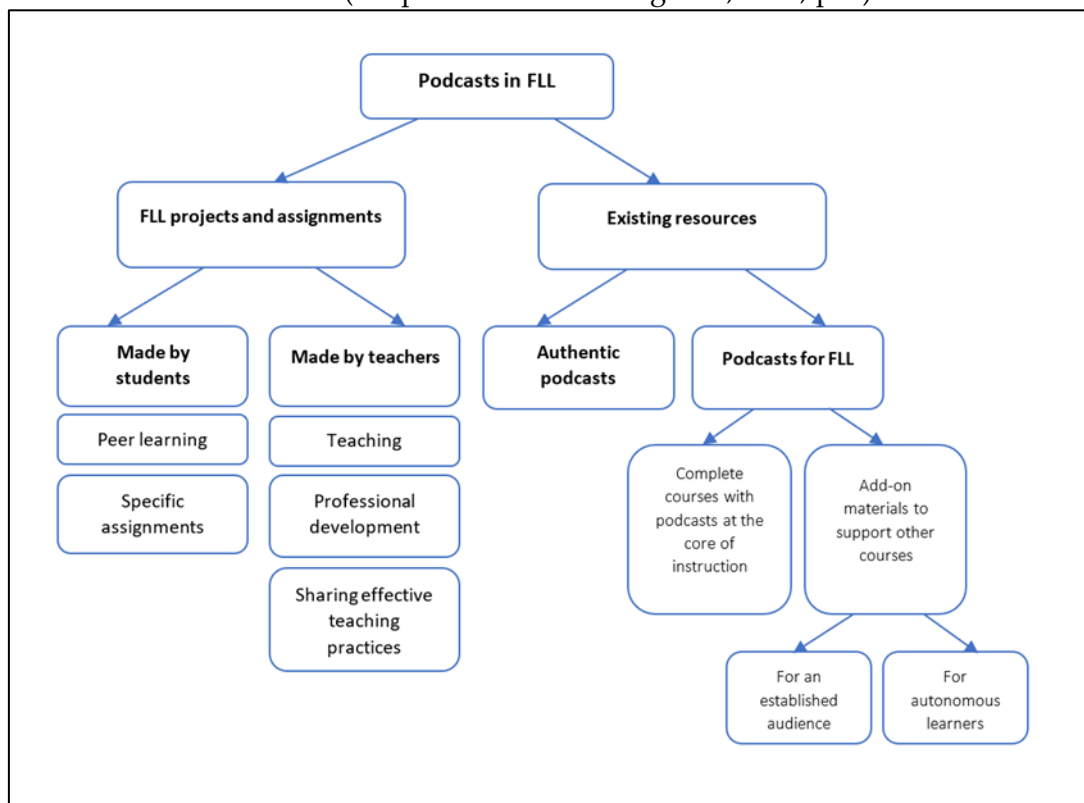
2.2. Authentic podcasts

As stated by McBride (2009), the original purpose of third-party podcasts differed from having them as teaching materials for foreign language learners. Nevertheless, when used for such purposes, they have two primary objectives: "*to improve listening comprehension (LC) and to teach intercultural competence*" (ibid., p. 154). In terms of using authentic content that comes in a cost-effective digital format, "*podcasting integrates naturally with audio-dependent courses such as music and foreign languages*" (Flanagan &

Calandra, 2005). Podcasts comprise speech that resembles real-life conversations, which implies exposure to the idiomatic language. Learners can discern the meanings of unknown words and expressions from the context, look them up, and go back to repeated listening for better comprehension. Apart from vocabulary and grammar, listeners are inevitably exposed to culture, history, and social issues. McBride (2009) advises that using podcasts for teaching a foreign language must be aligned with SLA theories. Therefore, it is reasonable to expect that such materials are more appropriate for more experienced and advanced learners with a very good command of the target language so that their listening can remain uninterrupted by substantial listening comprehension gaps.

In the category of existing podcasts, most are non-linguistic. The podcasts dealing with linguistics and applied linguistics are not usually intended for language learning but are informative and occasionally entertaining. Examples of such podcasts are *Lingthusiasm, Talk the Talk, The History of English Podcast, The Fluent Show, Field Notes, Accentricity, Lexicon Valley, Spectacular Vernacular, Subtitle, The Future is Bilingual, The Allusionist, Se Ve Se Escucha, Because Language, Parler comme jamais*, and many others (Blaszko, 2022; Feedspot, 2023).

Non-linguistic podcasts include a wide variety of topics that could be approached from different angles. A specific topic can be selected according to the planned teaching outcomes. If a podcast, or its segment, is used for motivating learners, the topic will depend on their interests and preferences. Examples of such podcasts, listed as title and category, are *The Daily* (news), *Huberman Lab* (neuroscience), *Stuff You Should Know* (miscellaneous), *Ologies with Alie Ward* (miscellaneous), *Think Fast, Talk Smart* (communication techniques), *Crime Junkie* (crime stories) (e.g., *Podcast Charts & Rankings - Chartable, Apple, Spotify, and More*, n.d.); *The British History Podcast* (history), *TechStuff* (technology), *This American Life* (society and culture), *Scriptnotes* (TV and film), *The Bill Simmons Podcast* (sports), *Self-Growth Podcast* (self-help), *SuperSoul* (religion and spirituality), *Song Exploder* (music), *Brains On! Science Podcast for Kids* (kids and family), The Creative Classroom (education), and so on (e.g., Dennis, 2023). There are numerous options regarding streaming platforms, categories, and titles, the ratings of which change daily.

Podcasts for children are often categorized according to age groups, and their primary goal is to provide screen-free listening (e.g., Bensfield & Rogers, 2021). Examples of such podcasts are *Mistery Recipe, Yoga Kids Adventure, Bobby Wonder, Story Seeds, Reach, Cultureverse* (ibid.), *Brains On!, The Past and The Curious, What If World, But Why* (*Are You Listening? Podcasts for Kids – Psychology in Action*, n.d.). Many other titles are available, and selecting the most suitable podcast for children can be facilitated by regularly updated and maintained reviews[v].

When choosing authentic podcasts as teaching materials, it is essential to regulate two main aspects. Firstly, it is necessary to ensure the language is appropriate for learners, both register and style. Secondly, the quality of a podcast is defined by the kind

---

[v] E.g., https://www.wired.com/story/best-podcasts-for-kids/

of sources used to prepare the topic and how credible the guests are in case there are interviews. Descriptions, together with listeners' ratings and reviews can be helpful, in combination with prior listening to each episode and establishing whether it is valid as teaching material.

2.3. Podcasts for foreign language learners

Specialized podcasts tailored for language learning can be divided into several categories, as proposed by Man-Man Sze (2006, 118): comprehensive[vi], whole-lesson[vii], specific language items[viii], scripted conversations, jokes, songs, pronunciation practice[ix], stories, and listening comprehension. Many of these podcasts are structured to emulate classroom settings, which can provide a safe environment for developing skills and gaining knowledge in a foreign language. They also present the language content by applying direct and indirect learning strategies[x], which facilitates learning and retention. Examples of such podcasts in different languages are *Coffee Break, News in Slow, Deutsche Welle, Learn Japanese Pod, Todo Mundo Pod, The Fluent Show*, *Duolingo Podcast*, *German GrammarPod*, *30 Minute Italian*, *Brazilian PodClass* (Hayward & Stimola, 2022) and many others that can be found on the podcast hosting sites or mobile applications[xi].

As opposed to authentic podcasts, podcasts for language learners are usually vetted by educators and categorized according to language levels (e.g., beginners, intermediate, advanced). Their language is classroom-friendly, which means no particular interventions are needed. However, it is recommended to examine the topics, listener reviews, episode length, and how often they are posted.

2.4. Benefits and caveats of podcasts in FLL

As a widely-available source of either authentic or specifically-tailored language, podcasts certainly have a lot of potential and many benefits that were recognized almost immediately, i.e., when they were first introduced as teaching materials. Motivation (Abdulrahman et al, 2018; Man-Man SZE, 2006) is probably the most prominent benefit because it offers a fresh approach that embraces the use of modern technology and includes activities that are similar to the ones students choose to do in their free time. Podcasts can also provide context for the target language and diverse listening materials (Flanagan & Calandra, 2005; Kavaliauskienė, 2008), which is often connected to motivation and willingness to participate. Furthermore, students can have more autonomy in choosing the topics and language content. There are also many opportunities for collaboration (Man-Man Sze, 2006) among students if they are working

---

[vi] Consist of a broad spectrum of content resembling the well-known listening comprehension activities

[vii] Usually include an audio file that is the center of a lesson, accompanied by pre- and post-activities

[viii] Focus on specific vocabulary (e.g., figurative language), respective explanations, and examples of proper usage

[ix] Intended for practicing language-specific phonemes, word stress, intonation, etc.

[x] See Oxford, R. (1990). *Language Learning Strategies: What Every Teacher Should Know.* New York: Newbury House Publishers

[xi] A simple web search returns accurate up-to-date lists of such websites and apps.

in smaller groups. Podcasting is a solid platform for exposure to correct pronunciation in a foreign language, both on receptive and productive levels. That can be extended to meaningful creative work if students are to be engaged in podcast production. Fortunately, there are free and open-source digital audio editors and recording application software, such as Audacity[xii] that can be run on any school or private computer. Most importantly, podcasts can be easily integrated with various massive open online courses (MOOCs) and language learning courses delivered through learning management systems (LMS).

On the other hand, not all students benefit from digital technology while learning a foreign language (Sharma & Barrett, 2010). That implies language lesson designs that also comprise approaches to learning other than digital content so that there is something for everyone in the classroom. Even though many teachers and most students are digital natives, there are likely teachers and students who do not feel confident using ICT[xiii] on their own, so it is necessary to provide suitable technical support. Furthermore, Cross (2014) suggests that learners are capable of selecting and listening to the podcasts they like, but they are unable to organize their listening in the way a teacher could in the classroom. That is to say, the advantage of teachers in the classroom is their implementation of metacognitive instruction, which facilitates podcast exploitation. Similar to writing essays and papers, while creating their own podcasts, students need to be careful when using other people's content: they either need to ask for permission or they need to credit the authors whose content they are using. Additionally, it is important to avoid profanity, slandering, and offending, as well as to respect people's privacy (Flanagan & Calandra, 2005).

When all is said and done, teachers have an important role as coordinators and facilitators of the content and activities that are presented in the classroom. It is up to their creativity, effort, and time invested in planning and preparation of inspiring, up-to-date, and age-appropriate content and assignments for their language learners. As it has been said before, balancing multiple approaches to learning seems to be key for effectiveness since not all are the same when it comes to using digital technology for language learning purposes.

3. Overview of recent research

3.1. Effects of podcast implementation

Several recent studies have shown that podcasts in EFL are mainly studied in relation to the development of learners' listening and speaking skills, along with lexical knowledge. That appears rational, with podcasts being predominantly audio-based content. In addition, there are studies of pre-service EFL teachers and their views of podcast implementation in FL teaching. For instance, Chaves-Yuste and de-la Peña (2023) studied the effects of socially-themed podcasts among high-school EFL learners in Spain. Their

---

xii https://www.audacityteam.org/

xiii Information and Communications Technology

results showed significant improvements in students' EFL linguistic competence, namely speaking and listening. As for the perception of podcasts as a learning resource, Angelia and Juliaty (2021) found that Indonesian university students had a favorable view of both authentic podcasts in English and the ones designed for EFL. However, their recommendations for teachers were to keep in mind their learners' L2 levels, their acquaintance with podcast topics, and the use of activities before and after listening to maintain students' attention. The studies described below are organized according to language skills, cultural aspects, and pre-service teachers' perceptions. They include groups or individuals in various countries who are learners of English as a foreign language at different levels, which is specified in each report.

3.2. Listening skills

Listening is often described as the most challenging skill, particularly in the context of foreign language learning. According to Bond (2012, p. 61), "*effective listening skills are the foundation of learning but can only occur when the listener (student) understands the intent of the sender (instructor) and provides the appropriate cognitive or behavioral response.*" Furthermore, well-developed listening skills enable students to "*master academic content, make applied linkages within their personal and professional lives, ask incisive questions, and properly follow instructions*" (ibid., p. 62). To achieve a high level of listening comprehension, a learner must possess lexical, syntactic, semantic, and phonological knowledge. In addition, to fully understand what they hear, a listener needs background knowledge on the topic in question, such as socio-cultural matters, facts, and the respective context, because language also reflects culture (Anderson & Lynch, 2000).

Two recent studies (Abdulrahman, Basalama, & Widodo, 2018; Asyifah & Indriani, 2021) revealed a positive impact of podcasts on Indonesian high-school students' listening comprehension in English. In addition, the students demonstrated a positive attitude toward podcasts as authentic materials accompanied by meaningful tasks, which also contributed to their motivation. Similar findings were conveyed by NamazianDost, Bohloulzadeh, and Rahmatollahi (2017), who studied the effect of podcasts on listening comprehension skills in English among a group of female Iranian students aged 12 to 20.

3.3. Speaking skills

As commonly known, speaking implies "*producing systematic verbal utterances to convey meaning*" (Nunan, 2003, p. 48), making it a productive language skill essential for effective communication. This multilayered skill involves simultaneous regulation of vocabulary, grammar, pronunciation, fluency, and accuracy (e.g., Alfa, 2020). Hence, it has been recognized as one of the most challenging skills to master in a foreign language, especially in the classroom, where multiple factors can affect it (e.g., limited time, learners' motivation or anxiety, etc.). The development of speaking in a foreign language could be facilitated by implementing podcasts, primarily through creative work that includes student-made podcasts, sometimes designed as classroom-based activities.

Relevant research has shown some positive effects in that area, but further research is needed to generate more precise findings (Alfa, 2020).

A small-scale experimental study focused on the improvement of sound pronunciation through a podcast-based approach was conducted by Fouz-González (2019) among a group of 47 Spanish students of EFL. More specifically, the main objective was to address the English sounds /b/, /d/, and /g/, together with the /s/-/z/ contrast. The analysis revealed a positive effect of podcast-based training on students' perception and production of target sounds. In other words, an amalgamation of explicit instruction and form-focused training was beneficial for adult learners of English in overcoming some fossilized variations in their sound pronunciation.

Yeh and colleagues (2021) reported on speaking skills enhancements documented among Taiwanese university students after engaging in podcast creation: speech fluency and accuracy, fewer pauses, and more accurate word pronunciation in English. Furthermore, the perception of podcast-making among this group of non-English majors revealed another advantage - promoting students' autonomous learning skills. However, some disadvantages emerged, such as occasional difficulties in word pronunciation, embarrassment caused by mistakes, and technical issues while recording and uploading podcasts. However, participants offered several solutions to avoid potential problems: additional practice and familiarization with the technical aspects. Budiastono (2021) found a positive correlation between speaking skills and listening to podcasts in EFL classes among 98 high-school students in Indonesia. On the one hand, this quantitative study shows the statistics, but on the other hand, it is unclear how the obtained findings could be interpreted and put in the context of EFL education in vocational and other high schools in Indonesia.

3.4. Lexical development

In simple terms, lexical knowledge implies "*knowledge of words' properties and appropriate usage*" (Elman, 2011), and according to Laufer and Goldstein (2004), it is "*…construed as a continuum consisting of several levels of knowledge, starting with superficial familiarity with the word and ending with the ability to use the word correctly in free production*" (p. 400). When learning a foreign language, exposure to authentic or learner-tailored audio content can be beneficial for expanding the vocabulary, acquiring idiomatic language, etc. Many researchers have recognized the opportunity to explore the effects of podcasts on FL learners' lexical development, and some recent studies are presented here.

Kargozari and Zarinkamar (2014) studied the effect of podcast implementation on a group of Iranian university students' lexical development in English. Their experiment resulted in a significant difference in favor of the experimental group exposed to podcasts over the control group taught traditionally. Additionally, the participants demonstrated a positive attitude toward using podcasts because of their unlimited accessibility for additional practice or in case of absences from class. Another Iranian study by Ehsanpour (2022) describes the positive effect of podcasts on adult EFL learners' acquisition of English idioms. As in other cases mentioned in this paper, her participants also reacted positively to learning with the help of podcasts.

3.5. Intercultural communicative competence (ICC)

Establishing effective and appropriate communication in different cultural contexts defines someone's intercultural communication competence (see Byram, 2003). The concept of intercultural competence had been explained through many different models that include different kinds of knowledge, skills, and attitudes (e.g., Spitzberg & Changnon, 2009). It is a multifaceted process that, according to Bennett (2009, p. 125), can be established through "*fostering attitudes that motivate us, discovering knowledge that informs us of our own and others' cultural position, assessing the challenge and support factors that affect our adaptation, and developing skills that enable us to interact effectively and appropriately.*"

As it was recognized a long time ago, podcasts offer limitless possibilities to help build ICC among foreign or second language learners (e.g., McBride, 2009). In addition to comprehending the content and authentic language of a podcast, listeners also develop a certain sensitivity to cultural and social matters pertaining to the topic at hand. In some instances, it is crucial to be familiar with cultural and social references to fully understand a podcast, which often requires further inquiries by listeners. To maintain their artistic expression and freedom of information, authentic podcasts are not required to adjust their content to foreign language learners, whereas podcasts for foreign language learners are expected to include cultural and social references according to their target audience. Recent literature reveals no explicit engagement in researching the effect of podcasts as teaching materials on the development of learners' ICC.

3.6. Views of pre-service teachers

As stated by Goldman (2018), living in a digital age makes it almost impossible to disregard podcasts as teaching and learning resources. However, teacher preparation is critical to effective implementation so that podcast-based teaching could result in optimal learning benefits. With that in mind, it is necessary to investigate the perceptions of pre-service teachers and their readiness to adopt podcasts as teaching materials. Güler and Özkan (2018) examined the perceptions of pre-service EFL teachers toward implementing podcasts in the *Teaching Language Skills* course. Even though their sample is relatively small, their findings provide valuable insight coming from future education professionals. Their participants had a positive attitude toward podcasts as teaching materials in higher education, which could equip them for job requirements in the 21st century. Podcasts are also seen as an entertaining and learner-friendly alternative to traditional language teaching strategies, so most participants were open to using them in their future teaching. A comparable study was conducted in Indonesia (Hasibuan & Male, 2022) on a slightly larger overall sample of pre-service EFL teachers. Their findings were similar: a positive perception of podcasts as motivating teaching materials that expose listeners to native speakers of English.

All things considered, it can be said that further research is required to determine pre-service English teachers' views of implementing podcasts into teaching English as a foreign language, but also from the teacher perspective. It has been shown that students in higher education perceive podcasts as motivating and student-centered teaching

materials, and this other perspective could reveal whether they are capable of transferring their podcast experiences to the didactic domain, as part of their future profession. Therefore, this study was designed and conducted to contribute to the existing body of research by adding a new perspective through the Croatian context. In Croatia, English is taught at all levels of education, but the dynamics depend on a particular educational program. Theoretically, the EFL curriculum allows for the implementation of materials such as podcasts, so it is rational to examine the views of prospective teaching professionals.

4. Material and Methods

4.1 Objectives
The main objective of this study is to examine the personal experiences of pre-service English teachers with authentic podcasts, as well as their views about using podcasts as teaching materials in EFL. In line with the research objective, the following research questions were formulated.

1) What are the participants' personal experiences with authentic podcasts in English as a foreign language, their mother tongues, and other languages they speak or learn?
2) What benefits regarding language skills do participants attribute to the consumption of podcasts?
3) What are the participants' attitudes toward implementing podcasts as teaching materials in their future teaching of EFL?
4) Do the students in junior and senior years differ in their experiences and attitudes with regard to their age differences and exposure to teaching methodology courses and teaching practice?
5) Are there any associations among participants' demographics, experiences with podcasts, and willingness to use them as teaching materials?

4.2 Participants
The participants in this study were 71 students of the Integrated Undergraduate and Graduate University Study Program *Primary Teacher Education* with a specialization in English, located in Zagreb, Croatia. More specifically, these students were trained to be primary teachers and EFL teachers. As Image 2 shows, responses came from all five years of the study, with all female participants. The respective study program is predominantly attended by female students, so this sample reflects its typical demographics. The average age of participants was 21,79, ranging from 19 to 31 years of age. The mother tongue of the majority of students was Croatian and of the participating Erasmus students, Spanish and Portuguese.

Image 2: Participants' demographics
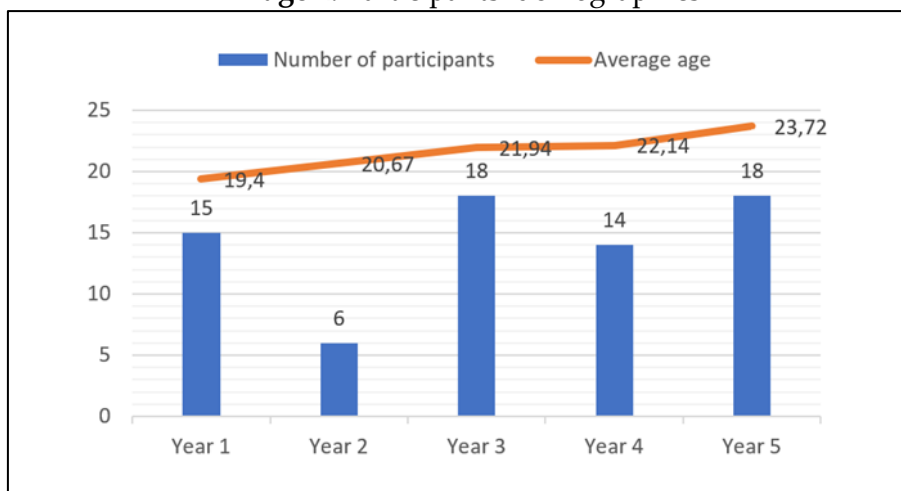
In some later comparisons, the participants are divided into subgroups according to their exposure to teaching methodology courses and teaching practice (Table 1).

Table 1: Junior, middle, and senior-years students with
their exposure to teaching methodology and practice

Years of study	Junior (Y1 & 2)	Middle (3)	Senior (Y4 & 5)
Teaching methodology in FL courses	Exploring Resources	Beginning	High Exposure
Experience with teaching practice	Little	Moderate	Considerable
N (students)	21	18	32

4.3 Research instrument and implementation

A specially designed questionnaire was offered to the students in all five years of study in an online format, clearly stating that participation in this research was voluntary and anonymous. It was distributed in English to also include the Erasmus students attending the same study program at the time of data collection. The first part of the questionnaire collected demographic information and personal experiences with podcasts, whereas the second part inquired about students' views from a professional standpoint and their readiness to use podcasts as teaching materials in EFL. The collected data were systematized using Microsoft Excel (2021), whereas the descriptive and inferential statistics procedures were performed by means of SPSS Statistics v27.

5. Results and Discussion

5.1 Personal experiences with podcasts

The results have shown that the majority of participants habitually listen to or watch podcasts in English (46 sometimes, 13 often, and 8 regularly). More than half of them at least occasionally consume podcasts in another language (36 sometimes, 8 often, and 4 regularly). Other than English, the languages specified were predominantly students' mother tongues followed by other languages they either learned or maintained (French, Italian, German, Swedish, Korean). As can be seen in Image 3, the difference in podcast

consumption frequency between English and other languages is most prominent in the 'never' segment (4 for English, and 23 for others). Two out of the four students who do not consume podcasts in English reported occasional consumption of podcasts in another language, and the remaining two do not engage with podcasts at all. All in all, more participants engage in listening to or watching podcasts in English than in other languages they speak or learn. As for the medium of delivery, 34 participants enjoy both watching and listening, 23 prefer listening only, and 12 watching only.

Image 3: Frequency of podcast consumption in English and other language
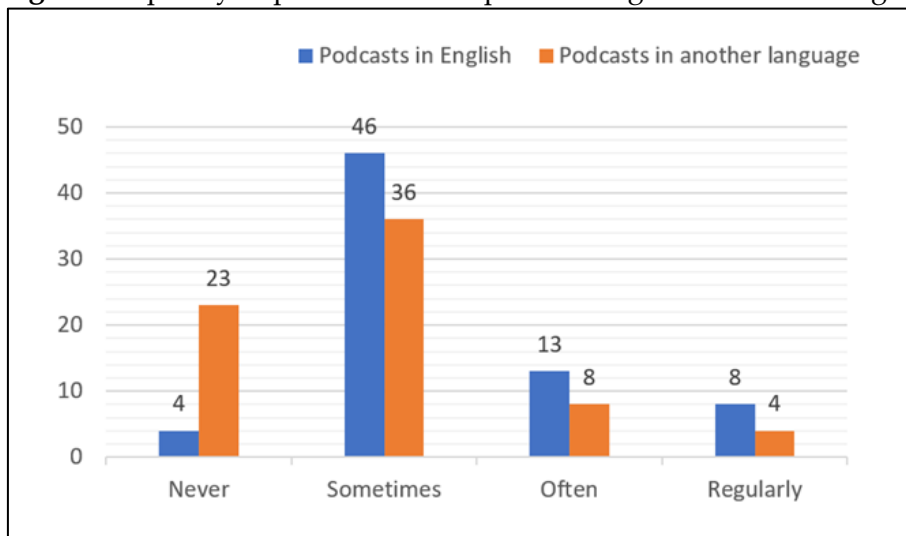
When podcast consumption in English is compared according to the year of study, the third year has the highest mean value, and the second year has the lowest, but all five years of study have the same mode value (table 2). In other words, middle-year students consume podcasts most frequently, senior years follow them closely, and junior years consume podcasts least frequently. However, both students who do not consume podcasts at all are in the senior-year group (one in Y4, and one in Y5).

Table 2: Mean values according to the year of study

|	Year 1	Year 2	Year 3	Year 4	Year 5
Mean	2,20	2,00	**2,50**	2,43	2,39
Standard deviation	0,10	0	0,16	0,29	0,20
Median	2	2	2	2	2
Mode	2	2	2	2	2
Minimum	2	2	2	1	1
Maximum	3	2	4	4	4
Count	15	6	18	14	18

As their most favored, the participants named a wide variety of topics according to which they choose their podcasts: health and well-being, fitness, skincare, nutrition, mental health, self-help, motivation, relationships, friendship, religion, social issues, current events, history, education, culture, finance, politics, true crime, conspiracy theories,

animal rights, celebrities, lifestyle, pop culture, comedy, music, personal stories, daily routines. The diversity of these topics implies that the main motivation of participants to consume podcasts is to be informed and entertained, which is similar to Swanson's (2012) conclusions. These findings undoubtedly demonstrate that the participants have substantial personal experiences with authentic podcasts in English, but also in their mother tongues and other languages that are important to them, which answers the first research question.

5.2 Self-reported benefits from podcasts

Nearly half of the participants were certain that podcasts had helped improve some of their language skills (35 responses), whereas 29 believe it might have been the case. The rest of the participants could not provide an answer because they do not listen to podcasts (image 4). The overall outcome reflects a positive impact of podcasts on the development of language skills that could be self-assessed by the participants. The unequal variance t-test reveals no statistically significant differences among the three subgroups formed according to students' experiences with teaching methodology and practice, which, in part, answers the second research question. That may indicate that the amount of professional training has no major influence over participants as podcast consumers in their private time.

Image 4: Self-assessed improvements of language skills due to podcast consumption
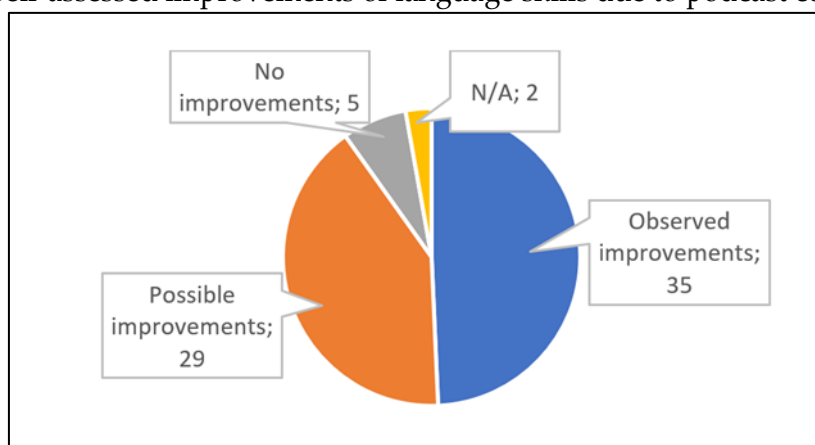
More specifically, students' examples of such improvements were: vocabulary expansion, pronunciation and speaking skills, listening comprehension, figurative language, learning about culture, and also some learning strategies. However, senior years students provided more responses with explanations and below are several examples:

> *"By listening to podcasts, I practiced **active listening** and expanded my **vocabulary**."* (S2, Year 5)

*"Immense improvement in language proficiency regarding **listening, speaking, and writing skills** (I'm making notes while listening). Listening to native speakers enhanced my **fluency** in the language. In addition, **my attention span is much longer** compared to reading books on the same topics."* (S7, Year 5)

*"Currently I'm using it to **learn French**, but I also think that I improved in **voicing my opinions** and my **speaking skills** in English."* (S11, Year 5)

*"You pick up **figurative speech**!"* (S18, Year 5)

*"It helped me **hold speeches** and make them more engaging for the audience."* (S9, Year 5)

*"I've learned more about **different cultures** and different things people go through, also **expanded my vocabulary** by learning about new concepts and words."* (S16, Year 5)

*"While listening to a podcast I often look up a word or a phrase that was mentioned to find the meaning, therefore I **expanded my vocabulary**."* (S29, Year 4)

*"I learned **new collocations** and **new words**."* (S20, Year 4)

*"Acquired **new vocabulary**, new **facts**."* (S46, Year 3)

*"**Pronunciation**."* (S54, Year 2)

*"It improved my **listening skills**."* (S71, Year 1)

Here it might be argued that, along with being informed and entertained, the participants consume podcasts in English to improve their language skills even though for some, that might be deliberate, and for others incidental. Such intentions are evident only in instances where a student clearly states that they are consuming podcasts to learn a language (e.g., S11 in the above extract).

5.3 Podcasts and EFL

According to the responses, listening (70 participants) and speaking (61 participants) are the language skills most likely to benefit from implementing authentic podcasts in EFL. Such responses were most likely intuitive, even though the participants might have come across several earlier studies that found positive associations between podcast implementation in EFL and students' listening skills (e.g., Abdulrahman et al., 2018; Asyifah & Indriani, 2021; Bond, 2012; NamazianDost et al., 2017). Similarly, connections were made between podcast implementation and speaking skills (e.g., Alfa, 2020; Budiastono, 2021; Fouz-González, 2019; Yeh et al., 2021). Furthermore, reading and writing were chosen by few (4 and 3 participants, respectively), as can be seen in Image

5 below. The two latter language skills are more likely to be positively affected by podcasts in an indirect way, through pre-listening or follow-up tasks, or directly, in cases where students prepare and record their own episodes. In addition to self-reported benefits, these also findings answer the second research question.

Image 5: Language skills that could benefit from implementing podcasts in EFL
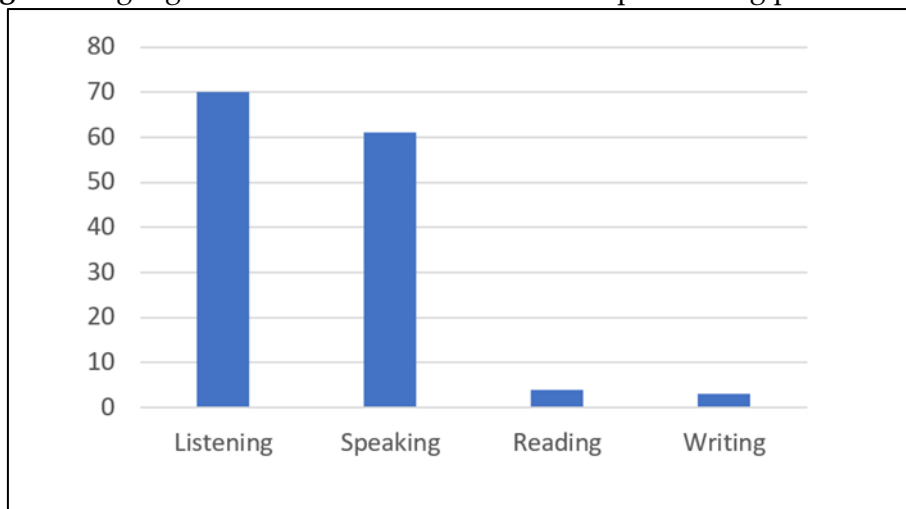
Moreover, as the aspects of language that could be effectively taught with the help of podcasts, most participants named pronunciation (68 responses), vocabulary (65 responses), and culture (65 responses). Also, 33 participants named literature, 22 grammar, and 4 participants named spelling. The dissection between the first and last three aspects is evident, as Image 6 illustrates. In this instance, no noticeable differences in the distribution of responses could be identified according to the years of study, which contributes to answering the fourth research question.

Image 6: Aspects of language that could be effectively taught with the help of podcasts
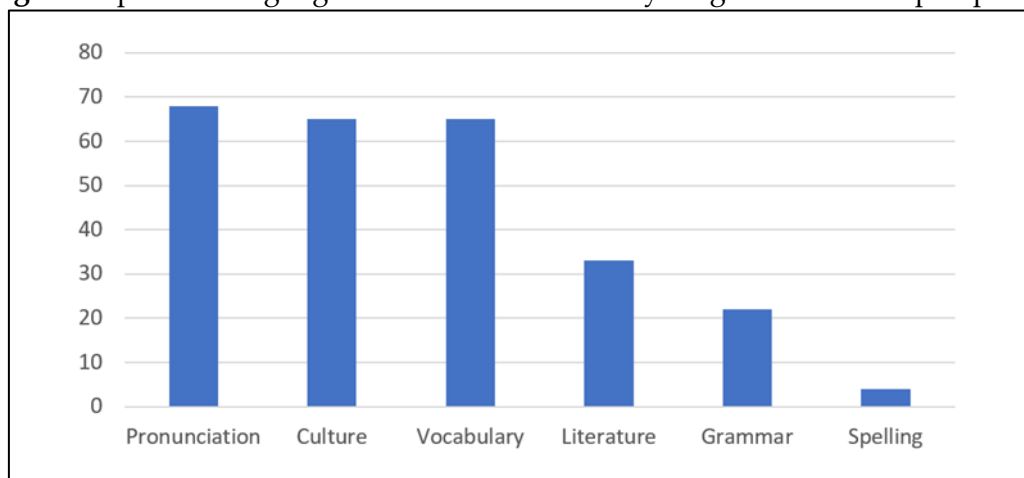
Such responses are consistent with the general findings of the aforementioned studies revealing positive effects of podcast implementation on the development of learners' listening and speaking, i.e. receptive and productive language skills that

comprise lexical knowledge (Ehsanpour, 2022; Kargozari & Zarinkamar, 2014), pronunciation (Fouz-González, 2019), as well as fluency and accuracy (Budiastono, 2021; Yeh et al., 2021). Moreover, culture and literature were also recognized as aspects of language that could be effectively improved through podcasts, especially intercultural communication competence (McBride, 2009). In this case, it can be argued that the participants demonstrated an awareness of discrete language aspects to which podcast implementation could be beneficial, with a greater inclination toward pronunciation, culture, and vocabulary in EFL compared to literature, grammar, and spelling.

As the responses to an open-ended question reveal, all participants are aware that podcast implementation requires significant preparation time, review, and also additional materials (such as visual aids and vocabulary lists) that could facilitate listening comprehension. In other words, 70 participants named at least one step a teacher needs to take to vet a podcast and turn part of it (or the entire podcast if appropriate) into didactic material suitable for EFL. The most common suggestions were to check the relevance of the podcast topic for a certain class, and listen to or watch the target episode beforehand to check the length, vocabulary, language variety, presented facts, and overall classroom appropriateness. When necessary, prepare additional materials to help explain the vocabulary, grammar, and main ideas appearing in the podcast. Similar recommendations can also be found in review papers and studies dealing with authentic teaching materials (e.g., Flanagan & Calandra, 2005; Rosell-Aguilar, 2007). In addition, a teacher should prepare introductory or follow-up activities such as questions to start a discussion. These findings indicate that the participants bear in mind the didactic aspects of podcasts, which they will be able to apply in their future EFL teaching endeavors.

Based on their experience and training, the participants were asked to assess the appropriateness of implementing podcasts according to EFL learners' level of language proficiency. Most participants agreed that podcasts were appropriate for intermediate and advanced learners (61 and 31 responses, respectively), whereas 12 participants felt they were appropriate for beginners, and one participant stated that it depended on the podcast. Consequently, most participants felt that podcasts were most beneficial for teaching high school students (68 responses), upper primary school students (62 responses), and university students (61 responses). A smaller portion of participants also thought podcasts could be beneficial to lower primary school students (11 responses), and four participants believe the same for preschool children. There were no observable differences in the distribution of responses between junior and senior students. It is sensible to find podcasts more appropriate for the more proficient EFL learners if the focus is on authentic podcasts, and more elaborate, authentic-like specialized EFL podcasts. However, specially-made didactic podcasts for children could most definitely be implemented in preschool or lower primary EFL curricula.

To the question of whether podcasts could be used in teaching a foreign language (e.g., English in Croatia) 58 participants said 'yes', and 13 said 'maybe' (image 7). Both participants who do not consume podcasts chose 'yes' as their answer. It is important to mention that senior years students predominantly answered 'yes' (with only two 'maybes'), whereas the middle-year and junior years students have the remaining

'maybes' distributed almost evenly. This difference also helps answer the fourth research question. Such outcome shows that the participants are generally aware of the value podcasts have as teaching materials, but senior years students might be more certain of that value due to their teaching practice experiences and more exposure to theoretical knowledge in teaching EFL.

**Image 7:** Participants' assessment of whether podcasts could be implemented in teaching EFL
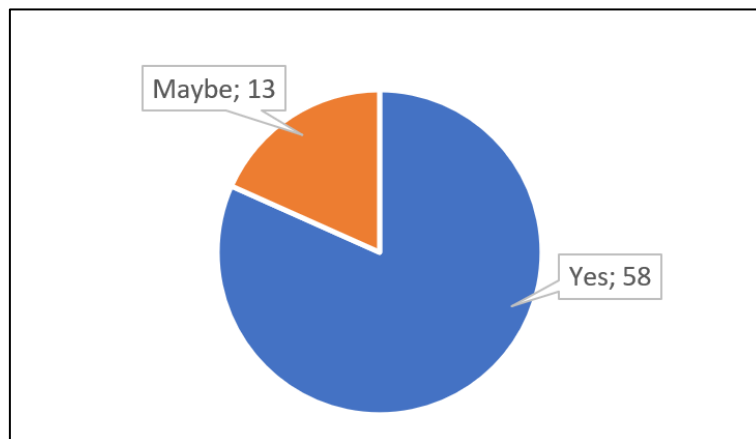
On the whole, it could be said that the participants expressed a positive attitude toward podcasts as teaching materials in EFL, which answers the third research question. In two earlier studies conducted among pre-service teachers (Hasibuan & Male, 2022; Güler & Özkan, 2018), that was also the case, but the attitudes of the participants in these two studies and the participants in this study can be compared only from the perspective of podcast consumers, namely at the higher level of education. It is important to say that the participants in this study also expressed a positive attitude toward using podcasts to prepare EFL classes, in light of their future professions.

Furthermore, the participants were asked about the likelihood of using podcasts in class once they start teaching English, mainly in primary schools. Half of the participants stated it was likely or very likely (altogether 36 responses, counting one of the two participants who do not consume podcasts), and nine participants said it was unlikely or very unlikely (image 8). However, 26 were uncertain (including the other of the two who do not consume podcasts), which is just below 40% of all participants.

Such findings could be interpreted in several ways. Firstly, with only authentic podcasts in mind, many participants might have found it challenging to select, prepare, and use such materials if they teach English in primary school or preschool, which is their specialization area. Along with that, additional teacher engagement and time needed to prepare authentic podcasts for class might seem too demanding in comparison to the existing teaching materials that had already been aligned with the curriculum. As a potential response to the matter of suitability, as well as pre-service EFL teachers' willingness to use podcasts in class, it is recommended to raise their awareness about kidcasts and similar podcasts appropriate for young learners. In other words, future

teachers could benefit from having that topic and its didactic application explicitly included in teacher training, for example, as a part of an existing course.

Image 8: Participants' responses to the question of how likely it was for them to use podcasts in their future job as EFL teachers
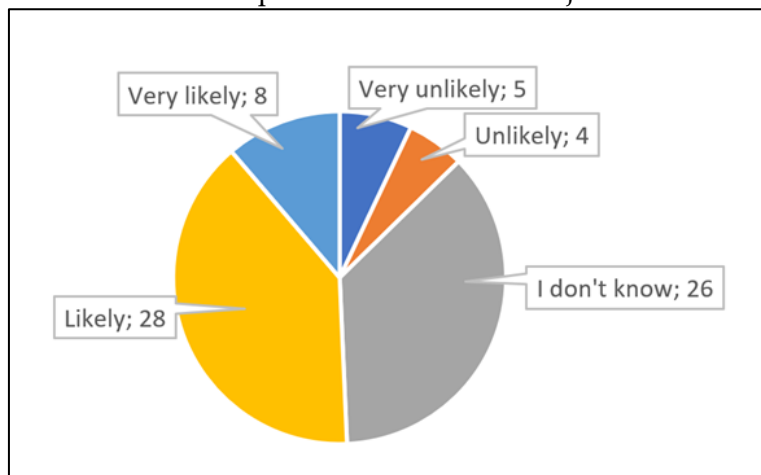
To answer the fifth research question, Pearson's correlation was used to evaluate the associations between separate variables describing the participants, their experiences, and attitudes (Table 3).

Table 3: Correlations

Variables	*M*	*SD*	1.	2.	3.	4.	5.	6.
1. Age	21,79	2,03	—					
2. Year of study	3,20	1,45	,73	—				
3. Podcast consumption in English	2,35	0,75	,09	,12	—			
4. Self-assessment of improvements due to podcasts	2,37	0,74	,10	,10	**,53*****	—		
5. Appropriateness of using podcasts in EFL class	2,89	0,39	,11	,14	,17	,19	—	
6. Willingness to use podcasts in EFL class	3,42	1,00	,15	**,21*****	**,27*****	**,32*****	**,34*****	—
Notes: *N* = 71; all factors > ,20 are in bold; **p* < 0,05; ***p* < 0,01; ****p* < 0,001								

The strongest positive correlation (r = ,53) was found between podcast consumption in English and self-assessment of improvements in English language skills due to podcasts. Such incidence is welcome, yet somewhat predictable because a more intense podcast consumption in English is bound to result in improved language skills that can be self-assessed by pre-service EFL teachers. Next, a positive moderate correlation (r = ,34) was found between recognized appropriateness and willingness to use podcasts in EFL class. In other words, the participants who see podcasts as appropriate for implementation in EFL classes are more inclined to use them once they start teaching independently. Furthermore, willingness to use podcasts in EFL shows a positive moderate correlation (r = ,32) with self-assessment of participants' language improvements due to podcasts,

which means that the participants who attribute some improvements in their language skills to podcasts are more open to using them as teaching materials. A positive correlation at the boundary between weak and moderate (r = ,27) can be seen between podcast consumption in English and willingness to use podcasts in EFL class, which indicates that the participants who are more engaged with podcasts in their private time are, in turn, more inclined to use them as teaching materials. Another weak positive correlation (r = ,21) can be seen between willingness to use podcasts in EFL class and year of study, which implies that the higher the year of study, the higher the willingness to implement podcasts in future English teaching. All these correlations are statistically significant at the p > 0,001 level, which suggests that it is unlikely that they occurred by chance, thus supporting the hypothesis that there is indeed some association between the studied variables. Other correlations are positive but weak, that is to say, r < ,20. A strong positive correlation between age and year of study exists, but it is irrelevant in this instance.

5. Recommendations

By exploring the impact of podcasts on FL teaching and learning, as well as considering the views and attitudes of pre-service English teachers toward their implementation in EFL, this paper contributes to the ongoing discourse concerning effective language teaching methodologies. It emphasizes the potential of podcasts as a valuable resource for language teachers, while also providing valuable insights for educators to consider when incorporating podcasts into their teaching practices.

In future research, a more systematic approach to researching the effects of podcast implementation in EFL, along with the opportunities arising from the teacher perspective, keeping in mind EFL learners in primary school and preschool. In addition, it would be useful to research podcast implementation in relation to intercultural communicative competence, which is conceivably more difficult to operationalize than learners' linguistic competence.

6. Conclusion

The main objective of this paper was to study the personal experiences of pre-service English teachers with authentic podcasts, and their views about using podcasts as teaching materials in EFL, partly focusing on the language teacher perspective.

From a personal perspective, the participants demonstrated substantial experience with authentic podcasts in English. In addition, they consume podcasts in their mother tongues and other languages that they are learning or trying to maintain. Middle-year and senior-years students reported a slightly higher podcast consumption than junior-years students. Regardless of their year of study, most participants self-reported several language-related improvements attributed to podcast consumption. In that sense, they named vocabulary expansion (including figurative language), pronunciation and speaking skills, listening comprehension, respective culture, but also certain learning

strategies. The participants who reported a higher podcast consumption also provided a more positive self-assessment of podcast-related language improvements.

When it comes to the language teacher perspective, which is the participants' prospective career, all participants were in favor of implementing podcasts as teaching materials. In terms of language skills, they recognized the benefits of podcasts for listening and speaking much more than for reading and writing. They also specified pronunciation, culture, and vocabulary as the major aspects of language that are likely to benefit from podcasts as teaching materials. However, the participants predominantly saw podcasts as more appropriate for teaching upper primary, high school, and university students. Still, senior-years students expressed more certainty in using podcasts as teaching materials in EFL, which could be the consequence of their exposure to teaching practice and theoretical knowledge. Finally, it has been shown that the participants who are more likely to implement podcasts in their future teaching of EFL can belong to four categories: senior years of study, reported more intense podcast consumption, a more positive self-assessment of personal language improvements attributed to podcasts, and considering podcasts as appropriate teaching materials for EFL.

There are several limitations to this research. Firstly, the sample in this study makes for one-fifth of all students currently enrolled in the same study program across all five years, which might be sufficient for generalization, but a larger sample of students in the second year would contribute to the similarity in group sizes and potential accuracy in statistical procedures. Next, language improvements were not tested but self-assessed by the participants.

This study contributes to the existing body of research by looking into pre-service teachers' views of podcasts as teaching materials that could improve their language skills, but it also reveals their views from the language teacher perspective thus showing whether and in what way future EFL teachers recognize the potentials of podcasts and their didactic application. Therefore, pre-service teachers are in this case observed as both language learners and language teachers.

Podcasts are well-accepted and quite popular audio or audiovisual medium that has been recognized as a source of information and entertainment. As such, they hold considerable value for implementation in foreign language teaching thus bringing authentic language and culture to learners. Naturally, when working with authentic materials, a language teacher needs to take the necessary steps to assess and adjust them for classroom use. In addition to authentic podcasts intended for more advanced learners, numerous channels are available for beginners and intermediate learners, often labeled for different ages. Therefore, it is necessary to include podcasts in pre-service language teachers' teaching methodology courses so that they are informed and equipped for the autonomous selection and implementation of most fitting language teaching materials.

Conflict of Interest Statement
The author declares no conflicts of interest.

About the Author

Dr. Silvija Hanžić Deda currently works at the University of Zagreb in Croatia. She teaches several courses relating to EFL teaching methodology and practice at the Faculty of Teacher Education. Her research interests lie in EFL teacher training, early reading in FL, ICT and language teaching, international education, multilingual educational settings, and similar topics.

References

Abdulrahman, T., Basalama, N., & Widodo, M. R. (2018). The impact of podcasts on EFL students' listening comprehension. *International Journal of Language Education, 2*(2), 23–33. https://doi.org/10.26858/ijole.v2i2.5878

Alfa, R. R. (2020). Using podcast as authentic materials to develop students' speaking skill. *JELLT (Journal of English Language and Language Teaching), 4*(1), 65–74. https://doi.org/10.36597/jellt.v4i1.7692

Anderson, A. & Lynch, T. (2000). *Listening.* Oxford: Oxford University Press

Angelia, C., & Juliaty, H. (2021). EFL Learners' attitude towards podcasts for extensive listening. *LLT Journal: A Journal on Language and Language Teaching, 24*(2), 450–668. https://doi.org/10.24071/llt.v24i2.3034

Are you listening? Podcasts for Kids – Psychology in Action. (n.d.). https://www.psychologyinaction.org/2020-8-6-are-you-listening-podcasts-for-kids/

Asyifah, D. A., & Indriani, L. (2021). The student perspective: The impact of podcasts on EFL students listening comprehension. *EDUVELOP, 4*(2), 127–134. https://doi.org/10.31605/eduvelop.v4i2.858

Bennett, J. M. (2009). Cultivating intercultural competence. In D. K. Deardorff (Ed.), *The Sage Handbook of Intercultural Competence* (pp. 127–34). Thousand Oaks, CA: Sage.

Bensfield, A., & Rogers, P. (2021). *Kidcasts: Trendsetters in 2021*. School Library Journal. https://www.slj.com/story/kidcasts-trendsetting-kids-podcasts-from-2021

Berry, R. (2015). A golden age of podcasting? Evaluating serial in the context of podcast histories. *Journal of Radio & Audio Media, 22*(2), 170–178. https://doi.org/10.1080/19376529.2015.1083363

Blaszko, M. (2022, January 22). *19 Linguistics Podcasts for Language Learners (2022)*. Relearn a Language. https://relearnalanguage.com/linguistics-podcasts/

Bond, C. D. (2012). An overview of best practices to teach listening skills. *International Journal of Listening, 26*(2), 61–63. https://doi.org/10.1080/10904018.2012.677660

Britannica, T. Editors of Encyclopaedia (2022, September 7). *iPod. Encyclopedia Britannica*. https://www.britannica.com/technology/iPod

Byram, M. (Ed.) (2003). *Intercultural Competence*. Strasbourg: Council of Europe. https://rm.coe.int/16806ad2dd

Chan-Olmsted, S., & Wang, R. (2022). Understanding podcast users: Consumption motives and behaviors. *New Media & Society*, *24*(3), 684–704. https://doi.org/10.1177/1461444820963776

Chaves-Yuste, B., & de-la Peña, C. (2023). Podcasts' effects on the EFL classroom: A socially relevant intervention. *Smart Learning Environments*, *10*(1), 20. https://doi.org/10.1186/s40561-023-00241-1

Cross, J. (2014). Promoting autonomous listening to podcasts: A case study. *Language Teaching Research, 18*(1), 8–32. https://doi.org/10.1177/1362168813505394

Dennis. (2023, March 15). *The Most Popular Podcasts in 2023 (of All Time and by Genre).* Castos. https://castos.com/the-most-popular-podcasts/

Ehsanpour, F. (2022). *A comparative analysis of Iranian EFL learners' knowledge of idioms: A case of English podcasts.* First International Conference on Research Findings in Language and Literature Studies, Tehran, Iran.

Elman J. L. (2011). Lexical knowledge without a lexicon? *The mental lexicon, 6*(1), 1–33. https://doi.org/10.1075/ml.6.1.01elm

Feedspot. (2023, March 21). *15 Best Linguistics Podcasts You Must Follow in 2023*. Feedspot Blog. https://blog.feedspot.com/linguistics_podcasts/

Felde, K., & Rogers, P. (2017). Now playing … Using podcasts and kidcasts in the library. *Children and Libraries*, *15*(2), 9–12. https://journals.ala.org/index.php/cal/article/view/6335/8290

Flanagan, B., & Calandra, B. (2005). Podcasting in the classroom. *Learning & Leading with Technology, 33*(3), 20–23. https://files.eric.ed.gov/fulltext/EJ728915.pdf

Fouz-González, J. (2019). Podcast-based pronunciation training: Enhancing FL learners' perception and production of fossilised segmental features. *ReCALL, 31*(2), 150–169. https://doi.org/10.1017/S0958344018000174

Fox, A. (2008). Using podcasts in the EFL classroom. *TESL-EJ, 11*(4), 1–11. https://files.eric.ed.gov/fulltext/EJ898141.pdf

Gartenberg, C. (2016, October 23). *The iPod turns 15: a visual history of Apple's mobile music icon.* The Verge. https://www.theverge.com/2016/10/23/13359534/ipod-mini-nano-touch-shuffle-15-years-visual-history-apple

Goldman, T. (2018). The Impact of Podcasts in Education. *Pop Culture Intersections, 29*. https://scholarcommons.scu.edu/engl_176/29

Güler, S. & Özkan, Y. (2018). Podcast applications in pre-service language teacher education from a constructivist perspective. *World Journal on Educational Technology: Current Issues, 10*(3), 131-141. http://files.eric.ed.gov/fulltext/EJ1185404.pdf

Hayward, B., & Stimola, M. (2022, December 28). *The Top 25 Language Podcasts for Curious Multilingual Minds*. FluentU Language Learning. https://www.fluentu.com/blog/language-podcasts/#toc_11

Hasibuan, M. E., & Male, H. (2022). Pre-service EFL teachers' perception of using podcast as a learning media to improve listening skills. *JET (Journal of English Teaching), 8*(2), 300–311. https://doi.org/10.33541/jet.v8i2.4068

Kargozari, H. R., & Zarinkamar, N. (2014). Lexical development through podcasts. *Procedia - Social and Behavioral Sciences*, *98*, 839–843. https://doi.org/10.1016/j.sbspro.2014.03.489

Kavaliauskienė, G. (2008). Podcasting: A tool for improving listening skills. *Teaching English with Technology, 8*(4). https://cejsh.icm.edu.pl/cejsh/element/bwmeta1.element.desklight-aa648d8c-e935-4f9f-b987-3107a34a61b3/c/A_WORD_FROM_A_TECHIE.pdf

Kidd, T. T., & Chen, I. L. (Eds.) (2009). *Wired for learning: An educator's guide to web 2.0*. Charlotte, NC: Information Age Publishing.

Laufer, B., & Goldstein, Z. (2004). Testing vocabulary knowledge: Size, strength, and computer adaptiveness. *Language Learning, 54*, 399-436.

Man-Man Sze, P. (2006). Developing students' listening and speaking skills through ELT podcasts. *Education Journal, 34*(2), 115–134. https://hkier.cuhk.edu.hk/journal/document/EJ/ej_v34n2_115-134.pdf

McBride. K. (2009). Podcasts and second language learning: Promoting listening comprehension and intercultural competence (Vol. 25, pp. 153–168). In L. B. Abraham & L. Williams (Eds.), *Electronic Discourse in Language Learning and Language Teaching*. John Benjamins Publishing Company. https://doi.org/10.1075/lllt.25.12mcb

NamazianDost, I., Bohloulzadeh, G., & Rahmatollahi, R. (2017). The effects of using podcast on listening comprehension among Iranian pre-intermediate EFL learners. *International Journal of Applied Linguistics and English Literature, 6*(6), 57. https://doi.org/10.7575/aiac.ijalel.v.6n.6p.57

Nunan, D. (2003). *Practical English Language Teaching*. Boston: McGraw Hill.

Podcast charts & rankings - Chartable, Apple, Spotify, and more. (n.d.). https://chartable.com/charts

Rosell-Aguilar, F. (2007). Top of the pods—In search of a podcasting "podagogy" for language learning. *Computer Assisted Language Learning, 20*(5), 471–492. https://doi.org/10.1080/09588220701746047

Sharma, P., & B. Barrett. (2010). *Blended Learning. Using Technology in and Beyond the Classroom*. London: Macmillan.

Shukurova, N. S., & Khaydarova, N. G. (2021). Using podcasts for enhancing listening and speaking skills in EFL classes. *Integration Conference on Integration of Pragmalinguistics, Functional Translation Studies and Language Teaching Processes*, 248–251.

Spitzberg, B. H., & Changnon, G. (2009). Conceptualizing Intercultural Competence. In D. K. Deardorff (Ed.), *The Sage Handbook of Intercultural Competence* (pp. 2–52). Thousand Oaks, CA: Sage.

Stanley, G. (2006). Podcasting: Audio on the internet comes of age. *TESL-EJ, 9*(4), 1–7. https://tesl-ej.org/ej36/int.pdf

Sullivan, J. L. (2019). The platforms of podcasting: Past and present. *Social Media + Society, 5*(4), 205630511988000. https://doi.org/10.1177/2056305119880002

Swanson, D. J. (2012). Tuning in and hanging out: A preliminary study of college students' use of podcasts for information, entertainment, and socializing. *The Social Science Journal, 49*(2), 183–190. https://doi.org/10.1016/j.soscij.2011.08.011

Yeh, H. C., Chang, W. Y., Chen, H. Y., & Heng, L. (2021). Effects of podcast-making on college students' English speaking skills in higher education. *Educational Technology Research and Development, 69*(5), 2845–2867. https://doi.org/10.1007/s11423-021-10026-3