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English language teachers' attitudes toward using electronic portfolio on Iranian EFL learners' speaking: a grounded theory approach

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Abstract

In recent decades, technology has changed the methods of teaching and assessment in educational settings all over the world. One notable innovation that has gained prominence in English language teaching (ELT) is the utilization of e-portfolios to evaluate and enhance students' writing and, potentially, speaking skills. While students have shown positive attitudes toward integrating e-portfolios in speaking classes, teachers' attitudes toward this pedagogical method remain undisclosed. Therefore, this study investigates teachers' attitudes toward e-portfolios in speaking classes based on the data collected from semi-structured and focused group interviews. The data was obtained from the Iran Language Institute (ILI), a leading institution for teaching English in Tehran. A grounded theory approach was used to analyze and evaluate 10 semi-structured interviews and focus groups. While some challenges are to overcome, teachers appear positive about implementing e-portfolios in speaking classes. As a result of teachers' attitudes towards e-portfolios, four categories emerged: ownership and responsibility, reflection (peer and self), teacher self-improvement, and drawbacks.

Keywords: E-portfolio assessment, English language teaching, Grounded theory approach, Speaking skills, Teachers' attitudes

Introduction

As EFL contexts gain significant attention, many EFL instructors use electronic portfolios to enhance and support their students' learning and teaching processes (Hinojosa-Pareja et al., 2020; Oh et al., 2020). Portfolios have become a central component
of e-learning in the Iranian educational system. They trigger greater student-centered
learning, reflective activities, and personalized learning among learners with different
knowledge backgrounds (Stefani et al., 2007; Yang et al., 2016a). The Iranian EFL context
has been practiced for a long time using a traditional language system based primarily on summative assessment (Firoozi et al., 2019; Namaziandost, Rezvani, et al., 2020a,
2020b, 2020c, 2020d, 2020e). In the Iranian context, the demand for new teachinglearning-assessment methods necessitates a shift from traditional testing to digital portfolios, which can promote students' autonomy by allowing them to manage their virtual
learning environments (Torabi & Safdari, 2020; Yang et al., 2016b).



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When the researchers reviewed the definitions of e-portfolios, they found that most of them covered aspects such as students' digital artifacts (Brown et al., 2007), digitalized collections, and an aggregation of digital items with a purpose (Gray, 2008). The best definition of an e-portfolio may come from Lorenzo and Ittelson (2005). They defined it as "a digitized collection of artifacts including demonstrations, resources, and accomplishments representing an individual, group, or institution" (p. 2). In addition, they point out that e-portfolios are "personalized, Web-based collections of work, responses to work, and reflections that are used to demonstrate key skills and accomplishment for a variety of contexts and periods" (Lorenzo & Ittelson, 2005, p. 2).

Based on the literature review, there are three major types of e-portfolios. Similarly, Maher and Gerbic (2009) concluded that portfolios fall into three categories: learning, showcase, and assessment. In the current study, however, the portfolio was used to assess the English learners' learning development throughout the semester.

Using e-portfolios in teaching and assessing writing skills is commonplace (Cepik & Yastibas, 2013), which can help students improve their skills (Erice: The impact of e-portfolio on the writing skills of foreign language learners, studying at Abant Izzet Baysal University Basic English Program, unpublished). In studies on e-portfolios, the focus is on students' attitudes and perceptions about the writing process. Evidence shows that students' attitudes and perceptions are positive toward e-portfolios (Abbaszad Tehrani: Using net-folio to improve writing skills, unpublished; Erice: The impact of e-portfolio on the writing skills of foreign language learners, studying at Abant Izzet Baysal University Basic English Program, unpublished). E-portfolios can also be used to assess and teach speaking, and students in speaking courses have positive attitudes toward the process (Cepik & Yastibas, 2013). Only a few studies, however, focus on what teachers think about e-portfolios. By considering both teachers' and students' attitudes while developing assumptions about e-portfolios, the assumptions may be more accurate. This study, however, involves teachers' attitudes toward e-portfolios in speaking courses, but it will reveal how closely teachers' attitudes match the students' attitudes. Additionally, it will help determine how comprehensive the assumptions built on students' attitudes toward using e-portfolios in speaking courses are. Therefore, the findings of this study can serve as a basis for further studies to investigate e-portfolios from both students' and teachers' perspectives. To date, numerous studies have mainly examined the student's perception of e-portfolios in writing courses. However, a need for more studies has been regarding teachers' attitudes toward using e-portfolios in speaking courses (Cepik & Yastibas, 2013). Further, a few studies have been conducted in EFL contexts, such as Iran, with a long history of using the traditional language system. This study will give EFL teachers a deeper understanding of how technology is incorporated into speaking courses and how it affects students' speaking skills.

Review of related literature

It is unanimously agreed that e-portfolios are superior to printed portfolios. They are considered easy-to-use assessment tools since they can store multiple media types, be updated easily, and be accessed by learners (Mohammed et al., 2015; Namaziandost et al., 2020a, 2020b, 2020c, 2020d, 2020e). By implementing e-portfolios into

teaching—learning contexts, learners can reflect on their learning, and teachers can provide detailed feedback regarding their students' work (Ahn, 2004).

Characteristics and benefits of assessment through portfolios

E-portfolios can facilitate learning in many ways since they involve formative assessment for reflecting and self-regulating, considered essential components of the learning process (Welsh, 2012). Several studies have examined the influence of self-regulated assessment on student learning (Namaziandost et al., 2020a, 2020b, 2020c, 2020d, 2020e; Nelson & Schunn, 2009; Zohar & Dori, 2003). Welsh (2012) found that the main finding of these studies was based on the idea that active participation by the learner in the assessment process facilitates the development of higher-order skills such as analysis, synthesis, and evaluation.

Yastibas and Yastibas (2015) identified 10 characteristics of e-portfolios. Implementing an e-portfolio system is attributed to characteristics such as being authentic, controllable, dynamic, personalized, integrative, multi-purposed, multi-sourced, motivating, and reflective. E-portfolios are authentic since they enable students to be accountable for their learning by facilitating reflection on their learning processes, resulting in their learning improvement (Goldsmith, 2007; Reese & Levy, 2009). Authenticity in assessment emphasizes the importance of evaluating a student's learning based on evidence representing a reflective, intentional timespan rather than isolated time-based assessment points. Furthermore, the controllability aspect of e-portfolios highlights the student's role in creating, reflecting on, evaluating, and modifying their portfolios in line with their learning experiences (Goldsmith, 2007). As Black et al., (2004) emphasized, self-assessment promotes metacognitive processes that enable learners to manage and guide their learning artifacts. By encouraging autonomous learning, learners are empowered to take charge of their learning journey, set and adjust their goals, and tailor their learning strategies to meet their individual needs and interests (Little, 2000). The development of e-portfolios involves a significant level of learner-directed effort and offers insights into learners' progress and articulation of their learning processes (Lorenzo & Ittelson, 2005; Stefani et al., 2007). This autonomous approach to learning aligns with the fundamental principles of e-portfolio implementation, facilitating student empowerment and personalized educational experiences.

The third key aspect of the e-portfolio lies in its communicative and interactive functionalities. Scholars such as Bollinger and Shepherd (2010) and Lin (2008) concluded that e-portfolios will enhance the students' communicative and interactive skills since they must communicate and interact with peers and teachers to improve their learning. Indeed, an e-portfolio facilitates collaborative professional learning by enabling individuals to share their learning experiences and accomplishments with others and offers constructive feedback to peers on their accomplishments and reflections. In the current research, which explores teachers' attitudes towards implementing e-portfolios in speaking classes, this literature suggests that e-portfolios can offer opportunities for students to engage authentically with their learning process, fostering reflection and accountability, resulting in enhancement of the learning experience, promoting self-awareness, and helping students develop a professional identity.

Additionally, e-portfolios are thought of as dynamic assessment tools since their construction is undergoing a developing status due to the organization of content, the collection and selection of digital artifacts, the self-assessment and self-reflection of the learning process, and subsequent improvements (Namaziandost et al., 2020a, 2020b, 2020c, 2020d, 2020e; Yastibas & Yastibas, 2015). These portfolios serve as a means for both formative and summative assessments. Formative assessment at the initial stages offers students constructive feedback, fostering a more profound understanding, while summative assessment later enables the selection of top-quality work samples. Besides, the personalized nature of e-portfolios, advocated by scholars such as Goldsmith (2007), Schmitz et al., (2010), and Gray (2008), looks at e-portfolios as personalized tools since students have the opportunity to construct their portfolios. The flexibility and adaptability of e-portfolios as assessment tools offer authentic, reflective, interactive, and individualized features, enhancing a learner-centered approach (Mason et al., 2004, p. 719). This individualized learning experience, however, poses challenges in maintaining assessment consistency and tracking progress across diverse student populations.

Goldsmith (2007) further emphasizes the value of e-portfolios in helping students connect their coursework to institutional outcomes, facilitating a deeper understanding of the significance of academic work in their lives. Students describe their ability to understand these connections and the connections between their lives and academic work" (Goldsmith, 2007, p. 37). Moreover, e-portfolios can serve several purposes in that they can be used to evaluate learners' learning development and educational programs (Goldsmith, 2007; Kocoglu, 2008; Lin, 2008; Namaziandost et al., 2020a, 2020b, 2020c, 2020d, 2020e); thus, teachers can therefore use the e-portfolio for several purposes, including personal development, showcasing achievements, documenting learning progress over time, setting goals, and facilitating assessments (Mohammed et al., 2015).

Multisource-based platforms are the eighth feature of the e-portfolio assessment system, wherein they provide learners with feedback about their learning, enabling teachers to assess their students' learning effectively and allowing institutions to assess the effectiveness of their programs, courses, or departments (Goldsmith, 2007).

Notably, e-portfolios are motivational since they give students a sense of ownership and improve their skills (Akçıl & Arap, 2009; Bolliger & Shepherd, 2010; Rhodes, 2011). Motivation in the learning process is closely linked to personal goals, and using an e-portfolio allows learners to assess their strengths, weaknesses, and assets. Building an e-portfolio aids students in pinpointing their interests and personal and professional needs, thus enabling them to establish clear and realistic goals. This function of the e-portfolio enhances self-awareness and nurtures the motivation for learning. One notable feature of learning portfolios is integrating reflective thinking and critical analysis. Through reflective thinking, students forge connections by relating past knowledge and experiences to their current practices while assessing areas for future growth. By retrospecting on past experiences, learners draw links between their existing knowledge and skills, identifying gaps and opportunities for future development, thereby fostering a proactive "looking forward" mindset (Goldsmith, 2007; Lin, 2008; Reese & Levy, 2009). Through this iterative process, educators can evaluate and reflect on the strengths and weaknesses of their teaching practices, positioning themselves effectively in the field of education to cater to students' learning needs.

Attitudes towards implementing e-portfolio system

Using e-portfolios in a course leads to various positive and negative changes. These positive and negative changes can influence an individual's attitude toward implementing an e-portfolio (Yastibas and Cepik, 2015). However, there exists a need for more research investigating teachers' perspectives on integrating e-portfolios within educational settings. Yastibas and Cepik (2015) conducted a research study to explore teachers' attitudes and perceptions toward integrating e-portfolios into speaking classes. This small scale revealed that teachers and students exhibited favorable attitudes toward adopting e-portfolios in speaking classes, although specific challenges needed to be addressed. Teachers perceived e-portfolios as a valuable tool for promoting the use of the target language beyond the confines of the classroom. They observed that students enhanced their self-assessment, self-reflection, and language proficiency through e-portfolios. Furthermore, students were able to develop their social skills through collaborative activities and interactions with peers and cultivate a willingness to take risks in learning by actively participating and assuming responsibility for their educational journey. Indeed, for teachers, e-portfolios facilitated student progress monitoring, identifying individual strengths and weaknesses and providing personalized feedback on areas requiring improvement. Additionally, integrating e-portfolios enabled students to apply their language skills in real-life scenarios by bridging the gap between classroom learning and practical application. By showcasing their work to others, students were motivated and able to build self-confidence. Ultimately, the insights from the teachers' responses suggest that incorporating e-portfolios in speaking classes contributes positively to the teaching and learning process. This demonstrates an encouraging stance of teachers towards the effective utilization of e-portfolios for enhancing the development of speaking skills.

A study by Razali et al., (2021) utilized a quantitative approach to explore teachers' attitudes toward integrating e-portfolios in developing students' speaking skills. The findings revealed a positive inclination among teachers regarding incorporating e-portfolios as a digital assessment tool in the educational process. Teachers acknowledged the benefits of e-portfolios, recognizing their flexibility in assessment, ability to systematically document student learning, and efficiency in the learning process. The study highlighted that e-portfolios could serve as valuable tools for reflection, fostering collaborative and self-directed learning experiences in education. However, teachers expressed concerns about needing more specific modules and guidelines for utilizing e-portfolios as digital assessment tools. This hindered their ability to determine the criteria and elements required for effective implementation. This suggests a need for more explicit directives and support structures to enhance teachers' confidence and proficiency in using e-portfolios for assessment purposes in teaching and learning contexts. In interpreting these findings, it is evident that while teachers show enthusiasm for the potential benefits of e-portfolios in assessment and learning processes, there is a need for further guidance and resources to support their effective utilization. In exploring challenges related to the adoption of digital teaching portfolios in higher education settings, the study by Fong et al., (2014) delved into the perspectives of teaching staff regarding these tools to identify critical considerations for effective implementation strategies. The research indicated that addressing concerns related to time constraints and the availability of resources could be mitigated if faculty members perceive the digital teaching portfolio as beneficial. It is crucial to recognize that these apprehensions may significantly impact educators' willingness to engage with the technology until they develop a strong belief in its utility, thus offsetting the deterrent effect of these initial reservations (Yuen & Ma, 2008).

Despite the widespread adoption of e-portfolios in educational settings, as documented by Yancey (2009), a notable concern from the literature is the perceived increase in teachers' workloads attributable to implementing e-portfolio assessment platforms. This issue has been acknowledged in studies conducted by Cambridge (2009) and Chang et al., (2012), indicating a gap between the enthusiasm for e-portfolios among educators and the practical challenges they face in integrating these tools into their teaching practices. The concerns raised by teachers regarding the excessive workloads associated with e-portfolio implementation point to the need for a more nuanced understanding of the challenges and opportunities afforded by these digital assessment platforms. Through a detailed analysis of the existing literature and empirical research in this area, educators and policymakers can work towards developing strategies that optimize e-portfolios while mitigating the potential burdens on teachers. Prior literature has indicated that teachers' attitudes towards digital teaching portfolios, particularly in terms of perceived ease of use and usefulness, are pivotal factors influencing their adoption intentions (Davis et al., 1989; Yuen and Ma, 2008); However, the study revealed that educators' pre-existing familiarity with digital teaching portfolios plays a vital role in shaping their perceptions. This underscores the importance of providing accessible resources that support the integration of digital teaching portfolios and disseminating awareness among the target users. Additionally, e-portfolios can promote professional development by providing peer feedback.

In contrast to the studies mentioned earlier focusing on the perceptions and attitudes of teachers, the studies mentioned here address student perceptions and attitudes. Lin (2008) suggests that preservice teachers can use e-portfolios to engage in reflective activities, develop effective learning strategies, and gain and improve technology skills. Likewise, Genc and Tinmaz (2010) investigated the role of e-portfolios in developing the skills, knowledge, and attitudes of preservice teachers in Computer Education and Instructional Technology, observing a positive impact. According to Hung (2012), student ELT teachers can integrate their content knowledge with their learning through e-portfolios and develop critical thinking skills. However, problems such as frustrations, time, and uncertainties about knowledge and organizational strategies may arise during this process (Lin, 2008). In an online course conducted by Baturay and Daloğlu (2010), the students viewed e-portfolios as beneficial and enjoyable. They argue that e-portfolios are concrete representations of students' learning progressions, enabling them to monitor their academic growth and receive constructive feedback actively. Through e-portfolios, students are empowered to comprehensively evaluate their learning experiences, gaining insights into their strengths and areas for improvement. This reflective self-assessment process facilitated by e-portfolios allows learners to understand their educational journey better and make informed decisions to enhance their learning outcomes. Similarly, students can evaluate their progress, feel less anxious, and become more self-confident and motivated (Cepik & Yastibas, 2013). However, Hung (2012) argues that they may cause learning anxiety and resistance toward technology among learners.

Additionally, e-portfolios provide an authentic and alternative approach to assessing students' learning. Irrespective of the motivations that drive students to incorporate e-portfolios into their coursework, these tools engage students in learning activities. The theoretical framework supports the notion that e-portfolios enhance students' engagement in their learning systematically and organized (Serdà & Alsina, 2013). This active involvement fosters continuous and systematic reflection among students, aiding them in recognizing their starting points, setting goals, managing the learning process, and evaluating their progress. Besides, Crisol Moya et al., (2021) delve into the exploration of emotions, specifically focusing on students' emotional experiences within the context of utilizing e-portfolios in educational settings, indicating e-portfolios as a didactic strategy among students to provide focus to tasks. This research sheds light on the potential of e-portfolios to engage students emotionally and facilitate self-directed learning processes.

Challenges of e-portfolio implementation

Implementing e-portfolios in speaking classes is a challenging task that requires addressing various issues. Strudler and Wetzel (2005) highlighted challenges in governance, leadership, and grants. Lorenzo and Ittelson (2005) specified issues such as hardware, software, support, security, assessment, and scalability that must be considered for effective integration. Young and Lipczynski (2007) emphasized four critical issues in designing e-portfolios for educational purposes:

- · Focusing solely on technical aspects
- Using e-portfolios as content management systems rather than interactive learning tools
- Neglecting stakeholders' views
- Failing to integrate e-portfolios into the curriculum fully

Although e-portfolios have been successfully implemented in parts of some educational systems like those in England and Wales (see, for example, ElfEL, 2016), significant challenges persist. A study in South Africa (Kok & Blignaut, 2009) revealed that the need for more ready internet access posed a significant barrier to e-portfolio implementation. Other barriers included unstable infrastructure, limited access, connectivity, socio-economic challenges, and inadequate ICT skills and confidence. Adopting technology-based systems like e-portfolios into core teaching practices requires a robust ICT infrastructure.

The EUfolio project identified additional barriers to e-portfolio implementation, including concerns about extra organizational efforts, classroom efficiency, the authenticity of student work, and skill overemphasis rather than focusing on the learning process (EUfolio, 2015). Teachers from Lithuania and Cyprus highlighted the need to enhance student motivation (Eufolio, 2015), contrasting with beliefs that e-portfolios can boost student engagement and study motivation (Yastibas & Cepik,

2015). Moreover, research (EUfolio, 2015) revealed that Irish educators believe a substantial amount of time is necessary to assess e-portfolios effectively. Despite this, some teachers emphasized that familiarity and experience can ease the process, highlighting the importance of ongoing Teacher Continuing Professional Development (CPD) in successfully implementing e-portfolios in education (EUfolio, 2015).

The disconnect between e-portfolios and the curriculum was also noted by Spanish teachers, suggesting that integrating e-portfolios must be seamlessly aligned with the curriculum to support teachers in effectively incorporating this tool (EUfolio, 2015). While resources and guidelines are available to support teachers in e-portfolio implementation, there still needs to be a gap in engaging key stakeholders, including principals, teachers, and support service members, in shaping and driving the adoption of e-portfolios in educational settings. In this vein, Poole et al., (2018) highlighted concerns regarding challenges associated with implementing e-portfolios by conducting multiple interviews with school principals, teachers, and support service members. They emphasized issues related to equitable access to broadband and the demanding nature of the Senior Cycle curriculum, which they believed could hinder the full realization of the learning potential offered by e-portfolios. Additionally, there was a preference among participants for a personalized e-portfolio system due to reasons like cost considerations for system maintenance. They also expressed the importance of e-portfolios being transferable and providing dynamic workspaces. Hence, there is a need to address these challenges and preferences to effectively incorporate e-portfolios into speaking classes and capitalize on their educational benefits.

In exploring integrating e-portfolios into speaking classes, it is crucial to critically evaluate the balance between the advantages and challenges presented by this approach. The potential benefits of using e-portfolios in speaking classes are evident, focusing on heightened student engagement and fostering a sense of ownership over their learning journey. However, it is imperative to provide adequate pedagogical support and establish clear assessment criteria to align with the intended speaking development goals. When considering the relation to the present research on teachers' attitudes toward implementing e-portfolios in speaking classes, previous literature underscores the importance of understanding how educators perceive and approach this innovative teaching tool. By examining their attitudes, it may be possible to determine potential barriers or facilitators to successful implementation.

Nevertheless, noticeable gaps in the existing literature warrant further exploration. For example, limited research may exist on the specific strategies that teachers can employ to integrate e-portfolios into speaking classes effectively. Additionally, the impact of teachers' attitudes on student outcomes and the overall classroom dynamic remains a critical area that requires deeper investigation. Accordingly, the researchers posed the following research questions:

RQ. What are teachers' attitudes toward integrating speaking e-portfolios in English learning assessments?

Method

Design

The researchers employed a qualitative approach, specifically grounded theory, to determine how teachers viewed e-portfolios as part of speaking instruction. Charmaz (2006) believes the grounded theory is helpful for "studying social or psychological processes within a social setting" (p. 7). As a result, participants' perspectives are considered when studying specific processes (such as attitudes toward an e-portfolio). Here, grounded theory was feasible since participants' perceptions of the e-portfolio were unique and individualized, and no preconceived theories were developed. With grounded theory, researchers do not construct theories before the research begins. Instead, "the researcher begins with an area of study and allows the theory to emerge from the data" (Strauss & Corbin, 1998, p. 12). Thus, after the data have been thoroughly analyzed and processed, the researcher formulates a theoretical concept representing the researcher's views and experiences (Corbin & Strauss, 2008).

Participants

A total of 15 Iranian EFL teachers were recruited from the Iran Language Institute (ILI), a leading institution for teaching English in Tehran, who took part in personal semi-structured and focus-group interviews. Their ages ranged from 35 to 42. Since data saturation was applied to recruit the sample, including more participants does not provide more information on the issue (Dornyei, 2007). This study reached saturation after interviewing 15 Iranian EFL teachers.

Researchers used a non-random sampling technique for the personal interviews, namely purposive sampling. Creswell (2014) states that the idea behind a qualitative study is to deliberately choose participants that can provide the researcher with an insight into the research questions or problems. Here, 15 Iranian EFL teachers were deliberately selected. The selection criteria included at least 5 years of experience as an EFL teacher. Moreover, four of them held M.A. degrees in TEFL, but the rest were Ph.D. students at the time of data collection. A focus-group interview was conducted with students based on availability sampling and their consent to participate.

Instruments

This study collected data primarily through semi-structured interviews and focus groups. Interviews offer a better understanding of social phenomena than quantitative methods like questionnaires (Silverman, 2000). Participants were provided with a copy of the guidelines and a statement of the project's goals before participating in an interview. Participants were informed that their opinions would be published anonymously. Following the G-theory coding paradigm and the purpose of the study, some basic questions were developed. Four academics with ELT departments at the University of Guilan were asked to review and comment on the tool for its feasibility. Thus, we revised two out of the six questions.

The researchers interviewed a few revisions regarding the content and clarification of ambiguities. The participants were asked to discuss what they experienced and their views on implementing e-portfolios in speaking classes. The participants were free to

add any new points at the end of the interview. One focus-group interview was also conducted following the same procedure to get opinions about the group interactions. As a result of focus group interviews, students can freely express their opinions in group settings rather than in individual interviews (Rodriguez et al., 2011). Eight teachers were included in the focus group, with three males and five females from Iran Language Institute (ILI).

Data collection procedure

Personal and focus-group interviews were conducted to understand how teachers view e-portfolios as part of speaking instruction. Participants were informed about the study's purpose and filled out consent forms. Participants were also asked permission to record each interview for qualitative analysis. All interviews were conducted in English, but to facilitate conversation and ideas exchange, interviewees were allowed to respond in their native language (i.e., Persian) if necessary. The interview contained four predetermined questions that explored how e-portfolios improve students' speaking skills and teachers' teaching ability (see Appendix). This requires students to prepare their electronic portfolios, and teachers must integrate e-portfolios into their classes. Indeed, teachers were required to cover the content of the Pre-Intermediate One ILI English series textbook. This series, consisting of three books, is one of the six series taught in ILI Basic, Elementary, Pre-Intermediate, Intermediate, High Intermediate, and Advanced. Each contains eight units considering all four skills and is a fundamental component of the ILI curriculum. The ILI's Research and Planning Department developed the textbooks widely utilized within the institution. Moreover, four EFL professors reviewed the textbook content to ensure its appropriateness for the current study. In implementing e-portfolios for students' speaking skills, the content was tailored to align with the specific topics covered in each lesson. For instance, if a lesson focused on fortunetellers, the e-portfolio activities would center on speaking tasks related to superstitions, such as discussing personal experiences or perceptions of visiting fortunetellers or a coffee cup reader.

Similarly, lessons on job interviews would feature speaking tasks related to interview scenarios or simulated interview recordings in which students answered the top interview questions. Rubrics were developed to evaluate the students' speaking performance by adapting criteria from 'Qualitative aspects of spoken language use' proposed by the Common European Framework of Reference (CEFR) and speaking rubrics from the TOEFL IBT test. The rubrics consisted of five bands, each representing a score range based on evaluation criteria such as task completion, fluency, organization, and language use. The validation process for these rubrics involved feedback from elevators and experts in the field. Following this feedback, some minor modifications were incorporated.

The focus-group interviews also included some key questions in line with semi-structured interviews, and the participants were allowed to describe in detail their attitudes toward e-portfolios as part of speaking instruction. The researchers acted as facilitators and encouraged everyone to participate in the discussion actively. The personal interview, on average, lasted 45 min, but some went longer. We held focus-group interviews for 75 min, during which different ideas and opinions were exchanged. Interviews

continued until no new information emerged and data saturation was achieved. Through the data analysis process, themes began to recur consistently across interviews. Despite the limited number of participants, the qualitative data obtained were detailed and comprehensive, allowing for in-depth analysis. Furthermore, the sample included participants with diverse perspectives and experiences relevant to the research question, enriching the depth and breadth of the data obtained. Besides, previous studies in the field (Yastibas & Cepik, 2015) have demonstrated successful attainment of saturation with a similar sample size. Furthermore, steps were taken to ensure the rigor and trustworthiness of the study, such as member checking, peer debriefing, and maintaining detailed records of the data collection process. Notably, two types of interviews were conducted in the present study (i.e., semi-structured and focused group interviews), which lasted 45 and 75 min, respectively.

In order to prove the credibility of the findings, peer debriefing, and member checks were conducted. Participants shared their thoughts about the extracted categories and themes during member-checking. Peer debriefings involved an external verification of the research by a graduate colleague who was asked to review our interpretations and explanations of the raw data to see whether the study made sense and whether the inferences from the data were reasonable and accurate.

Data analysis

In order to avoid bias, the interview data were directly transcribed, and a grounded theory approach (Strauss & Corbin, 1998) was used to evaluate the textual data obtained from semi-structured interviews. Following transcription, we read and reread the transcriptions to familiarize ourselves with the data. Then, we provided a coding scheme based on some notes. A constant comparative method and open, axial, and selective coding paradigms were used to develop concepts and themes from the raw data (Ary et al., 2018). (Ary et al., 2018). Transcripts of the interviews were first analyzed thematically to identify the main themes. Consequently, to develop the core categories, we used axial coding to create connections between the individual (sub) categories. Finally, selective coding was the integration of some categories to create an overall model of teachers' attitudes toward integrating speaking e-portfolios in English learning assessments. To ensure inter-rater reliability (Gass and Mackey, 2000), 25% of the entire list of emerged codes and themes was presented to and checked by one of the colleagues with extensive experience coding qualitative research. After the peer-coded data, the results were compared to the first to determine the reliability. We then discussed the discrepancies and presented the modified model with three themes.

Results and discussion

Fifteen semi-structured interviews were analyzed and evaluated using a grounded theory approach. In response to the interview questions, the following categories emerged (Fig. 1): ownership and responsibility, reflection (peer and self), teacher self-improvement, and drawbacks of e-portfolios. The findings are presented in this order. For each of the 10 cases, teachers defined the e-portfolio assessment clearly. A few examples of definitions were the following:

English language teachers' attitudes toward using Electronic Portfolio on Iranian EFL learners' speaking

1. Ownership and responsibility 2. F

2. Reflection (peer and self)

3. Teachers' self- improvement

Fig. 1 English language teachers' attitudes toward using Electronic Portfolio on Iranian EFL learners' speaking

- "The e-portfolio contains samples of the learners' work and shows the growth over time"
- "It is an alternative to the classroom test."
- "It attempts to classify and collect information on the student's progress in an online and interactive database."

Theme 1: ownership and responsibility (ownership of learning)

The concept of ownership was frequently discussed throughout the study by participants (10 teachers, about 73%). Students were actively involved in developing their e-portfolios, according to the interviews. E-portfolios were considered effective at helping learners evaluate and engage in self-repair strategies that result in L2 development and self-regulation. In doing so, students must take responsibility for gathering and reflecting on their videos.

Teacher #1: "Developing an e-portfolio can encourage students to take more owner-ship and responsibility over their learning."

Teacher #5: "In my classes, students have shown high participation in free discussions and are highly motivated to provide feedback for their partners. Since using e-portfolios in my classes, the students have demonstrated continued learning growth through independent learning".

Teacher #11: "....Over time, my students became more comfortable speaking in the target language, improved their pronunciation and fluency, and gained confidence in expressing their thoughts orally.... They started to engage more actively in class discussions, seek out additional resources to deepen their understanding and set personal learning goals. This newfound sense of ownership empowered them to monitor their progress, reflect on their strengths and weaknesses, and adjust their learning strategies."

Teacher #12: "...Initially, some students hesitated about recording themselves and analyzing their speeches. However, as they began to see the value of self-assessment, they became more invested in their learning journey."

Teacher #15: "The ability to track their progress over time through the E-portfolio motivated them to continue working on their speaking skills and strive for improvement. It created a supportive and engaging learning environment that empowered students to invest on their speaking development".

A key element of ownership is self-regulation (Brown & Ryan, 2004), which involves learners taking an active role in their learning processes (Nicol and Macfarlane Dick, 2006). E-portfolios can help develop a sense of ownership, which is essential to lifelong learning (Margaret Lamont). The concept of ownership allows students to take charge of their learning and determine what they need to learn. According to (Akçıl & Arap, 2009; Bolliger & Shepherd, 2010; Rhodes, 2011), an e-portfolio cultivates a sense of ownership and helps them improve their skills. On the other side, online learning facilitates

the process of learning as well as the creation of e-portfolios in real-life situations. Incorporating technology and computers into the learning process can also enable learners to learn more constructively, critically, and in a higher-order manner (Jonassen, 2000). Media-based e-portfolios can serve as a means to build knowledge about learning. As a result of technology use, a critical issue is not that technology drives instruction but that instruction should drive technology (Jonassen, 2000).

Theme 2: reflection (peer and self)

This study implemented e-portfolios to give students a chance to get feedback on their assignments and to interact with their friends and teachers. The present study also found feedback and communication as e-portfolio strengths. Using feedback from their peers, the students prepared videos and edited them after receiving comments from their teachers. The students were aware of their speaking errors due to the comments they received from their peers and instructors. As a result, the teacher's feedback gave students the chance to concentrate on the problems they had with their speech, and they could solve them independently. In doing so, students improved their self-awareness by assessing what they did well and could improve. Students collaborated on e-portfolios before submitting their work, and instructors reviewed the assignments afterward. In doing so, students are more likely to feel self-efficacious in accomplishing their assigned tasks.

A similar number of feedback messages were observed among teachers. Furthermore, some teachers mentioned that the feedback prompted the students to improve by showing them how well they performed in their assignments. Interview findings revealed that receiving feedback and communicating via e-portfolios can be highly beneficial. Teachers viewed e-portfolios as a helpful tool for communicating with each other and providing feedback.

Teacher #4: "As part of the e-portfolio process, students are typically given feedback and can share their progress with their teachers and peers."

Teacher #7: "Observing and learning from successful speaking techniques used by peers can serve as positive role modeling... students can pick up on effective strategies and adapt them to their speaking skills."

Teacher #8: "Peer feedback can offer constructive criticisms in a less intimidating way compared to feedback from instructors. This can help students identify areas for improvement and grow more comfortable receiving feedbacks."

Teacher #9: "... They provide an opportunity to review, communicate, and asynchronously give feedback."

As a result, teachers can improve learners' speaking weaknesses by identifying and addressing their problems.

Teacher #3: "... seeing the progress students make in implementing e-portfolio makes me so excited of their future success....Positive feedback from peers can boost their motivation and confidence to further develop their speaking abilities.

Recognizing improvements can inspire students to see higher goals and put in more practice to refine their speaking skills."

Teacher #5: "E-Portfolios can uncover pronunciation and grammatical issues...

The e-portfolio enabled students to communicate more efficiently with their teachers, and the instructors' feedback and comments improved their speaking skills."

E-portfolios evolve as a result of flexible content organization. As learners progress through their learning, they can add new sections, revise old ones, etc., in their portfolios (Challis, 2005). In essence, an e-portfolio provides feedback information that allows learners to reflect on their performance and improve their language acquisition. Students' oral portfolios offer opportunities for both self and peer learning (Wang and Chang, 2010). The goal of speaking portfolios is not to assess student proficiency but to provide them with the opportunity to practice speaking regularly. As part of their upcoming speaking portfolios, students demonstrated a wide range of vocabulary, pronunciations, and intonations. Using this alternative assessment also reduced students' communication uncertainty.

Further, Vorotnykova and Zakhar (2021) found that feedback was one of eight factors influencing undergraduates' willingness to use e-portfolios. Students' motivation and efficiency to gain proficiency in speaking skills increase due to these communication opportunities with their peers and teachers. In a meta-study, Minnaar (2011) found that an effective e-learning environment requires effective interaction between students and instructors. Additionally, Bolliger and Shepherd (2010) discussed the importance of communication, motivation, and student connectedness in implementing e-portfolios. The results of this study confirm what most other studies have found regarding different types of portfolios (Bolliger & Shepherd, 2010; Danny-Huang and Alan Hung, 2010; Wang and Chang, 2010).

Regarding self-reflection (self-assessment), teachers agreed that speaking in e-portfolios allowed the students to view their strengths and weaknesses. All activities stimulate reflection in principle (Meeus et al., 2006). Consequently, having students reflect on their performance allows them to continue their development knowingly after completing the course (Van Looy et al., 2000).

Teacher#1: "....E-Portfolios permit individualized assessment... A student's self-reflection is intended to reveal their knowledge about their learning..."

Teacher #2: "Students can see their growth when they can see their work as a whole."

Teacher#7: "When students reflect on their E-portfolios, they can compare their assignments with the standards to determine whether their assignments meet the standards."

Teacher #13: ".....Through self-reflection, my students develop critical thinking skills by analyzing their speaking performance and understanding the reasons behind their success and shortcomings..... This enables them to get informed decisions on how to improve, specifically in developing their presentation skills...".

Teacher #14: "I was initially skeptical about using e-portfolio in my speaking classes, but now I believe. The platform has allowed my students to not only showcase their speaking skill but also engage in meaningful self-reflection. self-reflecting on their e-portfolio can prompt them to actively seek feedback from their peers or teachers on their speaking abilities...."

A student's self-reflection is intended to reveal his or her knowledge about their learning. E-portfolios also encourage self-reflection and reflection. As part of the course, students keep a digital record of their achievements to reflect on their learning process. Therefore, they can help students assess their work and evaluate the effectiveness of a course (Goldsmith, 2007; Reese & Levy, 2009). Thus, students can reflect on their learning and show their analytical and critical thinking abilities (Rhodes, 2011). According to Lin (2008), reflecting on learning experiences allows students to reexamine their learning and change their thoughts. In other words, reflecting on performance increased self-awareness and improved speaking skills. In Safari and Koosha's (2016) study, self-monitoring and self-assessment of student portfolios are effective ways for students to improve their speaking skills. Following Warchulski (2015), self-assessment is a requirement for student autonomy, so teachers will no longer be the ones who evaluate students. Finch (2012) also asserted that self-assessment enhances students' learning.

Although most teachers believed that the e-portfolio provided an opportunity for self-reflection and speaking improvement, some viewed it as a "burdensome extra task." This could be because some students place too much emphasis on organizing the content of the e-portfolio without considering reflection (Doig et al., 2006). Moreover, e-portfolios may evaluate students formatively as a means to evaluate their learning and summatively as a means to assess their progress and achievement (Rhodes, 2011).

Theme 3: teachers' self-improvement

Teacher self-improvement refers to how e-portfolios influence teacher teaching in speaking courses. An e-portfolio allows teachers to enhance their ability to become professionals. By providing two-way relationships, e-portfolios enable teachers to choose appropriate teaching methods and more convenient strategies for a particular lesson. Most respondents agreed (80%) that there is no perfect method for all learners, and we should consider that when planning instruction. Indeed, e-portfolios in education have been associated with fostering reflective teaching practices. Teachers review content through reflective practices that encourage critical self-assessment and self-awareness.

Teacher#8: "It has been a great experience teaching while implementing an e-port-folio in my classrooms.... The way you teach will also differ depending on your classroom context, and the class's communications give you a hint of choosing an appropriate speaking skill teaching method that best fits all classrooms."

Teacher #13: ".....the act of setting personal goals within e-portfolios acts as a reference point for my self-evaluation, allowing me to assess my performance and track professional goals and determine whether I'm moving closer to student proficient speaking skills that incorporate evaluation criteria such as task completion, fluency, organization, and language use."

Teachers also noted that implementing e-portfolios impacted their teaching development. Teaching was viewed as research by the teachers, who sought solutions to problems encountered in the classroom. Thus, ongoing e-portfolio evaluations enabled teachers to assess students' needs and modify instruction accordingly. E-portfolios provide valuable insight into the areas in which students struggle and which speaking skills need improvement. This insight enables teachers to tailor their teaching to address individual student needs, facilitating their professional development in speaking skills. By identifying and addressing these areas, teachers can refine their teaching approaches, promoting self-improvement in their teaching strategies.

Teacher #4: Looking at the students' e-portfolios helped me better understand my students' situation and directed me towards more targeted teaching. For example, if some students had pronunciation problems or were not paying attention to body language, it required me to incorporate these points into our lesson plans and not just focus on vocabulary and grammar to improve the students' speaking skills and lead them more toward becoming fluent speakers by addressing their key points.

Teacher #7: "I enjoyed this experience. After implementing e-portfolios in my classroom, I feel like a researcher. Based on feedback and reflection from my students, I have developed my teaching skills and consulted YouTube, Google, and other sources for ideas."

Teacher #11: "Using e-portfolio in my classes has been a rewarding experience.....I decided to develop my digital literacy further and explore new ways to enhance the language learning experiences for my students."

Moreover, teachers mentioned that via e-portfolios, they can seek feedback from peers, mentors, and supervisors, integrating diverse perspectives and valuable insights to enhance their skills and teaching practices. Constructive feedback from peers in their e-portfolios gives teachers a structured approach to self-reflection and improvement. This iterative process fosters continuous learning and plays a crucial role in professional development by encouraging teachers to refine their methods, address areas for improvement, and adapt to changing educational landscapes.

Teacher #5: "Collaborating with colleagues is like adding colorful layers to my teaching profession. For instance, one colleague once provided me with constructive feedback, focusing on incorporating more fluency-building exercises to improve my students' speaking ability.... Getting familiar with different interactive worksheets that I have never noticed its effect on my students' speaking skills is a great way to get students involved in active learning."

Teacher #6: "By embracing feedback from my fellows, English language educators can nurture professional development, facilitating the exploration of diverse perspectives and methodologies in language instruction.... English teachers regularly share their teaching materials and lesson plans, boosting a culture of continuous self-improvement and professional development within their teaching community."

Teacher #14: "I was thrilled to receive feedback on my e-portfolio approach...It's been an incredible journey, and I was eager to see where I could improve.... this process helped me fine-tune my strategies... and the positive inputs motivated me. I'm committed to making e-portfolios more effective for enhancing my students' speaking skills."

Besides, engaging with e-portfolios fosters a reflective process that contributes to teachers' well-being, enhancing their sense of efficacy and professional fulfillment. Documenting and revisiting personal and professional achievements through e-portfolios can help participants acknowledge and appreciate their progress, ultimately contributing to a positive sense of self-worth and job satisfaction. This process of self-recognition and acknowledgment is essential for fostering a positive and fulfilling teaching experience.

Teacher #2: "..... e-portfolios assist me in terms of how to reflect on my work and check whether I have achieved the intended objectives in my teaching and learning. While there is a match between my objectives and the recorded document, it makes me delighted, and I have a sense of accomplishment. This makes me more interested in better developing my expertise in teaching."

Teacher#9: "Using e-portfolios in my classes has been a game-changer. Not only have I seen a significant improvement in my students' speaking skills, but It gives me a sense of efficacy and self-improvement. The e-portfolio has streamlined my teaching process, allowing me to organize class materials better and provide more personalized feedback to my students. This has helped me feel more in control of my workload and has reduced my stress level, contributing to my overall well-being...... But it also boosted my confidence as a teacher."

Teacher #15: "....It allows me to guide and monitor students' progress while providing them with personalized feedback, making me more satisfied while fostering a student-based approach to learning..."

The development of teachers requires both self-reflection and self-identity. As a result of e-portfolios, teachers can develop their professional identity and reflect on their practice (Schon, 1983). In the present study, educators were found to augment their pedagogical approaches to foster students' speaking skills using e-portfolios by engaging in a comprehensive process of self-reflection, encompassing a deep consideration of students' needs and insightful peer feedback, resulting in teachers' well-being. A teacher's development heavily depends on reflecting on and considering beliefs and values when developing an educational philosophy. As Beauchamp and Thomas (2010) discuss, reflection and identity development are related, and reflection involves thinking about beliefs and values, which leads to an educator's development of a philosophy of education. Research conducted revealed that the utilization of e-portfolios yielded a favorable impact on teachers' reflective thinking abilities, educational motivation, and academic outcomes (Ayaz & Gök, 2023; Endres & Chowdhury, 2022; Khan & Hoq, 2021). Oakley et al., (2014) highlighted that e-portfolios significantly improve individuals' competencies, such as self-evaluation, self-confidence, and the ability to express their opinions about themselves and others. Similarly, Lim et al., (2016) observed that teacher

candidates can enhance their reflective thinking skills by identifying their strengths and weaknesses through e-portfolios, leading to professional development. These outcomes are foundational to fostering lifelong learning competencies. However, Ayan and Seferoğlu (2011) and Oakley et al., (2014) found limited enhancements in teacher candidates' reflective thinking skills attributed to e-portfolios.

Notwithstanding this, a majority of recent research studies, including those by Baronak (2011), Lambe et al., (2013), Lyles Folkman (2013), and Oakleya et al., (2014), suggest a positive impact of e-portfolios on reflective thinking skills of the teacher. Consequently, it can be deduced that integrating e-portfolio applications in the teaching process effectively contributes to developing their reflective thinking abilities (Ayaz & Gök, 2023). Educators engaging in reflective thinking are encouraged to embody professional attributes such as a critical mindset, commitment, responsibility, and autonomy. Embracing reflective practices paves the way for the evolution of a transformative educator-one who goes beyond the knowledge of mere technical expertise by reflecting thinking, thereby creating opportunities for the construction of professional insights (Ferreira, 2021). Through this process, educators acquire a fresh repertoire of competencies that nurture self-confidence, foster the capacity to identify personal emotions and thoughts, facilitate the cultivation of supportive interpersonal connections, and enable them to make constructive decisions (Ferreira, 2021), resulting in teachers' well-being and flourishing (Derakhshan et al., 2022). In this vein, it has been argued that using the e-portfolio promotes students' active engagement in their learning (Barrett, 2007; Ring et al., 2009) and their self-efficacy (van Dinther et al., 2015; Ziegler, 2014). Through a contagious effect (Moskowitz & Dewaele, 2021), it not only helps students to learn better and grow but is also beneficial to the welfare of the teachers and would lead to promoting their well-being, which is the utmost goal of educational systems (Mercer, 2021). Self-evaluation can also be employed as a method for developing student pride and guiding the development of realistic and achievable goals in students (Swartz, 1999)., resulting in a bond between teachers and learners, which provides both teachers and learners with a sense of safety and belonging, recognition and encouragement, and ultimately fosters their motivation to achieve positive outcomes (Kunter et al., 2013).

Theme 4: drawbacks of e-portfolios for students

Before implementing e-portfolios, several factors must be considered, including plagiarism, teachers' e-portfolio literacy and abilities, learners' adaptability, and technological capabilities. If students and teachers do not use e-portfolios effectively, they may find the process challenging and inefficient.

Teacher #3: "I think making progress both in the field of hardware and software related to its implementation, plus teachers' education and learners' adaptability, will be more practical in the future. A negative point about e-portfolios is some digital facility problems such as low internet connection and speed".

Teacher #4: "In their opinion, grading a large number of postings within the time frame may be impossible, which might encourage plagiarism."

Teacher #2: "Students' use and comfort with the web sometimes can be a hindrance

if they are not taught to use electronic portfolios accurately."

Teacher #10: "Grading could be troublesome if the teachers do not have adequate e-portfolio literacy."

On the other side, implementing an e-portfolio in large classes is more time-consuming and needs more effort from the teachers to listen to all the assignments and provide some feedback.

Teacher#6: Some barriers, like time restrictions in the educational system and teachers' perspectives, make it difficult. I have ten classes in a week, and each class includes at least 30 students. I need to provide feedback to at least 300 students a week.

The financial and occupational constraints the teachers work within do not leave them time and willingness to implement an e-portfolio. It is essential to consider teachers' abilities and differences when implementing an e-portfolio. Considering that all teachers are qualified to conduct an e-portfolio by default is a false assumption. Teachers often need to refrain from participating in professional development that requires extra responsibilities since teaching is a job for them, not a career (Akbari). The implementation of an e-portfolio needs the existence of an appropriate teacher education infrastructure. Goldsmith's findings are consistent with the findings of this study. Consequently, implementing e-portfolios might have some problems since teachers have little or no experience using e-portfolios.

Furthermore, they may need a solid understanding of the assumptions that underlie an e-portfolio. The participants in this study were all Ph.D. students studying language teaching, but not all teachers are highly educated in their field of occupation. As such, teachers should be well-qualified to implement e-portfolios in speaking courses. Training courses must include techniques for guiding students through creating their e-portfolios and providing formative feedback individually. It is noticed that administrators play a supportive role. By holding workshops, they can support the teachers.

Moreover, some students need help to work independently and find organizing and producing videos challenging. Thus, implementing an e-portfolio largely depends on the learners' adaptability. In this study, plagiarism was identified as a significant challenge that significantly affects the quality of e-portfolios. Browner, Pulsford, and Sears (2000) explained that students could copy and paste sentences or paragraphs from others' papers or even download and print documents without reading them. If plagiarism is found in an e-portfolio, it can destroy its constructive effect, preventing students from achieving their learning goals.

Conclusion

In conclusion, this study's findings shed light on EFL teachers' multifaceted attitudes toward implementing e-portfolios in speaking classes. The identified themes of ownership and responsibilities, reflection (peer and self), teacher self-improvement, and drawbacks provide valuable insights into the potential challenges and benefits of integrating e-portfolios into language learning environments.

Theoretically, the themes reflect an interplay between technology, pedagogy, and language acquisition. EFL teachers' attitudes towards ownership and responsibilities demonstrate the importance of empowering students to take an active role in their learning process, aligning with learner autonomy and self-regulated learning theories. Additionally, the emphasis on student reflection underscores the significance of metacognitive awareness in language development, as supported by the literature on reflective practices in education. The theme of teacher self-improvement highlights the role of professional development and continuous learning in effective language teaching, resonating with theories of teacher cognition and reflective teaching practice. Furthermore, identifying drawbacks underscores the need to critically investigate the potential challenges and limitations of integrating e-portfolios in speaking classes using the theoretical frameworks of technology-enhanced language learning and educational innovation.

From a pedagogical standpoint, the study's insights can inform the design of professional development programs and instructional practices to enhance EFL teachers' readiness and efficacy in utilizing e-portfolios to support speaking skills development. By addressing the concerns and considerations raised by the identified themes, educators can better navigate the implementation of e-portfolios in speaking classes, leveraging their potential to facilitate student-centered, reflective, and technology-enhanced learning experiences.

However, it is essential to acknowledge the limitations of this study. The findings are based on a specific context and may not be generalizable to all EFL teaching environments. Besides, this study might have been more expansive in case of a more diverse and larger sample size to thoroughly capture the diversity of perspectives on the topic. Additionally, the study primarily focused on teachers' attitudes, and further research could explore the perspectives of students and administrators. The self-reported nature of the data also presents potential for biases, and future studies could employ mixed-methods approaches to triangulate findings. Moreover, the study should have delved deeper into the specific technological skills and support mechanisms required for successful e-portfolio implementation, which could be an avenue for further investigation.

Further research in this area could explore the impact of e-portfolios on student engagement, language proficiency, and learner autonomy. There is an opportunity to explore the intersection of positive psychology and e-portfolios in student and teacher contexts. Investigating the potential positive psychological impacts of e-portfolio use on students, such as increased self-efficacy, motivation, and engagement, could yield valuable insights into how e-portfolios can contribute to students' overall well-being and academic success. Additionally, delving into applying positive psychology principles to support teachers in utilizing e-portfolios may offer promising avenues for enhancing teacher satisfaction, resilience, and professional development within language education. Besides, future research should expand the participant pools to include a more diverse set of individuals, allowing for a more comprehensive exploration of the topic. Longitudinal studies could also provide insights into the long-term effects of e-portfolio use on students' language development and teachers' pedagogical practices. Comparative studies across different educational settings and cultural contexts could enrich our understanding of the factors influencing EFL teachers' attitudes toward e-portfolio implementation. Finally, investigating the potential integration of emerging technologies,

such as artificial intelligence, with e-portfolio platforms could offer innovative avenues for enhancing speaking classes in EFL contexts.

Through e-portfolios, students are encouraged to use the target language during speaking classes (Schmitz et al., 2010). An e-portfolio allows students to organize, produce, evaluate, and reflect on their learning process, experiences, and skills (Goldsmith, 2007). E-portfolios, therefore, positively impact students' ownership of their education and motivation to study (Akçl and Arap, 2009; Cepik & Yastibas, 2013). Using e-portfolios in speaking courses allows students to take responsibility for organizing and preparing their portfolios. According to Rhodes (2011), Gonzalez (2009), and Schmitz et al., (2010), e-portfolios require self-assessment and self-reflection, and students learn about their strengths and weaknesses. Reflecting on what they have done in their e-portfolios helps them identify their weaknesses. Using an e-portfolio in class can enhance student collaboration and interaction, motivating students to improve their e-portfolios with their peers' help. Using e-portfolios in speaking courses enables students to collaborate and interact with their peers and teachers during the e-portfolio process (Lin, 2008). Using e-portfolio assignments from speaking courses, we establish a connection between what we learn in the classroom and how it is applied in real life, thus, leading to improved students' speaking skills (Cepik & Yastibas, 2013). However, several problems associated with e-portfolios arise in speaking classes, including plagiarism, teachers' e-portfolio literacy, and students' adaptability.

Appendix

Interview questions

This interview aims to understand your attitudes toward using an electronic portfolio. There are no right or wrong answers, as it is about your subjective understanding, experiences, and views. We ask you four main questions, and based on your answers, we might ask additional questions. Feel free to add whatever you think describes you as an English teacher:

- 1. What is your understanding of an e-portfolio, and how do you envision the role of an e-portfolio in shaping the learning experiences of EFL students?
- 2. Can you share a particular experience where you felt that applying an E-portfolio significantly impacted your students' speaking skill development? In what ways does an e-portfolio help you assess students' speaking skills?
- 3. In what ways do you believe e-portfolios can continually enhance your methods to support your students' speaking skills better?
- 4. What challenges have you encountered in your teaching experiences in terms of E-portfolio?

Abbreviations

CEFR Common European Framework of Reference for Languages

EFL English as a foreign language
ELT English language teaching
ILI Iran Language Institute
E-portfolio Electronic portfolio

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The author conceived and designed the study. She conducted the research and analyzed the data. The author read and approved the final manuscript.

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References

Akçıl, U., & Arap, İ. (2009). The opinions of education faculty students on learning processes involving eportfolios. *Procedia-Social and Behavioral Sciences*, 1(1), 395–400. https://doi.org/10.1016/j.sbspro.2009.01.071

Ahn, J. (2004). Electronic portfolios: Blending technology, accountability & assessment. The Journal, 31(9)

Ary, D., Jacobs, L. C., Irvine, C. K. S., & Walker, D. (2018). Introduction to research in education. Cengage Learning.

Ayan, D., & Seferoğlu, G. (2011). Using electronic portfolios to promote reflective thinking in language teacher education. Educational Studies, 37(5), 513–521. https://doi.org/10.1080/03055698.2010.539782

Ayaz, M., & Gök, B. (2023). The effect of e-portfolio application on reflective thinking and learning motivation of primary school teacher candidates. *Current Psychology*, 42(35), 3164631662.

Baronak, W. M. (2011) Teacher Candidate Perceptions of Electronic Portfolios. (Phd Thesis). ProQuest Dissertations and Theses accessed from database. (UMI No. 3476403)

Barrett, H. C. (2007). Researching electronic portfolios and learner engagement: The REFLECT initiative. *Journal of Adolescent & Adult Literacy*, 50(6), 436–449.

Baturay, M. H., & Daloğlu, A. (2010). E-portfolio assessment in an online English language course. Computer Assisted Language Learning, 23(5), 413–428. https://doi.org/10.1080/09588221.2010.520671

Beauchamp, C., & Thomas, L. (2010). Reflecting on an ideal: Student teachers envision a future identity. *Reflective Practice*, 11(5), 631–643.

Black, P., Harrison, C., Lee, C., Marshall, B., & William, D. (2004). Working inside the black box: Assessment for learning in the classroom. *Phi Delta Kappan*, 86(1), 8–21. https://doi.org/10.1177/003172170408600105

Bolliger, D. U., & Shepherd, C. E. (2010). Student perceptions of ePortfolio integration in online courses. *Distance Education*, 31(3), 295–314. https://doi.org/10.1080/01587919.2010.513955

Brown, K. W., & Ryan, R. M. (2004). Fostering healthy self-regulation from within and without: A self-determination theory perspective. *Positive psychology in practice* (pp. 105–124)

Brown, M., Anderson, B., Simpson, M., & Suddaby, G. (2007). Showcasing Mahara: A new open source eportfolio (pp. 82–84). Retrieved from https://www.learntechlib.org/p/46040/

Browner, S., Pulsford, S., & Sears, R. (2000). Literature and the Internet. A guide for students, teachers, and scholars. New York/London: Garland Publishing

Cambridge, D. (2009). Two faces of integrative learning online. In Electronic Portfolios 2.0 (pp. 41–49). Routledge

Cepik, S., & Yastibas, A. E. (2013). The use of e-portfolio to improve English speaking skill of Turkish EFL learners. *Anthro-pologist*, 16(1–2), 307–317. https://doi.org/10.1080/09720073.2013.11891358

Challis, D. (2005). Towards the mature ePortfolio: Some implications for higher education. *Canadian Journal of Learning and Technology*, 31(3), 1-20. https://doi.org/10.21432/T2MS41

Chang, C. C., Tseng, K. H., & Lou, S. J. (2012). A comparative analysis of the consistency and difference among teacher-assessment, student self-assessment, and peer-assessment in a Web-based portfolio assessment environment for high school students. *Computers & Education*, 58(1), 303–320. https://doi.org/10.1016/j.compedu.2011.08.005

Charmaz, K. (2006). Constructing grounded theory: A practical guide through qualitative analysis. Sage.

Corbin, J., & Strauss, A. (2008). Basics of qualitative research: Techniques and procedures for developing grounded theory. Sage. Creswell, J. W. (2014). Qualitative, quantitative and mixed methods approaches.

Crisol Moya, E., Gámiz Sánchez, V., & Romero López, M. A. (2021). University students' emotions when using E-portfolios in virtual education environments. *Sustainability*, 13(12), 6973

Danny Huang, H. T., & Alan Hung, S. T. (2010). Implementing electronic speaking portfolios: Perceptions of EFL students. *British Journal of Educational Technology, 41*(5), 84–88.

- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35(8), 982–1003.
- Derakhshan, A., Dewaele, J. M., & Noughabi, M. A. (2022). Modeling the contribution of resilience, well-being, and L2 grit to foreign language teaching enjoyment among Iranian English language teachers. System, 109, 102890.
- Doig, B., Illsley, B., McLuckie, J., & Parsons, R. (2006). Using ePortfolios to enhance reflective learning and development. Handbook of research on ePortfolios (pp. 158–167). IGI Global.
- Dörnyei, Z. (2007). Research methods in applied linguistics.
- ElfEL. (2016). ePortfolio for All. Available from: http://www.eife-l.org/activities/campaigns. Accessed 20 Jan 2016.
- Endres, M. L., & Chowdhury, S. K. (2022). Reflective thinking, ambiguity tolerance, and knowledge sharing: Application of the motivation-opportunity-ability framework. *Journal of Workplace Learning*, 34(8), 707–724. https://doi.org/10.1108/JWL-01-2022-0004
- EUfolio. (2015). EU classroom EPortfolios: pilot evaluation results. Available from: http://eufolio.eu/docs/PilotEvaluationResults.pdf. Accessed 23 Jan 2016.
- Ferreira, M. (2021). Teachers' well-being, social and emotional competences, and reflective teaching—a teacher's continuous training model for professional development and well-being. *International Approaches to Promoting Social and Emotional Learning in Schools* (pp. 130-Routledge). 109.
- Finch, A. (2012). Bringing classroom-based assessment into the EFL classroom. *Applied Research on English Language*, 1(1), 73–86.
- Firoozi, T., Razavipour, K., & Ahmadi, A. (2019). The language assessment literacy needs of Iranian EFL teachers with a focus on reformed assessment policies. *Language Testing in Asia*, *9*(1), 1–14. https://doi.org/10.1186/s40468-019-0078-7
- Fong, R. W. T., Lee, J. C. K., Chang, C. Y., Zhang, Z., Ngai, A. C. Y., & Lim, C. P. (2014). Digital teaching portfolio in higher education: Examining colleagues' perceptions tinform implementation strategies. *The Internet and Higher Education*, 20(1), 60–68. https://doi.org/10.1016/j.iheduc.2013.06.003
- Gass, S. & Mackey, A. (2000). Stimulated Recall Methodology in Second Language Research. 2007. Data Elicitation for Second and Foreign Language Research. Mahwah, NJ: Lawrence Erlbaum
- Genc, Z., & Tinmaz, H. (2010). A reflection of preservice teachers on e-portfolio assessment. *Procedia Social and Behavioral Sciences*, 9, 1504–1508.
- Goldsmith, D. J. (2007). Enhancing learning and assessment through e-portfolios: A collaborative effort in Connecticut. New Directions for Student Services, 2007(119), 31–42. https://doi.org/10.1002/ss.247
- Gonzalez, J. A. (2009). Promoting students autonomy through the use of the European Language Portfolio. *ELT Journal*, 63(4), 373–382. https://doi.org/10.1093/elt/ccno59
- Gray, L. (2008). Effective practice with e-portfolios. Higher Education Funding Council for England, JISC.
- Hinojosa-Pareja, E. F., Gutiérrez-Santiuste, E., & Gámiz-Sánchez, V. (2021). Construction and validation of a questionnaire on E-portfolios in higher education (QEPHE). *International Journal of Research & Method in Education*, 44(1), 53–66. https://doi.org/10.1080/1743727X.2020.1735335
- Hung, S. T. A. (2012). A washback study on e-portfolio assessment in an English as a Foreign Language teacher preparation program. *Computer Assisted Language Learning*, 25(1), 21–36.
- Jonassen, D. H. (2000). Toward a design theory of problem solving. *Educational Technology Research and development*, 48(4), 63–85
- Khan, M. A., & Hoq, T. (2021). Reflection of pre-service ESL teachers on using e-portfolio in teacher education. In (Ed.), Pedagogy Challenges, Recent Advances, New Perspectives, and Applications. IntechOpen. https://doi.org/10.5772/intechopen.100158
- Kocoglu, Z. (2008). Turkish EFL student teachers' perceptions on the role of electronic portfolios in their professional development. *Turkish Online Journal of Educational Technology-TOJET*, 7(3), 71–79. Retrieved from http://files.eric.ed.gov/fulltext/EJ1102927.pdf
- Kok, I., & Blignaut, A. S. (2009). Introducing developing teacher-students in a developing context to e-portfolios. *eLearning Forum* (pp. 19–20)
- Kunter, M., Klusmann, U., Baumert, J., Richter, D., Voss, T., & Hachfeld, A. (2013). Professional competence of teachers: Effects on instructional quality and student development. *Journal of Educational Psychology, 105*(3), 805.
- Lambe, J., McNair, V., & Smith, R. (2013). Special educational needs, e-learning and the reflective e-portfolio: Implications for developing and assessing competence in pre-service education. *Journal of Education for Teaching, 39*(2), 181–196. https://doi.org/10.1080/02607476.2013.765191
- Lim, C., Lee, J. C. K., & Jia, N. (2016). E-portfolios in pre-service teacher education: sustainability and lifelong learning. In J. ChiKin Lee & C. Day (Eds.), Quality and change in teacher education. professional learning and development in schools and higher education. (Vol. 13). Cham: Springer.
- Lin, Q. (2008). Preservice teachers' learning experiences of constructing e-portfolios online. *The Internet and Higher Education*, 11(3–4), 194–200. https://doi.org/10.1016/j.iheduc.2008.07.002
- Little, D. (2000). Learner autonomy and human interdependence: some theoretical and practical consequences of a social-interactive view of cognition, learning and language. Learner autonomy, teacher autonomy: Future directions, 15–23
- $Lorenzo, G., \& \ Ittelson, J. \ (2005). \ An \ overview \ of \ e-portfolios. \ \textit{Educause Learning Initiative, 1} (1), 1-27.$
- Lyles Folkman, K. (2013). Perceptions of preservice teachers communicating with visual imagery in e-portfolios. (Phd Thesis). ProQuest Dissertations and Theses accessed from database. (UMI No. 3592425).
- Maher, M., & Gerbic, P. (2009). E-portfolios as a pedagogical device in primary teacher education: The AUT University experience. *Australian Journal of Teacher Education*, 34(5), 4, https://doi.org/10.14221/aite.2009v34n5.4
- Mason, R., Pegler, C., & Weller, M. (2004). E-portfolios: an assessment tool for online courses. *British Journal of Educational Technology*, 35(6), 717–727
- Meeus, W., Questier, F., & Derks, T. (2006). Open source eportfolio: Development and implementation of an institution-wide electronic portfolio platform for students. *Educational Media International*, 43(2), 133–145.
- Mercer, S. (2021). An agenda for well-being in ELT: An ecological perspective. ELT Journal, 75(1), 14–21. https://doi.org/10.1093/elt/ccaa062

- Minnaar, A. (2011). Student support in e-learning courses in higher education–insights from a metasynthesis "A pedagogy of panic attacks." *Africa Education Review*, 8(3), 483–503.
- Mohammed, A., Mohssine, B., M'hammed, E. K., Mohammed, T., & Abdelouahed, N. (2015). Eportfolio as a tool of learning, presentation, orientation and evaluation skills. *Procedia Social and Behavioral Sciences, 197*, 328–333. https://doi.org/10.1016/j.sbspro.2015.07.145
- Moskowitz, S., & Dewaele, J. M. (2021). Is teacher happiness contagious? A study of the link between perceptions of language teacher happiness and student attitudes. *Innovation in Language Learning and Teaching*, 15(2), 117–130.
- Namaziandost, E., Homayouni, M., & Rahmani, P. (2020a). The impact of cooperative learning approach on the development of EFL learners' speaking fluency. *Cogent Arts & Humanities, 7*(1), 1–13. https://doi.org/10.1080/23311983.2020. 1780811
- Namaziandost, E., Hosseini, E., & Utomo, D. W. (2020b). A comparative effect of high involvement load versus lack of involvement load on vocabulary learning among Iranian sophomore EFL learners. *Cogent Arts and Humanities, 7*(1), 1–15. https://doi.org/10.1080/23311983.2020.1715525
- Namaziandost, E., Razmi, M. H., Heidari, S., & Tilwani, S. A. (2020c). A Contrastive analysis of emotional terms in bed-night stories across two languages: Does it affect learners' pragmatic knowledge of controlling emotions? Seeking implications to teach english to EFL learners. *Journal of Psycholinguistic Research, 49*(6), 1–18. https://doi.org/10.1007/s10936-020-09739-y
- Namaziandost, E., Rezvani, E., & Polemikou, A. (2020d). The impacts of visual input enhancement, semantic input enhancement, and input flooding on L2 vocabulary among Iranian intermediate EFL learners. *Cogent Education*, 7(1), 1–14. https://doi.org/10.1080/2331186X.2020.1726606
- Namaziandost, E., Sawalmeh, M. H. M., & Izadpanah Soltanabadi, M. (2020e). The effects of spaced versus massed distribution instruction on EFL learners' vocabulary recall and retention. *Cogent Education*, 7(1), 1–13. https://doi.org/10. 1080/2331186X.2020.1792261
- Nelson, M. M., & Schunn, C. D. (2009). The nature of feedback: How different types of peer feedback affect writing performance. *Instructional Science*, *37*(4), 375–401. https://doi.org/10.1007/s11251-008-9053-x
- Nicol, D. J., & Macfarlane-Dick, D. (2006). Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. *Studies in Higher Education*, *31*(2), 199–218
- Oakley, G., Pegrum, M., & Johnston, S. (2014). Introducing e-portfolio stop re-service teachers as tools for reflection and growth: Lessons learnt. *Asia-Pacific Journal of Teacher Education*, 42(1), 36–50. https://doi.org/10.1080/1359866X. 2013.854860
- Oh, J. E., Chan, Y. K., & Kim, K. V. (2020). Social media and Eportfolios: impacting design students' motivation through project-based learning. *IAFOR Journal of Education*, 8(3), 41–58. https://pdfs.semanticscholar.org/f1b9/a20e70d10d 3a46e2f7c1d214c09c2fd45d4d.pdf
- Poole, P., Brown, M., McNamara, G., O'Hara, J., O'Brien, S., & Burns, D. (2018). Challenges and supports towards the integration of ePortfolios in education. Lessons to be learned f from Ireland. *Heliyon, 4*(11), e00899. https://doi.org/10.1016/j.heliyon.2018.e0089
- Razali, N. F. Y. M., Hamid, J., & Hashim, H. (2021). E-portfolio Implementation in Malaysian School: A Need Analysis. *Development*, 10(4), 60–71.
- Reese, M., & Levy, R. (2009). Educause center for applied research. Research Bulletin, 2009(4), 1–12. Retrieved from https://jscholarship.library.jhu.edu/bitstream/handle/1774.2/33329/ECAR-RB_Eportfolios.pdf?sequence=1&isAllowed=y
- Rhodes, T. L. (2011). Making learning visible and meaningful through electronic portfolios. 'Change, 43(1), 6–13. https://doi.org/10.1080/00091383.2011.538636
- Ring, G., Weaver, B., & Jones, J. J., Jr. (2009). Electronic portfolios: Engaged students create multimedia-rich artifacts. *Journal of the Research Center for Educational Technology*, 4(2), 103–114.
- Rodriguez, K. L., Schwartz, J. L., Lahman, M. K., & Geist, M. R. (2011). Culturally responsive focus groups: Reframing the research experience to focus on participants. *International Journal of Qualitative Methods*, 10(4), 400–417
- Safari, M., & Koosha, M. (2016). Instructional Efficacy of Portfolio for Assessing Iranian EFL Learners' Speaking Ability. English Language Teaching, 9(3), 102–116.
- Schmitz, C. C., Whitson, B. A., Van Heest, A., & Maddaus, M. A. (2010). Establishing a usable electronic portfolio for surgical residents: trying to keep it simple. *Journal of Surgical Education*, 67(1), 14–18. https://doi.org/10.1016/j.jsurg.2010.01.
- Schön, D. A. (1983). The reflective practitioner. Basic Books.
- Serdà, B. C., & Alsina, A. (2013). El portafolio: Efectos de un proceso de implementación autorregulado. Cultura y Educación, 25(3), 323–336.
- Silverman, D. (2000). Doing Qualitative Research. Sage Publications: London
- Stefani, L., Mason, R., & Pegler, C. (2007). The educational potential of e-portfolios: Supportingpersonal development and reflective learning. Routledge.
- Strauss, A., & Corbin, J. (1998). Basics of Qualitative Research (2nd ed.). Sage Publications.
- Strudler, N., & Wetzel, K. (2005). The diffusion of electronic portfolios in teacher education: Issues of initiation and implementation. *Journal of Research on Technology in Education*, 37(4), 411–433.
- Swartz, L. (1999). An interview-observation study of the use of portfolio for instruction and assessment in the general education classroomn with students with disabilities
- Torabi, S., & Safdari, M. (2020). The effects of electronic portfolio assessment and dynamic assessment on writing performance. *Computer-Assisted Language Learning Electronic Journal*, 21(2), 51–69. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7231711/pdf/JPH-49-323.pdf
- van Dinther, M., Dochy, F., & Segers, M. (2015). The contribution of assessment experiences to student teachers' self-efficacy in competence-based education. *Teaching and Teacher Education*, 49, 45–55.
- Van Looy, L., Goegebeur, W. & Voijsen, M. (2000). Zelfstandige, reflecterende leraren. Van opleiding naar beroep (Brussel, Vrije Universiteit Brussel Press)
- Vorotnykova, I., & Zakhar, O. (2021). Teachers' readiness to use e-portfolios. Інформаційні технології і засоби навчання, 81(1), 327–339

- Wang, L. J., & Chang, H. F. (2010). Applying innovation method to assess English speaking performance on communication apprehension. *BELT-Brazilian English Language Teaching Journal*, 1(2)
- Warchulski, D. (2015). Promoting learner autonomy through self-assessment and goal-setting.
- Welsh, M. (2012). Student perceptions of using the PebblePad e-portfolio system to support self- and peer-based formative assessment. *Technology, Pedagogy, and Education, 21*(1), 57–83.
- Yancey. (2009). Reflection on electronic e-portfolios. In Electronic Portfolios 2.0: Emergent Research on Implementation and Impact (pp. 5–16). Stylus Publishing, LLC.
- Yang, M., Tai, M., & Lim, C. P. (2016a). The role of e-portfolios in supporting productive learning. *British Journal of Educational Technology*, 47(6), 1276–1286. https://doi.org/10.1111/bjet.12316
- Yang, M., Tai, M., & Lim, C. P. (2016b). The role of eportfolios in supporting productive learning. *British Journal of Educational Technology*, 47(6), 1276–1286. https://doi.org/10.1111/bjet.12316
- Yastibas, A. E., & Cepik, S. (2015). Teachers' attitudes toward the use of e-portfolios in speaking classes in English language teaching and learning. *Procedia Social and Behavioral Sciences, 176*, 514–525. https://doi.org/10.1016/j.sbspro.2015. 01.505
- Yastibas, A. E., & Yastibas, G. C. (2015). The use of Eportfolio-based assessment to develop students' self-regulated learning in English language teaching. *Procedia Social and Behavioral Sciences, 176*, 3–13. https://doi.org/10.1016/j.sbspro. 2015.01.437
- Young, D., & Lipczynski, K. (2007). Transferability of e-portfolios in education. ESCalate
- Yuen, A. H., & Ma, W. W. (2008). Exploring teacher acceptance of e-learning technology. *Asia Pacific Journal of Teacher Education*, 36(3), 229–243.
- Ziegler, N. A. (2014). Fostering self-regulated learning through the European language portfolio: An embedded mixed methods study. *The Modern Language Journal, 98*(4), 921–936.
- Zohar, A., & Dori, Y. J. (2003). Higher order thinking skills and low-achieving students: Are they mutually exclusive? *The Journal of the Learning Sciences*, 12(2), 145–181. https://doi.org/10.1207/S15327809JLS1202_1

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