

# Application Strategies of E-portfolios in Spoken English Teaching in Cloud Environments

Shuhan Yang

(School of Foreign Languages and Cultures, Panzhihua University, China)

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## Abstract:

*Traditional spoken English teaching has long faced challenges such as limited practice opportunities, one-sided evaluation, and restricted learning resources. The research aims to explore how e-portfolios can revolutionize this scenario. Based on theoretical frameworks of constructivism and evaluation theory, it proposes three key strategies, including personalized teaching, interactive communication promotion, and oral English evaluation optimization. These strategies offer practical guidance for educators, aiming to enhance teaching effectiveness and students' oral English proficiency. Given this study didn't fully consider diverse teaching environments, future research is suggested to carry out empirical studies to validate the strategies' effectiveness and pay attention to different regional and institutional teaching contexts to make the strategies more universal, thus promoting the development of spoken English teaching.*

**Keywords:** e-portfolios, spoken English teaching, cloud environment, teaching strategies

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## I. Introduction

In the context of increasing globalization, spoken English proficiency is of great significance for English-major students, as English serves as a crucial language for international communication (Lu, 2020). However, traditional assessment methods in spoken English teaching have significant drawbacks. Most of them rely on summative assessments, which fail to comprehensively and dynamically reflect students' learning processes and progress, thus being ineffective in promoting the improvement of students' spoken English abilities (Liu, 2013).

With the rapid development of information technology, the cloud environment has brought profound changes to the field of education. The cloud environment, characterized by its powerful storage capacity, convenient resource sharing function, and efficient real-time interaction, presents new opportunities for spoken English teaching (Liu, 2015). Meanwhile, e-portfolios, as innovative teaching assessment tools, have gradually attracted extensive attention. E-portfolios systematically collect and organize various works, reflections, and growth records of students during the learning process in a digital form, comprehensively presenting students' learning trajectories and development processes (Tan et al., 2021).

In recent years, numerous studies have focused on the application of e-portfolios in language teaching. Lu (2020) found in the teaching practice of MBA business spoken English that after one-semester of e-portfolio assessment practice, students' final spoken English scores improved, and their learning interest and self-confidence increased. Li (2023) indicated that the e-portfolio assessment method can optimize the ways for college students to practice spoken English, stimulate their internal learning motivation, and enhance their spoken English application abilities. These studies highlight the potential of e-portfolios in improving the effectiveness of spoken English teaching.

In the cloud environment, the application of e-portfolios opens up broader prospects for spoken English teaching. It can not only break through time and space limitations, enabling students to participate in learning and assessment anytime and anywhere, but also achieve personalized push of learning resources and accurate recording of learning processes (Liu, 2015). However, currently, there are still many problems to be solved regarding how to apply e-portfolios scientifically and effectively in spoken English teaching in the cloud environment, such as the selection of suitable cloud platforms and the construction of application strategies that fit the characteristics of spoken English teaching. Therefore, in-depth research on the application strategies of e-portfolios in spoken English teaching in the cloud environment is of great theoretical and practical significance. At the theoretical level, it is expected to enrich and improve the assessment theory system of spoken English teaching. From a practical perspective, it can provide practical teaching guidance for front-line teachers, helping to enhance the spoken English proficiency of English-major students.

## **II. Literature review**

### **2.1 E-portfolios**

E-portfolios, a digital compilation of learners' work, progress, and reflections, have evolved significantly from their traditional paper-based counterparts. Emerging with the advancement of information and communication technologies, they have transformed from basic digital repositories to comprehensive, interactive tools that support the entire learning process. Initially simple storage spaces for students' work, they now incorporate multimedia elements, hyperlinking, and interactive features, adapting to the learner-centered education trend (Chang & Kabilan, 2022; Tan et al., 2021).

The advantages of e-portfolios are multi-faceted. Firstly, they foster self-directed learning. As students document their learning experiences within e-portfolios, they gain a heightened awareness of their own learning processes. This awareness empowers them to regulate their learning more effectively, make informed decisions about learning strategies, and ultimately take greater control of their educational progress (Yastibas & Cepik, 2015). Secondly, e-portfolios offer a personalized learning experience. Educators can customize the content, structure, and feedback within these portfolios to align with the unique needs, learning styles, and goals of individual students (Shokraie & Tabrizi, 2016). This tailored approach acknowledges the diversity of learners, maximizing their potential for growth and development. Thirdly, e-portfolios support comprehensive and formative assessment. By providing a holistic view of students' learning over an extended period, these portfolios enable educators to assess not only the final outcomes but also the processes, efforts, and incremental progress made by students. Li (2023) indicated that this continuous assessment mechanism allows for timely feedback, which is crucial for students to identify areas for improvement and make necessary adjustments during their learning journey.

Owing to their advantages, e-portfolios have been extensively applied in the domain of language learning. In writing, they serve as platforms where students can collect, revise, and reflect on their written work. Research by Shokraie & Tabrizi, (2016) has shown that this iterative process within the e-portfolio environment significantly enhances EFL learners' writing performance. For reading, e-portfolios can be used to record reading materials, summaries, and students' reflections, thus encouraging deeper engagement with texts. In the context of spoken English, Cabrera-Solano (2020) have demonstrated the efficacy of e-portfolios. By storing audio and video recordings of speaking activities, e-portfolios can effectively enhance students' pronunciation and fluency. Additionally, the opportunities for self-assessment and peer-assessment within e-portfolios in spoken English learning promote continuous improvement and confidence-building among students.

### **2.2 Spoken English teaching**

Spoken English teaching has long been confronted with a series of complex challenges and issues that urgently need to be addressed. The traditional teaching model is teacher-centered, which significantly limits students' opportunities for oral practice (Al-Hawamleh et al., 2022). Particularly in large-class teaching settings, it is difficult for teachers to ensure that every student can obtain sufficient time for oral practice. As a result, students often exhibit insufficient confidence and poor fluency in real-world communication scenarios (Lu, 2020). In addition, Mathur and Mahapatra (2022) pointed out that spoken English teaching overly relies on summative assessments, such as final exams and proficiency tests. These assessment methods mainly focus on the final results while neglecting students' efforts, progress, and the application of learning strategies during the learning process. Due to the lack of timely feedback, students find it difficult to adjust their learning methods, thus hindering the continuous improvement of their oral English skills. Moreover, the existing learning resources are mainly confined to textbooks and a limited number of audio-visual materials. The types of resources are limited and highly homogeneous, which fails to meet students' diverse learning needs, restricts the diversity of language input, and is not conducive to the comprehensive development of students' oral English abilities (Liu, 2015).

However, the emergence of the cloud environment has brought new opportunities to spoken English teaching. The cloud environment, with its powerful storage and convenient sharing functions, provides abundant learning resources. Students can access various English learning materials through cloud platforms, such as English news, movies, and numerous language - learning applications. These resources expose students to different accents, styles, and real-life language scenarios, enriching language input and meeting diverse learning needs (Liang, 2023). Meanwhile, the cloud environment breaks through the limitations of time and space. As long as there is an internet connection, students can participate in spoken English learning and interaction anytime and anywhere (Li et al., 2013). This flexibility not only significantly increases learning opportunities but also promotes autonomous and continuous learning. Moreover, cloud-based systems can analyze students' learning data, such as learning duration, task completion, and test scores, and then provide personalized learning resources and paths, precisely adapting to individual learning progress and weak points to improve learning effectiveness.

In sum, the advancement of cloud environments enabled the wide application of e-portfolios in spoken English teaching, and existing research has confirmed their advantages in transforming assessment models, enhancing students' confidence, etc. However, they failed to discuss the implementation strategies of e-portfolios

in cloud-based spoken English teaching in-depth. Thus, this study aims to fill the gap by exploring the implementation strategies of e-portfolios in spoken English teaching within cloud environments, providing practical guidance to improve teaching effectiveness.

### **III. Theoretical foundations of e-portfolios' application in spoken English teaching**

Constructivism theory emphasizes the initiative and constructiveness of learners in the learning process. It holds that knowledge is not passively received but actively constructed by learners based on their existing knowledge and experience through interaction with the environment (Banihashem et al., 2022). This theory provides a solid foundation for the application of e-portfolios in spoken English teaching. In this context, e-portfolios serve as powerful tools for students to construct their spoken English knowledge and skill systems. The cloud environment endows e-portfolios with rich functions, enabling students to record audio and video materials of their oral practice. These records are like “pieces of a jigsaw puzzle” of the learning trajectory. When reviewing, students can actively reflect on their performance in aspects such as pronunciation, intonation, vocabulary use, and fluency of expression. For example, after preparing an English speech, students record the process and store it in the e-portfolio. Subsequently, by watching the video repeatedly and comparing it with standard pronunciations and excellent examples, they can identify deviations in their pronunciation of certain words and loopholes in their expression logic, and then actively adjust their learning strategies to make targeted improvements. This process of actively identifying and solving problems precisely embodies the concept of learners actively constructing knowledge advocated by constructivism (Liang, 2023). The e-portfolio also provides a platform for students to interact with teachers and peers. During the interaction, students receive feedback and suggestions from others, which further enriches and perfects their understanding and application of spoken English knowledge, strengthening the construction of their spoken English abilities (Lu, 2020).

Furthermore, evaluation theory advocates the diversification of evaluation subjects and methods to reflect students' learning situations more comprehensively and objectively (Alkin, 1970). The application of e-portfolios in spoken English teaching is highly consistent with the proposition. Regarding the evaluation subjects, e-portfolios break the traditional model in spoken English teaching where only teachers conduct evaluations (Chang & Kabilan, 2022). In the cloud environment, students can conduct self-evaluations through e-portfolios. Based on preset spoken English evaluation criteria, such as pronunciation accuracy, grammatical correctness, and content richness, they can score and reflect on their spoken English works, cultivating their self-assessment abilities and enhancing their learning autonomy. Meanwhile, peer-to-peer evaluation becomes possible. Students can watch each other's oral practice videos or listen to audio recordings. From a shared learning experience and perspective, they can put forward constructive opinions and suggestions, promoting mutual learning and growth. Teachers can then provide comprehensive evaluations and targeted guidance from a professional perspective, taking into account the results of students' self-evaluations and peer-to-peer evaluations. In terms of the diversification of evaluation methods, e-portfolios can record not only quantitative data of students' spoken English performance, such as oral test scores and the duration of oral practice, but also qualitative descriptions and feedback, such as teachers' comments and students' self-reflection logs. This combination of quantitative and qualitative evaluation methods comprehensively and meticulously reflects the strengths and weaknesses of students in the process of spoken English learning, provides more guiding feedback to students, and helps them to improve their spoken English proficiency more effectively.

### **IV. Strategies of e-portfolios' application in spoken English teaching in cloud environments**

For the effective application of e-portfolios in spoken English teaching, a series of targeted application strategies are proposed based on the foregoing elaboration of relevant theoretical foundations and research status.

#### **4.1 Personalized Teaching Strategies**

Previous studies have shown that significant individual differences exist among students in spoken English learning (Liu, 2015; Zhang, 2023). Leveraging the powerful data-collection function of e-portfolios in the cloud environment, teachers can comprehensively obtain various types of information about students during their oral English learning process. This includes the time allocation of oral practice, preferences for different types of learning resources, the completion and quality of oral tasks, etc., enabling in-depth analysis of students' learning styles and needs. For instance, research indicates that some students are more inclined to improve their oral English skills through visual materials (Liu, 2015). For such students, teachers can accurately push oral English learning materials with rich images or video explanations in the e-portfolio, such as vivid and interesting English animated short films and detailed explanations, to help them absorb knowledge more efficiently and strengthen their oral expression abilities.

In addition, based on an accurate understanding of students' learning styles and needs, teachers can refer to the concept of personalized learning path planning proposed by Kravtsov & Gnedkova (2016) and customize an exclusive oral English learning path for each student. A dedicated personalized learning plan section can be set

up in the e-portfolio. According to the relevant research on language ability development by Brown and Hudson (1998), detailed learning goals for each stage, recommended matching learning resources, and corresponding practice tasks can be planned. Take students aiming to improve their business oral English proficiency as an example. The learning path can start from accumulating common vocabulary in business scenarios, gradually progress to imitating classic business conversations, and finally move on to complex business speech training. Each stage is progressive, gradually enhancing students' business oral English proficiency.

#### **4.2 Interactive communication promotion strategies**

Positive and effective interaction between teachers and students is crucial for improving students' spoken English learning outcomes (Yastibas & Cepik, 2015). Teachers should regularly and meticulously review students' oral practice records in the e-portfolio, such as audio and video works. Regarding problems exposed by students in aspects like pronunciation, grammar, and expression logic, teachers need to provide detailed and targeted feedback in diverse forms such as voice messages, text, or annotations, based on scientific evaluation criteria. At the same time, teachers should fully encourage students to utilize the interactive functions of the e-portfolio, actively ask questions, and initiate in-depth one-on-one discussions to promptly address various doubts encountered during the learning process. For example, when a teacher discovers that a student frequently makes specific grammar mistakes in a business oral conversation practice, the teacher can record a special explanatory video and send it to the student's e-portfolio, deeply analyze the root causes of the mistakes, and provide effective correction methods to help the student improve the accuracy of oral expression.

Furthermore, peer-to-peer interaction is also a key factor in enhancing students' oral English abilities and is in line with the relevant theories of cooperative learning (Johnson & Johnson, 2009). Teachers can organize students to conduct peer-to-peer evaluations of oral works in the e-portfolio in groups. A dedicated peer-evaluation area can be set up on the cloud platform. Within this area, students can express objective and fair evaluation opinions based on clear peer-evaluation criteria, and at the same time, share their learning experiences and insights, learning from each other and making progress together. For example, when carrying out group oral project assignments, after group members submit their respective results in the e-portfolio, they evaluate each other and put forward constructive improvement suggestions. In this way, students can not only identify their own strengths and weaknesses from the perspective of their peers but also promote the overall improvement of the oral English abilities of group members.

#### **4.3 Oral English Evaluation Optimization Strategies**

Constructing a scientific, comprehensive, and reasonable multi-dimensional evaluation index system is the basis for achieving accurate and effective oral English evaluation. Combining the goals of oral English teaching with the multi-dimensional learning data of students recorded in the e-portfolio, numerous studies (Liu, 2013 Shokraie & Tabrizi, 2016) have emphasized the importance of multi-dimensional evaluation indicators. In addition to traditional indicators such as pronunciation, intonation, and fluency, evaluations of students' learning attitudes, application of learning strategies, and cooperation abilities should also be included. For example, by observing the frequency of students' oral practice recorded in the e-portfolio, their earnestness in learning tasks, and the depth of their reflections, a comprehensive assessment of their learning attitudes can be made. Based on students' preferences for different oral English learning resources, their usage effectiveness, and the skills and methods they apply in oral practice, an in-depth analysis of their learning strategy application abilities can be conducted.

Besides, utilizing the real-time recording function of the e-portfolio to achieve dynamic and real-time evaluation of students' oral English learning is highly consistent with the concept of formative evaluation (Li, 2023). Teachers and students can view evaluation results and feedback information at any time and promptly adjust teaching and learning strategies. For example, immediately after a student completes an oral presentation, the teacher should, in accordance with the pre-set multi-dimensional evaluation indicators, provide a comprehensive, objective, and highly targeted evaluation and improvement suggestions in the e-portfolio. Students can then quickly carry out targeted practice based on these feedbacks, thereby effectively improving learning outcomes and gradually enhancing their oral English abilities.

### **V. Conclusion**

With the deep integration of cloud environment and education, this study focuses on the application of e-portfolios in spoken English teaching, aiming to address issues such as scarce practical opportunities, single-mode evaluation, and limited learning resources in traditional spoken English teaching. Through in-depth analysis, strategies including personalized teaching, interactive communication promotion, and oral English evaluation optimization were proposed. These strategies may help construct a feasible framework for teaching practice and further enriched the application of relevant theories in the field of spoken English teaching.

Nevertheless, this research was mainly carried out at the theoretical level, without fully considering the significant differences in different teaching environments. In light of this, it is recommended that future research verify the practical effectiveness of these strategies through empirical studies. Meanwhile, attention should be paid to the characteristics of teaching environments in different regions and schools, so as to make the proposed strategies more widely applicable and effectively promote the high- quality development of spoken English teaching.

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