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A Study on the Path of AI-Assisted Oral English Expression and Pronunciation Training for Vocational College Students

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Abstract: Considering the fact that the vocational college students face challenges in English pronunciation and oral English expression meanwhile they have insufficient motivation for independent training. The study takes 70 students majoring in primary school English education, Grade 2024 in Lanzhou college of foreign studies as the research objects to explore the integrated training path including AI diagonosis, precise training, timely feedback, and scenario-based application and conduct the action research. The data are collected through pronunciation tests, oral assessments, questionnaires, and interviews to examine the effectiveness of AI tools in pronunciation accuracy, oral fluency, and learning willingness. The results shows this training path can improve the correctness of pronunciation as well as the fluency of oral expression, motivates the williness of learning and the research provides practical references for the reform of English phonetics and oral English teaching in vocational colleges.

Keywords: AI-assisted; Pronunciation training; Oral expression

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1. Introduction

1.1. Research background

The aim of vocational education is to cultivate the professional competence of students. And oral English is an important skill for workplace communication. Vocational college students are normally weak in pronunciation, they can't distinguish the slient differences beween the sounds, and they also scared to express in English, suffering from problems such as inaccurate pronunciation, incorrect logic and low willingness to express. In the traditional pronunciation teaching situation, it is hard fo correct all the students in the class meanwhile the students are lack of effective training. And there are insufficient teaching resources and limited class time in traditional class, lacking of personalized guidance. And it is difficult to meet the diverse needs of students and lack of real communication scenarios. With the rapid development of AI technology, it will be easier to test and correct the pronunciation of the students, making up for the shortcomings of traditional teaching, such as delayed feedback and lack of pertinence and provide the new path of pronunciation and speaking training. AI-assisted oral English training system can help students correct the pronunciation errors, intelligent

assessment, and multi-scenario simulated dialogues. These functions breaks the time and space limitations of traditional teaching and arouses students' motivation, giving students whole-day and personlized learning support.

1.2. Research significance

The research has theoretical significance and it enriches the applied research in the field of English language teaching, deepening the cognition of AI-assited acqusition and providing the support for the digital reform of oral English and pronunciation teaching in vocational education field. Besides, it has practical significance. It constructs the AI-assisted training path and resolves the problems of pronunciation and oral expression of vocational college students as well as improves their English language using ability, providing the teaching implementation strategies for the teachers. And it addresses the weakpoints of insufficient teaching resources and lack of personalized guidance in traditonal vocational oral English teaching.

1.3. Research design and methods

The principles of design are practicality (meeting the needs of professional positions), personalization (adapting to the differences in students' abilities), interactivity (strengthening language output and feedback) and graduality (complying with the laws of language learning)[1].

Under the guidance of the above principles, 70 students are chosen as the research subjects, targeting the goals of pronunciation accuracy and oral expression, the research aims to construct the AI-assisted training path through three rounds of action research involving "plan, implementation, observation, and reflection".

The research lasts for one semester and the pronunciation test and oral English test are conducted before the practice. And the questionnaire is designed to learn about the students' training experience and perception of ability improvement. Besides, 15 students of different levels are interviewed to know the real influence of AI training to the pronunciation and speaking of English.

2. Theoretical basis

2.1. Interaction Hypothesis in Second Language Acquisition

Long promotes that effective language input and instant feedback is the key of second language acquisition[2]. The real-time error correction and interactive practice in AI tools match the requirements of this hypothesis. AI pronunciation tools like Liulishuo can generate reports about scoring, which evaluate the accuracy rates of the students' speech by comparing the subtle differences between learners and native speakers. For example, the pronunciation of /θ/and /ð/ are different from /s/ and /z/.

2.2. Self-directed Learning Theory

The theory emphasizes the center position of the students in learning process and AI tools support anytime and anywhere training, pushing personalized task and helping cultivate the planning and monitoring ability[3]. AI can help students to break down long-term goals, such as passing CET4/6 within six months, into short-term sub-goals (e.g., grasping 10 core words each day and finish 2 intensive reading tasks weekly). AI can provide rich learning resource options according to the levels of the students and meets the personalized needs of self-directed learning through different paths.

2.3. Constructivist Learning Theory

The theory suggests that AI oral training can promote the expressive ability, realizing effective internalization of knowledge. AI tools help to promote the real classroom situations and communication contexts[4]. AI can record the pronunciation of learners and adjust task difficulty from single sentences to situational dialogues. In addition, AI can conclude group pronunciation outcomes and generate instant feedback reports, which enables learners to construct

phonetic rules based on their foundations. Moreover, AI helps students to create real-life communication scenarios, such as asking for directions at the station, ordering food in the restaurants or shopping in the market.

3. Research design

3.1. Research subject

In total, there are 70 students from primary English education major of Grade 2024 in Lanzhou college of foreign studies, aged between 17 and 20, who have different English level and almost most of them are afraid of speaking English.

3.2. Research Period and Tools

The research Period lasts for 18 weeks, from the September 2024 to January 2025. There are two classroom training sessions and 3 times of self-directed AI training (30mins) after class. The core tools are pronunciation training tool, speaking expression tool and assessment tool, e.g. Liulishuo (aims at phonetic diagnosis), iFlytek Tingjian (focuses on oral fluency assessment and error correction) and ChatGPT 4.0 (helps generate personalized training plan and guides logical expression.)

3.3. Main research questions

The first question is how to construct an AI-assisted traing path of pronunciation and speaking for vocational college students. The second question is how effective the path is in improving the pronunciation accuracy and speaking fluency and coherence of vocational college students? The third question is how the students respond to AI-assisted training in terms of acceptance and changes in self-motivated learning?

4.Action research implementation of AI-assisted pronunciation and speaking training path (three rounds)

The first round is the foundation consolidation phase, including diagonosis and pronunciation correction. The core goal is to find out pronunciation problems and improve the phonetic fundamentals. During this phase, the actions can be listed as follows: conducting a pronunciation test and producing AI-generated personalized diagnostic reports; using AI tools in class training on phonetics and pronunciation; correcting common mistakes and collecting the feedback of the students. AI phonetic analysis tools can offer feedback on learners' pronunciation and intonation, helping learners recognize the gap between their expressions and target standards.

The second round is implementation and observation. Students finish 3 AI training sessions per week after class. Through training, the pronunciation accuracy improves from 50% to 68%. However, some students face challenges and around 7% of them think purely phonetic training is monotonous and hard to maintain. Besides, about 8% of the students express that they have difficulties in applying the pronunciation techniques to oral expression. From the research of this round, narrowing the gap between "pronunciation training" and "spoken application" is key to improve students' English expressive ability. After round 2, the test shows a reduction of around 12% in vowel error and about 8% of reduction in consonant errors. The fact that the students' pronunciation accuracy improves significantly through AI-assisted training indicates that AI-assisted tools exert a remarkable positive effect on students' English pronunciation proficiency.

It is necessary to enhance the engagement of the training and it's essential to combine pronunciation correction with practical speaking situations to ensure that the skills learned in the exercises can be used in real context. This phase emphasizes the importance of application in real world speaking tasks.

The third round is the enhancement and optimization phase. This period lasts about 6 months. The core objective of this round is to strengthen the logic and standardization of oral expression. And based on the tasks of first two rounds, divide students into different groups, such as the basic group (pronunciation and simple expression) and the advanced

group (fluent expression and logical connection). Then different AI-driven tasks are assigned to the students.

The basic group focuses on pronunciation and simple-sentence expression training, and the advanced group emphasizes long-sentence development and logical coherence training. Using ChatGPT to generate the training plan for the students and assist them in organizing expressions.

Through research, students in the basic group shows an increase in willingness to speak and the advanced group improves the expressive logic. The whole class participation rate in AI training increases to 95% and most students are trying to apply the learned pronunciation skills in real communication. The instant feedback from AI can strengthen students' sense of achievement and reduce their psychological anxiety in pronunciation practice, making students have more confidence when communicate in the daily life. What's more, AI-assisted training can be an extension of classroom teaching, realizing a more flexible model of teaching method. And it is extremely suitable for creating scenarios for students who are in large differences in levels.

4. Research Results and Analysis

4.1. The pronunciation accuracy improves significantly

The research is conducted with the help of AI speech recognition tools. Students can input their pronunciation audio and the AI system compares it with standard phonemes and analyzes the problems existed, giving correction plans, such as the mouth shape and the tongue position of the pronunciation. Besides, the intonation and stress training are carried out based on the thchnology of AI. The AI designs different scenarios, including workplace greetings, business negotiations, workplace interview, daily life activities, abroad tourism and other basic knowledge.

Through these training, the final test shows that the average pronunciation accuracy increaed from 56% to 82%. And the phonetic symbol pronunciation accuracy rate improves from 43% to 76%. And the students in the basic level improves the most compared with advanced group of an average growth rate about 25%. All these manifests that the improvement of students' pronunciation accuracy is obvious.

4.2. Oral expression ability achieve comprehensive progress

The oral test suggests that the students' fluency in expression (average reduction of 62% in pauses), logical coherence (75% increase in the use of cohesive devices) and expression standardization (48% decrease of the grammatical errors) increased significantly. Around 85% students can finish a 1-2 minutes of coherent expression related to a topic. Such progress are attributed to the real-time error correction, personalized practive training, and scenario-based intereactive practice, which effectively narrow the individual gap in students' oral communication skills.

The AI's phoneme-level recognition and correction technology can help ruduce the common errors, e.g. retroflex-alveolar confusion and incorrect stress. Also, AI dialogue bot help the students to improve their discourse competence, forstering the logical coherence of the students, with the rising of the average score of dicourse organizaiton.

Cultivating pragmatic competence in second language acquisition is also very important and it is a core goal in oral English learning and teaching. And AI-assisted technology provides a new way to achieve this goal by accurately identifying and providing feeback on learners' pragmatic deviations in oral expression[6].

4.3. Students' learning experience and motivation make substantial improvement

The questionnaire survey shows that 92% of the students think that AI training has remarkable effectiveness, considering that real-time feedback helps them find problems quickly. Besides, 88% of students think that situational training makes learning more interesting and 76% of students' independent learning frequency increase rapidly. In addition, the interview shows that AI training makes the pronunciation correction more efficient and the oral expression more confident. The use of AI in English pronunciation teaching enriches the students' learning experience and motivation. AI can generate virtual pronunciation scenarios, arousing students' interests to make role-plays. Students can use AI to make real-time

conversations and they can learn to balance pronunciation accuracy and communication fluency. AI can generate rich works with animations and short videos, which combine practicality with fun.

5. Research reflections and suggestions

5.1. Limitations

The research sample is just a single major, so the results need further verification. And the training period is limited, thus, the long-term effects need to be tracked.

5.2. Improvements

AI tools show practical values in promoting the fluency of oral English in the class. And research shows that integrating the AI tools can improve the effectiveness of oral English training[5]. In the future, the sample should be expanded to more majors and the training system and evaluation system should be extended.

6. Teaching suggestions

The teachers should use the AI tools with both pronunciation diagnosis and oral training functions. Besides, the training objectives should be differentiated and based on students' different levels. And the progress and feedback of students with weak foundations should be paid close attention. Moreover, teachers should play a curcial role on logical expression and cultural adaptation that AI cannot do. And it should be noted that AI cannot completely replace the teachers' guidance, especially in emotional expression of intonation and pronunciation flexibility in different situations, therefore, it is necessary to combine teachers' real-scenario teaching and AI-assisted training.

7. Conclusion

The training path of AI constructed in this research can improve the pronunciation accuracy and oral expressive ability of vocational college students as well as stimulate their learning motivation. The personalized tasks and the real-time feedback provided by AI tools make up the shortcomings of traditional teaching method, offering a way of practicing pronunciation and oral English in vocational colleges. AI-assisted teaching class is more flexible, allowing students to practice pronunciation anytime and anywhere and students can make high-frequency repetition of practice for the difficult words and pronunciations. Also, AI-based practice can create an anxiety-free learning environment and helps to reduce students psychological pressure corrected by teachers and classmates when practicing oral English. This is a good way the students who are shy or has low confidence to engage in more actively in pronunciation drills. In the future, it is necessary to deepen the combination of AI and teaching and gradually improve the language application ability of students. This integration is an inevitable trend of educational digitalizition and a core requirement to deal with the disconnect between traditional language training and practical communication needs.

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References

[1] Archer A, Hughes C, 2010, Explicit Instruction: Effective and Efficient Teaching. Guilford Press.

[2] Long MH, 1981, Input, interaction, and second-language acquisition. In H. Winitz (Ed.), Native Language and Foreign Language Acquisition. Annals of the New York Academy of Sciences, 259-278). https://doi.org/10.1111/j.1749-6632.1981.tb42014.x

[3] Garrison DR, 1997, Self-directed learning: toward a comprehensive model. Adult Education Quarterly, 48(1): 18-33. https://doi.org/10.1177/074171369704800103

[4] Hof B, 2020, The turtle and the mouse: how constructivist learning theory shaped artificial intelligence and educational technology in the 1960s. Informa UK Limited. https://doi.org/10.1080/00220973.2020.1813681.

[5] Anh NH, Baharloo A, Pasaribu G R, 2025, Integrating AI-based tools to enhance speaking fluency in EFL classrooms in Labuhan batu utara. Jelim: Journal of Education, Language, Social and Management, 3(1): 7-16.

[6] Borrego MM, 2025, Artificial intelligence - assisted error analysis: Developing pragmatic competence in EFL learners. In Application of AI in the Teaching and Learning of English as a Foreign Language (EFL). IGI Global Scientific Publishing, 99-148.

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