

An Exploratory Study on the Application of Digital Assessment Tools in Evaluating Learning Outcomes of English Public Speaking Courses

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ABSTRACT

The English speech course is an important carrier to cultivate students' cross-cultural communication ability. However, the traditional evaluation model is difficult to capture the dynamic process of speech ability development, which has limitations including feedback lag and a single dimension. The development of digital technology has brought new possibilities to evaluation work by enabling the design of specific teaching experiment schemes and the selection of typical cases for systematic analysis, which can reveal learning details in a more timely manner and enrich the evaluation perspective. Therefore, the purpose of this paper is to explore how to effectively utilize digital tools to evaluate students' English course speech teaching, thereby improving the effectiveness and accuracy of oral English teaching and evaluation.

KEYWORDS

Digital assessment; English speech; course learning

1 Introduction

The ability to express oneself in English is fundamental for cultivating students' effective communication in a globalized context. This ability encompasses various aspects, including language use, non-verbal expression, logical organization, and adaptability in spontaneous situations. However, at present, many English speech classes still employ traditional methods, such as final examinations and teacher observation, to score and evaluate students' learning effects. There are several problems, including a single evaluation perspective, delayed feedback on results, and difficulties in process development. This not only affects students' actual assessment of their ability, but also limits their ability to make timely adjustments based on the feedback. Therefore, this paper will examine the practical application of digital assessment tools in evaluating learning outcomes in English-speaking courses, providing a useful reference for constructing a more effective and accurate curriculum assessment mechanism.

2 The theoretical basis of digital assessment tools

2.1 Concept and development of digital assessment tools

Digital assessment tools refer to systems that use computer and network technology to assist teaching and assessment. Such tools were originally used to simplify examination management, such as the early multiple-choice automatic marking software. With the development of technology, its application has gradually expanded to the field of complex skills such as English speech. In English speech courses, teachers have begun to use audio and video recording equipment to record students' performances, rather than relying on traditional paper and pen records. Cloud computing and interactive platforms have enabled the upgrading of such tools ^[1]. For example, students can upload practice videos through the online speech system, and the platform automatically records basic data such as practice time and times. At the same time, current digital tools have evolved to include deep analysis capabilities, such as dedicated software that can parse speech features (such as speech rate and pause distribution) in a speech or identify logical structure problems in a presentation. In essence, it shifts from archived speech videos to extracting ability indicators and finally generates improvement suggestions, gradually promoting the deep integration of evaluation methods and learning processes. The assessment of the English public speaking course has also been changed from result sampling to whole-course tracking, which provides more comprehensive data support for teaching adjustments.

2.2 Core features of digital assessment tools

The core values of digital assessment tools are reflected in three aspects. The continuity of the process tracking is typically based on traditional speech scoring, which is usually based on the final presentation. In contrast, digital evaluation tools can track the status of each walkthrough. For example, when students use the online speech training platform, the system automatically tracks the number of revised manuscript versions, the frequency of exercises, and the audience's attention curve, allowing teachers to identify weak links in the preparation stage accurately. Multi-dimensional

analysis makes it challenging for teachers to simultaneously assess speech accuracy, physical coordination, and content logic; however, digital assessment tools can work in tandem to facilitate this process. Speech recognition modules analyze mispronunciations, a video capture system monitors gesture frequency, and a text algorithm examines viewpoint cohesion, ultimately generating a comprehensive capability report. Real-time feedback, where students receive the results of the system's analysis immediately after their class presentation (such as "15% more eye contact and 20% less filler than last time"), eliminates the need to wait for the teacher's manual grading. In the English speech course, these three characteristics together help to achieve a more refined, personalized ability training ^[2].

2.3 Digital transformation in educational assessment theory

Educational assessment theory is undergoing significant changes due to the advent of digital tools. Traditional speech assessment relies on a unified rating scale; however, the fixed standard is challenging to adapt to the diverse characteristics of different students. The primary change brought about by digitalization is the expansion of evaluation objects: from explicit indicators, such as pronunciation accuracy and grammatical correctness, to implicit capabilities, including investment in the preparation process and on-the-spot response ability. For example, the system automatically compares the performance of Students' impromptu speeches with that of their prepared speeches and evaluates their psychological quality level. And then there is the role transformation of assessment: Assessment is no longer the end of teaching, but embedded in the whole process of practice. For example, when a student submits a video of a model United Nations debate on the presentation platform, the system immediately generates structural optimization suggestions (such as "The second argument needs additional data support"). It pushes them directly into the revision phase. Finally, the standard dynamic adaptation is realized. By analyzing historical data, the system automatically focuses on basic expression training (such as volume control) for beginners. It strengthens persuasion strategy training (such as emotional appeal design) for advanced users. This transformation shifts the English speech assessment from "Standardized screening" to "Personalized development support", which is more in line with the essential needs of ability training.

3 The application of digital assessment tools in the English speech course

3.1 The role of digital tools in public speaking assessment

Digital technology has changed the depth and breadth of English speech assessment. Compared to the traditional teaching method that relies on teachers grading students in the classroom, this teaching approach can track students' learning over an extended period. When students speak online, the system records the daily practice time, the number of revised manuscripts, and the video of the simulated speech, allowing the teacher to evaluate the final practice results and determine whether students have sufficient time to prepare. Moreover, the quality of the speech can be analyzed, and digital software can provide a more detailed observation of the speech: sound recording for testing the accuracy of pronunciation, video playback for posture statistics, and a text checker that checks the text for logical errors. For example, when students are asked to upload five training videos for a college course, the teacher will receive two summaries: one of the student's efforts in the preparation phase and one assessing a stable level of effort in three dimensions: Verbal expression, body movements, and logical structure. This method, based on continuous recording and multi-angle measurement, provides more comprehensive and reliable evaluation results, reducing the likelihood of incorrect judgments caused by students' temporary nervousness ^[3].

3.2 Personalized feedback mechanism to improve students' performance

The core value of the digital tool is to provide each student with tailored suggestions for improvement. When the student completes the speech exercise, the system will immediately generate proprietary feedback against their historical data and target requirements. For example, students who frequently mispronounce words will receive focused pronunciation practice for key vocabulary, while students with disorganized content will see suggestions for optimizing the structure of their presentations. At the end of each lecture, a list of specific improvements appeared on the student's phone: In terms of voice, it may remind to "reduce filler words such as 'well' "; in terms of actions, it suggests that "hand movements should be focused above the waist"; in terms of content, it points out that "the third point needs to be supplemented with examples." The system will also continuously track the effects of these changes. If a student continues to avoid eye contact in subsequent practices, the platform will automatically activate the virtual audience gaze training module. This combination of immediate feedback and targeted training enables students to identify their areas for improvement and continue to make adjustments. In the English speech course, students can make progress without waiting for the teacher's approval. The teacher can then check the improvement recorded by the system and intervene

promptly to provide in-depth guidance, thereby forming a more efficient teaching cycle ^[4].

3.3 Complementarity between digital tools and traditional assessment methods

Digital tools and teacher evaluation form an effective partnership in the English speech course, complementing each other's limitations. The advantage of teacher evaluation lies in its comprehensive grasp of overall ability, such as capturing the authenticity of students' emotional communication, the agility of on-the-spot responses, and the resonance effect of case selection. This kind of subjective judgment, based on accumulated experience, is difficult to replace with technology. Moreover, technical tools excel at capturing quantifiable details: speech software can identify when a vowel is consistently out of whack, video analysis can accurately count the number of eye movements per second, and text checks can verify the authenticity of the data being used. Teachers write comments after watching the formal speech to focus on creativity and appeal, and the platform outputs reports listing data such as expression error rate, effective action times, and audience attention curve. Students were able to pinpoint the problem by combining the two types of feedback: if the teacher mentioned that the ending was not strong enough, and the platform said, "Speech rate drops by 20% at the end," the students clearly needed to control the tempo of the ending. This model not only avoids the mechanical one-sidedness of pure machine analysis but also overcomes the omission bias of manual observation, jointly constructing a comprehensive path of capability improvement.

4 The impact and improvement of digital evaluation tools

4.1 The impact of digital assessment tools on students' learning motivation

Digital tools stimulate continuous learning motivation through instant visual feedback in English-speaking courses. General feedback such as "B + " and "Physical tension" in traditional scoring has been replaced by Dynamic Progress Maps: students are given weekly access to a system-generated report of exercise trajectories, it clearly marks specific improvement points (such as the progress track from the frequent use of "You know" to the active replacement of "However" and other bridging words) This visible change gave students a clear sense of their growth, and in a mid-term lecture video comparison, when an automatic marker showed "Insufficient eye contact" problems dropped from 23 in the first exercise to 5 by the end of the semester, students gain a substantial sense of achievement. The key to the curriculum design is to integrate the tool data with the grading criteria. For example, colleges and universities can add "Eliminating more than three pronunciation errors" as a bonus for speech assessments. When students receive precise instructions, such as "Notice the /θ/ pronunciation in 'threaten'" on the practice platform, they will take the initiative to carry out targeted training. The change in the evaluation mechanism shifts the learning motivation from the pursuit of grades to the perfection of abilities. When students see the teacher citing system records as the basis for their comments in the final evaluation, they gain a deeper understanding of the direct relationship between scoring criteria and ability improvement ^[5].

4.2 Optimization of Teachers' teaching strategies by digital evaluation tools

The Digital Analysis Report enables English speech teaching to shift from empirical judgment to evidence-driven approaches. Teachers look at data aggregation on common class problems at course evaluation meetings: When "the disconnection between gestures and content" is marked in students' end-of-term evaluations, targeted training in "gesture semantics matching" is added. —such as designing left-hand and right-hand coordination movements simultaneously when practicing "On one hand..On the other hand," And optimize the formulation of scoring criteria. For example, in the original scoring rubric for the course, "language fluency" accounted for 15% of the total score. However, the system indicated that most students lost points due to "excessive pauses." Consequently, the teaching team decided to break this criterion down into two observable sub-items: "control of filler words" and "semantic coherence," which account for 8% and 7%, respectively. After implementing the intervention, the teacher used the tool to view the improvement heat map at the class level. For example, two weeks after the introduction of the "Opinion cohesion vocabulary", the use of connectives such as "Firstly..moreover.consequently" was significantly included in the teaching feedback report. This dynamic adjustment mechanism, based on curriculum data, enables the syllabus and evaluation criteria to evolve continuously.

4.3 Accurate assessment of learning outcomes by digital assessment tools

Digital tools enhance the objectivity of English speech evaluation through multi-dimensional cross-validation. In the language dimension, the system not only marks grammatical errors, but also analyzes the realization of language

functions: when “I think” is repeated in a student's lecture, the system can prompt “Replace it with 'research indicates' to enhance credibility”, this improvement earns extra points for academic rigour. Tracking sound and limb synergies simultaneously in the expressive dimension: when students' “Anti-plastic pollution” speeches are broadcast in the final assessment, the video analysis identified 17 effective actions of synchronous palm forward emphasis on key data, which translated directly into an A-grade rating on the rating scale's “Nonverbal reinforcement skills”. For the assessment of thinking ability, the tool captures deep issues that are often overlooked in traditional scoring, such as when analyzing a student's lecture on “Ai Ethics,” the system found that none of its three arguments responded to opposing views, trigger the “Need to add a rebuttal link” prompt, the defect after modification into the final evaluation “Speculative depth” project progress proof. Finally, a three-dimensional anchoring system is formed, comprising “Teachers' subjective evaluation + systematic objective evidence + grading standard details”.

5 Conclusion

This paper reveals the key role of digital assessment tools in English speech teaching, specifically in evaluating students' learning motivation, teachers' teaching strategies, and learning effects. It also transforms fuzzy scoring feedback into clear learning paths, allowing students to understand their progress clearly. For teachers, the data provided by the tool can reflect the common problems and individual differences of students in the teaching process, making teaching strategies more targeted; the assessment tool collects objective evidence from the three dimensions of language use, performance effect and depth of thinking, thus improving the comprehensiveness and accuracy of the assessment. However, the validity of digital tools in assessing implicit abilities such as emotional expression still needs to be further explored and optimized. Therefore, future research can focus on developing a composite evaluation model that integrates quantitative data and qualitative analysis to more fully reflect students' comprehensive speech ability. In-depth Exploration of tools at different stages and various types of speech tasks in the application strategy, and promote the establishment of teaching decision support standards based on digital evaluation data. Finally, the real progress of students in each stage can be effectively identified and reasonably recognized. The unity of curriculum objectives and evaluation results can be truly realized.

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