

A Study of AI-Empowered Innovations in College English Oral Teaching and CET-SET Assessment Strategies for Art Majors

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ABSTRACT

The advancement of globalization and rapid developments in artificial intelligence (AI) technology are profoundly reshaping reforms in tertiary-level English instruction. Within the context of an increasingly internationalized art market, the practical value of English proficiency has gained heightened prominence. Contemporary art students must cultivate both professional expertise and effective English communication skills. As a benchmark for assessing comprehensive English proficiency, the College English Test-Spoken English Test (CET-SET) assumes critical significance. However, art majors encounter persistent challenges in this examination, including inaccurate pronunciation, limited coherence in expression, and inadequate test adaptability. Consequently, current oral English pedagogy for this cohort presents distinctive opportunities and challenges. This study investigates an AI-driven innovative instructional model for oral English alongside specialized CET-SET strategies tailored for art students. It aims to enhance their oral proficiency and comprehensive language skills, offering actionable insights for optimizing English pedagogy within art disciplines.

KEYWORDS

Artificial intelligence technology; Art majors; Oral English teaching; CET-SET (Band 4/6); Coping strategies

1 Introduction

Globalization has established oral English proficiency as a critical indicator of students' comprehensive competence. As a standardized assessment of oral expression, the CET-SET has gained increasing significance. Art major students, in particular, face a dual challenge: on one hand, the increasing frequency of international art exchanges and the intense professional competition environment have raised higher requirements for their oral English ability; on the other hand, they focus more on professional skills learning and often neglect language acquisition, resulting in unsatisfactory performance in CET-SET. Traditional oral instruction—characterized by large-class formats and generic content—fails to address their discipline-specific requirements. AI technologies, encompassing speech recognition, natural language processing (NLP), and virtual interaction, offer personalized, scenario-based solutions. This research examines AI-integrated pedagogical innovations and CET-SET strategies for art majors, seeking to resolve learning impediments and enhance English teaching efficacy.

2 Significance of AI Technology in oral English pedagogy for art majors

2.1 Limitations of traditional oral English teaching models and the special requirements of art majors for English learning

College English curricula typically span 2–4 semesters (2–4 weekly sessions), covering intensive reading, extensive reading, writing, listening, and speaking. Oral English teaching is frequently marginalized or omitted, reducing essential practice opportunities crucial for art students. Furthermore, prevailing pedagogical approaches predominantly rely on instructor-mediated group discussions of textbook topics, lacking methodological diversity and contextual relevance. Art students demonstrate preferences for visual/auditory input and require domain-specific contexts (e.g., art-related themes) for meaningful oral output ^[1]. Consequently, traditional methodologies struggle to sustain engagement or achieve targeted outcomes.

2.2 AI-driven innovative pedagogical frameworks for art majors

AI technology offers a transformative solution by providing personalized and context-specific learning experiences. AI-powered speech recognition and NLP technologies diagnose pronunciation disparities between students and native speaker models, establishing baseline proficiency levels. Educators utilize AI diagnostics to deliver targeted guidance on intonation and rhythm, assigning personalized exercises with real-time corrective feedback. This precision approach facilitates rapid measurable progress. Additionally, AI generates simulated environments (e.g., virtual gallery tours, international workshops) incorporating art-centric materials (exhibitions, art history, creative methodologies) ^[2]. Such immersive contexts provide extensive practice while augmenting learner motivation. Ultimately, students acquire

abundant cultural insights and strengthen cross-cultural communicative competence.

3 The applications of AI technology in CET-SET preparation

3.1 Core assessment dimensions of CET-SET

According to the latest CET-SET syllabus ^[3], the assessment focuses on four dimensions: phonetics and intonation, which require accuracy in pronunciation, stress placement, and rhythmic patterns conforming to native speaker norms; vocabulary and grammar, which demand lexical appropriateness and grammatical precision; fluency, which involves coherent expression with minimal hesitation or disruptive pauses; and interactive competence, which refers to constructive responses and logical topic progression during dialogues. These competencies align intrinsically with art majors' professional requirements (e.g., exhibition curation, cross-cultural collaborative discourse).

3.2 Challenges for art majors in CET-SET

3.2.1 Phonetic inaccuracy: failure to meet basic scoring standards

CET-SET tests require clear pronunciation, appropriate stress, and natural intonation. Art major students often struggle with pronunciation due to dialectal interference, terminology errors, and monotonous intonation. Regional accents can lead to persistent mispronunciations (e.g., confusing "n" and "l" sounds), while unfamiliarity with art-specific terms (e.g., "sculpture," "renaissance") results in stress errors and syllable omissions.

3.2.2 Incoherent expression: not conforming to logical norms

CET-SET tests emphasize coherent expression and clear logic. Limited vocabulary, grammatical errors, and disorganized logic further hinder art major students' performance. Their divergent thinking patterns often produce fragmented statements, lacking coherence and logical flow.

3.2.3 Deficient interactive proficiency: failure to meet collaboration requirements

The interaction section, accounting for 40% of CET-SET tests, requires students to actively participate and advance the topic. In interactive tasks, art major students frequently exhibit superficial responses, topic deviation, and imbalanced dialogue rhythms. These challenges stem from their limited experience with collaborative communication in English.

3.2.4 Ineffective examination strategies: poor time management ability and psychological barriers: affecting normal performance

Taking the CET-4 oral test as an example, the exam has strict time limits (20 seconds for self-introduction, 1 minute for personal statement, 3 minutes for discussion). Time management issues, inappropriate content selection, and psychological barriers such as perfectionism and test anxiety further exacerbate their difficulties during CET-SET exams ^[4].

3.3 Strategic advantages of AI technology in CET-SET preparation

3.3.1 Precision phonetic evaluation

AI speech recognition systems conduct real-time analysis of articulation errors, identifying deviations in stress, elision, and intonation through comparison with native speaker benchmarks, enabling targeted remediation.

3.3.2 Personalized learning paths

AI analytics assess vocabulary breadth, grammatical accuracy, and fluency metrics to construct bespoke learning pathways. The system prioritizes skill deficits—from foundational phonetics to advanced discourse strategies—delivering CET-SET-aligned exercises contextualized within artistic domains.

3.3.3 Scenario-based interactive practice

AI generates virtual art scenarios (exhibition negotiations, artist interviews) replicating CET-SET interaction protocols. Adaptive virtual partners employ multi-turn dialogue algorithms to simulate authentic conversational dynamics, fostering naturalistic communication practice.

3.3.4 Efficient test-taking training

AI platforms replicate stringent CET-SET conditions, administering timed practice sessions with instantaneous feedback calibrated to official scoring rubrics (pronunciation, fluency, coherence). Longitudinal performance tracking identifies specific areas for improvement.

4 AI-empowered CET-SET strategies for art majors

4.1 Development of an "assessment standard + artistic features" AI evaluation system

Institutions should implement dynamic assessment systems integrating CET-SET criteria with art-specific characteristics. Quantifiable metrics—such as dedicated "art terminology pronunciation libraries" (e. g., sculpture, calligraphy) for phonetic evaluation, and NLP analysis of cohesive devices (e. g., however, therefore) for discourse coherence—should be embedded within AI frameworks. System-generated "competency spider charts" visually delineate proficiency gaps relative to CET-SET benchmarks. Remediation pathways include: "Artistic speech imitation" modules for students exhibiting monotonous intonation, "Virtual examiner interrogation drills" (e. g., sequential probing on art commercialization: "Are benefits predominant?", "How is balance achieved?") for those demonstrating weak interaction.

4.2 Implementation of an AI virtual platform for comprehensive examination simulation

Institutions should deploy AI-facilitated platforms replicating the complete test sequence (pre-examination waiting → topic selection → timed response), including environmental cues (seating arrangements, auditory timers). Key functionalities encompass: Rigorously timed task components (e. g., 1-minute self-introduction with automated termination), Virtual interlocutors utilizing adaptive "multi-turn dialogue algorithms" to simulate progressively complex interactions.

4.3 Construction of an intelligent "art corpus + test item" repository

AI-classified hierarchical repositories should incorporate art-specific textual and audiovisual materials systematically graded by CET-SET difficulty levels (basic/intermediate/advanced). Dynamic updates integrate emergent thematic trends identified in past papers (e.g., supplementing 2023's digital art focus with AI painting ethics, VR exhibition curation). AI-generated discourse templates adapt common examination topics to artistic contexts. Structured exercises transition learners from simple syntactic constructions to complex art-critical argumentation.

4.4 Optimization of examination strategies and mitigation of psychological barriers

Educators need to deeply integrate AI technology, fully understand its characteristics and applicable scenarios, and with the help of the technical platforms and assessment and evaluation systems established by the school, help art students simulate the process of taking the CET-SET tests: from timed practice, content priority training, concentration skills to concisely convey complex concepts, to remediation strategies for vocabulary gaps or misunderstandings. Furthermore, educators can use AI technology to real-time monitor and track the outstanding progress of art students' scores, establish the students' confidence in the exam, and reduce test anxiety.

5 Conclusion and future prospects

In summary, the integration of AI within education constitutes an inevitable trajectory amid accelerating globalization^[5]. Oral English proficiency directly influences institutional teaching quality assessments and graduate employ-ability^[6]. Despite typically exhibiting weaker baseline English competence, art majors experience acute demand for sophisticated communication skills within globalized creative industries. AI-enhanced oral instruction delivers precision, high-frequency practice, and authentic contextualization, effectively addressing limitations inherent in conventional pedagogy through: standards-aligned intelligent assessment systems, discipline-specialized virtual interaction platforms, curated professional resource repositories and data-informed personalized teaching interventions. Successful implementation necessitates equilibrium between technological innovation and expert pedagogical guidance, ensuring AI functions as a complementary tool rather than a substitute for instructor expertise. Future development should prioritize: enhanced recognition accuracy for specialized artistic terminology, increased realism within simulated conversational scenarios and expansion of adaptive learning functionalities responsive to individual learner profiles. Crucially, AI applications must transcend a narrow "score-centric" focus, concurrently nurturing art students' confidence in disseminating indigenous

artistic traditions through English-mediated cross-cultural exchange. Further refinement of "disciplinary + assessment" scenario modeling and deeper integration of "human-AI collaborative" pedagogic models will ultimately equip art students with both the practical oral proficiency requisite for international artistic engagement and the strategic competencies essential for CET-SET excellence, thereby achieving dual advancement in examination performance and holistic language application and cultivating all-round developed art talents adapting to the global environment.

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