# A Study on the Competition Mode of College English from the Perspective of AI Empowerment
## A Case Study of Guangzhou Civil Aviation College

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**ABSTRACT**
English Competition plays a significant role in promoting English teaching and learning. Under the trend of digital transformation of teaching, Guangzhou Civil Aviation College has also actively explored the English competition mode on the digital platforms on basis of AI technology to realize the AI empowerment of competitions. Based on the data from the questionnaire conducted after the competition, it can be seen that students generally hold a positive attitude towards the English competitions empowered with AI technology. And the AI Empowerment on English competition could be explored from the aspects of AI technology application, the integration with skills competitions and the integration of production and education.

***Keywords:*** *AI empowerment, English competition, AI technology, Digital platforms.*

## 1. INTRODUCATION

Disciplinary competitions, especially skill competitions, are of great significance to higher vocational education. When the Party and the state issue relevant policies, laws and regulations on higher vocational education, they often put forward guiding opinions on the development of relevant competitions in vocational colleges. For example, the National Medium and Long-Term Education Reform and Development Plan (2010–2020) clearly states: "Deepen the teaching reform of higher vocational education and carry out vocational skill competitions"[1]. Guided and supported by relevant national policy documents, higher vocational colleges across the country have begun to attach great importance to disciplinary competitions, and explored reforms in disciplinary teaching models under the principle of "promoting teaching, learning and training through competitions".

From the perspective of the development of English teaching itself, disciplinary competitions also play a very important role in promoting the implementation and reform of English teaching. "Competition is a special form of academic evaluation"[2]. English disciplinary competitions can effectively stimulate students' initiative and enthusiasm in English learning, "arouse students' internal motivation for learning, and form a virtuous circle of 'promoting learning through competitions'" [3]. At the same time, they serve as an important reference for English teaching planning and design, and can provide useful data support for subsequent teaching. Through the competition process, teachers can identify and summarize the difficulties and deficiencies in students' learning, and make corresponding adjustments and reforms in follow-up teaching, so as to achieve the healthy development of the English teaching ecosystem.

## 2. TRANSFORMATION OF THE TRADITIONAL ENGLISH COMPETITION MODEL FROM THE PERSPECTIVE OF AI EMPOWERMENT

### *2.1 The Traditional Offline English Disciplinary Competition Model*

The College English course at Guangzhou Civil Aviation College adheres to the teaching philosophy of "promoting learning through competitions" and regularly holds diversified

disciplinary competitions such as writing and vocabulary contests every academic year. This competition system serves a dual function: on the one hand, it extends classroom teaching through competitive activities and stimulates students' internal motivation for English learning; on the other hand, it establishes a talent selection mechanism to identify outstanding contestants for provincial-level competitions. Before September 2024, such competitions basically adopted a three-stage offline progressive model: preliminary rounds were recommended offline by course instructors, semi-finals adopted unified assessments, and winners were finally determined through offline university-level finals.

The operation of this traditional purely offline model faces various bottlenecks. First, student participation is relatively limited. Constrained by the offline format, competitions usually rely on teacher recommendations, with some instructors directly nominating students for the semi-finals. As a result, only a limited number of students have the opportunity to genuinely participate, depriving most students of basic competitive experience and objectively weakening the inclusive educational function of the competitions. Second, teacher selection may lack objective data support. Direct teacher recommendations tend to be subjective and data-deficient, often leading to student doubts about the fairness and results of the competitions, thus reducing their credibility. Finally, the workload for teachers organizing and participating in competitions is heavy. Instructors in charge are generally responsible for question design, offline evaluation, paper development, and invigilation, among other tasks. Moreover, with multiple campuses in the college, teachers must collaborate extensively and travel frequently between campuses to assist in competition arrangements each academic year. Due to the heavy workload, the College English course has also encountered difficulties in fully mobilizing instructors' enthusiasm for organizing and participating in competitions, which once made it challenging to run English disciplinary competitions. Therefore, leveraging AI empowerment to build a digital competition platform, improve the selection mechanism, optimize organizational procedures, and explore an efficient competition model has become an urgent task. Systematic reform is urgently needed to enhance the educational effectiveness of the competition system.

## *2.2 Practice of the Digital English Competition Model from the Perspective of AI Empowerment*

Starting in September 2024, the College English course at Guangzhou Civil Aviation College began to introduce digital platforms to host disciplinary competitions, utilizing AI technologies on these platforms to empower competitions and improve the digitalization level of course teaching. In the autumn semester of 2024, two events were organized: the Comprehensive English Language Proficiency Competition and the English Vocabulary Competition. The two competitions adopted different models: the Comprehensive English Language Proficiency Competition was held entirely online, while the vocabulary competition used a hybrid online-plus-offline model.

The Comprehensive English Language Proficiency Competition was conducted on the Wetest platform by Shanghai Foreign Language Education Press and was open to all 2024-grade students university-wide. Organizing teachers imported the names of all 2024-grade students into the platform, and students voluntarily participated. No semi-finals or finals were set; results were determined in a single open online test. Students willing to participate independently accessed the platform within the specified time. AI technologies on the platform were applied throughout the process, including question generation, proctoring, and scoring. The platform generated and graded papers while monitoring abnormal student behaviors during the competition. A total of 4,267 students participated. After the event, organizing teachers reviewed the results recorded by the platform and identified irregularities such as abnormal IP addresses, repeated system logins, and frequent screen switching. Compared with previous offline competitions, the number of direct participants broke previous records, and teachers' workload in organizing and running the competition decreased significantly. However, post-competition surveys revealed some issues raised by students. For instance, the platform could not monitor students using multiple devices: some contestants used one device for the competition while searching for answers on another, bypassing real-time monitoring.

Drawing on experience from the earlier comprehensive language proficiency competition, the College English course subsequently held the 2024 Guangzhou Civil Aviation College English

Vocabulary Competition using a hybrid online-offline model. Both the preliminary and final rounds were held on the Ci Da Ren (Vocabulary Master) platform by Shanghai Foreign Language Education Press, with 5,469 participants including all 2024-grade students and selected 2023-grade classes taking College English-related courses. The competition consisted of two stages: preliminaries and finals. For the preliminary round, organizing teachers used AI to generate test papers on the Ci Da Ren platform. College English instructors then administered the tests offline in class, with supervision combining on-site invigilation and intelligent platform monitoring. Papers were graded automatically by the digital system to produce scores. Teachers then selected finalists based on on-site supervision records and platform results. The final of the vocabulary competition was held offline in a centralized venue, where finalists gathered simultaneously to take the test via the Ci Da Ren platform. Supervision again combined offline invigilation and online monitoring, with papers graded by the digital system. Finally, organizing teachers determined the final competition results based on digital system scores and hybrid invigilation records.

Although the hybrid online-offline model for the vocabulary competition was procedurally more complex and involved a heavier workload for organizers than the fully online comprehensive language proficiency competition, it represented a major breakthrough compared with the traditional purely offline model. First, the preliminary round was administered in scattered in-class sessions, effectively integrating disciplinary competitions into classroom teaching and English instruction. Second, with 5,469 participants, student participation was greatly enhanced, giving all students hands-on experience with digital platforms. Third, scores recorded by the platform could be directly converted into effective data for English teaching, allowing instructors to understand students' overall vocabulary mastery and implement targeted classroom improvements in subsequent teaching. Finally, the transparency of the digital platform effectively ensured fairness and openness. Students could directly check their scores and rankings via the platform, gaining a realistic and direct understanding of their proficiency, which strongly safeguarded the fairness of the competition.

## 3. AN INVESTIGATION AND RESEARCH ON AI-EMPOWERED ENGLISH DISCIPLINARY COMPETITIONS

"The digital transformation of College English does not aim to apply technology for technology's sake, nor to follow trends blindly. Its ultimate goal is to provide personalized education for every learner and enhance their learning experience" [4]. To better understand students' overall experience and acceptance of AI-empowered digital disciplinary competitions, and to further promote the development of English competitions while continuously improving competition quality and teaching effectiveness, the English Teaching Department conducted a questionnaire survey among all 2024-grade students after the two AI-empowered digital English competitions in 2024. The survey was carried out via the Wenjuanxing application, covering students' feedback on competition fairness, formats, motivation, and other aspects. A total of 1,235 valid responses were collected, with detailed results as "Table 1".

Table 1. Questionnaire survey on English disciplinary competitions in Guangzhou Civil Aviation College

| No. | Questions | Options | Number of Respondents | Percentage |
|---|---|---|---|---|
| 1 | Which competition did you think was fairer this semester? | Comprehensive English Language Proficiency Competition | 459 | 37.17% |
| | | English Vocabulary Competition | 776 | 62.83% |
| 2 | Which competition format do you prefer? | Fully online | 633 | 51.26% |
| | | Fully offline | 166 | 13.44% |
| | | Online + offline hybrid | 436 | 35.30% |
| 3 | Why did you participate in the competition? (Multiple choices allowed) | Personal interest | 566 | 45.83% |
| | | For regular grades | 724 | 58.62% |
| | | For extra credits | 806 | 65.26% |
| | | To test my own proficiency | 837 | 67.77% |
| | | To win awards | 504 | 40.81% |
| 4 | Do you think AI digital platforms can ensure fair scoring in competitions? | Yes | 613 | 49.64% |
| | | No | 205 | 16.60% |
| | | Unable to judge | 417 | 33.77% |
| 5 | Do you think the competitions this semester promoted your English learning? | Yes | 988 | 80.00% |
| | | No | 247 | 20.00% |

| No. | Questions | Options | Number of Respondents | Percentage |
|---|---|---|---|---|
| 6 | Would you like to use the digital platforms applied in the competitions for English learning? | Yes | 1034 | 83.72% |
| | | No | 201 | 16.28% |
| 7 | Would you like your teachers to use these digital competition platforms for classroom teaching? | Yes | 997 | 80.73% |
| | | No | 238 | 19.27% |

First, regarding competition fairness, 37.17% of students considered the Comprehensive English Language Proficiency Competition fairer, while 62.83% chose the Vocabulary Competition. Most students' positive feedback based on direct experience shows that the online-offline hybrid model is perceived as fairer than the fully online model. According to post-competition background data review, among the top 200 students in the fully online Comprehensive English Language Proficiency Competition, 72 were disqualified due to repeated logins, screen captures, abnormal IP addresses, and other violations. In contrast, only 3 students were disqualified from the Vocabulary Competition for exceeding the time limit. Meanwhile, the hybrid online-offline model effectively prevents unmonitorable violations in fully online settings, such as proxy test-taking and multi-device cheating.

Second, in terms of competition format, students prefer fully online competitions. 51.26% of respondents favored the fully online format, 35.30% preferred the hybrid model, and only 13.44% chose fully offline. This appears inconsistent with the fairness survey results, reflecting students' ambivalence between fairness and personal preference. The popularity of online formats is closely related to the widespread use of electronic devices. Online competitions are free from venue and time restrictions, allowing students to participate conveniently using their own devices in familiar environments, thus reducing extra pressure such as adapting to unfamiliar venues, with obvious advantages in convenience. However, in practice, the hybrid model not only combines online convenience with offline authenticity but also effectively avoids violations common in fully online competitions, ensuring fairness.

Third, regarding participation motivation, diverse student choices reflect their diversified needs. 67.77% of students participated to test their proficiency, 65.26% for extra credits, 58.62% for regular grades, 45.83% out of personal interest, and 40.81% to win awards. As students are in a critical stage of self-development and academic progress, they are eager to evaluate their English ability and clarify their learning status through competitions, which large-scale digital competitions can well satisfy. Credits and regular grades are directly linked to academic assessment and future development, making them important motivations. Interest serves as internal learning motivation, so students interested in English naturally wish to improve and demonstrate their abilities through competitions. Awards provide external recognition and stimulate enthusiasm for participation.

Fourth, most students hold a positive attitude toward the fairness of AI-empowered digital platforms. 49.64% believed that digital platforms ensure fair scoring, 16.60% held negative views, and the remaining 33.77% were unable to judge. AI-empowered digital platforms score based on preset algorithms, process massive data efficiently, avoid human fatigue and subjective bias, and allow instant access to results after competitions — these are the main reasons for students' recognition. Students who expressed negative concerns may worry about algorithm vulnerabilities, high-tech cheating, and the platform's inability to evaluate complex language skills comprehensively and accurately. Those unable to judge may have limited understanding of AI technology, requiring teachers to promote AI empowerment, popularize digital platform applications, and guide students in practical use during daily teaching.

Fifth, AI-empowered digital competitions significantly promote students' English learning. Fully 80% of students acknowledged the promoting effect on their learning, while only 20% did not. During competitions, students must systematically review knowledge and strengthen skills, which itself constitutes a process of improvement. The competitive atmosphere stimulates motivation and initiative, encouraging students to explore learning methods and expand resources. Students who perceived no promotion may have experienced mismatches between competition content and their learning rhythm, or failed to achieve expected results, dampening their enthusiasm. Teachers should emphasize the reinforcing role of competitions in language learning and help students identify weaknesses through digital competition

performance analysis, truly realizing "promoting learning through competitions".

Sixth, holding AI-empowered digital competitions significantly encourages students to use digital platforms for English learning. Respondents showed an open and supportive attitude toward introducing such platforms into teaching: 83.72% were willing to use the competition platforms for independent English learning, while 16.28% were not. Through competitions, students experienced the convenience of digital platforms and their abundant learning resources, including intelligent practice, online assessment, and personalized suggestions, which meet diverse learning needs and gain wide recognition. Students who were unwilling may be accustomed to traditional methods, unfamiliar with platform operations, or concerned about the impact of prolonged electronic device use. Therefore, teachers should provide appropriate guidance on platform operation and learning applications in daily teaching.

Seventh, AI-empowered digital competitions also help teachers implement AI-enabled English instruction. 80.73% of students welcomed teachers using the same digital competition platforms in classroom teaching, while 19.27% did not. "English competitions serve as one of the approaches to innovating teaching models and methods" [5]. Digital platforms provide diversified teaching tools such as multimedia resources and interactive tools, helping teachers enhance classroom engagement and achieve better teaching outcomes. Meanwhile, teachers can offer personalized guidance through platforms to improve learning efficiency. Supported by AI and cloud computing, digital platforms enable data statistics and analysis unattainable in offline competitions, providing substantial effective data for teaching innovation and realizing "promoting teaching through competitions".

Based on the above questionnaire results, it is clear that AI-empowered digital disciplinary competitions have received a warm response among students. Most students have given positive and affirmative feedback, expressing interest in or willingness to receive support from digital platforms in their learning.

# 4. POSSIBLE FUTURE DEVELOPMENT PATHS OF AI-EMPOWERED ENGLISH DISCIPLINARY COMPETITIONS

## *4.1 Paradigm Upgrade from AI-Empowered Competitions to AI-Integrated Competitions*

"The ultimate goal of curriculum learning is to cultivate students' problem-solving abilities and innovative thinking abilities" [6]. With the development of AI technology, technologies enabling smooth language communication through AI have become highly mature and widely applied. In the future, AI-empowered English disciplinary competitions can evolve from merely organizing and running events with AI to assessing students' ability to achieve fluent language communication with AI assistance. By incorporating "AI collaboration competence" into the evaluation framework, competitions will shift from simply testing language proficiency to evaluating practical language application skills supported by AI, thus establishing an "AI+" competition model. For instance, an "AI+ writing" event featuring "human-machine collaborative writing" could be introduced, requiring participants to optimize AI prompts, polish machine-translated texts, conduct intelligent proofreading, and complete similar tasks within a set time, with a focus on assessing their ability to use the AI toolchain.

## *4.2 Expansion from Disciplinary Competitions to Skill-based Competitions*

Currently, only oral English contests are included in the skill competitions designated by the Ministry of Education. However, empowering oral English skill competitions with AI still faces certain challenges. Oral English performance involves subjective factors such as personal emotions, and current AI applications in oral testing remain relatively rigid. Existing speech evaluation systems lack sufficient recognition of paralinguistic features; most can only perform mechanical comparative assessments of pronunciation, making it difficult to capture communicative intentions conveyed through intonation changes (e.g., differences between polite refusal and direct negation). Consequently, they can hardly achieve accurate evaluation of holistic language use involving personal emotions, thinking, and mood. Meanwhile,

such competitions have high requirements for equipment and environment; in actual testing scenarios with low signal-to-noise ratios, speech recognition accuracy drops sharply. To address these issues, it is necessary to use AI technology to explore, construct and develop a hybrid "AI + human experts" assessment standard and practical model suitable for oral English competitions.

### *4.3 Ecological Construction from Campus Disciplinary Competitions to Industry-Education Integration*

Industry-education integration is essential for the development of higher vocational colleges. In October 2021, the General Office of the Communist Party of China Central Committee and the General Office of the State Council issued the Opinions on Promoting the High-Quality Development of Modern Vocational Education, which clearly stated the need to "improve the comprehensive talent cultivation mechanism of 'post-course-competition-certification'" and "support students in actively participating in social practice, innovation and entrepreneurship, and competition activities" [7]. Therefore, when developing language application competitions integrated with industry and education, AI technology should also be embedded to realize AI empowerment. Taking the civil aviation industry as an example, efforts can be made to build a "three-dimensional linkage" civil aviation language application competition system featuring industry-education integration. Experts from civil aviation enterprises and teachers from civil aviation colleges can jointly design competition tasks; one evaluation criterion can be the alignment with civil aviation post requirements combined with English language application competence. An AI-empowered simulation system mirroring real civil aviation language application scenarios can serve as the technical platform, and competition results can be incorporated into the civil aviation post competency certification system, thus forming an industry-education integrated ecology for English language competitions in the civil aviation sector.

## 5. CONCLUSION

AI empowerment provides an effective approach for the reform of college English discipline competitions in higher vocational colleges. The practice at Guangzhou Civil Aviation College shows that organizing competitions based on AI digital platforms can significantly expand participation, improve organizational efficiency, ensure fair scoring, and achieve the educational goal of promoting learning and teaching through competitions. Students show high recognition of the AI-based competition mode with obvious learning promotion effects. In the future, efforts should be made to further integrate AI technology into competitions, optimize the hybrid supervision and evaluation mechanism, expand the dimension of skill competitions, deepen the coordination of industry-education integration and post-course-competition-certificate, so as to construct a new English competition ecosystem with vocational education characteristics and continuously serve the digital transformation of English teaching and the improvement of talent training quality.

## ACKNOWLEDGMENTS

This study is supported by research programs of Guangzhou Civil Aviation College: " Research on the Disciplinary Competition Model of College English from the Perspective of AI Empowerment " (Project Number: JG202510) and " Investigative Research on the Current Situation of English for Civil Aviation Transport Service Posts at Chaoshan Airport from the Perspective of Industry-Education Integration " (Project Number: 25X2418).

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