

A Study on Itemized Score Analysis and Competence Diagnosis of College English Final Examination Papers for Non-English Major Freshmen

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Abstract:

College English is an important course for non-English majors at Chinese universities. Freshmen experience the transition from high school to college, and their exam results in different final exam sections can clearly reveal their English performance and teaching effects. This study takes 116 non-English-major freshmen across three classes from the 2025 intake of a university as the research subjects. Adhering strictly to the principle of table-based analysis without advanced statistical software, it uses basic research methods such as descriptive statistics and comparative analysis to conduct a comprehensive analysis of students' English skills across five aspects: listening, vocabulary, reading, translation and writing. Results show only 39.66% of participants gain a passing grade, and their development of English proficiency is extremely imbalanced. Reading comprehension is the best-performing part (averaging 64.63% of total marks, with a 68.10% pass rate), while translation is their primary weakness (only 41.32% of total marks, with a pass rate of 23.28%). Obvious gaps also exist in the proficiency profiles of students across different majors and classes. Drawing on these findings, this study proposes targeted, actionable strategies for teaching improvement, including stratified instruction, optimized curriculum frameworks, and enhanced training in productive skills. It further delivers empirical evidence and practical references for targeted reforms of College English instruction for non-English majors.

Keywords:

Non-English Majors, Freshmen, College English, Sectional Scores, Final Examination Paper Analysis

1. Introduction

The Guidelines for College English Teaching (2020 Edition) clearly stipulate that the core teaching objective of College English is to cultivate students' comprehensive English competence, especially their intercultural communication skills in listening, speaking, reading, writing and translation, enabling them to use English efficiently to complete communicative tasks in their future careers and social interactions. [1] As beginners of College English learning, freshmen's prior English foundation,

proficiency structure and learning habits directly determine their learning outcomes in college. As a core evaluation instrument for teaching effectiveness, final examination papers can break the limitations of evaluation based solely on total scores. Their sectional scores accurately identify students' mastery of different English proficiency dimensions and provide clear guidance for adjusting teaching content and optimizing teaching methods. [2]

Domestic research on College English teaching mainly focuses on teaching model reform and analyses of factors affecting overall academic performance. However, refined proficiency diagnosis based on sectional final exam scores of non-English-major freshmen remains insufficient. Most existing studies only examine the overall distribution of total scores without an in-depth breakdown of developmental gaps across different competence dimensions. Some research adopts sophisticated data analysis models that are hard to implement in frontline teaching. Meanwhile, comparative studies on proficiency profiles of students from diverse majors are scarce, failing to deliver targeted support for differentiated instruction. [3] In second language acquisition, performance diagnosis in language testing has become a key research trend. Relevant research offers valuable theoretical references for College English teaching assessment in China. [4]

Under such circumstances, this study takes the sectional final exam scores of the 2025 intake of non-English-major freshmen at a university as the research data. Instead of using complex data analysis tools, this study carries out comprehensive diagnoses of students' English proficiency through tabulated statistics and comparative analysis. Based on this, the study identifies main problems in teaching and learning, and puts forward constructive suggestions to improve teaching quality. In this study, the main innovation lies in its exclusive reliance on tabulated sectional exam scores. It does not need professional analytical tools, and it features highly replicable research methods. The results can also be used to adjust English teaching directly. This paper can provide practical references for improving the quality of college English instruction for non-English majors in universities.

2. Research Design

2.1. Research Participants

The participants of this study are all freshmen from three non-English-major classes of the 2025 intake at a university, namely Class 4, Mechanical Design, Manufacturing and Automation Major (39 students); Class 1 Human Resource Management and Class 1 Logistics Management (39 students); Class 3 Robotics Engineering (38 students). The total sample size is 116 students. All participants took the unified final exam for the College English course for the first time, with no absences or instances of cheating. Their complete and valid exam scores can truthfully reflect their learning performance in College English.

2.2. Research Instruments

The final test paper of "College English 1" used in this test is compiled by the foreign language teaching department of the school. The full score of the test paper is 100 points, and the question type and score allocation are strictly in line with the curriculum syllabus and the CET-4 assessment standards. There are five core question types on the test paper, and the full score of each question type is as follows: listening comprehension (15 points), vocabulary (20 points), reading comprehension (30

points), translation (15 points), writing (20 points), with a total score of 100 points. The test paper covers all the core teaching contents of college English, which can comprehensively evaluate students' comprehensive English ability. There are no over-outline, difficult and cold questions, and meet the standardized curriculum examination specifications [5].

2.3. Research Methods

This study uses table-based analysis without complex data analysis tools. All research procedures rely on the statistics and comparisons of score tables with two basic research methods:

Descriptive Statistical Analysis: This study uses the students' total scores and sectional scores to analyze basic statistical indicators including mean score, standard deviation, maximum score, minimum score, pass rate and score acquisition rate, which can directly show the distribution characteristics of exam results and overall learning performance. [6] Sixty percent of the full score of each section is used as the passing standard (9 points for Listening, 12 points for Vocabulary, 18 points for Reading, 9 points for Translation, 12 points for Writing, and 60 points for the total score). The score acquisition rate refers to the ratio between the average score and full score of each section, which measures students' overall command of knowledge in different modules.

Comparative Analysis: For one thing, horizontal comparisons are made across the five competence parts (listening, vocabulary, reading, translation, writing) to assess students' advantageous and weak items. For another, vertical comparisons of total and sectional scores among the three different majors are conducted to summarize the English proficiency traits of students, laying a foundation for differentiated teaching. [7]

3. Analysis of Paper Quality and Overall Exam Performance

3.1. Overall Quality Analysis of the Examination Paper

Reliability and validity serve as key standards for measuring the credibility of test results. The final test is made according to the Guidelines for College English Teaching. The question types and score allocation align with the curriculum teaching objectives and all core knowledge points, which evaluate students' overall English ability and have good content validity.[1] At the same time, the test paper conforms to basic language testing rules, and it can tell apart students with different learning levels and has good discrimination capacity[8].

From the score distribution, participants' total marks fall between 14.5 and 89. Scores spread evenly across all intervals, which makes it easy to distinguish students of different English levels and further verifies the test's strong discrimination effect. Scores of each subsection match the core teaching points well, with no unusual concentrated score groups. Therefore the test results can truly reflect students' real learning situations.

3.2. Descriptive Statistics of Overall Exam Performance

Table 1 presents key data on the total test scores of the 116 participants. All figures are computed straight from original score sheets, with no complex statistical modeling applied.

Table 1. *key statistical data of 116 participants' total scores.*

Statistical Indicators	Total Score	Listening Comprehension	Vocabulary	Reading Comprehension	Translation	Writing
Sample Size	116	116	116	116	116	116
Full Mark	100	15	20	30	15	20
Mean Score	56.31	9.20	11.25	19.39	6.20	10.28
Standard Deviation	15.34	3.85	5.34	4.72	3.01	4.39
Pass Rate	39.66%	49.14%	46.55%	68.10%	23.28%	48.28%
Score Acquisition Rate	56.31%	61.32%	56.25%	64.63%	41.32%	51.38%

Overall exam data shows that the average score of all participants is 56.31, below the passing standard. Only 39.66% of students passed the exam, which means that more than sixty percent of non-English freshmen cannot meet the basic learning standards for college English. Most learners lack a solid English foundation. They fail to retain the knowledge acquired in senior high school and struggle to keep pace with the requirements of college English study.

In addition, the standard deviation of scores is 15.34, with a 74.5-point gap between the highest and lowest marks, which reveals massive gaps and severe proficiency polarization among students. [6] Only 6.90% of students score above 80, while 22.41% score below 40, indicating a large proportion of low-achieving students. Under such circumstances, the traditional unified whole-class teaching mode fails to accommodate the diverse learning needs of students at varying proficiency levels.

4. Diagnosis of Sectional Scores and Core Language Competences

This study conducts a comparative analysis around the five examination question type modules, comprehensively studies and judges students' core English ability, and distinguishes students' advantageous question types, intermediate question types and weak question types. All analysis is completed based on the original score data, and professional advanced analysis software is not used.

4.1. Strength: Reading Comprehension

Reading comprehension is the section with the best performance of middle school students in all question types. The full score of this question type is 30, with an average score of 19.39, a score of 64.63%, and a pass rate of 68.10%. Data shows that students perform well in text sentence analysis, detailed information capture and logical reasoning, reflecting solid reading skills [9].

This result aligns with current college English teaching practice. Reading is prioritized in classroom instruction, with abundant class hours allocated to text analysis and reading strategy training. Besides, the senior high school English curriculum centers on reading cultivation. Years of systematic training equip students with competent reading skills, making reading their dominant strength.

4.2. Moderate Competences: Listening Comprehension, Vocabulary, Writing

Listening, vocabulary and writing register score acquisition rates between 50% and 62%, with pass rates ranging from 45% to 50%. Students possess basic foundations in these areas yet have substantial room for improvement.

Listening comprehension carries a full score of 15 and an average score of 9.20, barely hitting the 9-point passing threshold, with only a 49.14% pass rate. Fewer than half of students meet curriculum listening requirements, and over half show obvious listening deficiencies. Students perform well on short conversations but lose many marks in long dialogues and passages. They can only handle simple daily audio materials and lack the capability to grasp overall context and extract key information from lengthy listening texts. This exposes drawbacks in current listening pedagogy: most sessions merely play audio and check answers without systematic strategy instruction or targeted drills. Insufficient after-class independent listening practice further hinders skill progress. [10]

Vocabulary (full score 20) averages 11.25 points with a 56.25% score acquisition rate. The passing line is 12 points, yet the pass rate reaches merely 46.55%, meaning over half of students fail to satisfy course standards. As the foundation of language learning, inadequate vocabulary storage and poor command of word collocations and usage impede progress in listening, reading, translation and writing, constituting the root cause of weak overall English proficiency. [11] Exam responses show students only memorize isolated word meanings and cannot apply vocabulary appropriately in context, with shaky mastery of grammatical rules.

Writing, worth 20 points, has an average score of 10.28 and a 51.38% score acquisition rate. Its 48.28% pass rate falls slightly below that of listening. Students can complete simple compositions but remain at a basic level. Common flaws include limited vocabulary, monotonous sentence patterns, incoherent logic and frequent grammatical errors; some essays contain off-topic content or fail to meet the required word count. Accuracy and fluency in writing require drastic improvement.

4.3. Critical Weakness: Translation

The translation question type has the lowest score among all sections. The question type got a full score of 15 points, with an average score of only 6.20 points, and a score rate of 41.32%. The pass line for this question type is 9 points, but the pass rate is only 23.28%, which means that less than a quarter of the students can complete the basic Chinese-English translation exercises skillfully.

The data shows that students' language output ability is weak, and they cannot distinguish the differences in semantics and sentence structure between Chinese and English. Students' translations generally have problems such as improper word use, stiff sentence style, vague meaning, and logical confusion, which reflects their insufficient cross-language conversion ability [12]. The main reason for this phenomenon is the lack of classroom translation teaching: the proportion of translation class time is extremely low, teachers only briefly explain the examination skills before the exam, and there is a lack of systematic curriculum setting and normalized practical training. In addition, the content of translation training is not combined with students' majors, which hits students' enthusiasm for learning, making it difficult for students to improve their translation level in the long run.

5. Analysis of Score Differences Among Classes of Different Majors

This study selects three classes from different majors: Mechanical Design, Manufacturing and Automation, Human Resource Management, and Robotics Engineering. Students of these majors differ in English proficiency, learning habits and professional coursework, which creates obvious disparities in their exam scores. Table 2 presents the core data.

Table 2. Comparison of Core Scores Across Classes of Different Majors.

Class Name	Number of Students	Mean Total Score	Total Pass Rate	Mean Listening Score	Mean Reading Score	Mean Translation Score
Class 1 Human Resource Management & Class 1 Logistics Management (2025 intake)	39	58.99	43.59%	9.87	19.59	7.14
Class 4 Mechanical Design, Manufacturing and Automation (2025 intake)	39	56.68	38.46%	8.36	20.56	6.32
Class 3 Robotics Engineering (2025 intake)	38	53.18	36.84%	9.37	17.97	5.11

It can be seen from the data in the table that the comprehensive scores of Human Resources Management Class 1 and Logistics Management Class 1 are the best. Among the three classes, the total average score (58.99 points) and the overall pass rate (43.59%) are the highest. The results of the third class of robotics engineering are at the bottom, with an average total score of 53.18 points, and the pass rate is only 36.84%. The total standard deviation of this class is 17.63, which is much higher than that of the other two classes, indicating that the English level of students within the class is seriously differentiated.

The table data shows that there are obvious differences in the performance of students in different majors in each question type. Class 1 of Human Resources and Logistics has the highest average score in the four question types of listening, vocabulary, translation and writing. The average translation score of this class is 7.14, which is higher than that of the other two classes, which is also the main reason for its outstanding comprehensive performance. Most students in this liberal arts major have a solid foundation in English and are easier to absorb language knowledge, so the language output question type has better performance [4].

Class 4 Mechanical Design, Manufacturing and Automation achieves the highest average reading score of 20.56, its prominent strength. However, its average listening score stands at only 8.36, the lowest among the three classes, making listening its major weakness. Mechanical majors excel in logical reasoning, yet they lack sensitivity to audio materials and seldom engage in daily listening practice.

Class 3 Robotics Engineering earns the lowest average scores in vocabulary, reading and translation. Its average translation score is merely 5.11, forming a noticeable gap compared with the other two groups. Burdened with heavy specialized coursework and weak prior English foundations, these engineering students attach less

importance to English learning and devote limited time to it. Consequently, they underperform in most skill modules.

6. Optimized Teaching Strategies and Suggestions

Targeted, actionable pedagogical recommendations are proposed based on the diagnosed issues, freshmen's learning characteristics and major-specific proficiency gaps.

First, implement stratified teaching reform to accommodate multi-level learning demands. To address severe proficiency polarization, uniform large-class teaching shall be replaced with tiered instruction. At the start of the semester, students are divided into basic, intermediate and advanced tiers according to college entrance English scores and placement test results, with customized teaching objectives, content and methodologies for each tier. The basic tier consolidates core vocabulary and grammar to meet baseline course standards; the intermediate tier strengthens integrated listening, reading and writing competence; the advanced tier fosters intercultural communication and academic English for personalized development. [4] Meanwhile, major-focused teaching priorities are set: mechanical majors strengthen listening training, general engineering majors boost translation and vocabulary proficiency, and liberal arts majors consolidate their strengths while remedying weak points.

Second, optimize vocabulary and translation teaching. Teachers can make reasonable weekly vocabulary learning plans, and support staged small tests and review classes. This measure allows students to accumulate vocabulary step by step and fundamentally solve the problem of insufficient vocabulary reserve [11]. Colleges and universities should build a systematic translation teaching system with sufficient Chinese-English translation exercises. The teaching focuses on explaining the syntactic differences and semantic conversion skills of Chinese and English; select teaching materials suitable for each major, combine translation training with professional courses, improve students' practical translation ability, and maintain students' enthusiasm for learning [1].

Third, balance language input and output teaching, and strengthen output ability. Teachers should balance language input and output-related teaching, and focus on improving students' language output ability. Teachers can adjust the class schedule and add writing and translation exercises on the basis of retaining reading training. Reduce the one-way lecture time of teachers, reserve more class time for teacher-student communication, group discussion, first draft composition writing and translation practice, and give students sufficient opportunities to use free language [12]. Adopt a dual evaluation mode that combines teachers' scoring and students' mutual evaluation: teachers uniformly explain common typical mistakes, and give personalized suggestions for each student's problems to improve the accuracy and fluency of students' writing.

Fourth, innovate the listening teaching mode and improve the teaching effect. Abandon the traditional single teaching mode of simply playing audio and checking answers, and adopt a new comprehensive teaching system that combines intensive listening and general listening, classroom training and after-class independent learning. In the classroom, teachers rely on situational audio materials to teach systematic listening problem-solving skills to help students master the core listening methods [10]. With the help of online learning platforms to enrich listening resources

and assign after-school listening tasks; with online supervision and regular assessment, students' listening level can be improved in an all-round way.

7. Conclusions

This article takes the final exam results of non-English majors in a college as the research data. It only adopts basic descriptive statistics and comparative analysis methods, and does not use complex data analysis software in the whole process. The article comprehensively evaluates the comprehensive level of students' English, and sorts out various common problems in college English teaching.

Data analysis results show that the overall examination results of this batch of freshmen are not ideal, and the pass rate is less than 40%. The development of students' language abilities is uneven: reading is their most prominent advantage, and translation and vocabulary are obvious shortcomings. There is a significant gap in the English level of students in different major classes, and the ability differentiation between individual students is also very serious.

Based on the above analysis, this paper puts forward a series of targeted improvement countermeasures, including the implementation of layered teaching, the optimization of curriculum system design, balanced language input and output training, innovative listening teaching mode, and normalization of ability evaluation. The conclusion of this study can provide practical reference for the reform of English teaching in non-English colleges and universities, which is convenient for teachers to grasp the current situation of students' real learning, adjust the teaching plan, make up for the shortcomings of students' ability, comprehensively improve students' comprehensive English level, and achieve the established core teaching goals of the curriculum.

There are certain limitations of this study: all samples only come from three classes in a single university, and the data obtained cannot fully represent all student groups of the same kind. Follow-up research can select samples from different levels and different types of colleges and universities to conduct research to verify whether the conclusion of this study has a wider universality [3]. Follow-up research can also collect data related to students' learning behavior, further dig into the deep causes of students' weak language ability, and provide more reference value for teaching optimization. [2].

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

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