

Research on the Assessment Reform of Professional English Courses

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Abstract: To address the prominent issues in the traditional assessment model for Professional English courses in Software Engineering, network engineering, intelligent science and technology majors, which focuses on the final closed book written examination, ignores the cultivation of process application ability, and focuses on the memorization of knowledge points, based on the needs of Applied Undergraduate Talent Training and professional certification construction, and relying on the 32 class hour course teaching content, a new evaluation system of modular whole process assessment+final assessment of English course papers is constructed. The reform eliminates the traditional closed-book final exam and breaks down the coursework into five interconnected modules: literature search, English document reading, scientific essay writing, standardized citation, and manuscript revision, providing students with phased training in foreign-language literature retrieval, technical document analysis, and English academic writing skills. The final assessment is conducted as an English paper that complies with academic standards. The implementation of this reform demonstrates its effectiveness in addressing common issues such as non-standard professional English writing, lack of scientific rigor in content, and arbitrary use of technical terminology. It meets practical needs including foreign-language documentation for graduation projects, access to professional technical materials, and English preparation for postgraduate entrance exams, providing actionable guidance for optimizing English assessment standards in computer science-related disciplines.

Keywords: Professional English; Assessment Reform; Modular Assessment; Comprehensive Evaluation; Computer Science Majors

1. Introduction

"Professional English" is an elective course designed to enhance curriculum coverage for Software Engineering, Network Engineering, and Intelligent Science and Technology programs (including general undergraduate and college-to-undergraduate pathways). The course carries 2 credits with a total of 32 instructional hours, scheduled from Week 9 to Week 16.

The original course adopted the assessment mechanism of "routine exercises+final closed book written examination". The proportion of final scores was too high, and the weight of process assessment was too low. Students generally recited the exam before the exam. Combined with the teaching and graduation design review over the years, students generally have some problems, such as the wrong format of English references, the logical confusion of English abstract writing, and the mixing of case and case of programming terms (such as the various writing formats of spring boot), which are difficult to meet the graduation standards and the employment requirements of the industry. According to the management documents related to the curriculum assessment reform of Lanzhou Institute of Technology, the curriculum team carried out the whole process of Diversified Assessment Reform Research and reconstructed the curriculum evaluation system^[1].

2. Current Situation and Existing Problems of the Existing Course Assessment System

The existing assessment system comprises two components: regular written exercises and a final closed-book written exam, with total scores calculated on a percentage basis. This approach has demonstrated significant delays and fails to meet the requirements for cultivating applied undergraduate talents or achieving professional accreditation in engineering education. Specifically, the traditional as-

assessment model suffers from three major shortcomings:

a. Unbalanced score ratio:the weight of the written examination at the end of the term is too large,which leads to the exam oriented learning habit of "emphasizing the end of the term and ignoring the daily life".Students lack normal English practice,and their professional English ability cannot be steadily improved.

Professional English has the dual attributes of "language tool" and "professional knowledge", which requires long-term Language Sense Cultivation and professional context infiltration.However, under the baton of the high weight final exam, and the course is taught in large classes of 100 people,the difficulty of process management has increased significantly, and students generally adopt the exam oriented strategy of "reciting professional vocabulary before the exam and memorizing the text translation by rote".This kind of short-term memory can not be transformed into long-term professional English application ability,but also makes the course lose the original intention of cultivating students' cross-cultural communication and lifelong learning ability.

b. The usual form of homework is rigid:the homework after class is mainly based on memory exercises such as word translation and choice filling in the blank,which is separated from the actual scene of scientific research and engineering, and cannot exercise practical skills such as foreign literature search and official technical manual reading^[2].

In actual IT enterprise posts or R&D environments,developers need to frequently read GitHub open source project documents,check stack overflow technical Q&A,and study the official Linux configuration manual or English API documents of mainstream frameworks (such as spring boot and Vue).The traditional homework training can not cover the above high-frequency engineering scenarios. Students can only complete paper-based objective exercises,but can not read the English error log of the project,which is out of touch with the development manual,weakening the supporting role of the course in solving complex engineering problems.

c. The final examination form is single:the closed book examination paper takes the translation of words and sentences as the core question type,and lacks a complete English academic writing examination,which directly leads to the high error rate of English abstracts and references in students' graduation design.the closed book examination paper takes the translation of words and sentences as the core question type and lacks a complete English academic writing assessment, which directly leads to the high error rate of English abstracts and references in students' graduation design.

Combined with the practical feedback of graduation design, students' English application short board focuses on three aspects: standardization,scientificity and preciseness: first, the format of references is not standardized;Second,English writing lacks literature support,and the content is subjective and scientific;Third,the case and spelling of software professional terms are disorderly. Students are generally not familiar with the gb/t 7714 citation specification, the writing format of terms such as spring boot and MySQL is chaotic,and Chinglish and groundless discussions frequently appear in the foreign language content of BiShe,which is difficult to meet the graduation and industry standards.

To sum up,the original assessment system has obvious limitations in the evaluation dimension, assessment form and academic fitness.The existing problem framework of the traditional assessment model is shown in Figure 1.It is urgent to reconstruct the curriculum evaluation system through the whole process and diversified assessment reform,so as to realize the fundamental change from "knowledge memory test" to "engineering and academic application ability evaluation".

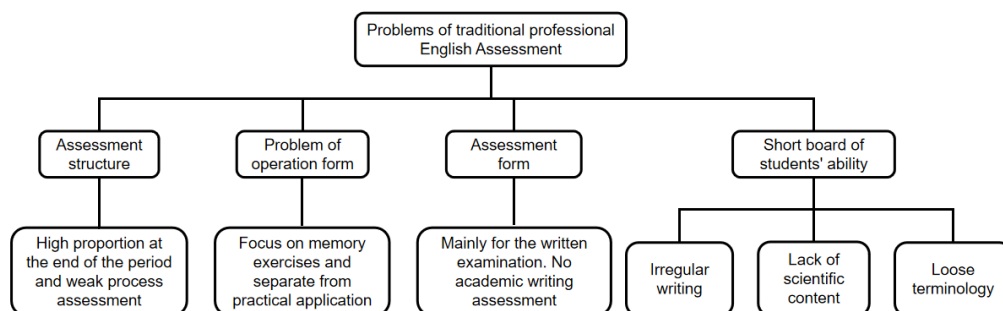


Figure 1:Frame diagram of existing problems of traditional assessment mode

3. Overall Design Concept for the Assessment Reform

The reform follows the four principles of one lesson,one case,focusing on process,highlighting application and benchmarking academic research,abolishing the traditional closed book written examination,and establishing a dual track evaluation system of "hierarchical modular process assessment+standardized final assessment of English academic papers".Closely linked to the seven teaching units,five interconnected assignments with sequential progression and iterative outcomes have been designed.These assignment materials are progressively integrated to ultimately form the initial draft of the final thesis.The assessment focus has shifted from memorizing textbook knowledge points to comprehensive skill development encompassing literature retrieval,original text analysis,short essay writing,citation annotation,and manuscript revision.The overall framework of assessment reform and the dual track evaluation system are shown in Figure 2.

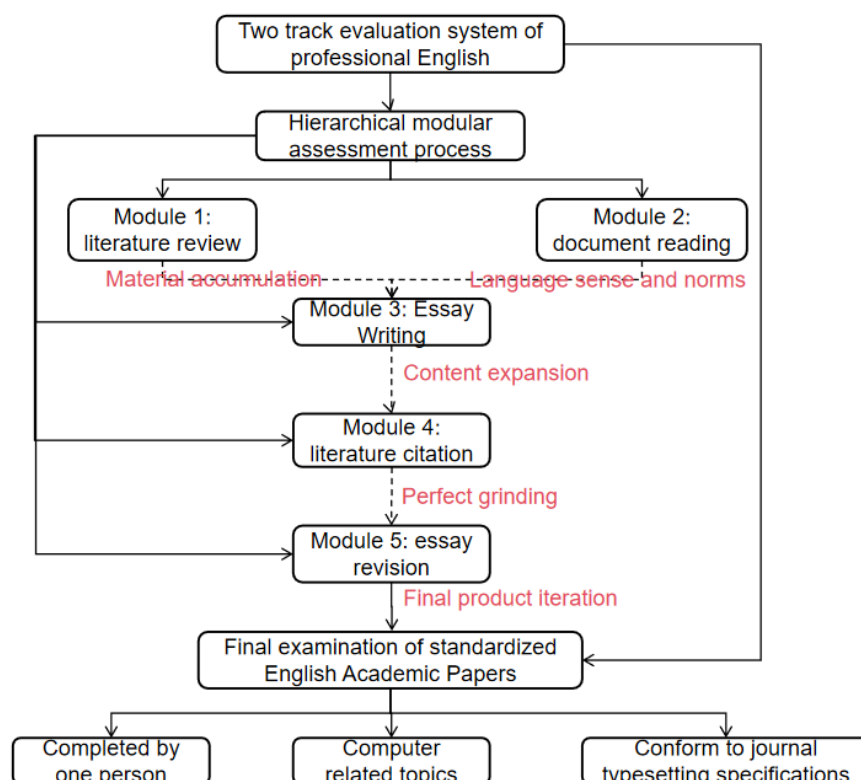


Figure 2:Overall framework of assessment reform and dual track evaluation system diagram

4. Specific Implementation Plan for the Reform of Assessment Systems

4.1 Modularized,comprehensive process evaluation throughout the entire workflow

The course design includes five phased assessment tasks implemented weekly,each graded separately on a percentage basis.The average score across all five assessments serves as the process grade and accounts for a specified proportion of the total course score.The corresponding teaching content for each task is as follows:

a. Week 9:Literature review assignment(basic computer unit): students retrieve 1-3 English documents in computer direction based on CNKI and other databases,sort out references in strict accordance with the format of undergraduate thesis,and exercise the ability of foreign language collection and citation format standardization^[3].

b. Week 10:English document reading assignment(operating system unit):select the Linux system DHCP configuration official English manual,intercept the original text within 100 characters for Chinese translation,and improve the reading ability of Engineering English technical documents.

c. Weeks 11-13:Essay writing assignment(programming language, program foundation unit): according to the specification of undergraduate thesis abstracts,write English science and technology

essays on computer topics with less than 200 words, and consolidate the basic skills of English abstract writing.

d. Weeks 14-16: Literature citation (data structure, software engineering, database unit): retrieve 3 relevant foreign literature, supplement and improve the content of previous short articles, and mark the literature citation information in the text.

e. Week 17: Short article revision assignment (comprehensive for the whole course): correct the grammar, terminology and citation errors in the previous assignment, polish the manuscript, and reserve materials for the final English course paper writing.

The five assignments are progressively structured with interconnected materials, forming a comprehensive closed-loop training system for English writing practice.

4.2 Reform of the final assessment system

Cancel the final closed book written examination. The final examination requires students to independently complete English academic papers on computer related topics. The full text follows the unified typesetting standard of regular journals. The course team selects excellent papers and encourages students to try to submit papers to journals for publication. The paper uses the percentile system to quantify the score and refine the complete score dimension: 10 points for the quality of the title and abstract; The text part is 70 points in total, including 40 points for content integrity, 20 points for English expression level, and 10 points for Title level standardization; The overall typesetting quality of text charts and references is 20 points, with a total score of 100 points.

4.3 Management of Make-up Exams and Course Retakes

The final course grade is calculated by weighting the average scores of five module assignments with the final English course paper score. For students who fail the assessment, the course team will provide targeted tutoring in accordance with university requirements, guiding them to actively develop practical approaches for applying professional English skills. Retake examinations are conducted systematically under the unified arrangements of the Academic Affairs Office; students who still fail after retakes must complete course resubmission procedures strictly following institutional academic regulations. During the resubmission phase, instruction closely aligns with the foreign language writing requirements of the graduation project, continuously enhancing students' practical English proficiency and significantly improving learning outcomes.

5. Characteristics of the reform plan and expected outcomes

5.1 Three features of the scheme

a. Modularity: overcome the shortcomings of literature, translation and writing one by one in five tasks, form an advanced training closed loop of "vocabulary sentence paragraph chapter", and solve the pain points such as nonstandard and imprecise English.

b. Systematicness: the results of assignments at each stage are used iteratively to break the disadvantage of fragmentation of assignments, so that students can experience the real academic writing process of "first draft - Revision - final draft", and help students establish a complete idea of English academic writing.

c. Academic: the graduation requirements for "communication and expression of complex engineering problems" in the professional certification of engineering education are fully supported by the standardization of undergraduate graduation and scientific research, the connection of course papers with graduation design, postgraduate entrance examination and workplace R&D needs^[4].

5.2 Expected Outcomes

a. At the student level: significantly improve the three core abilities of foreign language retrieval, English document reading and scientific and Technological English writing, reduce the English error rate of graduation design, and improve the adaptability of post foreign language data processing.

b. Teaching level: reverse optimize the classroom teaching mode of "pre class preview + flipped

classroom + group discussion", and help the construction of Ideological and political courses, first-class courses and professional certification.

c. At the curriculum level: develop a replicable and implementable assessment framework for Computer Science English proficiency, serving as a reference case for similar institutions and course reforms.

6. Conclusions

This reform of professional English assessment is based on the actual training of computer professionals, abandoning the traditional mode of grading one volume at the end of the term, creating a new assessment system of modular process training+final assessment of English academic papers, and accurately solving the pain points of students' irregular, unscientific and confusing English Writing. The whole process of module assessment can quantify students' English application level in stages, and English papers can be changed from paper-based examination to comprehensive ability assessment. In the follow-up, we will dynamically optimize the assessment rules in combination with teaching feedback, continue to improve the curriculum evaluation system, steadily improve students' comprehensive quality of professional English, and provide a replicable and popularized paradigm for the teaching reform of computer professional English in Local Application-oriented Universities.

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