

Challenges and Optimization Pathways in Teaching Assistant Management for English-Medium Courses in Sino-Foreign Cooperative Education: A Case Study of the Big Data Management and Application (Cooperative Education) Program

Binhui Ma*

School of Management Harbin Institute of Technology, Harbin 150001, China

*Corresponding author: rainsnow19820507@163.com

Abstract: English-medium courses are the core vehicle for cultivating international talents in Sino-foreign cooperative education programs in Chinese universities. Teaching assistants (TAs) serve as a critical link between foreign instructors, Chinese students, and teaching administration departments, and the management of the TA team directly affects the quality of course teaching. Currently, the management of TAs for English-medium courses in Sino-foreign cooperative education in Chinese universities generally faces problems such as rigid application procedures, difficulties in recruitment, mismatches between workload and remuneration, and ambiguous duty boundaries. Taking five English-medium courses in the Big Data Management and Application (Cooperative Education) Program at Harbin Institute of Technology in the fall semester of 2025 as a practical case, this paper addresses prominent issues including pending confirmation of French instructors, high requirements for TA competence, and insufficient incentives. Through practical measures such as optimizing application procedures, establishing a precise recruitment mechanism, refining job responsibilities, and improving incentive safeguards, it achieved 100% high-quality staffing of TAs for all five courses, ensuring smooth teaching operations. This paper reviews the practical measures, outcomes, and existing problems, proposes long-term improvement directions, and provides a replicable reference for TA management in similar courses at other universities, contributing to the enhancement of talent cultivation quality in Sino-foreign cooperative education.

Keywords: English-medium courses; Sino-foreign cooperative education; TA recruitment; teaching management; international talent cultivation

1. Introduction

1.1 Research Background

Driven by economic globalization and educational internationalization, Sino-foreign cooperative education has shifted from scale expansion to quality improvement, with its core being to cultivate interdisciplinary talents who possess both international perspectives and professional expertise^[1]. English-medium instruction is the mainstream model in Sino-foreign cooperative education, which enables students to access international cutting-edge knowledge, but its teaching management is far more challenging than that of regular Chinese-medium courses^[2].

Unlike traditional courses, English-medium courses in Sino-foreign cooperative education are mostly taught by foreign instructors, involving differences in language, culture, and teaching modes, which impose higher demands on the teaching support system^[3]. Teaching assistants, as the core force of teaching support, undertake important duties such as classroom communication, assignment grading, and teacher-student liaison, and are the key to ensuring the smooth operation of courses^[4]. However, the current TA management models in most universities are designed for regular Chinese-medium courses and cannot adapt to the particularities of English-medium courses, leading to a series of management difficulties that constrain the improvement of teaching quality^[5].

1.2 Research Significance

1.2.1 Theoretical Significance

This study focuses on the management of teaching assistants for English-medium courses in Sino-foreign cooperative education. By analyzing dilemmas and optimization pathways through practical cases, it enriches the theoretical system of teaching management in Sino-foreign cooperative education in Chinese universities^[6], provides practice-oriented ideas for similar research, and improves the relevant studies on the teaching support system for English-medium courses^[7].

1.2.2 Practical Significance

Based on the practical experience of the relevant programs at the School of Economics and Management, Harbin Institute of Technology, this study proposes measures such as process optimization and precise recruitment, which are simple and feasible. These measures can directly provide references for TA management of similar courses in other domestic universities, help universities address management pain points, improve the quality of the TA team, and ensure the teaching effectiveness of English-medium courses^[8].

1.3 Domestic and International Research Status

1.3.1 International Research Status

Higher education internationalization abroad started early, and English-medium instruction and teaching assistant systems are well-established. Research has focused on TA competency development and incentive mechanisms, emphasizing communication and coordination roles. However, foreign educational systems and cultural environments differ greatly from those in China, and the findings cannot be directly applied to the practice of Sino-foreign cooperative education in China^[9].

1.3.2 Domestic Research Status

Domestic scholars have conducted extensive research on English-medium course development and faculty management in Sino-foreign cooperative education, but research on TA management remains insufficient: most studies focus only on a single issue and lack systematic exploration of management systems; there are few practice-oriented studies and a shortage of actionable specific plans; and special studies targeting emerging majors such as big data are particularly scarce^[10]. This study, grounded in practice, fills the gaps in existing research.

1.4 Research Approach and Methods

1.4.1 Research Approach

This study follows the logic of "identifying problems – analyzing problems – solving problems – summarizing and optimizing." Taking the five English-medium courses in the Big Data Management and Application (Cooperative Education) Program at Harbin Institute of Technology as the carrier, it identifies the dilemmas in TA management, elaborates on practical optimization measures, summarizes achievements and existing problems, proposes long-term improvement directions, and forms a complete research cycle.

1.4.2 Research Methods

a. The case study method is employed to take the relevant program at Harbin Institute of Technology as a typical case and conduct an in-depth analysis of the practical process and effects of TA management.

b. The practical exploration method is adopted to combine actual frontline teaching management, carry out full-process practices such as TA recruitment and management, and extract hands-on experience.

c. The literature review method is used to examine relevant domestic and international research and establish a theoretical foundation.

d. The interview and survey method is applied to interview foreign instructors, teaching assistants, students, and administrators, so as to grasp genuine needs and problem feedback.

2. Core Dilemmas in the Management of Teaching Assistants for English-Medium Courses in Sino-Foreign Cooperative Education in Universities

2.1 Rigid Application Procedures for Teaching Assistants and Difficulty in Breaking Process Barriers

In the regular TA appointment process, the course instructor is required to initiate an application in the system. However, for English-medium courses in cooperative education, foreign instructors are often not confirmed until just before the semester begins due to visa and travel issues, making it impossible to complete the necessary filing in time, which causes the TA application to stall. Taking the fall semester of 2025 at Harbin Institute of Technology as an example, the TA applications for the five French cooperative courses could not be initiated because the foreign instructors had not yet been determined, which severely hampered course preparation.

2.2 Dual Elevation of Recruitment Thresholds and Low Effective Recruitment Rate

Teaching assistants for English-medium courses are required to possess both language proficiency and professional competence: in terms of language, they must be able to fluently complete translation and grading tasks in English (or French); in terms of professionalism, they must be capable of assisting foreign instructors in teaching. These dual requirements render the traditional "voluntary registration" model ineffective, resulting in extremely low student willingness to apply. In the case study, only one course received valid applications in the initial stage, with a recruitment rate of less than 30%, leaving a large TA shortage.

2.3 Mismatch between Workload and Remuneration, and Insufficient Incentive Support

The class schedules for English-medium courses are relatively intensive, and teaching assistants are required to undertake a full range of tasks including pre-class preparation, in-class attendance, after-class Q&A sessions, and cross-cultural coordination. The average weekly working hours far exceed those of regular TAs. However, universities implement a unified remuneration standard for TAs with no flexibility and no special subsidies, which severely dampens students' willingness to apply and their work motivation.

2.4 Vaguely Defined Job Responsibilities and Non-Standardized Work Execution

The work of teaching assistants for English-medium courses involves coordination and communication among multiple parties. However, most universities have not clearly formulated targeted duty norms for TAs, leaving TAs unclear about their specific work content, standards, and requirements. As a result, their work tends to be performed with a high degree of arbitrariness, which can easily lead to problems such as poor communication and task omissions, ultimately failing to meet the needs of teaching support.

2.5 Obstacles in Cross-Cultural Communication and Low Sino-Foreign Collaborative Efficiency

Foreign instructors are required to coordinate with teaching assistants in advance before the course begins to arrange classroom logistics. At this stage, the foreign instructors are often overseas or still in transit, and they face time-zone differences, linguistic and cultural gaps with Chinese TAs and students. Communication mainly relies on online platforms, which can easily lead to issues such as delayed information transmission and misunderstandings, ultimately undermining the efficiency of teaching support and the quality of course delivery^[11].

2.6 Lack of Training and Assessment System, and Difficulty in Ensuring Team Quality

Most universities do not provide specialized pre-service training for teaching assistants of English-medium courses, which leads to slow adaptation and low work efficiency in the initial stage. Meanwhile, TA assessment is mainly based on qualitative evaluation, lacking quantitative standards, and the assessment results are not linked to incentives. This makes it difficult to measure work quality and fails to provide guidance for TA capability improvement^[12].

3. Practical Exploration of TA Management for English-Medium Courses in Sino-Foreign Cooperative Education

3.1 Practical Background

The Big Data Management and Application (Cooperative Education) Program at Harbin Institute of Technology is a key cooperative education program of the university, focusing on the interdisciplinary field of big data and business management. In the fall semester of 2025, it offered five French cooperative English-medium core courses. During the preparation phase, the program encountered difficulties such as blocked TA applications and low recruitment rates. The school then carried out a full-process practical exploration of TA management.

3.2 Breaking Process Barriers and Optimizing the TA Application Channel

To address the stagnation of TA applications caused by the pending confirmation of course instructors, the school broke with convention and established a flexible process linkage mechanism.

a. Cross-departmental coordination was carried out to adjust interim procedures. Through communication with the university's academic affairs department, the course instructor was temporarily adjusted to the Chinese responsible instructor for filing purposes, and the process adjustment was completed within 3 working days.

b. A supplementary registration mechanism was established to ensure process compliance. Once the French instructors were confirmed, the Teaching Administration Office promptly entered the relevant information into the academic management system, ensuring that the process remained complete and traceable, in accordance with the university's teaching management requirements.

c. Advance planning was conducted to develop preventive contingency plans. One month before the semester began, the course list was reviewed, and the school coordinated with the French side to track faculty progress. For courses that might experience delays, contingency plans were prepared in advance for Chinese instructors to submit applications on behalf of the foreign instructors.

3.3 Precisely Aligning with Demands and Establishing a Multi-Level TA Recruitment Mechanism

A precise recruitment mechanism combining "targeted mobilization, faculty recommendation, competency assessment, and talent pooling" was established.

a. Clear standards were defined and recruitment information was precisely disseminated. Recruitment announcements were published on the school's official website, university-wide master's and doctoral student groups, and other channels, with each course's language requirements, professional requirements, job content, and incentive measures clearly marked to improve the rate of valid applications.

b. Targeted mobilization was carried out to broaden the recruitment scope. For courses with no applicants, the school, based on the major characteristics, proactively contacted outstanding master's and doctoral students from relevant majors such as computer science and foreign languages, and identified suitable candidates through one-on-one outreach.

c. The process was streamlined and targeted assessments were conducted. A combination of "qualification review and brief interview" was adopted to verify language certificates and academic records, and to assess communication skills, professional competence, and adaptability.

d. A talent pool was established to achieve long-term matching. The TAs recruited in this round, along with qualified candidates who were not selected, were included in the talent pool, with their language proficiency, professional orientation, and other information recorded. For subsequent recruitment, candidates could be directly matched from the pool, shortening the recruitment cycle.

Through the above measures, the school completed TA recruitment for all courses within just 5 working days, achieving 100% high-quality staffing. All TAs were master's or doctoral students with relevant majors, fully meeting the course requirements.

3.4 Refining Duty Requirements and Standardizing TA Work Execution

The school formulated the Handbook for Teaching Assistants of English-Medium Courses in the

Cooperative Education Program, which clearly defines the core responsibilities and work standards for TAs and establishes a routine management mechanism.

a. Full attendance and in-class support are required. TAs must attend all teaching sessions in full and may not be absent without justifiable reason. During class, they are expected to make teaching records, assist in resolving issues such as language communication and equipment malfunctions, and ensure smooth course delivery.

b. Assignment grading is standardized. It is specified that assignments must be graded within 3 working days after class, with errors marked and brief explanations provided. Common problems are to be summarized and submitted to the foreign instructor, serving as a reference for teaching adjustments.

c. Efficient teacher-student liaison is ensured. A tripartite communication group consisting of "foreign instructor - TA - students" is established. TAs are required to respond to student inquiries within 24 hours, collect learning feedback once a week, and transmit teaching information in both directions.

d. Full-process teaching preparation is carried out. Before class, TAs assist the foreign instructor in organizing materials, notifying students, and debugging equipment. After class, they help organize Q&A sessions and maintain teaching archives, thus providing comprehensive teaching support throughout the entire process.

e. Weekly work reporting is implemented. TAs are required to submit a written report to the Teaching Administration Office each week, outlining completed tasks, existing problems, and future plans. This enables the school to stay informed of work progress in real time and address issues promptly.

3.5 Improving the Support System to Match the Actual Work Value of Teaching Assistants

To address the mismatch between workload and remuneration, the school constructed a three-dimensional remuneration system consisting of "basic remuneration, difficulty subsidy, and duration subsidy," and further improved non-material incentives and work support^[13].

a. Differentiated remuneration calculation was implemented. On top of the university's basic remuneration, additional subsidies for professional difficulty and working hours were added, following the principle of "more pay for more work, better pay for better performance," to ensure that remuneration matched the workload and difficulty of the tasks.

b. The supplementary payment process was streamlined. The school uniformly calculated the actual working hours of each TA, and while the university's TA remuneration was being disbursed, the school coordinated with its finance department to open a dedicated supplementary payment channel, ensuring timely and full distribution of subsidies.

c. Diversified non-material incentives were provided. TA work was incorporated into the comprehensive quality evaluation of students, and official practical service certificates were issued, serving as important references for merit evaluations, postgraduate recommendation, and employment referrals. A special "Outstanding Teaching Assistant" commendation was also established to enhance TAs' sense of achievement.

d. Comprehensive work support was offered. Teaching materials were provided to TAs, and one-on-one guidance from Chinese faculty members was arranged to assist TAs in resolving difficulties encountered in their work, thereby providing solid support for their performance.

4. Practical Outcomes and Summary of Experience

4.1 Practical Outcomes

Through a series of practical measures, the school successfully addressed the pain points in TA recruitment and management, achieving remarkable results.

a. The school achieved 100% high-quality TA staffing. From an initial recruitment rate of less than 30%, it quickly completed the staffing of TAs for all courses. The TA team possessed relevant professional backgrounds and met the required competencies, fully matching the course needs.

b. The smooth operation of courses was ensured. TAs strictly followed the work handbook,

achieving 100% rates in class attendance, timely assignment grading, and accurate information transmission. Cross-cultural communication barriers were effectively mitigated, and the instructor-student satisfaction rate exceeded 95%.

c. A standardized management system was established. A full-process management framework covering "process optimization, precise recruitment, duty standardization, and support and incentives" was developed, and the relevant documents produced provide a replicable template for subsequent management.

d. A multi-party collaborative mechanism was built. Coordination with the university's academic affairs and finance departments, as well as with faculty from various disciplines, was strengthened, accumulating collaborative experience in teaching management for Sino-foreign cooperative education.

e. The quality of talent cultivation was enhanced. The high-quality TA team provided strong support for the English-medium courses, and students' professional competence, English application skills, and cross-cultural communication abilities were significantly improved.

4.2 Summary of Core Experience

The core experience accumulated from this practice can be summarized into the following four points:

a: Optimizing the appointment process is the prerequisite. By breaking through the rigid constraints of the original TA appointment process, establishing a flexible and efficient TA appointment mechanism, strengthening communication and coordination among various departments, and breaking down barriers to TA recruitment, a solid foundation is laid for TA recruitment.

b: Precise matching with the course is the key. TA appointment should be guided by course needs, with clear competency standards for TAs specified. Through targeted mobilization and precise screening, a high degree of alignment between courses and TAs is achieved.

c: Standardized management of TAs is the guarantee. By refining TA responsibilities, clarifying work standards, and establishing communication and reporting mechanisms, TA work is provided with clear guidelines, thereby improving the efficiency and quality of TA performance.

d: Incentive safeguards are the driving force. By balancing material and non-material incentives, the actual efforts of TAs are matched with reasonable returns, thereby mobilizing the work enthusiasm of TAs.

5. Existing Problems and Improvement Directions

5.1 Existing Problems

Although notable results have been achieved in practice, there remain three aspects that urgently require improvement:

a. The pre-service training for TAs needs to be enhanced. Due to delays in recruitment and other factors, systematic pre-service training was not conducted for TAs of English-medium courses; only a simple handover was arranged. As a result, TAs were unfamiliar with the foreign instructors' teaching models and communication styles, leading to a longer adaptation period.

b. The TA assessment system needs to be quantified. The current TA assessment system relies primarily on instructor-student feedback and work reports, lacking a quantitative evaluation indicator framework. This results in insufficient objectivity in assessment and fails to provide clear guidance for TA work improvement.

c. The communication efficiency of TAs needs to be improved. Time-zone differences between foreign instructors and TAs, combined with information delays and comprehension deviations in online communication, undermine the efficiency of teaching support.

5.2 Improvement Directions

To address the existing problems, the school will continue to optimize from the following five aspects, with the aim of establishing a long-term management system:

a. A systematic pre-service training system will be developed. A training plan covering English communication, cross-cultural assistance, professional fundamentals, and procedural norms will be formulated, adopting a blended online-and-offline training model.

b. A quantitative assessment and evaluation system will be established. An assessment methodology will be developed, incorporating a four-dimensional quantitative indicator framework of "work attitude, work quality, instructor-student feedback, and working hours," with a 100-point grading system. Assessment results will be directly linked to remuneration and merit evaluations.

c. An efficient Sino-foreign communication platform will be built. A dedicated online communication platform for TAs of English-medium courses will be established, with fixed communication slots negotiated with foreign instructors. Chinese faculty members will be assigned to serve as bridges for communication, ensuring timely and accurate information delivery.

d. Dynamic management of the talent pool will be improved. The talent pool for TAs of English-medium courses will be optimized, with regular updates and competency rating mechanisms established. Assessment results will be incorporated into individual profiles to provide support for subsequent precise recruitment.

e. Sino-foreign collaborative management will be strengthened. Communication with partner foreign institutions will be enhanced, and joint efforts will be made to jointly develop TA work norms and evaluation criteria, thereby achieving alignment and consistency in Sino-foreign management.

6. Conclusion

The management of teaching assistants for English-medium courses in Sino-foreign cooperative education is key to ensuring teaching quality and cultivating international talents. It cannot simply copy the model of regular courses, and a professional management system needs to be built based on actual conditions^[14].

The relevant programs at Harbin Institute of Technology, through four core measures — process optimization, precise recruitment, duty standardization, and incentive safeguards — have successfully solved the dilemmas in TA management and achieved high-quality staffing and standardized management of the TA team. In the future, the school will continue to improve long-term mechanisms such as pre-service training and assessment evaluation, promote the development of TA management toward more professional and refined practices, and provide support for cultivating more international talents.

At present, Sino-foreign cooperative education in China is at a critical stage of high-quality development. The management of TAs for English-medium courses requires each university to continuously explore and innovate based on its own characteristics, summarize replicable practical experiences, jointly promote the connotative development of internationalization in higher education, and contribute to the building of a strong higher education system.

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