

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

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Abstract: English-medium courses are the main mode of cultivation for overseas Chinese students in Sino-foreign cooperative education at Chinese universities. Teaching assistants (TAs) are in charge of organising the work of foreign instructors, Chinese students and teaching administration; therefore, the management of the TA team directly affects the quality of course teaching. At present, there are some general problems in the management of TAs for English-medium courses in Sino-foreign cooperative education at Chinese universities, such as strict application requirements, difficulties in recruitment, a mismatch between the intensity of work and salary, and unclear division of responsibilities. As a typical case, we have taken five English-medium courses in the Big Data Management and Application (Cooperative Education) Program at Harbin Institute of Technology in the fall of 2025, and this paper addresses the following issues: the lack of confirmed French instructors, high demands on TA qualifications, and insufficient incentives. We have strengthened the application procedures, developed a reasonable recruitment plan, clarified the job descriptions and updated them periodically, increased the incentives for high-performing employees, and have now hired TAs for all five courses to ensure continuous teaching. Based on the review of the practical measures, results and problems in this paper, we put forward some long-term improvements and provide a replicable reference for TA management in similar courses at other universities to enhance the quality of talent cultivation 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

With the development of economic globalisation and the internationalisation of education, the scale and quality of Sino-foreign cooperative education have been expanding and improving to foster interdisciplinary talents with both an international outlook and professional capabilities^[1]. English-medium teaching is the main type of Sino-foreign cooperative education; although it can introduce new knowledge from abroad, the management of such classes is much more difficult than that of regular Chinese-medium classes^[2].

Different from traditional classes, English-medium classes in Sino-foreign cooperative education are often taught by foreign teachers; there are also language, culture and teaching method differences, so more teaching support is required^[3]. Teaching assistants are the main force supporting teaching and are responsible for many tasks, such as communicating with students in the classroom, grading homework, helping teachers with class management, etc. However, most of the current TA management models in universities have been designed for regular Chinese-medium courses and are not suitable for the special circumstances of English-medium courses; thus, a series of management problems have arisen that have limited the improvement of teaching quality^[5].

1.2 Research Content

1.2.1 Theoretical Foundation

Research on the Management of Teaching Assistants in English-Medium Courses of Sino-Foreign Cooperative Education. Based on the analysis of problems and optimisation paths in actual cases, this paper adds to the theoretical system of teaching management for Sino-foreign cooperative education in Chinese universities^[6], provides some practical ideas for related research, and promotes the study of the teaching support system for English-medium courses^[7].

1.2.2 Practical Significance

Based on the actual implementation of the relevant programs at the School of Economics and Management, Harbin Institute of Technology, this paper proposes that process optimisation and precise recruitment are simple and feasible options. The above measures can directly provide a reference for TA management of similar courses in other domestic universities, help the universities solve management problems, improve the quality of the TA team, and ensure the teaching effectiveness of English-medium courses^[8].

1.3 Domestic and Foreign Research Status

1.3.1 Research Status Abroad

The internationalisation of higher education abroad started earlier, and English-medium instruction and teaching-assistant systems have been established. Most studies on the development of teaching ability (TA) and incentive systems have focused on communication and coordination. However, foreign educational systems and cultural environments are very different from those in China, and the results cannot be directly applied to the practice of Sino-foreign cooperative education in China^[9].

1.3.2 Domestic Research Status

Although many studies have been conducted domestically on the development of English-medium courses and faculty management in Sino-foreign cooperative education, research on Teaching Assistant (TA) management is scarce; most studies focus on only one problem and do not present management systems systematically; there are few practice-oriented studies and a shortage of specific, implementable plans; and especially few special studies have been conducted in new areas such as big data^[10]. Based on the above, this paper will present some results.

1.4 Research Direction and Ways

1.4.1 Research Method

The structure of this paper is to identify problems, analyse them, solve them, and finally summarise and optimise. Given that the subject of this study is the five English-medium courses in the Big Data Management and Application (Cooperative Education) Program at Harbin Institute of Technology, we will pinpoint problems in TA management, propose practical optimisation measures, summarise the results and outstanding issues, put forward long-term improvement plans, and thus complete the research cycle.

1.4.2 Research Methods

- a. Based on the above, a case study will be carried out on the existing program at Harbin Institute of Technology to examine the actual process and results of TA management in more detail.
- b. Based on the actual teaching management at the front line, various steps of TA recruitment and management will be observed in practice to gain some hands-on experience.
- c. Based on the studies conducted by scholars in China and abroad, the theoretical foundation will be established.
- d. Interviews and surveys will be carried out with the foreign instructors, teaching assistants, students, administrators, and so on, to learn about their actual needs and problems.

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

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

The course instructor needs to start an application in the system for the usual TA appointment process. However, for English-medium courses in cooperative education, foreign instructors are often not confirmed until just before the start of the semester due to visa and travel issues; therefore, it is not possible to complete the necessary filing in time, and the TA application has been delayed. 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 started because the foreign instructors had not been confirmed yet, and thus course preparation was seriously delayed.

2.2 Dual Elevation of Recruitment Thresholds and Low Effective Recruitment Rate

Teaching assistants for English-medium courses need to have both language proficiency and professional ability; in terms of language, they should be able to fluently carry out translation and grading in English (or French), and in terms of professionalism, they should be able to help foreign instructors with teaching. For these two reasons, the old "voluntary registration" mode has not worked well and shows very little interest among students. Only one course had valid applications in the first round, and with a recruitment rate of less than 30%, there is now a serious shortage of TAs.

2.3 Discrepancy in Workload and Salary, and Absence of Incentive Measures

The class schedules for the English-medium courses are relatively full, and the teaching assistants have to handle many different tasks, such as preparation before class, participation in class, organising after-class Q&A sessions, cross-cultural coordination, etc. The average weekly working hours far exceed those of regular TAs. The university has set a single pay scale for TAs and does not provide any extra allowances or benefits to motivate students to join the programme.

2.4 Vague Job Descriptions and Lack of Standardized Work

The work of teaching assistants for English-medium courses needs to coordinate and communicate with all parties. Most universities have not released clear, specific duty norms for TAs, so the actual work content, standards and requirements for these TAs are unknown. As a result, their work is often carried out with a high degree of arbitrariness and is prone to problems such as poor communication and omission of tasks; thus, they fail to meet the demand for teaching support.

2.5 Obstacles in Cross-cultural Communication and Low Efficiency of Sino-Foreign Cooperation

Foreign teachers should work with teaching assistants in advance of the beginning of class to organise the classroom. At this time, the foreign instructors are often abroad or still travelling, and they face problems of time zones, language and culture with the Chinese TAs and students. Most communication is carried out online; thus, there are problems of late delivery of information and misunderstanding, which will affect both 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 organise particular pre-service training for teaching assistants of English-medium courses, so there is a slow adaptation and low work efficiency in the beginning. At the same time, the TA assessment is generally qualitative, does not provide quantitative criteria, and its results are not linked to incentives. Therefore, it is difficult to assess the quality of work and provide improvement guidance for TA capabilities^[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 one of the representative cooperative education projects in the university, and it covers the intersection of big data and business management. There were five French cooperative English-medium core courses in the autumn semester of 2025. There were some issues with the preparation stage, such as blocked TA applications and low recruitment. Then, the school organised a full-process practical exploration of TA management.

3.2 Breaking Process Barriers and Optimising the TA Application Channel

Due to the late confirmation by the course instructor, the approval of the TA was delayed; thus, the school moved away from the old system and introduced a flexible process-linkage model.

a. Inter-departmental cooperation was undertaken to revise the interim measures. Contact was made with the university's academic affairs office to temporarily change the course instructor for filing purposes to the Chinese-speaking responsible teacher, and this modification was completed within three working days.

b. A second kind of registration has been added in line with the requirements. After confirming the French teachers, the Teaching Administration Office immediately entered the corresponding information into the academic management system to meet the university's requirements for teaching administration and ensure that this process is complete and traceable.

c. In advance, we have prepared some precautionary contingency plans. One month before the start of the semester, the courses were revised, and the school worked with the French side to track the teachers' progress. If there is a delay in the course, we have made arrangements in advance to have Chinese teachers submit the applications for foreign teachers.

3.3 Meet the Needs and Establish a Multi-level TA Recruitment System

A specific form of recruitment called "Targeted Mobilisation, Faculty Recommendation, Competency Assessment and Talent Pooling" has been set up.

a. Clear Standards have been set and the recruitment information released. Recruitment announcements were published on the school's official website, university-wide master's and doctoral student groups and other channels, and the language requirements, professional qualifications, job content, incentive measures, etc., of each course were clearly specified to increase the number of qualified applications.

b. Mobilisation was organised to increase the scope of recruitment. For courses that do not have applicants, the school will take the initiative to contact outstanding master's and doctoral students in the relevant areas with good general characteristics, such as computer science and foreign languages, individually contact them, and determine whether they are suitable.

c. Simplify the process and only present some typical observations. Based on the review of qualifications and a short interview to verify the language certificate and academic background, determine whether the candidate has good communication skills, professional ability and adaptability.

d. A Talent Pool will be built to continue recruiting. The TAs recruited in this round, as well as suitable candidates who were not selected, were added to the talent pool and their language proficiency, professional orientation and other information were recorded. The next time we hire, we will choose one of the candidates from this list.

The school has completed the recruitment of TA for all courses in just 5 working days and achieved a staffing rate of 100%. All the TAs were master's or doctoral students in related fields and met the course requirements.

3.4 Increase Duty Requirements and Standardise TA Work Execution

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

Cooperative Education Program to clarify the main duties and work standards of TAs, and established a regular management system.

a. Attend all classes and participate in class. TAs need to take part in all teaching hours fully and should not be absent for any reason. During class, they need to take teaching notes, help solve problems in language communication and equipment failure, and ensure the smooth progress of the lesson.

b. Assignment grading is uniform. It should be done that the grades of the homework are released within three working days of class, along with any corrections and reasons. Briefly list the typical problems and inform the foreign teacher so that we can discuss how to adjust the teaching.

c. Good Teacher-Student Communication is established. The three links in the communication are the foreign instructor, the TA and the students. TAs should answer students' questions within 24 hours, collect learning feedback once a week, and inform both the students and the teachers of any changes in teaching.

d. Full-process teaching preparation will be conducted. Before class, the TAs help the foreign teacher organise materials, inform the students and check equipment. After class, they will help organise Q&A sessions and collect the teaching notes for all-round support of the lesson.

e. There is weekly work reporting. TAs need to submit a written report to the Teaching Administration Office each week on what has been achieved, any problems that have arisen, and future plans. Therefore, the school can keep up with the progress of the work and address problems in time.

3.5 Optimisation of the Support System Based on the Actual Work Value of Teaching Assistants

To solve the problems of an excessive workload and inadequate compensation, the school introduced a three-dimensional remuneration system of "basic pay, difficulty allowance and duration allowance" and added other non-financial incentives and work support^[13].

a. Differential Compensation Calculation was employed. In addition to the university's basic salary, there are extra allowances for professional difficulties and long working hours in accordance with the "more pay for more work, better pay for better performance" principle, so that compensation is in line with the quantity and difficulty of the work.

b. Streamline the Process of Supplementary Payments. The school uniformly calculated the actual working hours of each TA, and as the university's TA remuneration was being paid out, the school worked with the university's finance department to open a special supplementary payment channel and ensure the timely and full distribution of subsidies.

c. Some were not in cash. TA work has been added to the general quality assessment of students, and official practical service certificates have been issued to serve as references for merit evaluation, postgraduate recommendations and employment. A special "Outstanding Teaching Assistant" award will also be given to motivate the TAs better.

d. General work support was offered. Teaching materials were provided for the TAs, and individual guidance from the Chinese faculty members was organised to help the TAs solve problems in their work and offer full support for their performance.

4. Practical Results and Summary of Experience

4.1 Practical Results

A number of practical measures have been taken by the school to deal with the problems of TA recruitment and management effectively.

a. The school had 100% high-quality TA staff. The first recruitment rate was less than 30%, but we were able to hire all the course TAs in time. The TA team had the required professional backgrounds and met the other conditions for taking the course.

b. The running of the class went well. TAs followed the work handbook, achieved 100% in-class attendance, timely assignment grading and correct dissemination of information. Now there are fewer language problems, and most of the students are content.

c. A Single Management System was established. A closed-loop management system has been set

up to improve efficiency, properly hire staff, standardise work rules, offer support and motivation, etc.; the related documents produced will serve as a model for future management.

d. A Multi-Party Cooperation Mechanism was established. Cooperation with the academic affairs and finance departments of the university, as well as collaboration with faculty from different schools, has been strengthened to accumulate teaching management experience in Sino-foreign cooperative education.

e. The Quality of Talent Cultivation has risen. The high-quality TA team fully supported the English-medium classes, and the students have improved in professional skills, English application abilities and cross-cultural communication.

4.2 Summary of Major Experiences

The main lessons learned from the above practice can be summarised in the following four points.

a: Optimise the Appointment Period is the foundation. Reduce the strictness of the original TA appointment process, build a more flexible and efficient TA appointment system, improve communication and coordination among all departments, remove any obstacles to TA recruitment, and thus strengthen the foundation for TA recruitment.

b: The other is in line with the direction. The course has a TA, and the particular competencies of the TA will also be introduced. Focusing one's efforts and selecting wisely, a good match will be found between the courses and the TAs.

c: Standardised Management of TAs is the guarantee. Specify the responsibilities of the TA, clarify work standards, set up communication and reporting channels, etc., to focus the work of TAs and enhance the quality of TA services.

d: Incentive Guarantees are the main reasons. Adjust the amount of material and non-material incentives to motivate TAs to take the initiative in their work and be more willing to do so.

5. Existing Problems and Improvement Directions

5.1 Existing Issues

Although some good results have been achieved in practice, there are still three urgent problems to be solved.

a. The Pre-service Training for TAs needs to be strengthened. Due to recruitment delays and other reasons, organised pre-service training was not conducted for the TAs of English-medium courses, and only a simple handover was carried out. As a result, TAs did not know the teaching models and communication styles of the foreign teachers and had to adjust for a longer time.

b. Standardise the assessment system for Teaching Assistants (TAs). The present TA evaluation system is based on instructor-student feedback and work reports, and it does not have a quantitative index system. Therefore, the assessment will be subjective and it will not provide good suggestions for improving TA work.

c. The Communication Efficiency of TAs needs to be improved. The time zones of the foreign instructors and the TAs are also different; therefore, there will be delays in the transmission of information and misunderstandings, reducing the effectiveness of teaching assistance.

5.2 Improvement Directions

To address the above problems, the school will continue to strengthen the following five areas in order to build a long-term management system:

a. An Organised Pre-service Training System will be established. Together with online and offline courses, a plan will be introduced to improve English-speaking abilities, cross-cultural cooperation and professional literacy, etc.

b. A Quantitative Assessment and Evaluation System will be established. The four-dimensional quantitative index framework will be used as the assessment method, and the four factors are "work attitude", "work quality", "instructor-student feedback" and "working hours"; the highest score is 100.

The results of the evaluation will directly affect pay and promotion.

c. A Good Chinese-Foreign Communication Platform Will Be Established. A separate online communication platform for TAs of English-medium courses will be set up, and fixed communication times will be arranged with the foreign teachers. Chinese faculty members will be appointed to act as liaisons and spread the information in a timely manner.

d. Dynamic Management of the Talent Pool will be realised. Improve the quality of the pool of TAs for English-medium courses and introduce regular updates and competency ratings. The results of the evaluation will be added to that person's information on a particular recruitment day.

e. Sino-foreign joint operation will be established. We will strengthen cooperation with our foreign partner institutions to develop joint norms and evaluation standards for TA work and promote the coordination of Sino-foreign management.

6. Conclusion

Effective management of teaching assistants for English-medium courses in Sino-foreign cooperative education is required to improve teaching quality and nurture international talents. It should not be based on the model of regular courses; a professional management system needs to be built according to the actual circumstances^[14].

Harbin Institute of Technology has introduced the following four measures to improve TA management: process optimisation, precise recruitment, duty standardisation and incentive safeguards, in order to solve the problems in TA management and achieve high-quality staffing and standardised management of the TA team. In the future, the school will continue to strengthen the long-term system of pre-service training and assessment evaluation, promote the development of TA management towards more professional and refined practices, and offer support for cultivating more international talents.

Sino-foreign cooperative education in China is now at a high level of quality development. Universities at home and abroad have gradually developed their own plans and strategies for managing TAs of English-medium courses, gained practical experience, jointly promoted the all-round development of internationalisation in higher education, and contributed to building a strong higher education system.

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