Research on Optimizing Training Strategies for Graduate Teaching Assistants in “Double First-Class” Higher Education Institutions

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Keywords: Graduate Teaching Assistants; Teaching Assistant Program; “Double First-Class” Higher Education Institutions; Training Management; Training Models

Abstract. The teaching assistant program currently plays a common role in developing students’ overall qualities. Through nuanced analysis based on cases from graduate teaching assistants at “Double First-Class” HEIs, this paper shows how graduate teaching assistant programs work from the perspective of program administration and personnel training. In order to iron out problems in the present training system, implications for optimizing the two-year GTA training program are also explored.

1. Introduction

The original intention for the Higher Education Institutions (HEIs) to adopt a “Three Assistants, One Counselor” system, which assigns graduate students to serve as research assistants, teaching assistants, administrating assistants or students counsellors, is to provide a grant to help students manage the cost of postgraduate education. With the changes of time and policies, the programme now focuses more on promoting students’ comprehensive qualities. [1] As a matter of fact, there is a greater student diversity and a larger number of needs of GTAs in the “Double First-class” HEIs in China (national top institutions which aim to develop to be top on schools and disciplines in the world). Given that the “Double First-class” HEIs in China have long and often successful traditions of employing and training GTAs, this paper seeks to highlight key lessons by reviewing published literature on the assignment of GTAs in “Double First-class” HEIs. Lessons are mainly divided into nine aspects for discussing experience in the training, supervision and mentoring of GTAs. The paper also identifies lessons relating to practical issues (including the subsidy system and the bonus scheme for motivation).

2. Supervision and Mentoring

In 2014, the Ministry of Education issued Advice on Better Improvement of Assigning GTAs as Research Assistants, Teaching Assistants, Administrating Assistants and Students Counsellors for the purpose of enhancing the overall performance of GTAs. As supervision is fundamental for every GTA training model, it is high time that better supervision and mentoring of GTAs including post division,
mentor guidance and motivating support should be established. [2] After analyzing the literature, results show that basically GTA training programmes of the “Double First-class” HEIs are administered in accordance with detailed rules, standards and procedures as followed.

2.1. Employment

GTAs are welcomed to large classes, such as public elementary courses for undergraduates, elementary courses for the school and department, laboratory courses and practical courses. Some HEIs offer posts for postgraduate courses, for example, the Renmin University of China. GTAs are also assigned to serve in key and characteristic courses or competitive events in several “Double First-class” HEIs, for instance, the innovation and research course in Tianjin University, the social practice and internship program in Xiamen University, the MOOCs in Harbin Institute of Technology, the MOOCs and SPOCs in South China University of Technology, the pilot project in Hunan University and training programs on national competitions for undergraduates in Nankai University.

2.2. Administration

According to the online information of the administrative departments of 15 “Double First-class” HEIs, there are four administrative models:

“Three Assistants” Leading Group (2/15) and Office of “Three Assistants” Affairs (2/15). In general, the group or office comprises heads of Graduate School, the Communist Party of China Committee Office of Graduate Student Affairs, Office of Academic Affairs, Office of Human Resources and Financial Department with the executive of the institution as its leader. It is set to draw blueprints and is in charge of all kinds of affairs including post placement, annual financial assessment and performance evaluation.

Cooperative Administration (5/15) and Direct Administration (6/15). The Office of Academic Affairs and the Graduate School work together to deal with issues of the GTA programs, with no extra special department established.

2.3. Financial Support

It depends. Most HEIs offer a grant monthly ranging 500 to 800 yuan as part-time salary for GTAs. For allocation, many HEIs choose to pay fixed subsidies. Some would pay in different levels according to the positions, courses or time commitment. Some institutions would even provide bonuses such as commuting fares and academic credits.

2.4. Responsibilities

Generally the GTA position requires assisting the course lecturer in the preparation, ongoing delivery and student support activities. Responsibilities include editing course materials, managing online discussion forums, responding to general issues and monitoring feedback and post-course evaluation survey. Some positions have more specific responsibilities. For instance, position types differ in Beijing University of Aeronautics and Astronautics. Post A is for graduates or doctoral candidates with college teaching criteria, which allows assistants to host in ongoing undergraduate or graduate courses. Post C only requires assistants to monitor courses weekly and correct homework and reports, while Post B requires assistants to also observe practical courses.

2.5. Time Commitment

GTAs are generally required to work for 8 to 15 hours a week in most HEIs, with a maximum as 20 hours per week (Beijing Institute of Technology) and a minimum as 4 hours per week (Xiamen University), so as to keep the balance between work and study. Some HEIs demand GTAs work approximately 40 hours per month. Other HEIs, such as Nankai University, set the commitment in
accordance with the actual needs of the courses. For theory courses, GTAs should work for no less than 32 class hours per semester, and 48 class hours per semester for practical courses and events.

2.6. Performance Evaluation

Evaluation is respectively done by tutors (or the course lecturer), the department office and the institution. Tutors are responsible for assigning daily tasks to GTAs, and evaluate their effectiveness. The department office should take charge of the performance evaluation system. The institution, would take random inspections during the semester and the final performance would affect the faculty evaluation. Attendance and time commitment are also parts of the evaluation. GTAs need to keep a job diary, fill in the evaluation form in the end of the semester as reference to the final evaluation.

The effectiveness of GTA training programmes would be assessed in ways including tutor advice, classroom evaluations, student feedback and self-evaluations, and thus divide the performance into four levels including Excellent, Great, Good and Failed.

3. Training System

In the early 1990s, GTA training programmes in the United States have been administered in accordance with proper rules and detailed standards. In 1993, a nationwide program called Preparing Future Faculty put into practice. [3] In 1988, China launched a program namely Pilot Measures for Assigning Graduate Students to Be Teaching Assistants in HEIs. After decades of promotion a mature training system with Chinese characteristics are gradually forged in “Double First-class” HEIs.

3.1. Training Models

The GTA training models involve various activities, such as traditional lecture formats, autonomous learning, workshops and salons. Some HEIs choose to deliver SPOCs to cope with the mounting pedagogical constraints, including increasingly intense academic time schedule, and unbalanced academic performance. The act of South China University of Technology is a good example. The participating students are requested to complete academic tasks and quiz assigned by GTAs online, while accomplishing courses interaction events via smartphone applications as offline workshops and discussions. It not only saves time for GTAs to adapt the working environment, but also inspire GTAs to have a sense of responsibility and improve their teaching skills with IT application aided.

3.2. Training Organizations

A survey on relating training organizations is carried out among 19 “Double First-class” HEIs. Statistics in Fig.1 indicates that the most relating training organization of the GTA training programmes in China is the Center for Faculty Teaching Development, which are mentioned 13 times. The Office of Academic Affairs are quoted for 5 times; the Graduate School is mentioned for 4 times. And eventually the rest are cited respectively for 3 times.

3.3. Training Ingredients

A great deal of attention has been paid in “Double First-class” HEIs to the design of effective GTA instructional programmes.

For discipline-specific level, the course lecturer plays an important role in helping and supporting GTAs finish tasks such as in-class activities, problem-solving, group work, pedagogical preparation, observation and invigilation and so on.

For department level, efforts are made to meet the actual needs of both the school and the courses. Distinctive training ingredients involving teaching strategies, experimental teaching, and professional practice and modelling are essential to offer further and more professional benefits to GTAs.
For institution level, relevant offices like the Office of Academic Affairs and the Center for Faculty Teaching Development is due to draw the big picture. Common ingredients include the introduction of duties and regulations of GTAs, the guidance for rookie GTAs, education ideals, morality and psychology, general teaching techniques and technologies.

Some HEIs have a more systematic division of their training ingredients. Fudan University, for instance, focuses on professional development, personal qualities development and experience sharing and exchanging, whereas Sichuan University lays emphasis on four aspects, namely position duties, educational ideals and morality, workshops for teaching techniques and teaching practices.

![Figure 1. A Wordle of GTA Training Organizations.](image)

4. Present Challenges

Research results implicates that college students are generally unsatisfied with the current academic performance and effectiveness of GTAs. On the whole, the GTA training programmes in the United States still have better access to motivation, financial and political support than those in China.

4.1. Lack of Financial Support Channels

Financial support channels are under construction in China. Further improvements of alternative supportive funds and nuanced implementation plans are in urgent need. Moreover, under the circumstance of the increasing scale of graduate education, there is mounting financial burden on the current educational fund and sponsorship offered by the government and institutions. [4]

4.2. Lack of Diverse Motivating Schemes

The 2013 and 2014 annual Postgraduate Educational Quality Report in China demonstrate that less than 60% of the applicants are contented with their scholarship, “Three Assistants” system or scientific and academic grants. [5] A survey on standards of the subsidy allowance of GTAs among 12 HEIs depicts that 72.5% of GTAs are paid less than 500 yuan per month, and 2,215 out of 3,165 participating GTAs state that they want to have a higher threshold of the standard. [6]

As mentioned above, the majority of HEIs offer fixed amount of subsidy grant monthly every semester. However, it tends to leave out the differences of positions, workloads and task difficulties.

Few HEIs would motivate GTAs with extra academic credits. For example, GTAs in Beijing University finishing one-semester-period work and passing the final evaluation would have 2 extra academic credits; qualified GTAs in Harbin Institute of Technology would have 1 social practice credit.
4.3. Further Improvement for the Evaluation System

Ways of assessment including attendance, task assignment, student duties are involved in nearly all regulations of GTA training programmes in “Double First-class” HEIs. However, there is no detailed rule nor further explanation for students and teachers to understand the evaluation system. The current evaluation system offers limited merits to promote better education quality.

4.4. Better Regulation for the Training System

As a matter of fact, few GTAs can have opportunities to host one or more lesson under the guidance of their tutors. [7] It is clearly of little help for students to pursue their academic career, for they lack sufficient practical teaching experiences to form appropriate teaching methods suitable for themselves.

Another problem is to cope with large classes that cannot satisfy individualized needs and affect peer mentoring. In the era of "Internet + education", educational technologies such as MOOCs and rain classroom, as well as models such as mobile learning, flipped classroom and mixed teaching, can not only improve the effectiveness of training, but also better record the training and evaluation process. At present, there are only a small number of such applications.

5. Strategies for Ironing out the Existing Problems

Get more access to financial resources. The GTA training programmes has developed a flexible financial supportive system through years of practice. Likewise, GTAs can be sponsored in different ways during different academic periods. For example, in the first semester they are mainly provided with scholarship; in the second and third semester they get assistant subsidies; during the time of completing academic assertion there would be a bonus for progressing; and during summer holidays the institution would launch specific research funds. [4] Donations from individuals, companies and society are warmly welcomed.

Have a deepened reform on grant allocation and diverse motivation schemes. The subsidy standard should be stipulated under the merit-based and need-based guidance, and at the same time take the amount of workload, the local price level and other factors into consideration.

Build an enhanced and nuanced evaluation system. For example, have an overall assessment of the effectiveness of GTAs by means of observing in-class activities including designing courses outlines and contents as well as teaching skills, working attitude, listening to student and classroom feedback and establishing GTA profiles. It also works to build a multiple system for encouragement and punishment so as to foster sound teaching and educational atmosphere.

Add fresh impetus to the establishment and improvement of the training system. A survey is carried out among 77 freshman GTAs in a “Double First-class” HEI. Results show that 51% of the respondents want to enrich their working experience by serving as GTAs; 49% of them want to enhance their academic knowledge. When it comes to “the importance of IT application in the training process of GTAs”, 41% of respondents agree that it is essential. 61% of them wish to master the use of digital learning tools. 59% of them agree that they want to enhance their capabilities to make educational PowerPoints while 54% of them prefer other capabilities such as picture processing, audio and video recording and editing.

To fulfill the goal, the relevant department and office can concentrate on building a dynamic training system with diverse training models before, amid and after employment. [7] Efforts should be made to avoid a “one size fits all” training model. It should also focuses on maximizing the enthusiasm and initiative of all sectors to allow GTAs participate in more educational practices and experiments.

This research is carried out based on a comprehensive MOOC training program in campus. The program contained 2 sessions and 5 lessons in total. In conclusion, 88% of the participants of the
post-course evaluation survey commented that they benefited a lot as the training context help improve their effectiveness in many aspects.

6. Summary

This article has sought to identify some of the more important lessons in at least nine aspects of experience of “Double First-class” HEIs of employing graduate teaching assistants to help ease the teaching burden. HEIs in China have much to learn, but also much to gain from that experience.

Acknowledgement

This article are supported by programmes and projects listed as follows: A Case Study on Graduated Teaching Assistance Training Strategies in the Era of “Internet Plus Education” supported by Degrees and Graduate Pedagogical Reform Project of 2016 Graduate Educational Innovation Program in Guangdong Province; A Survey-based Study on Graduated Teaching Assistance Training Strategies in the Era of “Internet Plus Education” sponsored by 2017 SCUT Higher Education Foundation; The Current Situation, Problem and Development Strategies of SCUT Flipped Classroom of 2018 SCUT Educational Reform and Research Program; “Internet Plus Education” MOOC R&D Project of 2016 Soft Science Research Program of Guangdong Province (NO. 2017A070713008), and A Case Study on General Educational Courses via Mobile and Internet Application of 2018 Production-Industry Collaboration Project by Ministry of Education (NO. 201801036021).

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