

# *To Explore How Teachers from Ordinary Higher Education Institutions Deal with the Relationship between Teaching and Research*

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**Abstract**—The balance between teaching and research is an issue needs to be solved among ordinary higher education system. Through looking into special cases among the case study, the reasons for the phenomenon “weigh more research, look less teaching” among the institutions have been analysed. This paper has, therefore, pointed out that research ability can be improved from the teaching, and research ability can enhance the teaching. In order to achieve this goal, institutions should set up a reasonable assessment system to ensure the teachers have a suitable environment and improve students participating the teaching and practice. Hence, a virtuous cycle on the teaching and research can be made.

**Keywords**—Teaching-intensive University; Teaching; Research; Relationship between teaching and research

## I. INTRODUCTION

As the primary functions of higher education institutions and the indicators of institutions rankings, teaching and research have directly affected the development of institutions and the training of personnel [1]. Teachers in the institutions take the responsibility of teaching while affording the responsibility of research. Under the burden of both teaching and research tasks, every higher education educator has to balance the relationship between teaching and research and improve abilities of both aspects. If the ordinary institution focuses on the research, then it tends to be research-intensive while it is hard for them to compare with pure research institutions. They may ignore the process of teaching training of personnel. On the other hand, if institutions only focus on teaching, then there is not a lot of difference between the foundation education in secondary and primary school and the basic education in the university. Hence, it is vital for the university and colleges and university academics themselves to make a right balance of teaching and research.

There are mainly research universities and teaching-intensive universities in China [2]. The top-tier universities in China belong to research-intensive universities, while research tasks play an essential role in the daily life of these institutions. These kinds of universities hold the responsibility for educating good research academics as well as some research tasks appointed by governments. This can be found in many other famous universities in the world. Affected by the assessment system of foreign universities in terms of research,

relevant policies on higher education have emphasized research in China. This tendency leads to a misunderstanding that only institutions with excellent research performance can be considered as good universities. Research has improved the reputation of the university, as well as its rankings and public reviews. In turn, the pressure on the student enrollment and student career hunting will be reduced. Taught-intensive institutions in China have to focus on the research tasks. For example, these institutions can encourage teachers to put more energy and time on research through kinds of regulations, in order to build up the reputation of the institution. However, this one-sided emphasis can lead to a negative influence on teaching quality, which may lead to the phenomenon ‘weigh more research, look less teaching’.

When it regards to ordinary higher education institutions, especially regional taught-intensive universities, the issue of the balance between research and teaching is much of importance. This issue has been considered and discussed by many scholars and the public. In a word, how to emphasise the role of teaching and enhance the research ability, is still a problem needs to solve by ordinary higher education institutions.

## II. RESEARCH

When it is considered to different tiers of universities in China, there exist different methods to deal with the issue. In terms of the regional universities, the balance of teaching and research is a complicated issue to deal with. This can be explained by the position of institutions.

### A. Comparison of higher education institutions

In China, top-tier universities such as ‘985’ and ‘211’ belong to research-intensive institutions, while ordinary regional universities belong to teaching-intensive universities. There exist a lot of differences between these two types of institutions.

#### 1) First-class scientific research universities

Teachers in the advanced research-intensive universities own qualified structure of knowledge and wide horizons, and they have been communicated with their peers domestically and internationally on a frequent basis. Some teachers are the experts in the industries, and some are elite scientists. Various

research topics involved in the international topic or important national project and enough government appropriation fund have been provided for these teachers. Under this situation, these academics are easier to get better research results. From the perspective of students, there are more postgraduate students with higher level knowledge structure in these universities who can provide more effective assistance to teachers' research. Meanwhile, students can get trained from offering assistance to the teachers. Teachers who are doing the research, they can transfer the research methods and techniques to their students. Therefore, there exist fluent knowledge transfer from the teacher to the students. Hence, for the top-tier universities, the teaching and research can be improved reciprocally.

### 2) *General teaching universities*

Ordinary higher education institutions, especially regional ordinary institutions, they are teaching-intensive institutions. From the perspective of teacher themselves, it is hard to compare them with teachers from advanced universities in terms of their knowledge structure, the frequency and level of peer communication. This has led to a relatively narrow horizon. When it regards to the research topic, there are few research topics has been requested to carry out and it is harder for the international research topic. Fewer research tasks also mean inadequate research fund. In terms of students, there is almost no PhD taught permission in the ordinary local institutions and even no master delivery permission in some institutions. Undergraduates who are enrolled in such institutions belong to second-batch, third-batch, or college students. Within this situation, it is not possible for the students to effectively assist the teachers who are doing the advanced research due to their weak research ability and the knowledge gap. Only teachers themselves carry out a research project. Hence, teaching and research have been considered as two separate aspects.

## B. *Research*

Focusing on the situation mentioned above, the writer has visited several teachers from different ordinary universities. During the process, a lot of phenomena has been found, and only two special cases will be discussed below.

### 1) *Case A*

The writer has interviewed a young PhD teacher from an ordinary university. Carried out a national natural science supported the project, he has a relatively big number of research results among the teachers from ordinary universities. Since he is located in the ordinary local university, there are no postgraduate students for him to ask for and the knowledge gap between undergraduates and his research topic is huge. Besides, in his leading project supported by both the university and the company, the students lack the practical skill to assist him. Therefore, he is the only one who can do the research, and there does not exist obvious improvement of teaching caused by research. On the other hand, this young teacher consists focusing on research and he does not have enough time and energy to spend on the course preparation, design and revolution. It is not easy to combine teaching and research together and improve both two aspects reciprocally.

### 2) *Case B*

The writer has interviewed another typical teacher from an ordinary higher education institution. This teacher is older than the general teachers, and he thinks the teacher should be responsible for teaching due to the traditions inherited. He, therefore, has worked hard for teaching and delivered good teaching based on his preparation, design and reform. Although his students make a good academic performance, he has not gained research results. His performance as a teacher has been considered mostly based on the research results under the current assessment system. The poor assessment score has seriously affected his salary. Although he is a teaching-intensive teacher, he then turned to put most of his energy to the research because he wants to earn more for his family. Whether his tendency has affected the teaching or not, the writer has not traced anymore. However, it might have an influence on the teaching to some extent from the writer's point of view.

## C. *Analysis*

Though these two cases are most typical among many interview cases, to some extent, it can be found that there exists an issue on dealing with the relationship between teaching and research.

### 1) *Regards to case A*

The problem here can be explained for several reasons. Firstly, the issue can be affected by the huge knowledge gap between research students and the teacher. Secondly, students lack necessary practical skills which cannot combine the reality and the methods. Thirdly, the teacher cannot spend more energy on teaching because he has spent loads on research.

Objective reasons such as the knowledge gap of students are challenging to solve in a short time. However, this can be improved from other aspects. When teachers carry out non-advanced research such as the project supported by the university and the company, they can ask students to assist them and cultivate the practical skills of students and the ability to combine methods and practice. This can set up a good foundation for practical personnel required by the company. The young teacher focusing too much on his career development and research can be considered as the subjective reason. Besides, the tendency of the assessment system on research has helped the development of the unbalanced situation. The training of teaching might be ignored to some extent. Therefore, to solve the problem, the assessment system is a crucial issue to focus on.

### 2) *Regards to case B*

The traditional teacher consisting of teaching with narrow teaching field has been away from research. On the other hand, the older teacher has to spend more on research and get away from teaching affected by current assessment system. This has been considered as another extreme performance. This kind of issue in case B is not merely in ordinary higher education institutions. Instead, the issue is typical. In order to solve this issue, it needs scientific methods and the support of the assessment system. If only emphasizing on research, the teaching responsibility can be given less focus. If only

focusing on teaching activities only, the update of knowledge structure cannot be done, and the content of teaching cannot be enriched. Therefore, how can the ordinary universities cultivate practical workers with rich practical skills?

Overall, the most important thing to do is to set up a suitable assessment system for university teachers.

However, local ordinary higher education institutions are stimulating research-intensive institutions, which means they have not set up teaching as the principal task and they cannot deal with the relationship between teaching and research in a suitable way and make a good balance. Some ordinary institutions are even only focusing on research in order to pursue more research funds and project awards. The assessment system of teachers' workout has been gradually changed targeting at research results. Incentive policies, as well as the promotion policies, have been emphasized the effect of research. This kind of regulations has pushed teachers to weigh more research and look less teaching. This kind of phenomenon cannot promote teaching. Instead, a vicious circle has come up. Interviewee B has moved to the path of research driven by such interest mentioned above.

### III. STRATEGY TO BALANCE THE RELATIONSHIP BETWEEN TEACHING AND RESEARCH

#### A. *The relationship between teaching and research*

##### 1) *The improvement of teaching from research*[4]

a) *Research is an important way to improve the ability of college teachers.*

Teachers from higher education institutions can grasp the developing direction of their subject and the latest achievements. Besides, they can continuously update their knowledge structure through research and hence, improve teaching materials, enrich teaching content and make a teaching reformation. Based on the research, they can be more efficient in teaching, delivering vivid and informative content, focus more on the combination of theory and reality. In turn, the academic performance of students can be enhanced accordingly.

b) *Scientific research is an essential guarantee for cultivating new talents.*

Through research activities, teachers continue to explore suitable methods to cultivate talents in the new era. Through continuous teaching practice and teaching reform, they have learned and inherited traditional teaching methods, while exploring improvement and creation of teaching methods and the matched methods for the cultivation of new era talents. The afforded research tasks have set up good conditions to improve students' research ability, practical skill and teamwork spirit.

c) *Scientific research is a necessary means to promote the construction and development of disciplines*

Discipline construction is the foundation of the development of higher education institutions, as well as the base and core of the higher education institution construction. The massive amounts of research achievements gained by

teachers are the driving force for the construction and development of disciplines in higher education institutions.

##### 2) *Teaching is a booster for scientific research*

a) *Teaching is the premise and essential condition of scientific research.*

After countless times of practice testing, scientific research activities have become the teaching content of teachers. These knowledge are the theoretical basis for more in-depth scientific practice activities. Through transferring knowledge, teachers' ability in handling the theory can be significantly improved, and they may have a new understanding. The understanding on the knowledge, the knowledge structure, practical skills and creative abilities of teachers have determined the structure and level of the research team. Teaching cannot only raise questions for the research but provide new thoughts and technical solutions to solve problems.

b) *Teaching is conducive to the further spread of scientific research results*

Teachers apply research results to teaching. On the one hand, it can enrich and optimize the teaching content; on the other hand, teaching can make research results be further spread and reproduced and fully present its value. Teaching practice can make teachers get a better understanding of the basic knowledge and improve thinking over the fundamental knowledge, which can set up a more solid basis for future research activities. Meanwhile, through improving interaction in teaching activities, students can get more active thinking and help the teacher get new thoughts to promote the development of research in turn.

#### B. *Strategy*

Since there exist different requests on balance between teaching and research in a different level of universities and colleges, corresponded assessment systems should be set up for different institutions.

Within the aspect of assessment and funding support, research results should be considered more in research-intensive universities, while teaching results should be considered more in teaching-intensive universities. Only by doing this, a different type of universities can cover both fairness and efficiency. Meanwhile, corresponding assessment indicators on the institutions should be designed based on a different request in the society. This should be presented in university classification, discipline ranking, subject ranking and regional ranking. Besides, higher education institutions should be able to position their teaching and research precisely.

Research-intensive universities should focus on scientific research and cultivating high-level research talents such as postgraduates. Research results, therefore, can be obviously presented in different assessment systems and integrated into teaching job which can make teaching more featural and develop rapidly.

Teaching-intensive universities should emphasize teaching and research while making the research promote teaching and the teaching assist research. On the basis of continuously

improving teaching ability, teaching and research should be able to be improved reciprocally and more practical talents should be cultivated. Research can also provide more practical opportunities and strengthen operation skills. Only by making a precise position, the rapid development of different types of universities can be ensured.

The specific measures on balancing the relationship can be found as below:

*1) Ordinary teaching-intensive universities should position itself properly*

Ordinary universities should make assessment systems and task planning based on the 'teaching-intensive' position. They also need to fully mobilize the enthusiasm of teachers and make them do their talented task. This method should be based on the characteristic of teachers and the comprehensive design.

*2) Set up different types of jobs and different kinds of assessment systems*

On the one hand, teachers jobs should be divided into methods teaching and practice teaching based on the direction of the course system in the university. Teachers are encouraged to choose their job volunteering or are reasonably guided to make their decisions. This can promote teachers to make a suitable choice for themselves between these two types of jobs

On the other hand, different task requirements are set for teachers in the two types of teaching jobs, and different evaluation standards are imposed in the evaluation process. For teachers in the theory teaching job, they are mainly responsible for the teaching of theoretical courses, focusing on improving students' theoretical knowledge. In terms of scientific research, they are mainly responsible for carrying out theoretical research and basic research. In terms of its evaluation, it focuses on the theoretical value of scientific research work and research achievements.

For practice teaching jobs, they are mainly responsible for the teaching of practical courses, focusing on cultivating students' practical application ability. In terms of scientific research, these teachers are responsible for applied research and development research. In terms of the evaluation, it focuses on investigating the application value of scientific research work and scientific research results.

Therefore, it is possible to combine teaching and scientific research

#### IV. CONCLUSION

Overall, the author has listed several suggestions as below in order to deal with the phenomena 'weigh more research, look less teaching' in teaching-intensive universities.

Firstly, governments should take their responsibility to reform the current funding, university ranking, and professional academic systems which are focusing on "weigh more research, look less teaching'. The society should take the responsibility to reform the public opinion on university rankings from "weigh more research look less teaching' to a more objective opinion. Besides, the ordinary university should make sure its own position and carry out an effective assessment system on teaching and research. When teachers choose a research topic, they can try to choose topics from real life practice; this can get students involved in the research. By doing this, it can form a virtuous cycle to promote both research and teaching.

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