

## A investigation on satisfaction of graduate students in China

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### ABSTRACT

During October to December 2011, Research Center for Graduate Education of Beijing Institute of Technology launched a great investigation on students' satisfaction with graduate education in 35 different level and type graduate education institutes around China, involving 7293 graduate student respondents. And that aims to evaluating the quality of graduate education based on the perspective of students' satisfaction. Some valuable conclusions can be drawn from the study: By and large, over 60% of graduate students, according to the investigation result, are satisfied with current situation; while certain difference exist among different kinds of graduate groups, male students show higher satisfaction than female students; the students in research institutes show higher satisfaction than the students in colleges; medical students show the highest satisfaction than the students studying at any other majors; the doctoral candidates show higher satisfaction than the master degree candidates; the academic degree graduate students show a little higher satisfaction than the professional degree graduate students. In addition, the weak point of graduate education lies on management and services.

**Keywords:** graduate students; satisfaction; investigation

A Great leap-forward development has occurred in the graduate education of China, which makes us one of those countries with rich education resource, since the reform and opening-up policy has been implemented and we have entered the 21st century in particular. By the end of 2011, 1645.8 thousand of graduate students have been enrolled, among which doctoral students accounts for 271.3 thousand and 1374.6 thousand for master students. The satisfaction of graduate students reflect the situation in each and every aspect of graduate education, as they are the subject of education as well as the main force in scientific research.

To get a comprehensive understanding of the satisfaction state of the graduates, a project named "Graduate Students' Satisfaction Investigation" was launched in 2011 by Research Center for Graduate Education, Beijing Institute of Technology. In the investigation, 35 graduate education entities were selected as samples, including 17 research-oriented universities (985 Project<sup>1</sup>), 8 national key universities (211 Project<sup>2</sup>), 8 local colleges and 2 scientific research institutions. In total, 7293 effective graduate samples were acquired. A LIKERT five-grade scale (very satisfied; satisfy; general; dissatisfied; very dissatisfied) covering course teaching, scientific research training, instructor mentoring, management & services of graduate education is applied in the investigation. This report is to display to social public the current condition and related issues on graduate satisfaction based on statistic data analysis of investigation results.

**I. As a whole, more than sixty percent of graduates are satisfied, while the highest satisfaction rate lies on instructor mentoring.**

According to the investigation results, generally 63.1% of graduates show their satisfaction for the current graduate education, but at the same time, 8% of graduates vote for dissatisfaction. Among the investigation items, approximately 80% of graduates express satisfaction for instructor mentoring, which holds the highest satisfaction rate. It's worth noting that the graduates show a negative assessment for the management and services of education

<sup>1</sup> In May 1998, China launched a program to support some top universities, which is called "985 project", 39 totally universities involved the program by the end of 2012.

<sup>2</sup> Another program to support some key universities, aiming to construct about 100 key universities in 21<sup>st</sup> centry, which is called "211 project", 112 totally universities involved the program by the end of 2012.

entities, as low as 60% for the satisfaction rate, while 11% for the dissatisfaction rate, which tops the investigation items in dissatisfaction rate.

Items	Satisfaction Rate	General	Dissatisfaction Rate
Instructor Mentoring	78.6%	16.9%	4.5%
Scientific Research Training	66.0%	27.0%	7.0%
Course Teaching	67.0%	26.9%	7.1%
Management & Services	61.2%	27.8%	11.0%
Graduate Education in Total	63.1%	29.0%	7.9%

*Note: satisfaction rate refers to the proportion of "Very Satisfied" and "Satisfied" voted by graduate students; dissatisfaction rate refers to the proportion of "dissatisfied" and "Very Dissatisfied" voted by graduate students.*

a. In the item of course teaching, the satisfaction rate for curriculum system voted by graduates is less than 60%, while the dissatisfaction rate reaches 10%. As for the teachers' teaching level, 70% of graduates show their approval, and a quarter for general assessment.

Items	Satisfaction Rate	General	Dissatisfaction Rate
Curriculum System Rationality	58.9%	31.1%	10.0%
Teachers' Teaching Level	69.4%	24.8%	5.8%

The investigation for course content shows that: first, 46.9% of graduates vote for "General" for the amount of course, while 45.2% for "Very Large Amount" and "Relatively Large Amount" and 7.9% for "Very Small Amount" and "Relatively Small Amount"; second, 53.1% of graduates think that the course content is of little depth; third, 53.6% of graduates vote for "General", "Relatively Weak" and "Very Weak" for the advance nature of course content.

As for the ability improvement of course teaching, 56.1% of graduates consider "Relatively Big" or "Very Big" effect on improving their learning abilities. Nearly sixty percent (59.0%) of graduates think of "General", "Relatively Small" or "Very Small" effect on improving their innovation abilities, and at the same time, 50.2% of graduates vote for "Relatively Big" or "Very Big" effect on improving their scientific research abilities.

b. In the item of scientific research training investigation, more than a quarter of graduates express that they haven't been involved in any scientific research project, while 34.7% of graduates have been part of 1 project and 23.8% for 2 projects, 15.5% for 3 projects and more. Among those that have been involved in projects, graduates who vote for "Relatively High" or "Very High" academic price of scientific research work only account for 43.6%, while those who give general or negative opinions reach 56.4%. Besides, graduates hold low appraisals for the scientific research subsidies from their instructors, with 41.7% of satisfaction rate and 22.7% of dissatisfaction rate.

In the aspect of ability improvement of research training, nearly 70% of graduates think that participating in scientific research work has "Very Big" and "Relatively Big" effect on improving learning abilities, practice abilities and academic accomplishment. However, only 63.3% of graduates consider "Very Big" and "Relatively Big" effect on improving innovation abilities, and nearly 30% vote for "General". Graduates hold low assessment for improving employment competitiveness: only 53.9% for "Very Big" and "Relatively Big", and over 30% vote for "General".

c. In the item of instructor mentoring investigation, nearly 90% of graduates feel satisfied with the professors' academic level and moral cultivation, so the dissatisfaction rate is very low. As for the assessment of mentoring frequency of the instructors, nearly three fourths of graduates give satisfied opinion, and 20% vote for "General". In the case of employment support from the instructors, nearly two thirds of graduates consider satisfied, while nearly a quarter vote for "General".

Items	Satisfaction Rate	General	Dissatisfaction Rate
Academic Level	88.6%	9.7%	1.7%
Moral Cultivation	88.5%	9.6%	1.9%
Mentoring Frequency	74.4%	19.9%	5.7%
Employment Support	66.6%	24.8%	8.6%

In the aspect of improving overall quality affected by instructors, a large proportion of graduates vote for "Relatively Big" or "Very Big" effect from the instructors in major knowledge, scientific research ability, academic interest, studying attitude as well as moral cultivation. Among them, studying attitude and moral cultivation are in the top and second position, accounting for 77.6% and 76.3% respectively. By contrast, academic interest is relatively low voted, only for 68.9%, and 25.4% of graduates vote for "General" effect, which is apparently higher than the rest four investigation options.

d. In the item of management and services investigation, less than half of graduates are satisfied with the scholarships and Three-Aid Posts provided by the education entities. While 20% of graduates show dissatisfaction, nearly one third of graduates vote for "General".

Items	Satisfaction Rate	General	Dissatisfaction Rate
Scholarships	48.6%	32.0%	19.4%
Three-Aid Posts	47.1%	35.3%	17.6%

Nearly two thirds of graduates show satisfaction for the academic atmosphere in education entities, and only 7.4% of graduates vote for negative opinion, but a quarter of graduates also hold general assessment. Only more than half of graduates are satisfied with the management system and over one third of graduates also hold general opinion. Only 42.5% of graduates are satisfied with the scientific research support of the education entities, while nearly 20% of graduates consider dissatisfied.

Items	Satisfaction Rate	General	Dissatisfaction Rate
Academic Atmosphere	67.1%	25.5%	7.4%
Management System	54.2%	35.0%	10.7%
Scientific Research Support	42.5%	38.4%	19.1%

As for the infrastructures of mess hall, dormitory and library, graduates' lowest assessments go to mess hall and dormitory, especially only 40.7% of satisfaction rate for mess hall. By contrast, library gets a relatively high assessment, accounting for 66.7% of satisfaction rate.

Items	Satisfaction Rate	General	Dissatisfaction Rate
Mess Hall	40.7%	30.2%	29.2%
Dormitory	49.3%	30.0%	20.6%
Library	66.7%	22.9%	10.4%

## II. Difference among different kinds of graduate student groups

The investigation shows that certain difference among graduate student groups of different genders, education entities, major categories, degree levels and degree types.

a. The satisfaction rates of male students are higher than those of female students

According to the investigation, generally the satisfaction rates of male students are higher than those of female students. The same status is showed in instructor mentoring, scientific research training and course teaching. It's particularly obvious in scientific research training, and male students hold over 10% than female students. At the same time, they show less dissatisfaction in instructor mentoring and scientific research training.

Total/Instructor Mentoring/Scientific Research Training/Course Teaching

Gender	Satisfaction Rate	Dissatisfaction Rate
Male Students	65.0%/80.5%/70.2%/68.6%	7.7%/3.9%/5.6%/7.1%
Female Students	60.4%/75.7%/59.8%/64.7%	8.1%/5.3%/8.9%/7.0%

b. The scientific research institutes holds higher satisfaction rate than universities, and the lowest satisfaction rate comes from local colleges

Overall, satisfaction evaluation of scientific research institutes is higher than colleges and universities. Not only overall satisfaction but scientific research training satisfaction is higher than colleges and universities, while their dissatisfaction rate is lower than latter. In different kinds of colleges and universities, satisfaction evaluations of colleges of 985-project and 21-project don't have obvious difference, and in 211-project colleges, tutor guidance satisfaction is nearly 4% higher, while dissatisfaction evaluation is slightly better than that of 985-project colleges and universities. Satisfaction evaluation of local colleges is not optimistic, whose satisfaction rate is significantly lower than other kinds' cultivating units, but with dissatisfaction rate on the contrary.

Total/Instructor Mentoring/Scientific Research Training/Course Teaching

Items	Satisfaction Rate	Dissatisfaction Rate
Research Institutions	67.5%/80.6%/72.9%/68.1%	4.3%/3.0%/3.2%/5.0%
985-poject colleges	65.0%/78.7%/68.4%/69.2%	7.8%/4.7%/6.7%/7.6%
211-project colleges	65.3%/82.3%/64.7%/67.1%	7.3%/4.1%/6.5%/6.0%
Local colleges	52.6%/72.3%/58.1%/59.3%	10.2%/4.8%/9.4%/7.8%

c. Medical student has the highest satisfaction, while agronomy student holds the lowest.

In various disciplines, satisfaction evaluation of medical student is significantly better than other disciplines student. Next are science, engineering, humanities and social sciences students, among which, the humanities students' satisfaction rate on research training is significantly lower than other disciplines students, while the dissatisfaction rate is higher than other disciplines students. Agronomy student holds the lowest satisfaction, but only on the scientific research training, satisfaction rate is better than the humanities and social sciences student.

Total/Instructor Mentoring/Scientific Research Training/Course Teaching

Disciplines	Satisfaction Rate	Dissatisfaction Rate
Medical Science	82.0%/87.6%/80.7%/78.2%	3.5%/3.0%/2.6%/3.4%
Natural Science	68.2%/81.7%/75.4%/71.6%	6.7%/3.2%/5.8%/6.0%
Engineering	65.6%/80.3%/70.5%/68.6%	7.3%/4.3%/5.2%/6.6%
Humanities	59.6%/75.0%/51.8%/67.0%	9.1%/3.5%/13.0%/8.0%
Social Science	56.5%/75.5%/55.5%/63.4%	9.7%/5.9%/10.5%/8.5%
Agronomy	55.4%/73.3%/64.3%/59.4%	7.8%/7.6%/4.4%/6.2%

Note: humanities include philosophy, literature, history and arts; social sciences include economics, education, management and law.

d. Doctoral students holds higher satisfaction rate than master students

Satisfaction rate of doctoral student is significantly higher than master students, and the dissatisfaction rate is lower than the latter. Besides, doctoral research training satisfaction rate is nearly 20% higher than that of master students.

Total/Instructor Mentoring/Scientific Research Training/Course Teaching

Degree	Satisfaction Rate	Dissatisfaction Rate
Doctor	70.9%/81.7%/79.8%/72.6%	5.6%/4.4%/3.3%/5.0%
Master	61.2%/77.8%/62.5%/65.5%	8.5%/4.5%/7.9%/7.6%

e. Academic degree satisfaction rate is higher than professional degree

Academic degree satisfaction rate is higher than that of professional degree, while its dissatisfaction rate is lower than professional degree, but the difference is not obvious.

Total/Instructor Mentoring/Scientific Research Training/Course Teaching

Degree	Satisfaction Rate	Dissatisfaction Rate
Academic degree	63.5%/78.7%/66.5%/67.3%	7.8%/4.3%/6.6%/6.8%
professional degree	61.9%/77.8%/63.9%/65.3%	8.4%/5.2%/8.4%/8.1%

### III. Investigation Results

Currently, comprehensively improving the quality has become the core task of the reform and development of graduate education, among which improving the quality of graduate cultivation is a top priority, which requires to fully arouse the initiative and enthusiasm of the tutors and graduate students. Through the graduate student's perspective, satisfaction investigation reveals the problems of graduate education, which has enlightening significance to the graduate education policy making.

a. Graduate student satisfaction still leaves great room to improve

Although generally there are more than 60% of graduates showing satisfaction, but nearly a third of the graduate students also consider as general, which leaves a large space for improving. Looking from different group categories, girls' satisfaction rate is slightly higher than 60%, which is nearly 5% lower than that of boys; Only 50% of satisfaction of local colleges is far lower than the scientific research institutes; The satisfaction of humanities and social science and agronomy students do not exceed 60%; master students' satisfaction rate is slightly higher than 60%, nearly 10% less than doctoral students. By comparing, we can see that "disadvantaged" group of graduate students need special attention in graduate education.

b. Course teaching cannot meet the needs of graduates

More than two thirds of graduate students are satisfied with the course teaching, but further investigation finds that more than half of graduate students give negative feedback on the depth and amount of curriculum content and leading nature. As for improving students' abilities in the course, more than half of the graduate students hold a positive attitude to learning and scientific research ability improving, but only 40% of the graduate students vote for improving innovation ability. What is noteworthy is that the satisfaction of graduate students of local colleges and agronomy student do not exceed 60%.

c. The quality of scientific research training needs to be improved

The investigation finds that more than a quarter of graduate students have not been involved in research projects. At the same time, only more than 40% of graduate students who have been involved in research projects consider as high academic content, and are satisfied with mentor's research grants. In addition, graduate students' evaluation on improving innovation ability and employment competitiveness from scientific research is relatively low. The satisfaction rates of female students, local colleges and humanities and social science student are less than 60%.

d. Management and services are the weakness of education entities

The investigation results indicate that the satisfaction rates of graduate students for scholarships, grants and scientific research support are less than 50%, while dissatisfaction rate is close to 20% at the same time. The satisfaction on board and room reach is particularly bad with dissatisfaction rate close to 30%. Therefore, the colleges and institutes should strengthen the infrastructure improvements and increase scholarships, creating a loose and free academic atmosphere for graduate students.