

Final Report

Final Round Satisfaction Survey of Higher Education Quality Enhancement Project (HEQEP)

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List of Abbreviations

AIF	:	Academic Innovation Fund
AU	:	Agricultural University
BAU	:	Bangladesh Agricultural University
BBA	:	Bachelor of Business Administration
BdREN	:	Bangladesh Research and Education Network
BIDS	:	Bangladesh Institute of Development Studies
BRAC	:	Bangladesh Rural Advancement Committee
BRACU	:	BRAC University
BUET	:	Bangladesh University of Engineering and Technology
CA	:	
CU	:	Chittagong University
CUET	:	Chattagram University of Engineering and Technology
CUET	:	Chittagong University of Engineering and Technology
CVASU	:	Chittagong Veterinary and Animal Science University
DU	:	Dhaka University
EU	:	Engineering University
EWU	:	East-West University
FGDs	:	focus group discussions
FRSS	:	Final Round of Satisfaction Survey
FSS	:	Follow-up Satisfaction Survey
GU	:	Gono University
GU	:	General University
HSTU	:	Haji Danesh Science and Technology University
ICDDR,B	:	International Centre for Diarrhoeal Disease Research, Bangladesh
ICT	:	Information and Communications Technology
IIU	:	International Islamic University
IPR	:	Intellectual Property Literacy
IQAC	:	Institutional Quality Assurance Cells
IT	:	Information Technology
JU	:	Jahangirnagar University
KII	:	Key Informant Interview
KU	:	Khulna University
KUET	:	Khulna University of Engineering and Technology
MOOCs	:	Massive Open Online Courses
NGOs	:	Non-governmental organizations
NSU	:	North-South University
OCW	:	Open Course Ware
PSTU	:	Patuakhali Science and Technology Institute
PU	:	Premier University
RU	:	Rajshahi University
SU	:	Stamford University
SUST	:	Shahjalal University of Science & Technology
ToR	:	Terms of reference

UDL : UGC Digital Library
UGC : University Grants Commission
WB : World Bank

Executive Summary

Higher Education Quality Enhancement Project (HEQEP) aims to improve the quality of teaching-learning and research capabilities of the tertiary education institutions of the country. Of the five components of the project, Academic Innovation Fund (AIF), first of its kind in the country, is regarded as the cornerstone of the HEQEP. So far, the AIF has financed over 300 sub-projects across several public and private universities. These include a whole array of facilities starting from establishment of new lab facilities with modern lab equipment to capacity building of faculties and support staffs. To assess success of the AIF from perspective of its stakeholders and beneficiaries, this study evaluates the level of satisfaction of the students, faculty members, head of departments as well as prospective employers of graduates about the overall teaching, learning and academic environment in higher education institutions.

Briefly, HEQEP has become almost synonymous with infrastructural and technological up-gradations in classrooms, laboratories, offices and libraries. With the secured funding through AIF, the higher education institutions scattered all around Bangladesh seem to have rejuvenated. Faculty members, students, and staff appreciate the notable positive changes needed to excel the quality of teaching and learning. Although students are not fully aware of the details of HEQEP, they observed that their class rooms have been equipped with projectors and air-conditions. Teaching and learning environment has changed in a positive direction. Stakeholders generally are aware of the fact that this project is associated with University Grants Commission under the Ministry of Education. They also pointed out that the overall purpose of HEQEP is to enhance the quality of teaching and learning.

This study adopts both quantitative and qualitative research techniques to evaluate stakeholders' satisfaction towards academic and learning environment in a sample of universities in Bangladesh particularly to understand the impact of AIF on the former.. The departments were selected keeping representation of all three types of ranking of the universities (A, B, C), public and private universities (total 90 departments from 22 universities) spreading across 8 administrative divisions of the country. The non-AIF departments are chosen to resemble the treatment departments in terms of similarities of the subject content. However, it is not unlikely that students experience different facilities and environments across departments within the same university.. In total, 2,116 AIF department students and 987 non-AIF department students were interviewed, which is 22 percent deviation from the target sample size. The respondents were asked to rank their level of satisfaction towards various key issues related to teaching, learning, use of teaching input, technology provision, resource use on a five-point Likert scale from unsatisfied to highly satisfied. Next, we focused on the perception and satisfaction of faculty members about the academic environment in their departments. They are the recipients as well as managers of AIF sub-projects (AIF departments). We interviewed 364 faculty members, of which 253 are from the AIF departments/institutes and 111 from the non-AIF departments.

We interviewed 60 Heads or SPMs from the sample of AIF departments and 30 Heads from the sample of non-AIF departments. They were asked about the amount/quantity of facilities availed in the last five years using different funds (not only AIF). It was found that the largest number of facilities came from the contribution through AIF. For example, in the last five years, the sample departments obtained 64 computer centers with the financial contribution of AIF, whereas 34 computer centers were obtained with other sources of funds. Overall the average level of satisfaction for the Heads of the AIF beneficiary departments was found to be 3.68, whereas the average level of satisfaction was lower for the non-beneficiary departments (3.12). We also asked them about the adequacy of existing physical infrastructure (classroom, seminar rooms, meeting rooms, toilets, etc.). Thirty-eight (twenty three) percent of the AIF (non-AIF) department heads' expressed satisfaction about the adequacy of the existing infrastructure facilities. Almost 34(17) percent of the AIF (non-AIF) department heads said that they felt that laboratory facilities were adequate. Fifty seven (thirty four) percent of the AIF department heads stated that the IT facilities available in their department were adequate. Infrastructure-wise the AIF departments were found to be more equipped. For most of the indicators (adequacy of laboratory facilities, adequacy of IT facilities, adequacy of library facilities, adequacy of physical infrastructure), the AIF departments of private universities seemed to be more adequately equipped. We also wanted to see how the level of adequacy and level of satisfaction differs between departments' heads across the different category (rank) of universities. In this case, we found that the department heads of "A category universities" were rather dissatisfied about the adequacy of different infrastructural facilities compared to the department B and C category of universities. Most of the department heads expressed their satisfaction about the role of AIF in improving the teaching-learning environment of the department (53.45 percent "totally agreed" and 38 percent "agreed" with the statement) and building project management capacity of the faculty members. These findings were validated by the in-depth interviews with department heads and SPM were they said that HEQEP as a project has played a crucial role in rejuvenating the research environment. Besides available public funding for research, AIF has become a boost for researchers and students. With the renewed flow of funding and revamped atmosphere for research, public universities seemingly have gotten a new source of incentives to reorient their full attention to research and teaching.

We asked the faculty members to indicate their level of satisfaction over various indicators related to teaching and learning facility and compare the situation (satisfaction level) before they receive AIF support. The highest improvement, as indicated by the average satisfaction level, is observed in the case of online access to books and journals. With regard to quality of internet facilities at the institution, the average satisfaction level significantly improved after AIF intervention. The average satisfaction level in the case of laboratory equipment or materials, all indicators except one improved substantially over the period. The highest improvement (0.75 point) was observed for the availability of modern equipment, suggesting the impact of AIF.

With regards to overall satisfaction, in case of both the teaching environment and research environment, average satisfaction levels were significantly higher in case of AIF departments. The AIF faculty members were found to be more satisfied (with average level of agreement of 3.99 for teaching environment and average agreement of 3.54 for research environment) compared to the non-AIF departments faculty members (with average level of agreement of 3.79 and 3.19 for teaching and research environment respectively). Ignoring any sample selection issue, such differences in satisfaction may arise as a result of AIF intervention.

The KIIs and FGDs with faculty members revealed that the quality of teaching has improved mainly because of the positive changes in terms of technologies and teaching and research environment. However, they also denoted that the challenges are too fundamental to change in a short time. Recognizing the fact that making qualitative changes in teaching and learning requires considerably long time, faculty members underscore how the infrastructural and technological changes in recent times have already changed the environment in a positive direction.

Students form the third category of the stakeholders of AIF. Though students are not the direct users of the fund, they are the ultimate beneficiaries. Accordingly, students' satisfaction is one of the most important outcomes to gauge the effectiveness of the fund. We surveyed 2,116 students from AIF departments and 987 students from non-AIF departments totaling 3,103 students from selected departments. Average number of courses taken by a student in the current academic session was about 7 and they spend about 18 hours in a week for the classes of those courses. Weekly hours spent on class lectures are not significantly different between the groups even at 10 percent level of significance. Average number of hours that a student spends weekly in laboratory or workshop is 7.8 hours. The students of AIF departments spend about 1.24 hours more in laboratories/workshops than non-AIF students and this difference is statistically significant at 1 percent level of significance. About half of all respondents reported that they spend about (1-5) hours in library or seminar library. We find that 51(49.5) students from the AIF (non-AIF) departments have reported access to digital library resources. These results suggest that students have better facility in terms of productive time use in AIF departments.

We asked both the AIF and the non-AIF departments' students about their level of awareness about the AIF/intervention. Almost 85(71) percent AIF (non-AIF) students responded that they were aware of such initiative. Sixty-five percent of the AIF student (whose departments actually received the fund) knew about the participation of their department in HEQEP. Although students are not fully aware of the details of HEQEP, they observed that their classrooms have been equipped with projectors and air-conditions. Teaching and learning environment has changed in a positive direction. We asked the students to indicate how much importance they would attach to various teaching and learning indicators, including learning infrastructure, industry interaction and support services. Then we asked how satisfied they are with the existing facilities related to teaching and learning and other support services. We compare the responses provided by students from both group of departments. As observed, on all indicators the general

level of importance is high on average. The higher average importance levels from the perspective of AIF departments' students were assigned to the following indicators - *accomplishment of course curriculum at an even pace, the overall quality of the course materials, overall quality of teaching, overall quality of classrooms, quality of hostel accommodation and other facilities available, career guidance services to students and general cleanness of the university*, while *the overall quality of the course materials, overall quality of teaching*, and *career guidance services to students* were commonly important for the both groups. In addition to this, the indicator of "*inviting experts from industries to broaden practical and technical knowledge of the field*" was given higher average importance the non-AIF group students. For all the indicators mentioned above, the mean score of importance was found to be equal or above 4.50.

It is expected that their level of satisfaction, on average, will be higher compared to the non-AIF departments' students. However, the primary findings about the comparisons of the mean level of satisfaction about different indicators do not support this assertion. While we generally observe higher level of satisfaction among both groups of students, when looking at the full sample, the average level of satisfaction with regard to some indicators seem to be higher among the non-AIF departments' students compared to the AIF departments students. The non-AIF departments' students' show significantly higher level of satisfaction about the following indicators: *teachers ability to explain difficult and complex concepts, teachers are competent and possess up-to-date technical knowledge related to subject matter, the overall quality of instruction in the classroom, effective use of participatory teaching and learning methods in the classrooms, the overall quality of the course materials, the amount of practical work in laboratories and workshops in our courses, the overall balance between theory and practice/experiment in our department, the overall quality of our classrooms, the availability of access to digital library, and the quality of hostel accommodation and facilities*. The AIF departments' students have, however, shown higher level of satisfaction over the *effective use of technologies (multimedia, etc.) for teaching in the classrooms*. With regard to indicators related to industry interaction and support services, the higher level of average satisfaction was shown by the non-AIF department students. These are: *arrangements for internship at industry/firms, career guidance service, arrangements for inviting outside experts to broaden practical knowledge, special support program for students course work and the availability of counseling services*. Interestingly, we observe slightly higher (0.05) overall satisfaction among the non-AIF department students about *the quality of teaching and learning*, the difference is, however, marginally significant.

Overall satisfaction about teaching and learning environment in Universities

Group of respondents	Overall satisfaction	AIF Departments		Non AIF Departments	
		N	Average satisfaction Level (Standard Deviation)	N	Average Satisfaction Level (Standard Deviation)
Head of the Dept./SPMs		60	3.68 (1.11)	30	3.12 (1.20)
Faculty Members overall satisfaction	Teaching Environment	24	3.99 (0.87)	102	3.79 (1.00)
	Research environment	24	3.54 (1.11)	102	3.19 (1.26)
Students overall satisfaction on teaching and learning environment		19	3.45 (1.21)	921	3.51 (1.14)
		50			
Employers overall satisfaction about graduate skill(only AIF departments)		75	4.08 (0.56)		

These results may generally indicate that the AIF did not have greater impact on students' satisfaction with regards to various teaching learning indicators. This is not so straight forward. Because, our sample is drawn from various categories of universities as well as departments chosen were heterogeneous in terms of academic disciplines; the non-AIF departments do not always come from the similar discipline. It is not unlikely that students experience different facilities and environments across departments within the same university.

The university rank-wise disaggregated analysis reveals higher satisfaction level of AIF departments students of A ranked universities on most indicators, whereas for B and C category of universities the non-AIF departments students were found to be more satisfied than the AIF students on the similar indicators. On the other hand, the average levels of satisfaction in the group of AIF students of private universities are comparatively higher than the AIF group students of public universities.

Controlling for the observed heterogeneity of students interviewed in terms of their personal characteristics, department and university characteristics, we regressed each teaching learning indicators on the AIF status and found that AIF effect is positive on the average satisfaction level related to most indicators but not statistically significant. All these results are indicative of the fact that students' satisfaction level can be influenced by factors beyond the scope of AIF.

Among AIF departments the present situation is more positively assessed by the AIF group students than the non-AIF group students, when we compare the present with the past (2-3 years before). The indicators showing the treatment effect (or positive changes in changes in of satisfaction level of two groups over the past 2-3 years) are : *Use of multimedia and other*

modern classroom facilities, access to computer and computer lab, access to books or journals in the library for reading only, online access to books and journals, availability of wired internet facility, modern equipment are available in the laboratory, supply of lab materials are regular, presence of skilled laboratory staff, and quality of the seminars and workshops. This is not surprising as AIF support was used towards the improvement of facilities in the AIF departments.

Since graduate employment is one of the main objectives of completing higher education, employer views about the skills of graduates who enter the workplace is one of the crucial factors to evaluate the of the readiness of students to enter the job market. For assessing the employers' satisfaction, we interviewed 75 employers of the graduates of AIF departments. These employers were spread across different sectors of the economy. Employers were found "somewhat satisfied" with a few important skills of the graduates, such as customer service skills, critical thinking and analytical skills, communication in English, advanced computer skill and willingness to learn whereas they rate the importance of having these skills highly. As a whole, employers were more or less satisfied with graduates (21 percent highly satisfied, 72 percent satisfied and 7 percent satisfied to some extent). If we rank the level on satisfaction putting numeric values (5 for highest level of satisfaction and 1 for lowest level), then we find that the mean level of satisfaction is 4.08 for the employers.

Recommendations of Stakeholders

While sharing their experience and observations faculty members and students offered recommendations for the future. Below are some of the important ones.

1. Urgent need for proper maintenance of the newly purchased equipment. Officials of HEQEP could work closely with the university authorities to better utilize existing funds for maintaining the instruments.
2. Need more skill development workshops that will help students find jobs
3. All the students and faculty members need to have access to the new facilities all the time
4. Separate units for purchasing and monitoring need to be formed so that appropriate procedures are followed
5. Need high speed Internet to make searches quicker
6. More practical training programs on presentations and job-interviews
- 7.** Need sufficient research fund for both faculty and students