Student Satisfaction Survey: A Key for Quality Improvement in the Higher Education Institution

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Research

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Abstract

In India there are many higher education institutions and with growing population the number is incrementing day by day. Before taking admission in an institution student analyse the facilities and standard of the institution from the website and by taking peer opinions. Student contentment and feedback is gaining larger importance with mushrooming higher education institutions in India. This paper illustrates a method to analyse student feedback obtained from undergraduate and postgraduate students to assess the Student Satisfaction Index. The feedback is taken on overall infrastructure facilities, academic environment, services offered by the college, additional activities for overall development, quality of experiences and outcomes. This paper gives detailed information about the methodology, calculation and outcome of the exercise utilizing Likert scale analysis. With the recent emerging trends, this innovative method offers flexibility to integrate more parameters, group certain parameters to get feedback on a particular issue and transmute the type of questions with changing environment and structure. The analysis is done using a statistical method. The sample result directly highlights the importance and flexibility of method to evaluate overall satisfaction, satisfaction cognate to a single parameter and satisfaction for questions grouped together underlining some paramount aspects of higher education.

Introduction

Indian higher education system is the third largest in the world. The higher education institutions are governed by the norms set by the affiliating University based on the guidelines provided by the University Grant Commission (UGC). National Assessment and Accreditation Council (NAAC) has been established to strengthen the education system, to ensure complete transparency, to stimulate the academic environment for promotion of quality of teaching-learning and research in Higher Education Institutions (HEI).

In India HEIs are no longer imparting the required skills and improving the abilities of their graduates but are also concentrating to gratify students' feelings about their scholastic experiences in the institution. There is emphasis on primary activities like teaching learning, evaluation, research, extension activities, innovation along with emphasis on infrastructure facilities, Quality of services, welfare measures for students and staff and overall satisfaction experience.

The vigorous, efficacious and value predicated scholastic system is the backbone of any nation. To progress in the right direction complete knowledge of student diversity, socio economic status, expectations and academic preferences are very useful parameters. The gratified individual will have greater efficiency and will contribute to further progress of the institution and nation at large. Students who are studying in a higher educational institution seek more quality education and perfection of the system, in terms of approachability of the place, good infrastructure, quality education system, services offered by the institution, additional inputs in the form of value addition and employability enhancement courses etc. The infrastructure facilities are becoming important because these facilities satisfy student's

perception, esteem and develop them with all the essentials and capabilities to be an efficacious learner [1]. In India with maximum diversity of religion, culture, demography, language and education system itself, it is all the more difficult to have a single parameter to finalize student satisfaction survey questions.

In this paper we endeavor to analyze student satisfaction, using a feedback form which is designed to obtain feedback on the administrative practices, college infrastructure, teacher quality and additional facilities on the campus. This exercise additionally aims at resoluteness of paramountcy of a variety of practices which were introduced at college to mentor students predicated on their requisites.

NAAC guidelines are taken as the base for designing the questionnaire for obtaining the feedback which is utilized determinately to analyze Student satisfaction. The questions framed here have direct linkage to the NAAC seven criteria and the corresponding guidelines prescribed from time to time. This paper also highlights the approach, attitude and expectations of students of aided and self-financing courses.

The feedback obtained using google form assesses student satisfaction and experience in the HEI which may lead to better experience leading to overall personality development of the students and will prepare them for the world of work. It has no direct linkage to student performance at the examination [2]. Another very important observation in this regard is students from all socio economic backgrounds prefer better facilities, quality and above all availability of good infrastructures on their campus. Hence most of the questions in the feedback form are predicated on the assessment and quality of the services provided by more minute units/departments of the institution.

Methodology

As the first step towards this exercise, a sample questionnaire is prepared [3] and responses are obtained using a Google form technique. The sample questions are extensively based on the NAAC parameters, general outlook, type of services and activities offered by the institution and current scenario of higher education institutions in and around India. Some initial basic questions are framed to know the respondents in terms of stream (Arts, Science, commerce, engineering etc.) opted by the student, course in which student has enrolled (degree, diploma, graduate or post graduate etc.) and gender of the student. These questions are not listed in the table hence are not the part of statistical analysis. All other questions are framed to get responses on the 5-point scale designed using Likert scale [4]. Where 1 indicates poor and 5 indicates excellent satisfaction [5, 6].

After finalizing the Google form, a sample group from one college having both undergraduate and postgraduate students in all the three streams (Arts, Science and Commerce) and having minimum of two years of experience with the institution were asked to fill up the form online without disclosing their individual identity to avoid any sort of biased response from the students or any pressure on the student to give biased response. The sample size was more than 422 students and 41 questions were framed for which students were asked to give responses on the 5-point scale. The percentage wise distribution for

each question was directly obtained using Google form analysis data. Table 1 Shows the set of responses obtained for one academic year for all the sample questions.

Table 1
Responses obtained from the students on 5-point scale

No	Questions related to parameter	Excellent	Very good	Good	Average	Poor
	Weightage	5	4	3	2	1
1	Admission procedure followed	9%	24%	40%	20%	7%
2	Clarity of notices and guidelines	11%	29%	41%	17%	3%
3	Teaching Staff approachability	27%	38%	29%	5%	1%
4	Promptness in office service	8%	20%	40%	23%	9%
5	Fairness and transparency in rules	16%	35%	36%	9%	4%
6	Financial support given to needy	8%	23%	44%	20%	6%
7	General discipline in the college	22%	35%	35%	7%	2%
8	Gender equality	30%	36%	28%	6%	1%
9	Security provided in campus	16%	35%	38%	9%	3%
10	College Schedule (Exams and other)	13%	28%	40%	15%	5%
11	Library Collection (books and other)	23%	35%	31%	9%	2%
12	Library Staff approachability	20%	35%	35%	9%	2%
13	Promptness in library service	20%	30%	38%	11%	2%
14	Library and reading room facility	22%	35%	30%	11%	3%
15	College Web site	9%	25%	36%	19%	11%
16	Internet facility (E-resource center)	7%	19%	30%	24%	19%
17	Classrooms, labs, computers etc.	12%	26%	38%	19%	5%
18	Forum hall and AV room	12%	28%	43%	12%	5%
19	Sports facilities(Ground/gymkhana)	9%	22%	39%	20%	11%
20	Common room facility	3%	15%	35%	25%	22%
21	Canteen Facility	4%	11%	28%	31%	27%
22	Wash rooms	4%	14%	37%	26%	18%
23	Safe drinking water	7%	18%	39%	25%	11%
24	Emergency medical help	7%	22%	48%	17%	6%
25	Amenities for physically challenged	13%	35%	39%	11%	2%
26	Hostel facility	3%	13%	49%	19%	16%

No	Questions related to parameter	Excellent	Very good	Good	Average	Poor
27	Quality of knowledge imparted	32%	40%	24%	4%	1%
28	Activities of department associations	15%	26%	43%	13%	3%
29	Mentoring by class coordinators	20%	30%	39%	9%	3%
30	Career Guidance provided	19%	35%	33%	8%	4%
31	Placement support	17%	23%	34%	15%	11%
32	Soft skill guidance provided	11%	26%	37%	18%	8%
33	Counseling cell	7%	24%	48%	15%	6%
34	Fairness in conduct of exam	22%	37%	33%	7%	2%
35	Result declaration	12%	32%	40%	13%	3%
36	Cultural activities (forum time)	28%	32%	27%	10%	3%
37	Sports and trekking club activities	15%	24%	39%	17%	5%
38	Activities by NSS, Outreach Cell	9%	24%	43%	19%	5%
39	External linkages	6%	16%	29%	23%	26%
40	Support for cultural activities	11%	25%	40%	18%	6%
41	Social activities conducted	13%	34%	42%	10%	2%

1. As we have listed, this innovative method offers flexibility to combine together a few certain parameters to get feedback on a particular issue. As an example we will endeavour to analyse the academic environment based on inputs from teachers on the basis of their efficacy in transaction of curriculum, approachability, ability to provide additional skill set and knowledge through association activities, career guidance and fairness in examination. For this purpose, we will analyze question number 3, 27, 28, 29, 30, 32 and 34. Table 2 gives responses to obtained effectiveness of the teachers using part of the questionnaire that is using only above listed questions.
2. Similarly, to find the quality of library services and its effectiveness, question numbers 11 to 16 are combined together and analyzed. Table 3 gives responses obtained to analyze the quality and effectiveness of library services.
3. Individual parameter effectiveness can be obtained by analyzing individual questions related to the concerned parameter. As an example question number 40 gives overall perception and satisfaction level of students in terms of support which is provided for cultural activities. Here we have matched excellent response with complete satisfaction, very good response with mainly satisfied, good response with just satisfied, average with partially satisfied and poor response with not satisfied. Responses obtained for this aspect show that 11% students are completely satisfied, 25% are mainly satisfied, 40% are just satisfied, 18.4% are partially satisfied and 5.6% are not satisfied at all. The

only restriction is sample size should be large enough to get the true picture of satisfaction level [7, 8]. The sample size taken here is more than 422 outgoing students.

Table 2
Responses to obtained effectiveness of the teachers:

Q. No	Questions	Excellent	Very good	Good	Average	Poor
	Weightage	5	4	3	2	1
1	Teaching Staff approachability	27%	38%	29%	5%	1%
2	Quality of knowledge imparted	32%	40%	24%	4%	1%
3	Activities of department associations	15%	26%	43%	13%	3%
4	Mentoring by class coordinators	20%	30%	39%	9%	3%
5	Career Guidance provided	19%	35%	33%	8%	4%
6	Soft skill guidance provided	11%	26%	37%	18%	8%
7	Fairness in conduct of exam	22%	37%	33%	7%	2%

Table 3
Responses obtained to find quality and effectiveness of library services:

No.	Questions	Excellent	Very good	Good	Average	Poor
	Weightage	5	4	3	2	1
1	Collection of library books	23%	35%	31%	9%	2%
2	Library Staff approachability	20%	35%	35%	9%	2%
3	Promptness in library service	20%	30%	38%	11%	2%
4	Library and reading room facility	22%	35%	30%	11%	3%
5	College Web site	9%	25%	36%	19%	11%
6	Internet facility(E-resource center	7%	19%	30%	24%	19%

Results And Observations

The statistical analysis of above data gives the following result

Table 4
The statistical analysis of data obtained for feedback.

Table no.	Mean	Standard Deviation	Coefficient of variation
Table 1	3.27	2.90	0.89
Table 2	3.59	3.21	0.89
Table 3	3.36	3.01	0.89

The odd Likert scale has a tendency to give a result in the center scale. A low standard deviation means that most of the numbers are close to the average. Coefficient of variation tells us about the variability of data. The lower the value of the coefficient of variation, the more precise is the estimate. Although here in all the cases results are pretty good and precise.

The above table of statistical analysis also indicates that the overall feedback obtained for the institution is Good. The teacher's effectiveness in delivering the task assigned to them is more towards a very good category. The Quality of library services are also good. Figure 1 shows the graphical representation of the responses obtained for the teacher's Effectiveness. Figure 2 shows the graphical representation of effectiveness of library services. Figure 3: Shows distribution for support provided for Cultural activities.

Another important outcome of this activity is if any institution would want to improve the satisfaction of students in the future, they can analyze the individual parameter responses and some reforms and corrective measures can be introduced. It is the responsibility of the institution to analyze, understand and act on that understanding to improve. Since most of the students had rated quality of office services at a lower level, an Enterprise Resource Planning (ERP) package can be purchased by the institution to increase the efficiency. Similarly hostel facilities can be extended to students who are in dire need.

In another attempt, students were made aware of the objectives and intended learning outcomes of various parameters and then feedback was taken. This exercise also resulted in improvement of the satisfaction level of the students.

Conclusion

The students' satisfaction and the whole exercise is an innovative method to obtain students' feedback on their academic experience, perceptions and expectations from the higher education institution and finally to assess their satisfaction level. It contributes in understanding student's perception, likes and dislikes and more importantly which educational experience they think of as the most important and which facilities require improvement. The method devised to obtain feedback of students of HEI is very innovative, generic, flexible and easy to adopt by any higher education institution. The questions can be changed and altered based on the requirements of the institution. Various interpretations can be obtained using this technique. One survey analysis is capable of highlighting many parameters and aspects of higher education institutions. This analysis helps us indetermination of parameters which require higher

levels of improvement and changes to offer students greater levels of satisfaction. It also helps us in assessing the parameters, where institutions are strong and which can become their strengths. It provides information about actions that can be taken to maintain high levels of satisfaction and improve student learning experiences in the institution. Higher satisfaction level will definitely contribute to better outcomes. Each question in the questionnaire highlights different aspects of an underlying perception. If few questions are combined together and even Likert scale is used, reasonably accurate measure of the satisfaction can be obtained and effectiveness of that parameter can be analyzed easily. For instance, Teacher quality in imparting curriculum and giving extra inputs and effectiveness of library services is analyzed in the observation. If this method is used on a regular basis it may provide many insights into satisfaction level of students, changes in student priority, Quality of teachers, factors that really contribute to students' satisfaction. The study also emphasizes that there is a need to make students aware of objectives and intended learning outcomes. It can help administrators to understand the relative importance and accordingly plan improvement in facilities and resources. The method developed is a useful tool for selecting the most efficient parameters which help in improvement of experience, which leads to satisfaction. The facilities and services of organizations can then be improved to maximize efficiency. This study presents an easy, reliable and complete quality assessment method to obtain student feedback with no additional cost for any software purchase or training.

Declarations

Availability of data and materials: All data generated or analysed during this study are included in this published article [and its supplementary information files].

Competing interests: The author declare that I have no competing interest.

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Authors' contributions: Dr. A. K. has contributed fully is conception, design of the work, the acquisition, analysis and interpretation of data. She has also approved the submitted version. Dr. A. K. agreed to be personally accountable for the author's own contributions and to ensure that questions related to the accuracy or integrity of any part of the work, even ones in which the author was not personally involved, are appropriately investigated, resolved, and the resolution documented in the literature.

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Ethics approval and consent to participate: Not Applicable

Abbreviations

1. University Grant Commission (UGC)
2. National Assessment and Accreditation Council (NAAC)

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Figures

Figure 1

shows the graphical representation of the responses obtained for the teacher's Effectiveness.

Figure 2

shows the graphical representation of effectiveness of library services.

Figure 3

Shows distribution for support provided for Cultural activities

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- [AdditionalInformationSupplementaryFile.xlsx](#)
- [SupplementaryFeedbackAnalysis201516.docx](#)