Student satisfaction survey: a key for quality improvement in the higher education institution

Anita Kanwar[*] and Meghana Sanjeeva

*Correspondence:
anita_s_kanwar@yahoo.com
Department of Physics,
Vivekanand Education
Society's College of Arts,
Science and Commerce,
Sindhi Society, Chembur,
Mumbai, Maharashtra
400071, India

Abstract

India has witnessed a rapid expansion in the higher education institutions and with this fast pace of growth day by day, competition has set in among the institutes. Before taking admission in an institution student assess the facilities and standard of the institution by referring to the website, other admission portals and by taking peer opinion and public perception. Educational institutions around the world are now requesting students' feedback on all elements of academic life in the form of a satisfaction feedback questionnaire. The goal of this research is to describe the development and implementation of a survey to assess undergraduate and postgraduate student satisfaction. The Student Satisfaction Survey is a useful and effective instrument that tries to focus resources on areas, where there is low satisfaction but high importance. 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 survey 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.

Keywords: Higher education institution, Student satisfaction, Feedback, Undergraduate, Postgraduate

Introduction

The 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).

Students are the most important stakeholders of any educational institution. Along with students' progression and placements one of the main indicators of a college's

progress is the students' level of satisfaction. In India HEIs are not only 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 such as 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. of overall educational 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. As stated by Usman (2010) 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.

HEI's all across the world are increasingly vying for students on a national and international level. They strive to improve student satisfaction to admit and retain students. This can only be accomplished if all of the services that contribute to "academic life" are of sufficient quality. Students satisfaction can be defined as an attitude resulting from an assessment of students' educational experience, services and facilities provided by the institution. Because students are the important internal judges of performance of the institute, student satisfaction surveys are important and help the HEI to improve and adjust accordingly in the landscape of higher education. It also provides satisfaction to the institute of offering quality education.

Literature review

Mukhtar et. al. (2015) defined Higher education as education received at a college or university level and is regarded as one of the most essential instruments for a nation's individual, social and economic development. Fortino (2012) emphasized that creation of prepared minds of students was the main purpose of higher education. Hence, higher education institutions are increasingly recognizing and are placing greater emphasis on meeting the expectations and needs of their customers, that is, the students as rightly pointed out by DeShields et. al. (2005).

Higher education institutions are facing greater competition to adopt market-oriented methods to separate themselves from their competitors and attract as many students as possible while still meeting the requirements and expectations of present students. As a result, several research studies have been carried out to determine the elements that influence student happiness in higher education.

Elliot and Healy (2001) defined Students' satisfaction as a short term attitude, resulting from an evaluation of a students' educational experiences. It is a multidimensional process that is influenced by a variety of factors. GPA is the most influential factor on student satisfaction, according to Walker-Marshall and Hudson (1999).

There are personal and institutional factors associated with the concept of student satisfaction. Personal and institutional factors were identified by Appleton-Knapp and Krentler (2006) as two groups of influences on student satisfaction in higher education. Personal factors include age, gender, employment, preferred learning style, and student GPA, while institutional factors include instruction quality, promptness of instructor feedback, clarity of expectation, and teaching style.

Furthermore, teaching ability, curriculum flexibility, university status and prestige, independence, faculty care, student growth and development, student centeredness, campus climate, institutional effectiveness, and social conditions have been identified as major determinants of student satisfaction in higher education by Douglas et. al. (2006) and Palacio et. al. (2002).

Several models and frameworks have been applied by researchers to uplift students' satisfactions in higher education literature. SERVQUAL is a most popular widely used service quality model which has been applied to measure students' satisfaction around the world. SERVQUAL is a questionnaire designed, developed, and tested in the business environment by Parasuraman (1985) to measure service quality and customer satisfaction of a business based on five dimensions: tangibility, reliability, empathy, responsiveness, and assurance. Though widely used in business. It received some criticism from various researchers in higher education literature by scholars.

Elliot and Shin (2002) developed a more comprehensive student satisfaction inventory covering 11 dimensions and 116 indicators to measure the satisfactions of students in the higher education industry.

Weerasinghe et. al. (2017) traces the history of several models for student satisfaction derived from the business and higher education arena.

With the development of higher education in the world, the importance of students' satisfaction has emerged in the literature of higher education. At the beginning, industry based satisfaction models were applied to explain student satisfaction and later developed higher education based models to explain it.

Douglas et. al. (2006) developed the "Service Product Bundle" method to investigate influences on student's satisfaction in higher education, considering 12 dimensions.

Though several models are available, it is difficult to directly use any of them due to the heterogeneous nature of our educational system. 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.

Therefore, there is a need to design a survey suitable to the specific need of a higher education institute. This study is innovative in its approach as it has designed a survey considering the local needs but to meet the global standards. NAAC has given broad guidelines which are suitable for the broad Indian higher education system.

This study endeavors to analyze student satisfaction, using a survey 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. This

is also because NAAC is responsible for accreditation of the institution and grading them on a 4-point scale. 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. Another very important observation in this regard is that the 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.

Objectives

- To find out the satisfactory level of the students with regard to important parameters.

Methodology

Procedure of the development of the tool

- Four important dimensions viz. Curriculum & Teaching, Infrastructure Facilities, Student Support and Administrative matters were finalized. As the first step towards this exercise, a sample questionnaire is prepared. 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 demographic questions are framed to know the respondents in terms of stream (Arts, Science, commerce, etc.) opted by the student, course in which student has enrolled (degree, diploma, graduate or post graduate etc.) and gender of the student. All other questions are framed to get responses on the 5-point scale designed using Likert scale as described by Norman (2010), where 1 indicates poor and 5 indicates excellent satisfaction Adnan et al. (2016) and Hayan and Mokhles (2013)

  - A number of parameters under each heading were developed but were randomly spread across to get correct responses.
  - A pilot study was conducted and some parameters were removed.
  - Later the tool was sent to some experts and necessary changes were made and accordingly the parameters were finalized.
  - 41 questions were framed for which students were asked to give responses on the 5-point scale using Google form.

Sample

A simple random sample was selected. The Population of the students for the institute was around 3500. A sample group from one college having both undergraduate and postgraduate students in all the three streams (Arts, Science and Commerce) and having a minimum of 2 years of experience with the institution was identified and more than 500 students were selected for this study.

Data analysis and findings

Survey was rolled out and was kept open for a month. After initial responses were received, a gentle reminder was sent to the students who had not responded. Awareness of this survey was created among student groups to get a better response.

The students were administered the survey online and could participate without disclosing their individual identity to avoid any sort of biased responses from the students or any pressure on the student to give biased response.

The demographic questions were not subjected to any statistical analysis. 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.

1. As we have listed, this innovative method offers flexibility to combine together some 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 (Fig. 1).

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 as highlighted by Solinas et. al. (2012) and Silva and Fernandes (2012). The sample size taken here is more than 500 outgoing students (Figs. 2 and 3).

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

No.	Questions related to parameter Weightage	Excellent 5	Very good 4	Good 3	Average 2	Poor 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%
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%

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

| Q. 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%

Table 4 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

Results and observations

The statistical analysis of above data gives the following result (Table 4).

The odd Likert scale has a tendency to give a result in the center scale. Table 4 shows 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 4 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.

Fig. 1 Graphical representation of the responses obtained for the teacher's effectiveness

Fig. 2 Graphical representation of effectiveness of library services

Fig. 3 Graphical representation of responses received for support provided for cultural activities
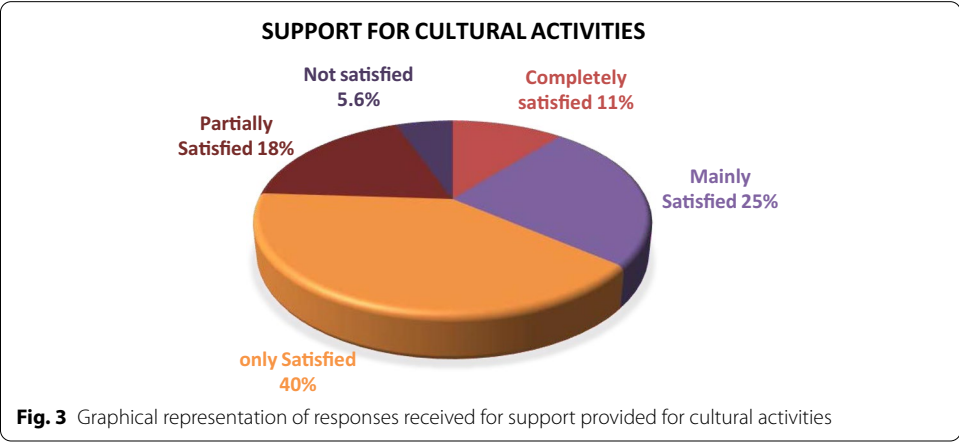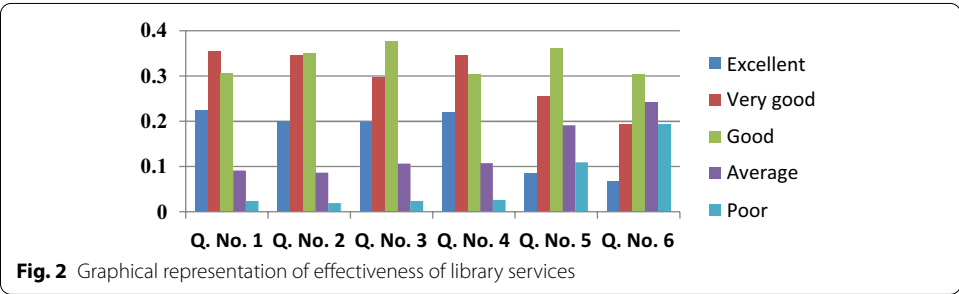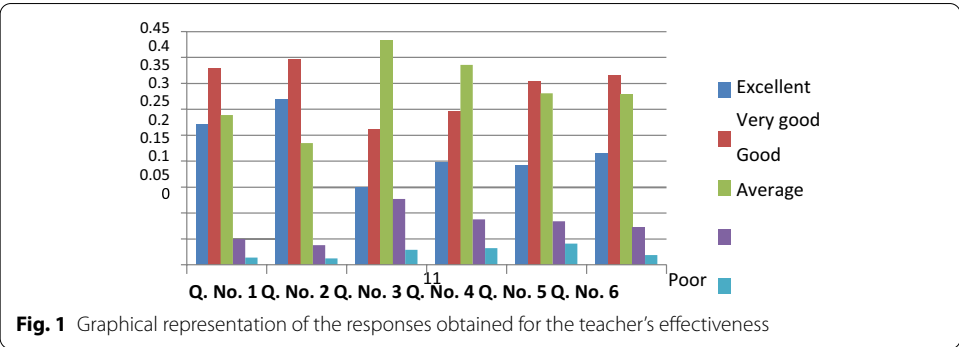
Discussion

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) packages 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 in determination 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, a 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.

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