

Student-faculty Interaction

Analysing the Experiences of University Students

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Abstract

This paper analyses the student-faculty interaction in higher education. The conceptual framework underlying the study is based on the idea of the Student engagement referred as 'Experience with faculty' and its two indicators, i.e. 'interaction with faculty' and 'teaching effectiveness'. The study assesses the extent to which students interact with teachers in and outside the classroom and how often they feel that teaching was effective. Data was collected from the sample of 250 students of C.S.J.M. University, Kanpur, Uttar Pradesh, using National Survey of Student Engagement (NSSE) questionnaire followed by an unstructured interview based on the student's responses. Overall result suggests that a large number of students have minimal contact with faculty and teaching-learning methods are widely teacher-centered.

INTRODUCTION

As contemporary society is experiencing unpredictable challenges, there seems to be a big question mark on the viability of educational institutions. Since, there are gigantic expectations from the higher education system, it became necessary for colleges and universities to recognise those attributes, which distinguish a top notch institution from a fair

one. New approaches to revitalise teaching effectiveness and expanded consideration to the learning needs of students pave the way for a total rethinking of our approach to higher education. As educators and those being educated are the most evident characters in an educational institution (Kundu, 2016). It has become increasingly important to distinguish and address the

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attributes, which are related to the most basic unit of the system—*The Learner*. Various common measures have been used in the research to identify if students are actively engaged in their learning.

Historically, those measures have overwhelmingly centered on behaviours and on quantitative information—such as attendance, standardised test scores and graduation rates. Later on, researchers have identified more critical determinants like efforts and involvement in various scholastic activities, collaborative learning, experience with faculty, academic and social engagement and so forth.

It is important to note that what students have to say about teaching and learning, will provide a significant foundation for improvement of educational institutions. Educators at all levels agree and accept that interactions with faculty have a positive influence on academic and intellectual development of an individual. Such interactions are likewise important for learning and self-improvement of college students as it fosters intellectual work, promote mastery of knowledge, skills, and help students make connections between their studies and their plans. (e.g., Astin, 1993; Kuh, Schuh, Pascarella, 1985; Pascarella and Terenzini, 1976; Tinto, 1993).

The current study is an attempt to give voice to student's experience of interaction with faculty. This is being assessed through indicators like 'interaction with faculty' and 'teaching

effectiveness'. Studies affirmed that the amount of formal or informal contact with faculty is significantly associated with academic achievement and persistence at the institution (Pascarella and Terenzini, 1976; Kinzie, 2005; Gablinske, 2014), hence the variable merits the investigation in Indian higher education system too.

NEED AND SIGNIFICANCE

The learner assumes much importance than ever before in the educational process as focus got shifted from teaching to learning. Today's students are increasingly worried about their learning and want it to be more relevant, socially engaging, exploratory, and responsible. So, there is a critical need to challenge and change our assumptions about the pedagogy and purpose of education. In order to make any improvement in the educational infrastructure, curriculum, teaching method or objectives we need to know more about learners. We need to know more about their educational experience. What do they feel about their institution, teachers, peers, administrators, examinations and evaluation, support system?

This study would not only give voice to the student's experience but also provide data to host institutions about the academic culture that persist in the campus. The outcome from the investigation would support colleges and universities to transform the student experience and craft policies that channel student's energy

to more purposeful activities that matter to student learning. Despite the fact that the paper focuses primarily on student experience with faculty in higher education, many of the ideas are applicable more widely to other stages of education also.

LITERATURE REVIEW

Parikh (2017), discusses that the relationship between teacher and student has been a focus of inquiry for more than 2000 years, since the Upanishads, Plato, Socrates, Confucius and so on. They built up much of the philosophical guidelines for teaching and emphasised the acquisition of knowledge through dialogue. In modern times, early attempts to study the classroom interactions can be attributed to the efforts made by Ned Flanders. Back in the late 1950s, he developed the system of interaction analysis popularly known as *Flanders Interaction Analysis* (FIA) to study the classroom interactions and verbal behaviour of teachers and students. It got well known and stays significant for a long time in for mapping student-faculty verbal interaction during classroom teaching.

However, with the passage of time researchers recognised the role of informal and social interaction with teachers. A large number of studies were carried out to assess the impact of teacher-student interaction in various formal and informal settings. Results pointed out that, in formal classroom settings, faculty interaction

and constructive feedback are noteworthy and positively correlated with the academic achievement and professional skills of students. (Bjorklund, Parente, Santinathan, 2004).

Endo and Harpel (1982) examined the effects of four aspects of student-faculty interaction (frequency of formal interaction, frequency of informal interaction, quality of faculty advising, and helpfulness of faculty) on a variety of student outcomes and reported that such interactions had substantial positive effects on student's efforts in other educationally purposeful activities. Such interactions also add to the effects on intellectual, personal and social outcomes together with an educational experience of students (Kuh 2001; Karen L. Bouchard and J. David Smith 2017; Davis 2003).

Peter Ewell (1997) contended that if student learning is to be improved, then it is critical to consider institutional and faculty engagement practices. Similarly, Amatari (2015), also discusses the importance of adopting the technique of assessing student-faculty interaction in schools and affirms that such adoption will impact the social climate of learning positively. The quality and frequency of student-faculty interaction are an important indicator of an academic environment and quality education.

Sharma and Bhaumik (2013), conducted a study to explore student engagement and its predictors at Indian Business School (IBS). Likewise, other prominent institutions like IIT's and IIM's are equally

concerned about students learning and student-faculty interaction as they have developed sophisticated mechanisms to reach out to their students. *VoxPopuli* is one of such initiative by IIT-K where students can share their experience on the scope of issues like academics, faculty, alumni, administration, career and so forth.

Cohen (1980), suggests that improved student-faculty interaction outside the classroom can maintain the quality of the academic programs. It is evident from the literature review that research on Student-faculty interaction as a predictor of student engagement is gaining widespread acknowledgement in the West yet there are very few investigations in India with such point of view. The theoretical frame works used by most of the previous research studies were concerned with quality education. Hence, the present variable is worth research in Indian Higher education system with different perspective.

OBJECTIVES OF THE STUDY

The purpose of the study was to trace the student's experience with faculty in higher education. Hence, the following research questions were designed to study the variable:

1. How frequently do students indulge in interaction with faculty during an academic session?
2. How frequently do students believe that teachers had effective teaching in the classroom?

3. Whether the observed frequency, i.e., student's response in each category is significantly different from expected frequency, i.e., normal distribution?

SAMPLE AND RESEARCH SETTINGS

Data was collected using a survey method from C.S.J.M. Kanpur, Uttar Pradesh. The University established in 1966, is one of the largest institutions in India in terms of the number of students enrolled and the number of affiliated institutions. The samples for the study were selected from the population of students enrolled in on-campus courses in various departments of University, during the academic year 2014–15. All the departments were selected for the study while classes were selected by using simple random sampling. The final sample of the study comprises of 250 students who were present in class and willing to participate in the study. Due representations were given to male and female subjects.

INSTRUMENT

Study employed unstructured interview in addition to the NSSE survey that assesses the extent to which students engage in educational processes associated with elevated levels of learning. It is found that the rating scale was imperative to gather the numerical facts like frequency of the interaction while interviews prompted further exploration of the potential reasons for the underlying situation and students' response.

Interview questions were based on the student's response in the NSSE survey for marking choice in either *never* or *very often category* for any item in the tool.

NSSE was developed by the Center for Evaluation and Education Policy, Indiana University, in 2000 updated thereafter in 2013. The items estimating experience with faculty used a rating scale ranging from *never* to *very often* with higher frequency in a given segment demonstrating the high level of interaction between students and teachers.

Some items from original tools are deleted or modified as need be to make it progressively appropriate for Indian students and institutions. This incorporates the substitution of specific words or phrases, commonly used in global settings with that of words with similar meaning in the Indian settings with due consultation from experts. However, no such changes were made in the section that is dealing with the assessment of 'experience with faculty' and its two indicators, i.e., 'interaction with faculty' and 'teaching effectiveness'.

VALIDITY AND RELIABILITY

The value of the reliability coefficient for the entire test is 0.85. This high-reliability coefficient of correlation shows that the present tool is a reliable device to assess student engagement and its theme 'experience with faculty'. Due to paucity of time and resources at researchers end, it was not possible to re-establish the

validity and reliability. Since, there were just minor substitutions in some of the items, it is believed that the validity and reliability of the tool remains somewhat similar to that of the original version.

PROCEDURE

The Investigator visited personally all the constituent departments of the university with prior permission from the Head of Department. Since students in their respective departments may tend to get influenced by the presence of their faculty and hence possibilities of biased responses are natural. Such impacts are neutralised by having personnel interviews with respondents and cross-examining their expressed views with earlier responses. All the ethical guidelines were followed in this regard and respondents were assured that their answers would be kept confidential and used for research purposes only.

DATA ANALYSIS AND INTERPRETATION

Once all data were collected they were tabulated for analysis and interpretation. Frequency distribution for each response category was categorised with the help of MS office software. The number of students was converted into percentages for easy comparisons. Further, chi-square test was being used to test the distribution of observed data against normal probability curve parameters. Analysis and interpretation of the data are given below:

Table 1 is showing frequency distribution for items of engagement indicator interaction with faculty along with the percentage of the student in respective categories.

- One-tenths of students very often worked with a faculty member on activities other than coursework, an equal number of students does it often. Little less than one-third

Table 1
Item wise Frequency distributions for items of Engagement Indicator Interaction with Faculty

1.	During the current academic year, about how often have you done the following ?				
S.No.	Item	Response categories			
		Very often	Often	Sometimes	Never
1.a	Talked about career plans with a faculty member	29	31	115	75
		12 %	12%	46%	30%
1.b	Worked with a faculty member on activities other than course work (committees, student groups, etc.)	26	25	79	120
		10%	10%	32%	48%
1.c	Discussed course topics, ideas, or concepts with a faculty member outside of class.	30	55	105	60
		12%	22%	42%	24%
1.d	Discussed your academic performance with a faculty member.	26	35	90	99
		10%	14%	36%	40%

- Little more than one-tenth of students very often talked about career plans with a faculty member while an equal number of students does it often. Less than half of the students talked about career plans with a faculty member sometimes while less than one-third never talk about career plans with a faculty member. About one-fourth of the students talk about career plans with a faculty member often or very often.

does it sometimes while little less than half of the students never worked with a faculty member on activities other than coursework. Only one-fifth of the students worked with faculty members on activities other than coursework often or very often.

- Little more than one-tenth of the students very often discussed course topics, ideas or concepts with a faculty member outside of class and little more than one-fifths discussed often. More than

two-fifths discuss sometimes while little less than one-fourth students never discussed course topics, ideas or concepts with a faculty member outside of class. More than one-third of students discussed course topics, ideas or

of students discuss academic performance with a faculty member often or very often.

Table 2 represents frequency distribution for items of engagement indicator effective teaching practices.

Table 2
Item wise Frequency distributions for items of Engagement Indicator Effective Teaching Practices

During the current academic year, to what extent have your teachers done the following?					
S. No	Item	Response categories			
		Very often	Often	Sometimes	Never
2.a	Clearly explained course goals and requirements	15	70	120	45
		6%	28%	48%	18%
2.b	Taught course sessions in an organised way	30	70	75	75
		12%	28%	30%	30%
2.c	Used examples or illustrations to explain difficult points	40	65	85	60
		16%	26%	34%	24%
2.d	Provided feedback on a draft or work in progress	28	60	69	93
		11%	24%	28%	37%
2.e	Provided prompt and detailed feedback on tests or completed assignments	20	85	75	70
		8%	34%	30%	48%

concepts with a faculty member outside of class very often or often.

- One-tenths of students very often discussed the academic performance with a faculty member while more than one-tenth does it often. More than one-third discussed it sometimes and two-fifth of students never discussed their academic performance with a faculty member one-fourth
- Less than one-tenth students feel that during the current school year teachers very often clearly explained course goals and requirements while more than one-fourth feel it happen often. Little less than half of them feels at some extent while less than one-fifth feels teachers never explained the course goals and requirements.

- Little more than one-tenth of the students feel teachers very often taught course sessions in an organised way while more than one-fourth often feels so. Less than one-third feels teacher does it sometimes while equal number, i.e., less than one-third feels teacher never taught course sessions in an organised way.
- Less than one-fifth of the students feels teacher very often used examples while little more than one-fourth feels teacher does it often. About one-third feels teacher used examples sometimes while little less than one-fourth feels teacher never used examples or
- Little less than one-tenth students feel teacher very often provided prompt and detailed feedback on tests or completed assignments while more than one-third feel it happens often. Less than one-third feels it happened sometimes while little less than half of students feel teacher never provided prompt and detailed feedback on tests or completed assignments.

The overall result is obtained by taking out the average frequency response from each category. Table 3 shows average frequency distributions for theme 'Interaction with faculty'.

Table 3
Average Frequency distributions for Engagement Indicator Interaction with Faculty

	Response category	Frequency	Percentage
Research question How do students have interaction with their faculty?	Very often	28	11
	Often	37	15
	Sometimes	97	39
	Never	88	35
Total		250	100

illustrations to explain difficult points.

- One-tenth of students feel the teachers very often provided feedback on a draft or work in progress while little less than one-fourth said it happens often. More than one-fourth feels sometimes and little less than two fifth students feel the teacher never provided feedback on a draft or work in progress.

It is clear from the data in Table 3 that about one-tenth of students have interaction with their faculty very often while more than one-tenth often interacted with faculty. Two-fifths of them sometimes interacted with faculty and less than two-fifth rarely interact with faculty. Overall one-fourths of students interact with faculty often or very often and the rest of them had much lower interaction with faculty.

Table 4
Average Frequency distributions for Engagement Indicator
Effective Teaching

	Response Category	Frequency	Percentage
Research Question How do students feel that teachers had practiced effective teaching	Very often	26	11
	Often	70	28
	Sometimes	85	34
	Never	69	27
Total		250	100

Similarly, Table 4 represents the average frequency distributions for engagement Indicator—‘*Effective Teaching*’. Clearly, data shows that more than one-tenth students feel that teachers had practiced effective teaching very often while more than one-fourth is of opinion that often teaching is effective. About one-third of students feel sometimes teaching is effective and more than one-fourth of them feel teacher never use effective teaching. Overall, only two-fifths of the students are of the view that the teacher was effective most of the time.

TESTING THE DIVERGENCE

In order to test the divergence of student responses against normal distribution, a null hypothesis was

framed and the chi-square test was applied. Chi-Square test empowers us to think about watched and expected frequencies equitably, since it isn’t constantly conceivable to tell just by looking at frequencies, whether they are *different enough* to be considered statistically significant. We begin by stating the null hypothesis (H_0 : There is no significant difference between observed and expected frequency) and an alternative hypothesis (H_1 : There is a significant difference between observed and expected frequency). Based on the outcome of the Chi-Square test, we will either reject or fail to reject the null Hypothesis. Table 5 shows the data obtained while testing the null hypothesis –

Table 5
Divergence of Experience with Faculty

	Very Often	Often	Sometimes	Never	
Observed(f_o)	27	53	71	79	250
Expected(f_e)	17	108	108	17	250
($f_o - f_e$)	10	-55	-37	62	

$(f_o - f_e)^2$	100	3025	1369	3844	
$(f_o - f_e)^2 / (fe)$	5.88	28	12.67	226.11	
	$\chi^2 = 272.66$		df=3		P is less than .01

From the above Table 5, the value of χ^2 is 272.66, which is beyond the limit of the Standard table. The discrepancy between the observed and expected value is so great that the hypothesis of normal distribution in this group must be rejected. Hence, we can conclude that the significant difference does exist between observed and expected frequency. Statistical significance, in this case, implies that the distinctions are not because of chance alone, but there might be different processes grinding away.

RESULTS AND DISCUSSION

One of the biggest challenge in higher education is to facilitate the perspectives of all stakeholders who have different perceptions of higher education quality. There are numerous factors associated with both sides, i.e., teachers and learners, that influence the interaction and decide the teaching effectiveness. Additionally, institutional factors are also there playing a significant role in constraining the student-faculty interaction. Sharma (2015) discussed that in most of the state and central universities over 30per cent of faculty positions are lying vacant. While the student enrollment is growing at a faster rate in the last few years.

The objective of the study was to explore student-faculty interaction

and teaching effectiveness in a state University and the outcomes are not satisfactory for both the variables. Overall results show that three-fourth (75%) of students had inadequate, deficient, insubstantial, and very low interaction with faculty and three-fifth (60%) of the students are of the view that the teacher was not effective most of the time.

Individual differences among personality factors play an important role in deciding how students and teachers are going to interact with each other in the classroom and beyond that too. Some students may find it worth to discuss their career choice with faculty for many others it may be highly unprofessional to discuss anything beyond academics. When students interact with their teachers, in a meaningful way, it not only provide academic information to students but also broadly affects their general ways of thinking, methods of problem-solving and interest in various life goals.

In many institutions research is not on top priority in such case fewer faculties are associated with national or state-financed research projects. Naturally, students don't have opportunities to work on projects, and research work apart from academic work. Sharma (2015) asserts that there is no shortage of

funding for the top Indian Institutions but due to the limited focus on Research and Internationalisation, very few Indian higher educational institutes are globally recognised.

Some students will gravitate quickly toward opportunities to interact with teachers outside of class; while others will do everything they can, to dodge these extra contacts. It is important to note that students may be hesitant to seek out or interact with faculty beyond the classroom for a various reasons. Students also consider the classroom as better option to discuss ideas and concepts. Many times even teachers also don't welcome such moves as they believe additional interactions will blur professional and personal lines.

Students need to feel that they are important accomplices in the teaching-learning process and their teachers are truly worried about them. There is disappointment among students about the teaching methods used by the teacher. When asked a student about teachers, he replied— “*wo sirf apni job karne aate h... lecture dete h aur chale jate h*”. Assessment strategies and feedback mechanisms pose another challenge in positive student-faculty interaction. A large number of students are there who are not willing to share their academic performance with teachers due to fear of criticism.

Conversations with students about the course or the discipline can be enriching both professionally and personally, but also can become extremely (or even prohibitively) time-

intensive, particularly for faculties with large number of students. Many students are not able to understand course goals and requirement as only attending a lecture does not necessarily ensure students' learning. It is evident from the fact that there is a disparity between what a teacher thinks they have taught effectively and the actual proportion of content their students effectively illustrate.

Overemphasis on rote and memorisation, biased evaluation, lower use of technology and boring classrooms can make students feel that teachers are not using effective teaching strategies. Illustrations and examples can attract the attention of students, and assist them to understand and make sense of the content. However, results demonstrate that our teachers are not ready to utilise this strategy effectively.

Learning often takes place best when students have opportunities to express ideas without being hesitant and get constructive feedback from teachers. Generally, most teachers consider feedback as class test scores or formative evaluation scores. Students want to hear more details about performance and how they can improve their scores.

EDUCATIONAL IMPLICATIONS

Classes with an emphasis on lecturing provide extremely restricted opportunities for student-teacher interaction. So, teachers can make use of virtual platforms to supplement learning and pose questions. They can

assign time after lectures to respond to inquiries from students who linger, additionally, they can also supplement teaching-learning hours in an informal setting like cafeteria or hostel.

Arriving early to class in order to respond to questions and gather informal feedback can provide valuable information to teachers about the impact of their learning. They may start class by asking students questions about the previous lesson, in this manner helping them to revise the earlier material and providing continuity. They are likewise expected to play a role beyond teaching in classrooms in mentoring and guiding students in making the right career choices as per their abilities and aspirations.

Overall, teachers need to support student's explorations of innovative thoughts and interests regardless of time and place. Networking and social interactions between student and faculty can be expanded by welcoming the students to serve on department committees, governance, and special interest groups. Organising social events such as debates, movie screening, special lectures, and meetings between Dean or senior faculty and students, will open doors for social interactions and will also act as a good strategy to support students who may be hesitant to speak out in class.

LIMITATIONS

This study has few limitations. First, it is possible that sampling

bias may influence the results in unknown ways. Data from a single state university is not necessarily representative of higher education in Uttar Pradesh. If students from different colleges and universities were included in the study, the results may have been different.

There was a dearth of tools that can measure Student Engagement or Student Experience as thoroughly as the NSSE does. Since NSSE has been developed by Indiana University there is a probability that it lacks Indian perspective. However, to make it pertinent to Indian conditions some items were adjusted or deleted with the help of experts. Due to the paucity of time and resources validity of a modified version of the tool was not estimated.

Finally, if additional institutional characteristics were added to the analysis—such as student's educational background, class, gender, socio-economic status, faculty-student ratios, a different picture of the effects of student-faculty interaction would have emerged.

CONCLUSION

The results of the study, for the most part, are consistent with much of the previous research on student-faculty interaction and teaching effectiveness. There is a significant and quite a large number of students in an institution who record poor interaction with faculty. They barely talk about their vocational plans with teachers, neither examined

their scholastic execution nor have opportunities to work with teachers on projects other than the coursework.

Students learning is intensely reliant on effective teaching. The teaching methods in a majority of institutions are transcendently teacher-centered and absence of organised instructions,

clear explanations, illustrative examples and effective feedback on student work, all represent aspects of teaching ineffectiveness and inadequacy. Shortage of faculty and high student faculty ratio seriously influences the average time a teacher can give to students.

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- <http://mebelcity.ulmebel.com/?wgp=teacher-and-student-interaction-in-classroom>
- <https://teaching.utoronto.ca/teaching-support/strategies/supporting-interaction/>
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