

Need of Optimum Faculty-Student Rapport and Wise Use of Technology in Classroom Environment: An Empirical Study Conducted in Private Institutions of NCR, India

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Abstract

It is very disappointing to see that attraction towards engineering colleges among students of India is declining. Management education seems to promise more to the students. National newspapers of India have given space to headlines sharing closure and shut down of many private institutions and colleges. This situation needs serious thought. Are all the engineering and management institutions fairing bad in terms of admissions or some are more insecure than others? Market situations, pressures of globalization, competition cannot be controlled however, what can be nurtured well is our existing set of students so that their performance and results speaks for itself and so does their behaviour. Engineering and management institutions boast a lot about collaboration with foreign universities from developed countries however; one thing to learn from these foreign universities is their optimum level of faculty-student relationship as well as classroom environment that prevails in their institutions. This research paper, primarily based on primary research conducted in private institutions imparting engineering and management education, recommends a need to focus on optimum faculty-student rapport and wise use of technology to gain disciplined classroom environment.

Key Words: *engineering, management, classroom environment, faculty-student rapport*

1. INTRODUCTION

1.1 Inputs from Secondary Sources

According to All India Survey on Higher Education (AISHE) conceived by MHRD in 2011, All India Survey on Higher Education (2017-18 and 2016-17) [1&2] reveals that in the year 2013-14, the number of enrolments in BTech and BE programs was 4336149 however in 2017-18, it has gone down to 3,940080. On the other hand, student enrolment in MBA program nationwide has picked up from 392937 in 2013-14 to 421509 in 2017-18. On the surface, it seems a sad situation for BTech and BE and an encouraging situation for MBA. However, something which needs equal attention is that number of institutions offering engineering or management program is closing down. Every year, more than 70 institutes offering engineering and management shut their doors [3-5] because of lack of admission. This proves the lack of quality that they offered and they could not retain students or attract the new ones.

1.2 Current Scenario

It is observed that classrooms of private engineering and management institutions in India don't provide best scenario in terms of classroom environment. While environment of very few classrooms may be called congenial however many classrooms are places for disruptive behaviour. Disruptive behaviour on part of students can be seen in terms of lack of well-behaved conversations in classes, students coming late to classrooms without a feeling of apology. Even while classrooms are full with students, it is common to see some students shouting at each other, throwing questions that are irrelevant, not letting others speak, arguing with each other and engaging in conversations that distract. In classes where technology is not even required, students sneak to be on their laptops or phones. Can we attribute such behaviour to overuse of technology and its addiction? Well, that is a deeper question. However, we need to first confirm that such a behaviour exists.

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In such circumstances, the existing faculty can do its best to build the best relationships with its existing students so that the outcome attracts even the outside talent for coming years. Considering all this in mind, a research study was conducted among private universities and institutions of Delhi, NCR to gauge the situation. Results and Findings section will show the results.

2. LITERATURE REVIEW

A number of papers have been studied on classroom environment from 1986 to 2019. This was done to understand significance of classroom environment from yesteryear’s researchers to today’s researchers to comprehend varying viewpoints because of varying times. In the year, 1998, according to a researcher, classroom environment augments connectedness with the institution [6,] and ensures well-being of students. Year 1994 acknowledged the significance of positive classroom environment in reducing stress which in turn, leads to improved psychological functioning [7]. Classroom environment can make students perceive themselves as origins (internal locus of causality and hence active and confident) or pawns (almost no sense of personal causation and hence reactive) according to researchers at University of Rochester[8] in the year 1986. So it actually increases or decreases self-worth or self-esteem of students. Positive classroom environment improves sense of community in the class. Interpersonal communication between faculty and students and community environment has a big hand in making it a happy and good-to-learn environment. Such psychological environment is called classroom climate. The year 2018 affirmed that this climate has positive influence on emotional well-being of students which in turn impact behaviour of students [9]. According to other researchers in the year 2019 [10] students are said to be engaged when they pay good attention towards lectures, display perseverance and grit in difficult situations and deep involvement in classroom activities.

1. RESEARCH METHODOLOGY

This research was conducted using a self-structured questionnaire in four private institutions of NCR, India in order to understand inside classroom environment

of engineering and management programs. Some questions related to faculty-student relationship too. Students and faculty were requested to respond out of their choice on an on-line web-portal giving them a choice to give anonymous response. Sample was selected through non-probability judgement sampling.

119 students and 47 faculty members responded. Among faculty respondents, 2 respondents had more than 20 years of experience, 4 respondents had less than 3 years of experience and 41 respondents had more than 3 years and less than 20 years of experience. Question 1-3 related to demographic profile of the respondents. Question 4 was about faculty-student relationship. Q 5 to Q 22 were to be answered on a five-point Likert’s scale where 1-Strongly disagree, 2-Disagree, 3-Undecided, 4-Agree, 5-Strongly Agree. Responses were collected and analyzed in the form of tables and graphs.

2. FINDINGS AND DISCUSSION

2.1 Findings

Following are the results for age (Figure 1a, 1b), qualification (Figure 2a, 2b) and gender profile (Figure 3a, 3b) of the respondents:

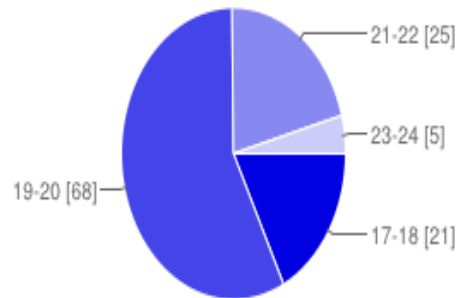


Figure 1 a Age Profile (Students)

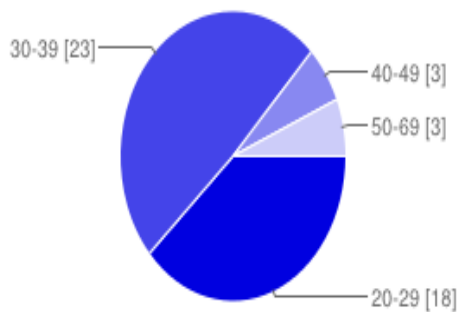


Figure 1b Age Profile(Faculty)

Table 1 : Age Profile (Students and Faculty)

Age-group (student)	No. of students	%age of students	Age-group (faculty)	No. of faculty members	%age of faculty members
17-18	21	18%	20-29	18	38%
19-20	68	57%	30-39	23	49%
21-22	25	21%	40-49	3	6%
23-24	5	4%	50-69	3	6%

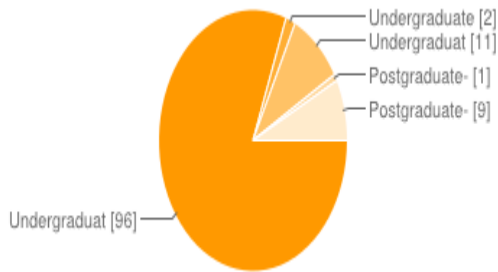


Figure 2a Programs students studying in

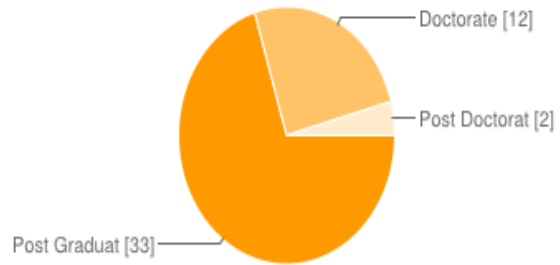


Figure 2b Qualification Profile of Faculty

Table 2: Program /Qualification Profile of Students and Faculty

Program (Studying in)	No. of students	%age of students	Qualification of faculty	No of faculty members	%age
UG- B.Tech.	96	81%	Post Graduate	33	70%
UG- Management	2	2%	Doctorate	12	26%
UG- B.E.	11	9%	Post Doctorate	2	4%
PG- engineering	1	1%			
PG- Management	9	8%			

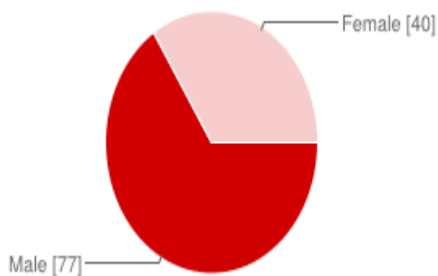


Figure 3a Gender Profile of Students

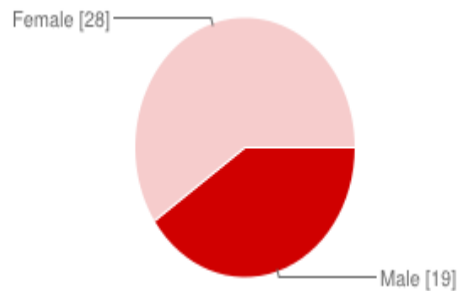


Figure 3b Gender Profile of Faculty

Table 3: Gender Profile of Students and Faculty

Gender	No of Students	%age	Gender	No of Faculty Members	%age
Male	77	66%	Male	19	40%
Female	40	34%	Female	28	60%

Table 4: Student Perception on faculty being friendly or strict (1- very strict, 5- very friendly)

Faculty behaviour	Student Responses (in %age)
Very strict	0%
strict	8%
Neither strict not friendly	46%
friendly	37%
Very friendly	9%

Table 4 clearly shows that student want faculty to build optimum rapport with them. He/she should be neither too friendly nor too strict. Figures 4a, 5a, 6a, 7a, 8a.....20a show faculty perception on classroom environment whereas Figures 4b, 5b, 6b, 7b, 8b.....20b show student perception on various activities in the classroom. These figures clearly demonstrate that students display disruptive behaviour in the classrooms and pay less attention to the lectures.

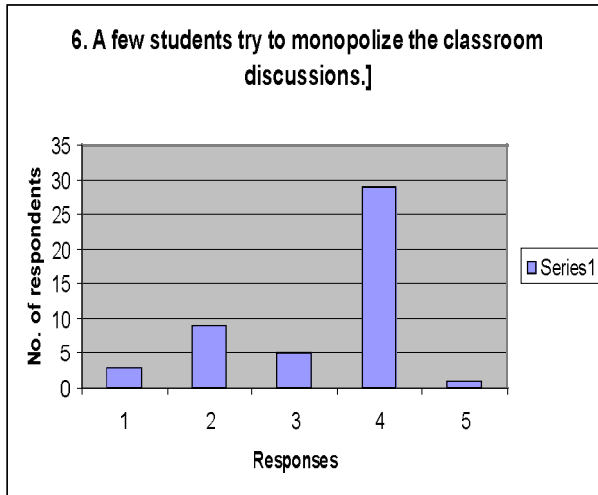


Figure 4a Faculty Perception

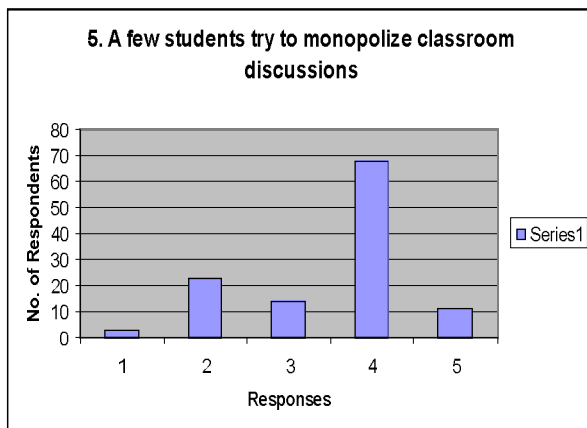


Figure 4b Student Perception

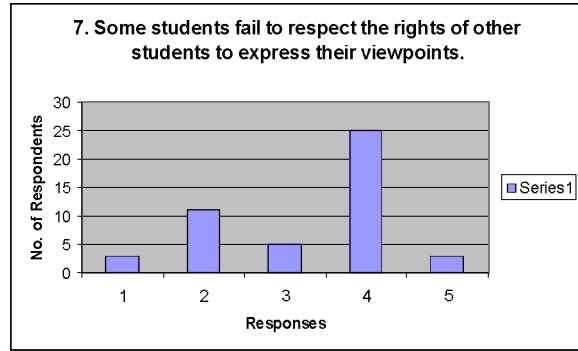


Figure 5a Faculty Perception

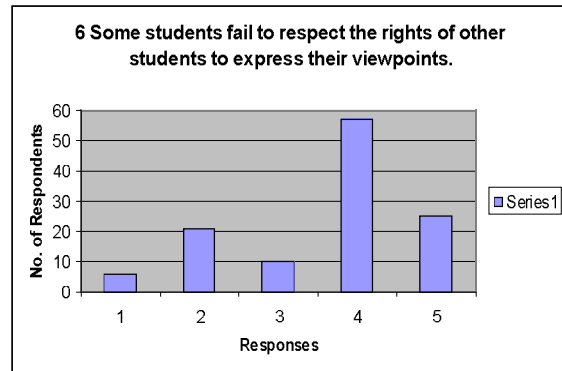


Figure 5b Student Perception

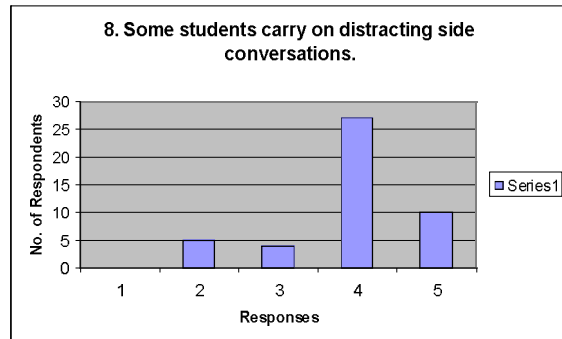


Figure 6a Faculty Perception

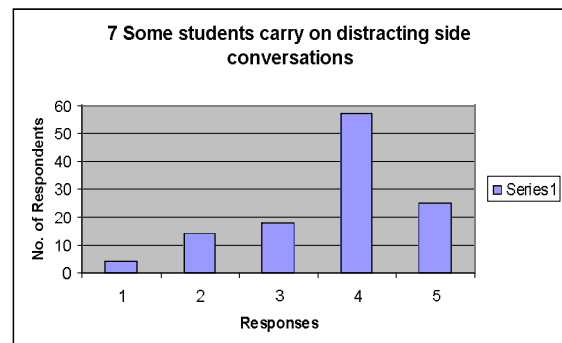


Figure 6b Student Perception

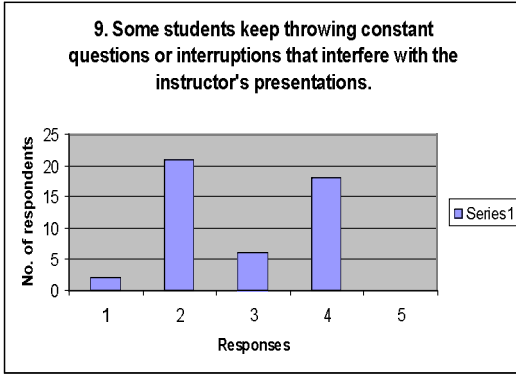


Figure 7a Faculty Perception

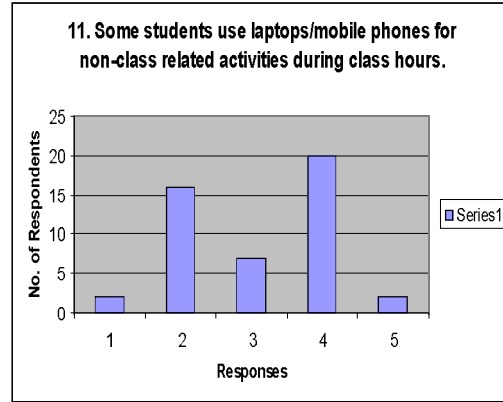


Figure 9a Faculty Perception

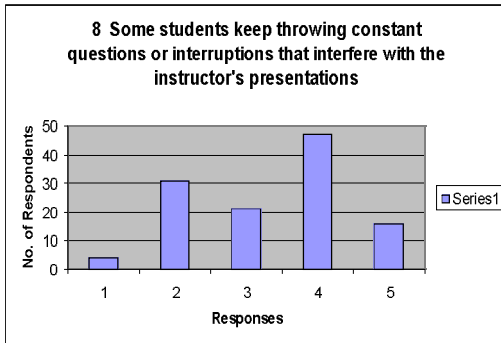


Figure 7b Student Perception

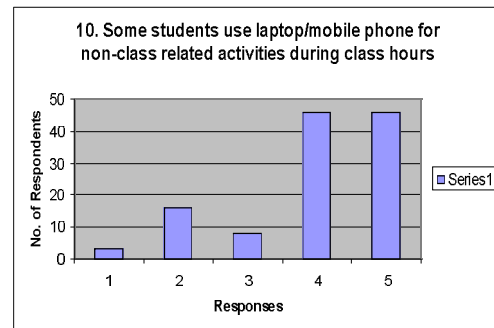


Figure 9b Student Perception

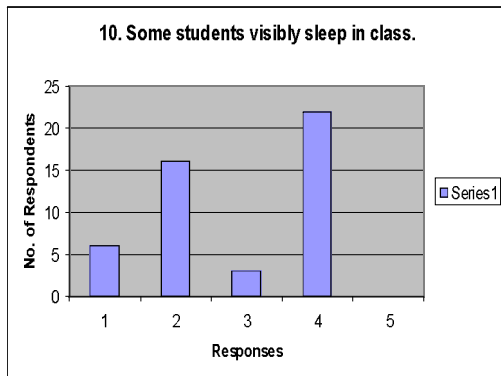


Figure 8a Faculty Perception

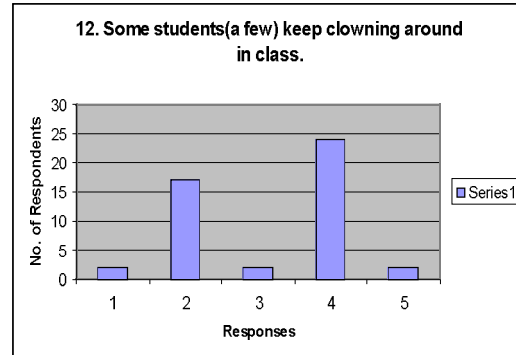


Figure 10a Faculty Perception

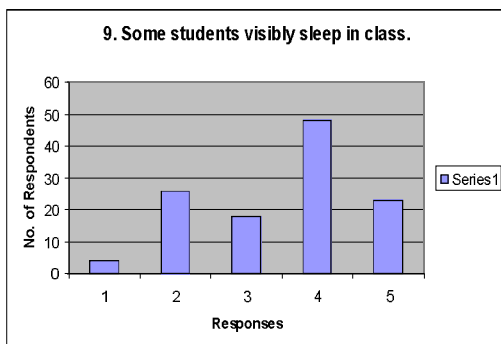


Figure 8b Student Perception

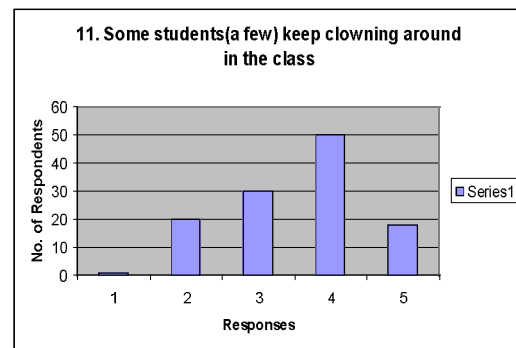


Figure 10b Student Perception

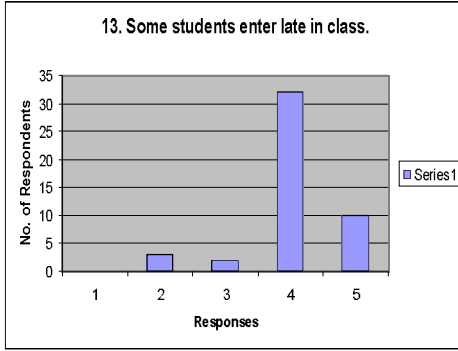


Figure 11a Faculty Perception

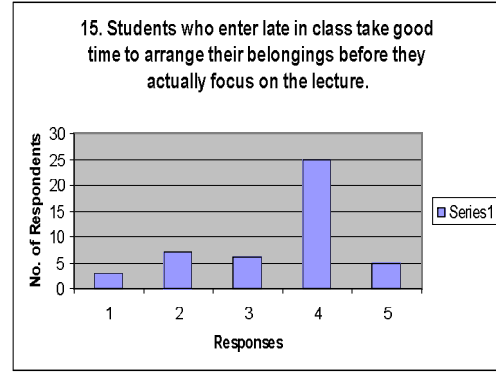


Figure 13a Faculty Perception

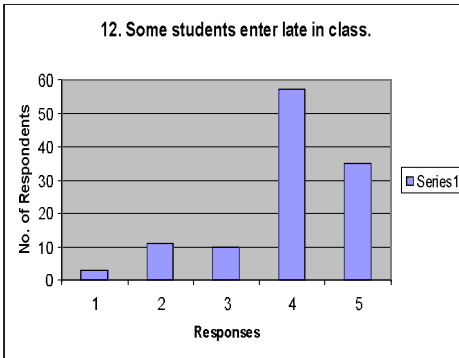


Figure 11b Student Perception

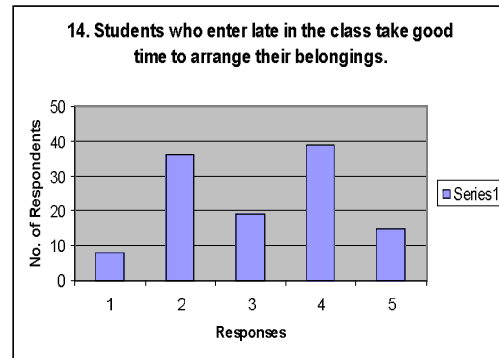


Figure 13b Student Perception

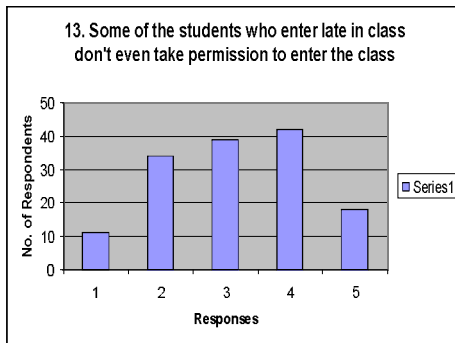


Figure 12a Faculty Perception

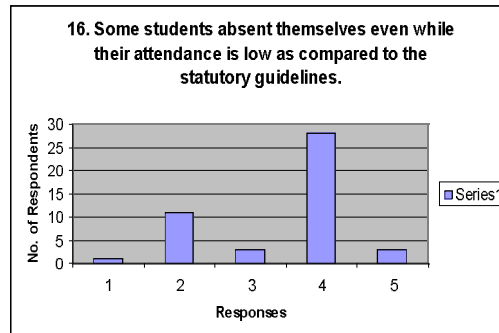


Figure 14a Faculty Perception

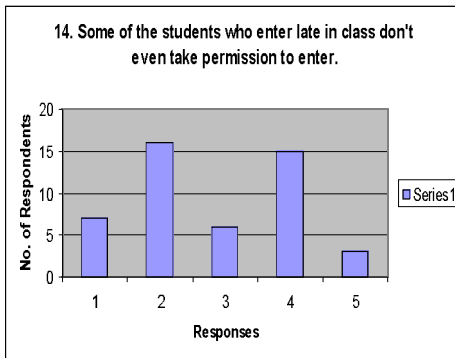


Figure 12b Student Perception

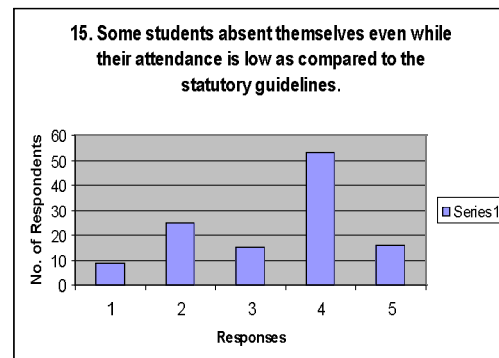


Figure 14b Student Perception

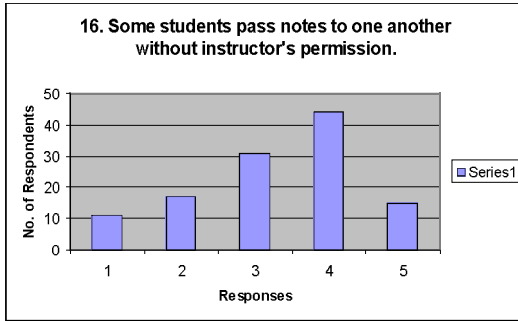


Figure 15a Faculty Perception

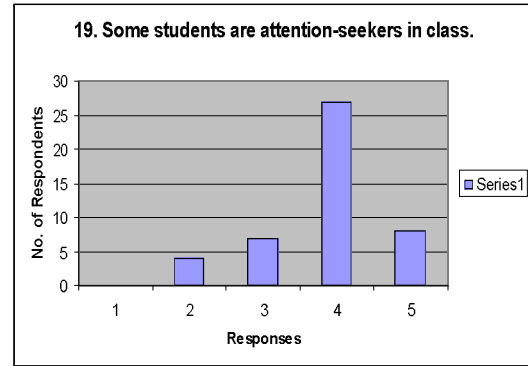


Figure 17a Faculty Perception

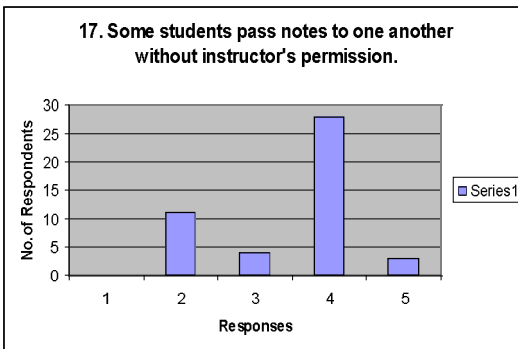


Figure 15b Student Perception

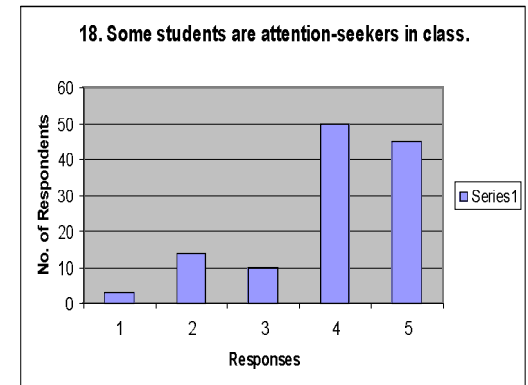


Figure 17b Student Perception

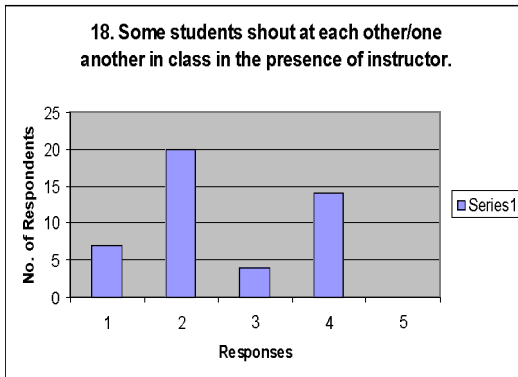


Figure 16a Faculty Perception

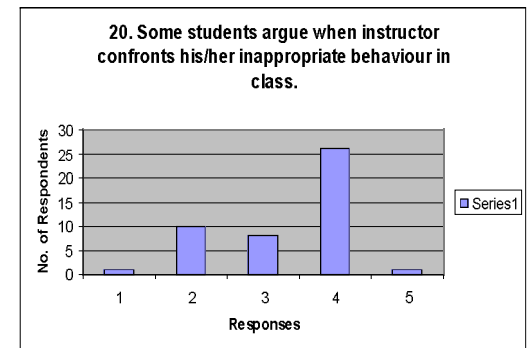


Figure 18a Faculty Perception

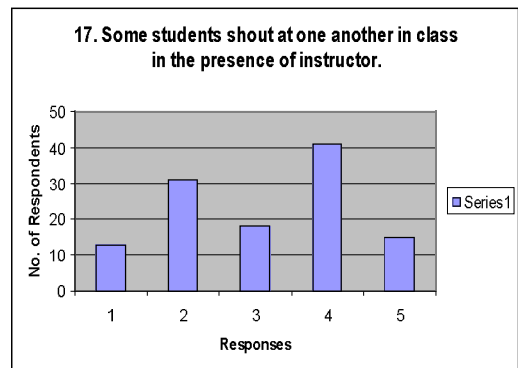


Figure 16b Student Perception

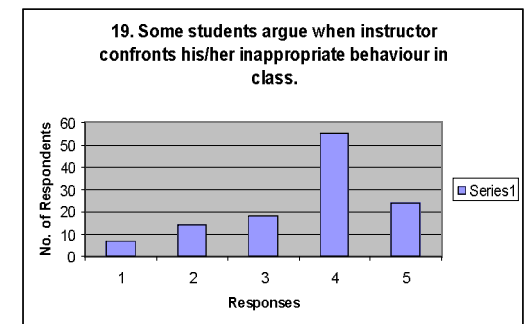


Figure 18b Student Perception

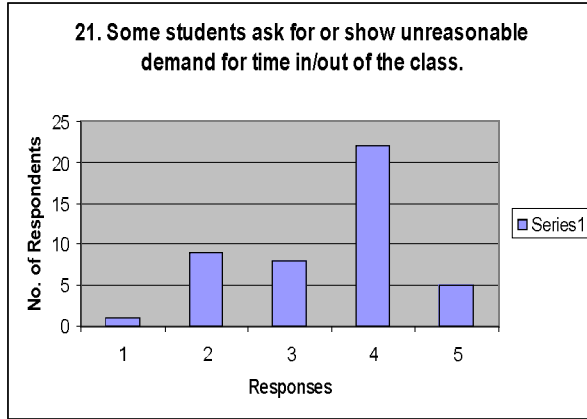


Figure 19a Faculty Perception

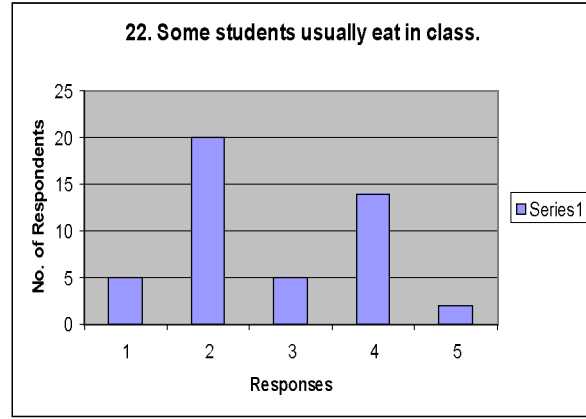


Figure 20a Faculty Perception

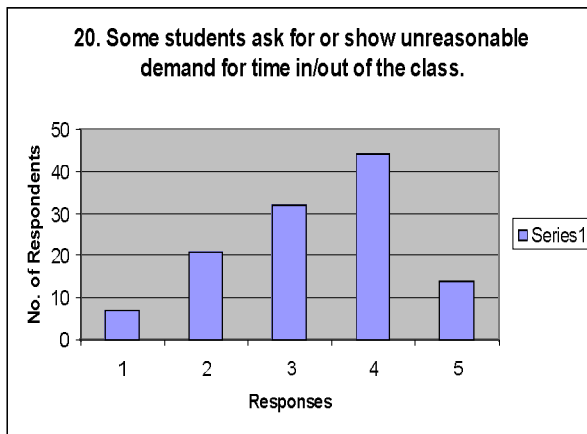


Figure 19b Student Perception

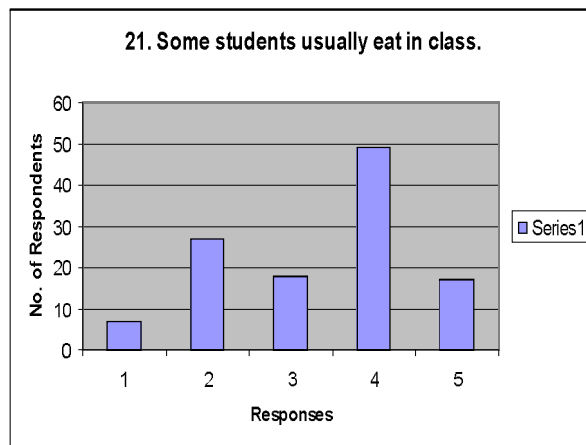


Figure 20b Student Perception

2.2 Discussion

Table 5 shows the most dominant responses given by faculty and student respondents. Different questions pertaining to disruptive behaviour of students have been shown, as these had been asked from faculty respondents as well as student respondents. The most dominant response(s) by faculty and students have

been listed in table 5 in terms of percentages. The detailed reading of the table shows that faculty as well as students agree to most of these questions. The only question where faculty and students have shown more of disagreement is that late comers don't even take permission to enter the class; which means that they take permission. To rest of the questions, they have predominantly agreed. Specific percentages can be seen in table 5.

Table 5: Faculty and Student Responses to questions pertaining to disruptive behaviour of students

S No	Question pertaining to disruptive behaviour of students	Faculty Responses	Student Responses
1	Students trying to monopolize the classroom discussions	61.7% -agree	57.98%- agree
2	Students fail to respect the rights of other students to express their viewpoints	53.19% -agree	48.73%- agree
3	Students carry on distracting side conversations	57.44%-agree	48.73% -agree
4	Students keep throwing constant questions or interruptions that interfere with the instructor's presentations	38.29%- disagree 44.68%- agree	25.21%- disagree 40.33%- agree

5	Students visibly sleep in the class	34.04%- disagree 46.80%- agree	21.84%- disagree 40.33% - agree
6	Students use laptops/mobiles for non-class related activities in class	34.04%- disagree 42.55% - agree	37.81%- agree 37.81- strongly agree
7	Students keep clowning around in the class	36.17% - disagree 51.06%- agree	42.01%- agree 25.21%- neither agree nor disagree
8	Students enter late in class	68.08%- agree	47.05%- agree 29.41%- strongly agree
9	Late comers don't even take permission to enter	34.04% - disagree 31.91% - agree	26.89%- disagree 31.93%- neither agree nor disagree 35.29% - agree
10	Late comers take time to arrange their belongings	53.19%- agree	30.25% - disagree 31.93%- agree
11	Students absent themselves despite low attendance	59.57% - agree	43.69%- agree
12	Students pass notes without instructor's permission	59.57% - agree	35.29%- agree 26.05%- neither agree nor disagree
13	Students shout at each other in the presence of instructor	42.55% - disagree 29.78% - agree	33.61%- agree 26.05%- disagree
14	Some students are attention-seekers in class	57.44%- agree	42.01%- agree 40.33%- strongly agree
15	Students argue on confrontation	55.31% - agree	44.53%- agree 18.48%- strongly agree
16	Students show unreasonable demand for in/out time with faculty	46.80%- agree	35.29%- agree 26.89%- neither agree nor disagree
17	Students usually eat in class	42.55%- disagree 29.78%- agree	42.09%- agree 13.44%- strongly agree

So Table 5 actually reflects through empirical research that behaviour of students in classrooms needs attention. Next section i.e. section 3 gives some recommendations for effective faculty student relationships that should be well managed in class so that classroom environment can get congenial. These days, technology also seems to be messing with brains of students, so wise and optimum use of technology is also advised.

3. RECOMMENDATIONS AND THE WISE USE OF TECHNOLOGY

It is highly recommended that students should be engaged in the classrooms in subject-related interesting activities. Faculty can take suggestions from them too for such activities so that there is no gap in understanding of mutual interest. It is recommended that faculty should build optimum rapport with students

so that students find faculty approachable and they can easily approach the faculty and share their issues rather than being victims of disruptive behaviour in the class. It is advised that they should set goals and objectives of the class with mutual congruence. Students can also be consulted for updating of existing course curriculum. All these minor changes will bring major improvements in classroom environment.

Student engagement will keep student motivated for in-the-class or out-of-class activities and they will have sense of co-ordination as well as competition in the class. Today's scenario shows that students are badly distracted and don't understand significance of time and purpose in life. It is highly important that we address these disciplinary issues on time before more institutes shut down. By discipline, it is not suggested to follow 'stick approach'; 'carrot approach' with positive reinforcements will do wonders.

Another recommendation would be to make the best use of information and communications technology (ICT) to facilitate labs through close engagement rather than leaving students as 'prey' to technology. Technology should facilitate what human mind commands. It is observed that technology is mastering minds of today and the minds which can work wonders are rather wandering. Giving assignments in class that make use of technology and intervening the class through human interactions is the best gateway to success so that we don't completely become gurus to teach without technology. The purpose of technology should be very wisely optimized in the classrooms as well as out of classrooms (for home-assignments etc.) so that technology works as the assistant rather than making the students addictive. It is very easy to delegate work to students so that they immerse in research and bring out fantastic results however, the interactions and group discussions that follow these project assignments are equally valuable. Active engagement is the key; even if it's done with the use of technology or without the use of technology. There is less advantage in gaining a little at the cost of more.

Technology is a boon and it must be used wisely to keep working as a boon for academic or technical institutions.

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