

## **ESP FOR ENGINEERING AND TECHNOLOGY STUDENTS: A CASE STUDY OF WRITING SKILLS AT THE ALIGARH MUSLIM UNIVERSITY**

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### **Abstract**

Many Engineering students have little interest in writing-intensive assignments. Every year universities across our country grant thousands of undergraduates their Engineering degrees. These talented young men and women are expected to move into industry (or higher education) and to display their skills and abilities. Despite many papers/assignments written throughout their college career, many of the students are unable to communicate, including their subject knowledge in the written mode. Based on eighty eight questionnaires filled by students, the present study aims at finding out the students' perception regarding their writing skills syllabus and also how much they are satisfied with the way these skills are being taught to them. The study is intended to underscore how vital written communication skills are for engineering education and how they can be improved. The results show that there are several flaws regarding the teaching methodology. The results also indicate that there is a need to make students realize the usefulness of these skills in other papers. The findings of the study have some pedagogical implications regarding the techniques used by the teachers.

**Keywords:** writing skills, engineering, under-graduate students, ESP

### **1. Introduction**

An ability to communicate effectively is expected of all college students. Nurturing this expertise in an engineering curriculum is especially difficult. In this case a primary obstacle is the students' perspective of the engineering profession only in terms of its technical and problem solving aspects. They generally ignore the importance of writing skills such as note-taking, process and report writing and précis writing in other papers.

Effective note-taking is an essential skill. Effective note-taking allows a permanent record of relevant points that can be integrated with one's own writing and can also be used for examination purpose. Taking reliable, accurate notes also reduces the risk of plagiarism. Just as other forms of writing skills such as report and process writing help in communicating information to a target audience, note-taking communicates information to oneself. A process is

written to instruct or to inform. A clear description of a process involves sequencing the stages, locating the stages, describing and explaining what happens at each stage.

During the four years of their degree course engineering students tend to write many reports and after the completion of their course they are required to write many more. In their college days they write experimental reports but when they enter the company they need to write project reports. It is logical to report any project in the sequence in which it is done. One the important improvement to the logical sequence is the addition of an abstract or executive summary. Thus, in writing a report we need to know how to write a good summary so that a busy executive or an engineer may quickly assess the major findings and conclusions of the report, and then easily find further details as required. Writing a summary does not mean copying sentences exactly from the original article and putting them together. A summary should be clear and balanced so that the reader can grasp the main ideas of the original article or work without reading the original. Summarizing, paraphrasing and quoting are all different ways of including the works of others in our work. Summarizing does not match the source word by word. It involves putting idea(s) into your own words, but including only the main point(s). Paraphrasing also does not match source word for word. It involves putting a passage from a source into our own words. Quotation is usually a brief segment of the text which appears between quotation marks and must be attributed to the original source. Using these writing skills require knowledge and understanding of these skills and this comes with more and more practice. Précis writing is actually a miniature portrait of the passage. It retains the absolute essential points. One aspect one has to be careful about is that one should not add one's subjective interpretation or comments to the précis.

The principal aim of this study is to find out the extent to which the above mentioned writing skills useful for the Engineering students and also how much they are satisfied with the teaching methodology used. The study has a secondary aim of finding out whether there is a need to bring about some change in the syllabus or the teaching methodology used.

## 2. Review of the literature

Beer and Mc Murrey in “A Guide to Writing as an Engineer” (2009) discuss how to write more effectively and develop the communication skills essential to success in their academic careers and on the job. The authors focus especially on what an engineer needs on a day-to –day basis, providing an “engineering approach” to technical communication that features practical examples from today's industry. Blair and Robinson, in “Professional Skills for First-Year Engineering Students” present a new component which has been introduced to the first year engineering course at the University of Edinburgh, aiming to promote study-skills under the guise of Professional Engineering. He discusses the need to introduce these skills at the very beginning of the university education. In this paper he brings out the importance of report writing and note-taking.

Cox and Lough in *The importance of writing skill to the Engineering student* (2008) seek to highlight the importance of writing skill to the Engineering education. Through their paper they show how the engineering academic world has increased its understanding that it must encourage strong language and written communication skills in its curriculum to generate competitive professionals in today's marketplace.

Elis in “English for Engineers and Technologists: A skill Approach” (1990) presents eight real- life topics which are interesting and relevant to Engineering students. The exercises are aimed at developing skills in listening, discussion, reading, writing and presentation.

Narayanan in *English Language Teaching in India: a theoretical study* talks about the rising need of English Language Teaching. Variants of general ELT have paved way to English for Specific Purpose (ESP). ESP marks advancement in the conventional framework of ELT, which defines the teaching requirements depending upon the specific needs of different groups of students.

### 3. Methodology

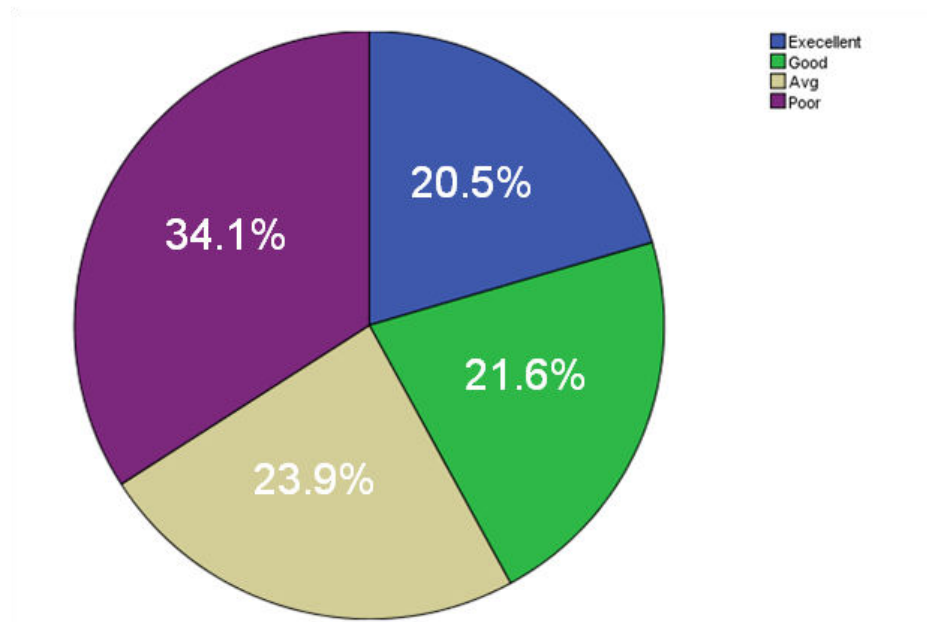
A questionnaire was designed to find out how much students relate the writing skills such as report writing, process and précis writing and note-taking with other papers. Some of the questions were designed to throw light on the teaching methodology used. A sample of 88 students was selected from the Engineering College of the Aligarh Muslim University (<http://www.amu.ac.in/>). The questionnaire consisted of eleven questions. All of them aimed at finding out the students’ perception of the writing portion of their compulsory English syllabus.

### 4. Findings and discussions

In order to find out the effectiveness of the writing skills prescribed for the Engineering students and how far these are fulfilling their requirements, the percentage of each item was calculated.

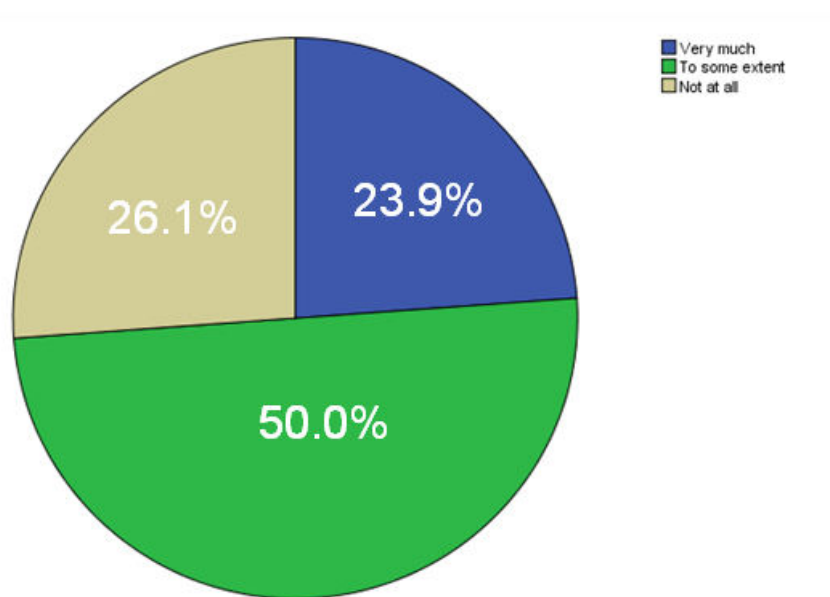
#### 4.1 Findings

Q 1. How do you find the writing portion of your compulsory English syllabus?



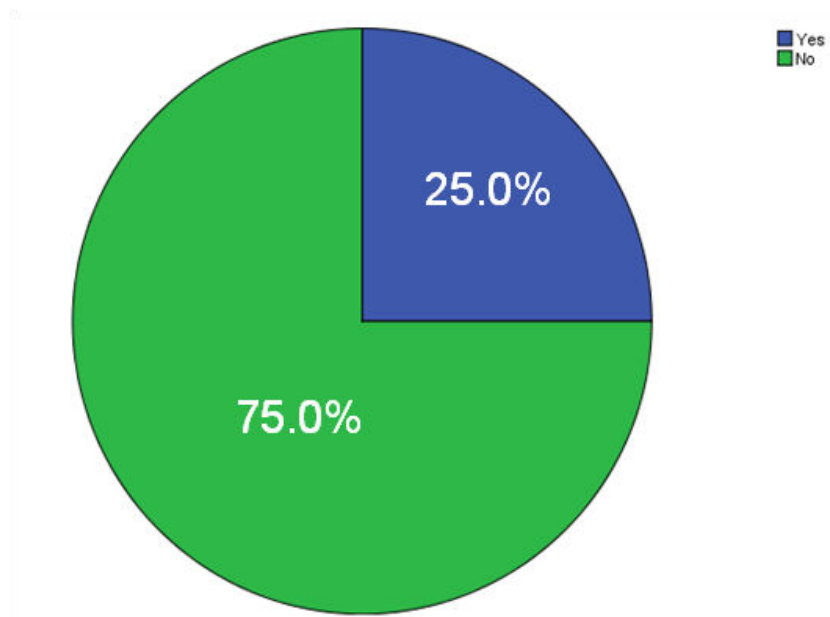
As shown in the above pi chart, majority of 34.1% of the students find the writing portion of their compulsory English syllabus poor. 23% agree that their syllabus is average whereas percentages of students who find their syllabus excellent and good are 20.5 and 21.6% respectively.

Q 2. Do you find these writing skills (note- taking, process and report writing, précis writing) useful?



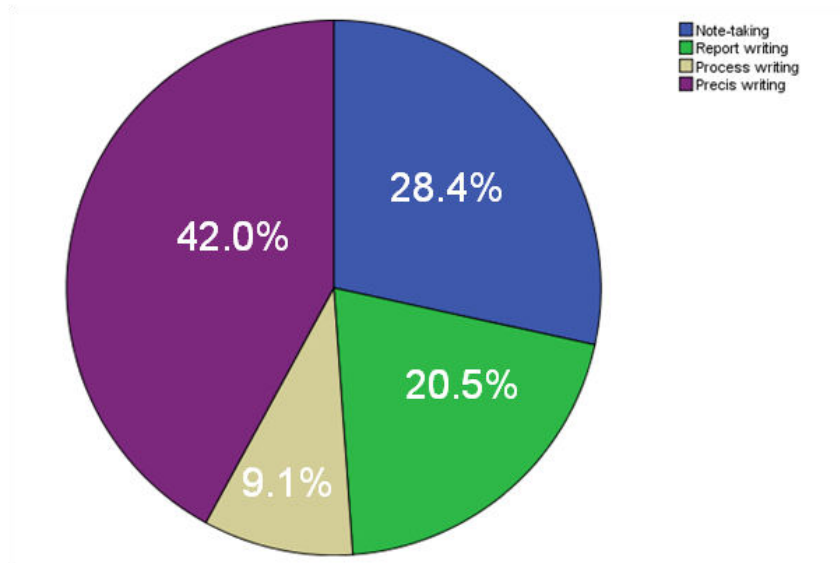
Regarding the usefulness of these writing skills, 50% students say that they are useful to some extent. 26.1% say not at all. Students rating it highly is 23.9%.

Q 3. Is there a need to add some more writing skills to the present syllabus?



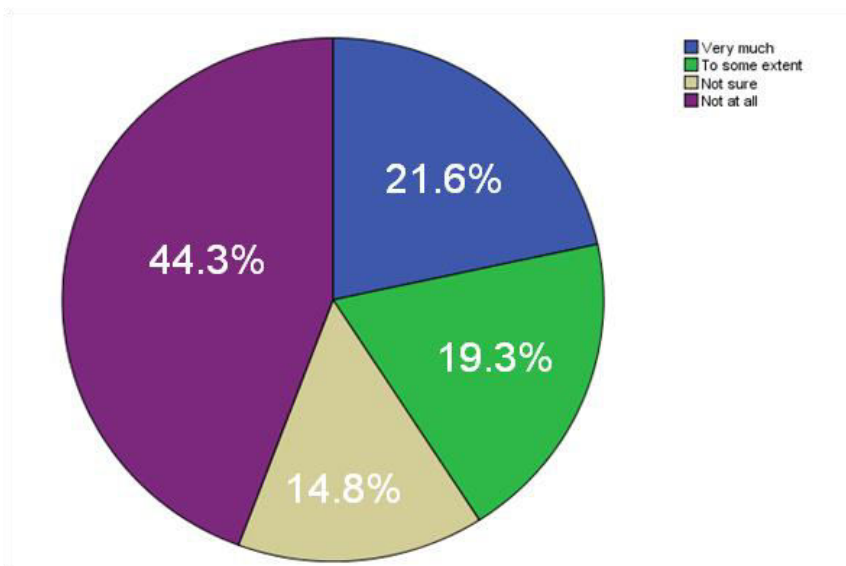
As shown in the above pi chart, 75% students feel the need to add more writing skills to the present syllabus whereas 25% students do not feel so.

Q 4. Which of the following is not of much use to you?



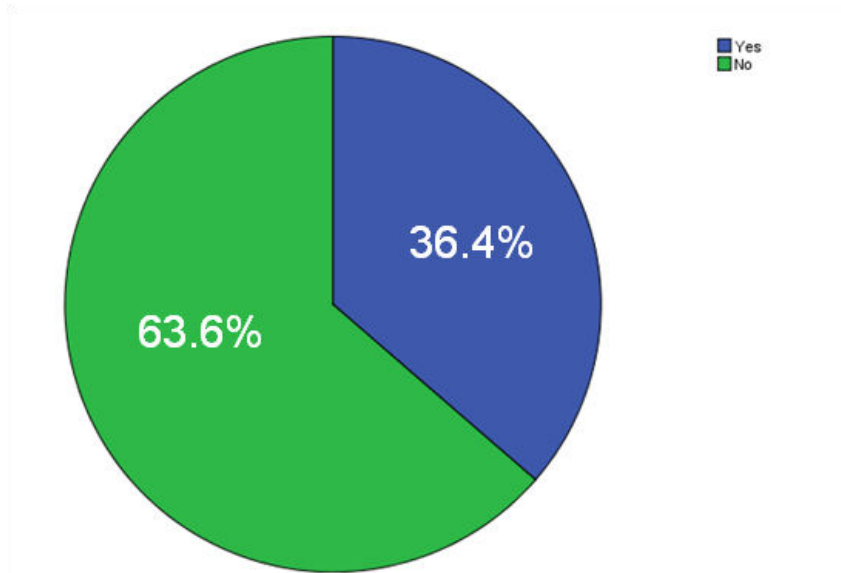
42% students find précis writing not of much use to them. On the other hand, 28.4% say this for note-taking, 20.5% and 9.1% say it for report writing and process writing respectively.

Q 5. Do these writing skills help you in your other papers?



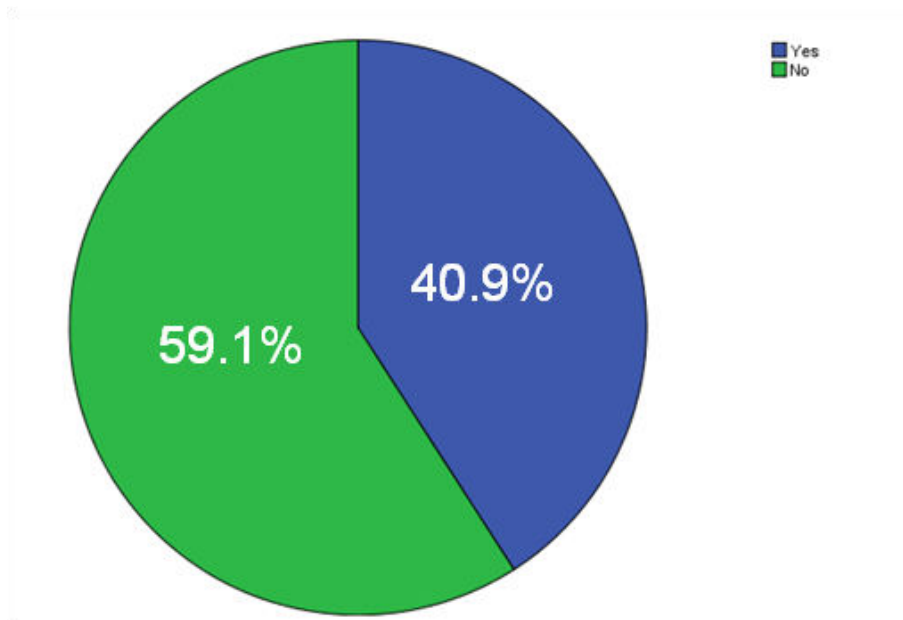
In the above pi chart 44.3% students say that these writing skills do not at all help them in their other papers. 14.8% are not sure about it. 19.3% agree to some extent that they do help whereas 21.6% find it very much very helpful.

Q 6. Do you think the time allocated for the writing skills is sufficient?



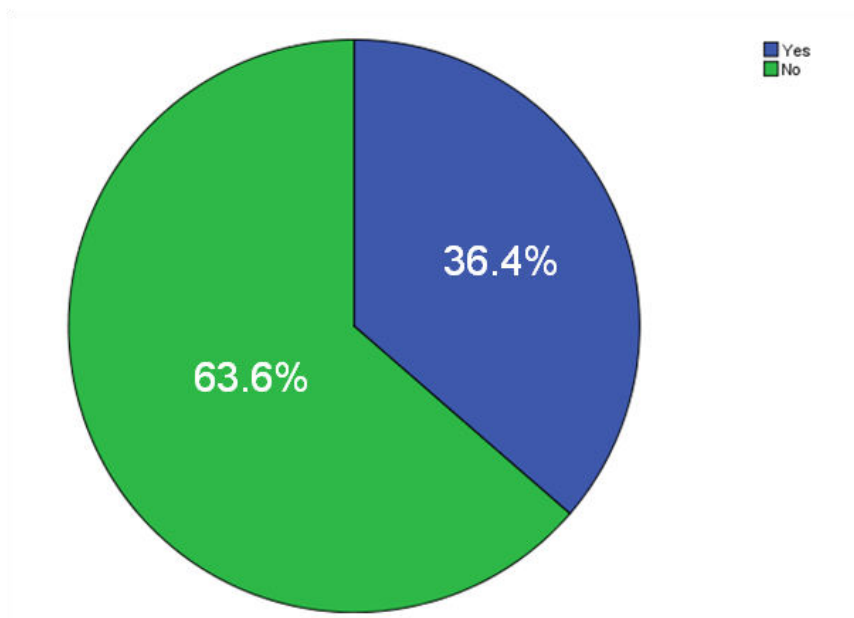
As shown in the above pi chart 63.6% students find time allocated for the writing skills insufficient, only 36.4% find it sufficient.

Q 7. Are you satisfied with the teaching methodology?



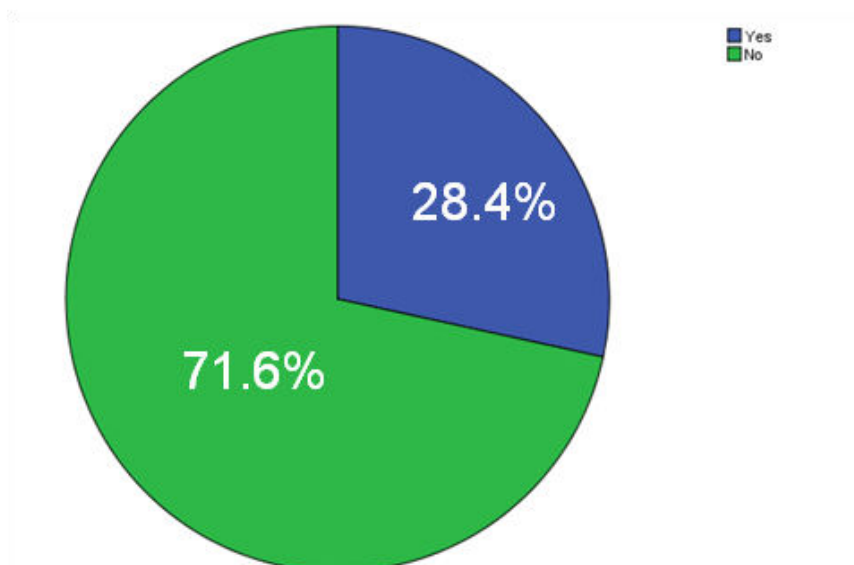
Majority of 59.1% students feel satisfied with the teaching methodology whereas 40.9% do not feel so.

Q 8. Are the topics given to you by the teachers for practising these skills suitable?



63.6% students do not find the topics given to them by the teachers for practising these writing skills suitable. Only 36.4% agree with the statement.

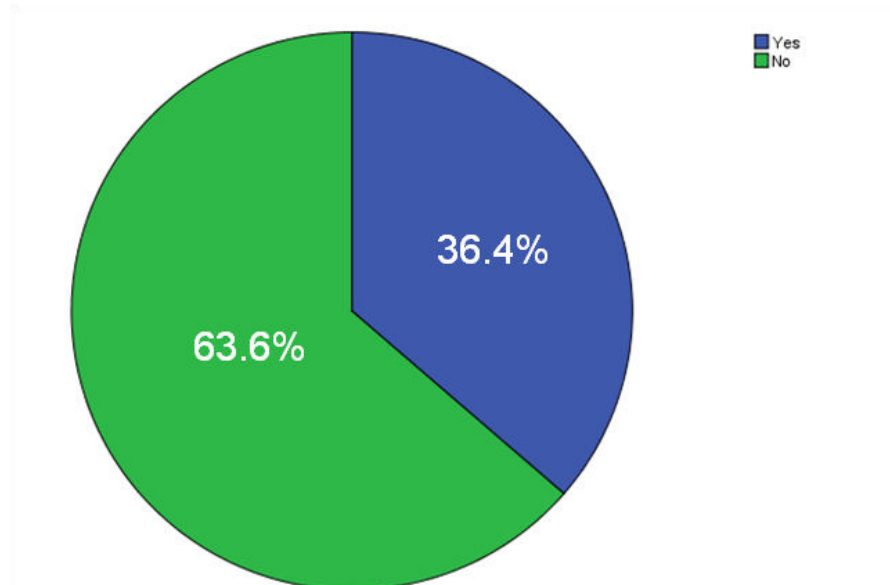
Q 9. Do you feel motivated when teacher teaches you these writing skills (note-taking, process and report writing, précis writing)?



As shown in the above pi chart, 71.6% students do not feel motivated when the teacher teaches them these writing skills. Only 28.4% students feel so.

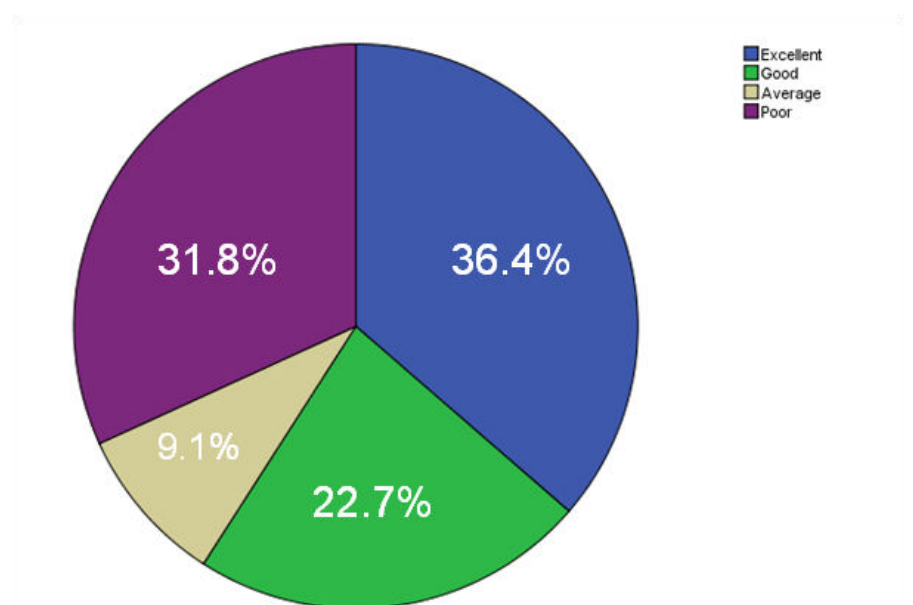


Q 10. Are you satisfied with the testing and evaluation method used for the writing portion of your syllabus?



63.6% students are not satisfied with the testing and evaluation method used whereas 36.4% do.

Q 11. What do you think about your own writing skill?



36.4% students say that they have excellent writing skills. 31.8% say that they have poor writing skills. 22.7% and 9.1% find themselves good and average respectively.

#### 4.2 Discussion

In the above study we find several astonishing views students have regarding their writing skills syllabus. One of the questions reveals that majority of students find précis writing as a least useful writing skill. This is one of the skills, which I feel, helps in all papers. The reason why students think so is their habit of mugging up word by word and writing down in their examinations in almost all papers. They should use this writing technique to avoid plagiarism.



The reason for finding these writing skills not of much use to them is the non-clarity of the technique of using these skills. So there is a need to present these skills in a more interesting manner. One of the questions also points out towards the need of adding more writing skills. The lack of time allocated to these skills is one of the major reasons why the concepts are not clear to the students.

Majority of the students are not satisfied with the methodology used by the teachers in teaching these writing skills. They do not find the topics interesting. This the reason why they do not feel motivated when these topics are being taught to them. So the fact that there are flaws in the teaching methodology itself clearly comes out from these questions. Even the students do not find the testing and evaluation technique proper.

## 5. Conclusion

In summary, this study suggests that the class sessions should be more of a discussion session rather than lectures. If the teacher did not believe that they could devote additional class time to writing instruction, they should make their sessions more interactive. In order to develop good writing skills learner-centered exercises will prove to be beneficial. The writing assignments must be given with time period allocated and the topics should be such that the students realize the connection between these writing skills with their other papers. The traditional approach of instructing students how to produce written text was replaced by an approach that included a variety of cognitive activities such as planning, translating and reviewing written text to satisfy their communication needs. Much of the research in engineering writing has focused on the pedagogical approach taken. So the major aim of this paper of finding out the problems faced by the students regarding their writing skills has been fulfilled to a large extent.

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**Appendix****QUESTIONNAIRE FOR STUDENTS (B.Tech.)**

Dear Student,

This questionnaire is designed to have your opinion about the Writing portion of your Compulsory English syllabus. The data collected will be used purely for research purpose. The researcher assures your total confidentiality.

Thanks

**Please tick the right answer:**

Q 1. How do you find the writing portion of your compulsory English syllabus?

Excellent

Good

Average

Poor

Q 2. Do you find these writing skills (note- taking, process and report writing, précis writing) useful?

Very much

To some extent

Not at all

Q 3. Do you think the time allocated for the writing skills is sufficient?

Yes

No

Q 4. Are you satisfied with the teaching methodology?

Yes

No

Q 5. Are the topics given to you by the teachers for practising these skills suitable?

Yes

No

Q 6. Is there a need to add some more writing skills to the present syllabus?

Yes

No

If Yes, mention them

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Q.7. Which of the following is not of much use to you?

Note-taking

Report writing

Process writing

Precis writing

Q 8. Do you feel motivated when teacher teaches you these writing skills (note-taking, process and report writing, précis writing)?

Yes

No

Q 9. Are you satisfied with the testing and evaluation method used for the writing portion of your syllabus?

Yes

No

Q 10. Do these writing skills help you in your other papers?

Very much

To some extent

Not sure

Not at all

Q 11. What do you think about your own writing skill?

Excellent

Good

Average

Poor