



Classification of Errors in the Project Reports of Engineering Aspirants

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ABSTRACT

Writing technical documents like project reports are inevitable in technical studies. Students who enroll for technical degree programs are expected to have basic composition skills and that is tested in their entrance examinations. The higher educational institutions offer remedial courses to the students who do not meet the required language skills. Despite being given remedial courses in language, the students at the undergraduate level face some difficulties in drafting a technical composition. They face problems in grammar as well as the mechanics of writing while drafting a technical document. The real difficulty comes when they try to publish their article in later stages. Assessing the areas where technical graduates make more errors would be an initial step to rectify this problem. This study is a diagnostic attempt on finding repeated errors and identifying the most occurred errors. This study may be a lead to further research on redefining the remedial courses and basic English courses offered to the technical graduates.

Key words: Error analysis; Student Projects; Technical Writing; Grammar and Mechanics.

1. INTRODUCTION

Written English plays a crucial role in the part of engineering education. Knowledge in written English has become essential in higher education. Education itself is facing a major transformation from conventional classroom education to research-based education. Students at the under graduation level are expected to do projects at every semester which needs to be submitted as reports. The necessity of knowledge in formal written English has come down to the level of undergraduate level students.

Errors in English are a major threat before scholars who wish to write articles on their research. There are many instances where the publishers reject good quality articles because of poor writing. Academic bodies are constantly making efforts to reduce the writing deficiency committed by the learners. Still, they could not bring down this deficiency to an absolute zero.

Technical writing is an area, which stands different from regular descriptive writing. Technical writing needs more focus on the content. Technical writing has many restrictions on the structure of the composition. Engineering students are expected to have knowledge of this type of writing. Their study includes many technical compositions in the form of project reports. Developments in technology can help much in the area of language acquisition [9].

The present research paper is an attempt to classify various errors committed by engineering undergraduate students in

India. This study classifies different categories of errors, their percentage of repetition in each sample, the overall percentage of errors. Finally, this study identifies the most committed errors and least committed errors. This study may be an answer to the academic bodies on identifying the areas where more thrust to be given in their attempt academic writing lessons.

2. REVIEW OF LITERATURE

Error analysis as a topic of discussion begun by the early 1970s, when error analysis transformed to be a scientific analysis method to inspect and correct the errors committed by the learners. There are so many contributions to this field and Corder (1967), Richards (1970) and Selinker (1972) [8] made some remarkable contributions. They brought out a new perception on the language system in the name "Interlanguage". According to Corder (1967) [4], learners' errors are systematic and not random. Richards (1970) [7] categorized the learners' errors into three types: Interference errors—caused by L1 transfer, Intralingual errors—caused by the overgeneralized application of rules, and developmental errors—caused by developing a faulty hypothesis.

Error analysis is very important for second language learners and teachers. This gives input on what are the barriers in learning the language and writing flawlessly. Error analysis allows us to do a systematic study of the errors made by learners. This study is important in the field of ESL and ELT by the way it provides crucial information, which may help the academicians in developing the teaching-learning process. The evolution of new technologies always leads to new developments [10].

Weireesh (1991) [3] says that the errors committed by learners are actually helping them in learning. The errors made by the acts as a device to make them learn the right usage. He even says that error analysis proves to be a valuable aid in identifying the errors and act as feedback to create a remedial method of teaching. Candling (2001, P69) [1] states that second language learners' errors are potentially important for the understanding of the process of SLA.

Corpus, earlier a term derived from Latin was first used to refer to the body, refers to the collection of texts also. Krashen (1982) [6] calls it 'a collection of texts assumed to be representative of a given language, to be used for linguistic analyses. Corpus has been used in three major areas: lexicographical studies, dialectological studies and grammar creation (Krashen 1982) [6]. Corpus linguistics deals with real data and it helps linguists to work and find results. McEnery, Xiao and Tono (2006:7) [5] consider corpus linguistics as "a whole system of methods and principles of how to apply corpora in language studies and teaching/learning". According to Sercombe (2000) [2],

error analysis serves three purposes. They are assessing the language proficiency of the learner, difficulties in learning language and language acquisition techniques used by the learner.

3. OBJECTIVES

The primary objective of this study is to find the errors and its repetition frequency in the project reports submitted by engineering undergraduate students. To be more precise, this study may be an answer to the question, “Which are the errors that are repeated mostly by the engineering undergraduate students?”

4. METHODOLOGY

4.1 Introduction

This research is an attempt to study the errors and its frequency made by the engineering students in technical writing. Most common errors identified through reading the project reports of engineering students. Errors in grammar and mechanics are taken for the study. Eight areas identified as the areas where most errors are committed. They are errors in the usage of articles, prepositions, Subject-Verb agreement, Punctuations, Spelling, Lexical, Capitalization and Typographical Spacing.

4.2 The Study Population and Sample

Engineering undergraduate students are the population taken for the study. They are the group who use technical writing in most of their academic assignments. Their project reports submitted as a part of their academic requirement is the corpus for this study. A class of 60 students from the School of Information Technology at VIT University Vellore is the target group for this study.

4.3 Data Collection

The target group has submitted project reports as a part of their academic requirement. The researcher has received 60 project reports as soft copies in MS Word format. Out of 60 reports, 20 reports chosen as a sample for the study through simple random sampling method. These 20 project reports were analysed for grammar and mechanics errors. The errors identified were listed in an excel data sheet. Table 1 shows the classification of errors obtained from five different reports submitted by the students.

Table 1: Error report – Data Collection

	Error Category	S1	S2	S3	S4	S5
1	Articles	25	22	21	25	35
2	Prepositions	2	2	1	2	5
3	Subject-Verb agreement	4	6	4	2	6
4	Punctuations	10	27	11	18	23
5	Lexical errors	2	2	0	1	0
6	Spelling errors	30	22	9	20	17
7	Capitalization	0	0	1	1	0
8	Conventions	11	45	4	15	19
	Total	84	126	51	84	105

4.4 Data Analysis

The errors identified from the 20 project reports were categorized as errors in articles, prepositions, Subject-Verb agreement, Punctuations, Spelling, Lexical, Capitalization and Typographical Spacing. Errors on each head for each sample recorded in the excel sheet.

5. FINDINGS AND DISCUSSION

There were 1751 errors identified in total from the 20 sample papers. The following chart shows the distribution of various errors from the sample papers. Figure 1 shows the distribution of errors in a pie chart to clearly show the percentage share of the errors.

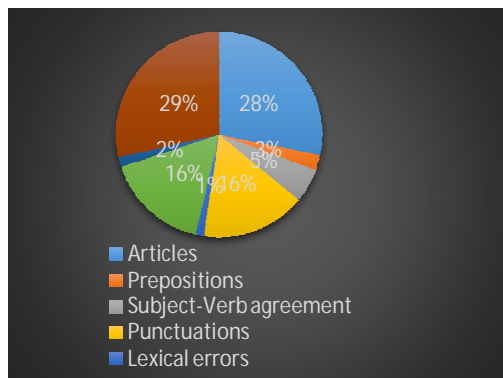


Figure 1: Category wise error distribution

Figure 2 shows the errors in the typographic conventions take a major percentage when compared to other errors. Errors in the usage of articles place next after typographic convention errors with a 28% share. Errors in the usage of prepositions, capitalization, lexical errors have the least percentage. The bar graph in figure two is arranged in an ascending order to show the errors least committed to the most committed.



Figure 2: Error distribution from lowest to the highest number of occurrences

5.1 Results

This study has given some data that has been evaluated statistically. Based on the statistical data, we could gain some important information on the occurrences of errors

made by the students. The errors that are analysed in this study can be fixed into two major categories namely Grammar errors and Mechanics errors. Article errors, Preposition errors and Subject-Verb agreement can be classified into grammatical errors category. Lexical, Capitalization, Punctuation and convention errors can be classified into Mechanics errors category. Table 1

5.2 Error samples

In this section, table 2 shows a set of defective sentences written by the target group is taken and the errors committed by them are highlighted.

Table 2: Error samples and correction

Sl.No	Sentence	Error Type	Correction
1	Less then 10% of happening	Lexical	than
2	Step 9 & 10 : Execute plan	Conventions	Spacing
3	For internal staff this should be fairly straight forward,	Punctuation	staff,
4	Through this application we can keep a systematic...	Punctuation	application,
5	...IT company meeting are displayed with the help of event management system.	Subject Verb Agreement	is displayed
6	And the clear definition and description of the development works by the development...	Subject Verb Agreement	work
7	In this project the project manager should organize the team and he should separate of the works of each person	Proposition	From
8	This will give a picture about the likely completion of the project and the budget...	Proposition	Of
9	Detailed and lower level of planning of the later stages will need...	Article	Missing an article
10	A legitimate learning about the stack esteems with constrained states of conditions...	Article	Remove the article

6. CONCLUSION

Errors made by students at their under graduation level is very common. This study has given important information, which is to be considered while making remedial courses in English for students who are taking technical education. This study also gives another important information that students need knowledge in the mechanics of writing. The errors that are labeled in the category of mechanics are equal in percentage to the errors from grammar and usage. Knowledge in spacing, punctuation and formatting a composition is necessary to the students who are taking a technical degree course. There is a huge scope for further research in this area such as improving remedial course content, the scope for educating the technical graduates on mechanics of writing before their entry into graduation and much more.

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