(RESEARCH ARTICLE)

Error analysis regarding participants' final year projects

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Abstract

The goal of the research is to pinpoint the mistakes that students made in several areas of their research work (Projects). Based on data from Yaba College of Technology's ND II and HND II students (N = 240), the analysis was conducted. The results showed that students made 948 mistakes in the 2020 – 2021 and 947 mistakes in the 2021 – 2022 periods respectively. In the two sessions under consideration, errors made by students in the ND 2 Statistics Department are primarily found in the Data Analysis and Methodology sections, respectively, whereas in the 2020 – 2021 session, errors made by students in the HND 2 Statistics Department are primarily found in the Data Analysis and Conclusion sections, respectively. Additionally, the Kruskal-Wallis test results showed that, at the 5% significance level, the errors made in both courses throughout the two sessions were identical. Errors were also shown in various portions of the final project works using pie charts and bar charts.

Keywords: Non-Probability Sampling; Grammar; Error Analysis; Kruskal-Wallis Test.

1. Introduction

According to (Ahangari and Barghi, 2012), proper language use is necessary for efficient communication and is correlated with the significance of grammar. Prior research in this area strongly suggests that using students' writing as the basis for discussion of grammatical principles is the most effective way to support learners' grasp of grammar in writing. Scholars concur that teaching punctuation, sentence structure, and usage within the context of writing yields greater and more successful results. Furthermore, studies show that the application of formal grammar training to writing does not apply to composition's more extensive components (Crystal, 2004).

According to Chukwuma (2006), interethnic contact among educated Nigerians and the mainstream media are all conducted in English, which is also the language of government, business, and commerce in the country today. Additionally, it serves as the nation's primary language for formal education. The significance of the language is most likely perceived in its function in Nigerian education.

It is generally acknowledged that English is the language that people use the most in the world today (Corder, 1967). Therefore, being able to utilize it appropriately is crucial for those who travel, do business, perform academic and scientific research, or study abroad. Many people continue to struggle greatly with correctly speaking the language when interacting with others in real-life circumstances, despite having spent a significant amount of time learning English in the classroom. These inaccuracies are frequently linked to the English linguistic system as well as a few other prevalent environmental elements.

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Grammar comprehension will be advantageous for pupils in Nigeria as English is a required subject and writing is prioritized over other subjects in the educational system. For this reason, it is imperative that the pupils possess a solid understanding of grammar. Students in primary and secondary schools still have difficulty writing fluently even after being exposed to the English language (Chukwuma, 2006).

"A complex system of communication with various levels of complexity involving intricate selection and ordering of meanings, sounds, and larger units and arrangements" is how Lado (1979) describes language. According to his further opinion, "speech communities are usually incomprehensible to members of other speech communities due to linguistic differences."

According to McKeating (1981), language is unique, regarded as a given, and when speakers of other communities want to converse with each other, they often learn the other's language or find a native speaker. "Language plays a role in the way people learn about their social and physical environment, represent and shape these experiences, and conceptualize to their personal feelings and attitudes," as Daulay and Marina (1974a) correctly noted.

"For language to be optimally useful, the teacher must have an unambiguous understanding of the function the language he is dealing with is meant to serve in the linguistic community," states Chukwuma (2006). This is consistent with the well-established knowledge that a person's mother tongue serves as a repository for the values and issues that society holds dear, and that language gives an individual the ability to investigate and comprehend these issues.

It is impossible to overstate the value of the English language in Nigeria. In this context, a second language is understood to be one that a bilingual or multilingual nation has chosen to use as a common communication medium among its citizens, the Nigerian people, who speak over 400 different language groups.

"Languages are to be gained through use and interest in learning," according to Crystal (2000). The acquisition of a completely internalized set of highly flexible rules, which forms the basis of the speakers' mastery of the language, is the underlying competency that all speakers must attain in order to be regarded as actually knowing the language.

According to Corder (1981), interference from the native language is not the only reason why second and third language learners make mistakes. Instead, they could originate from the language of the target. When attempting to speak the target language, students often make mistakes because they run into specific obstacles.

"Errors are inevitable in language in a variety of ways, even though emphasis led on avoiding them from occurring," according to Omojuwa (1981). The adage "it is just as utopian to reckon on language learning without errors as to reckon existence without sin" (Mckeating, 1981) is consistent with this. Error is defined as a systematic departure from the target language by non-native speakers (Headbloom, 1979). Their mistakes are not synonymous with oversights, verbal blunders, writing errors, etc. (Chukwuma, 2006).

2. Methodology

The data collection techniques used are transcription from record methods and observation. Every project's errors were meticulously tracked, found, and documented. Given that their project works were easily accessible, students in the Department of Statistics at Yaba College of Technology, Lagos were given consideration for the study.

Title, Abstract, Introduction, Literature Review, Methodology, Data Analysis, Conclusion, and References are the eight sections that make up the final project work.

SPSS version 23, a computer program designed to analyze and compile statistical data, was used to organize, code, and compute the data that was gathered. The data were analyzed using both descriptive and inferential statistics in order to meet the goals of the study. Descriptive statistics tools such the Kruskal-Wallis test, pie chart, and bar chart were employed in the study.

3. Results and Discussions

The distribution of error by source is displayed in Table 1. According to the results for the 2020–2021 session, just 6% of errors were found in the References part, compared to 18% in the Data Analysis area. As a result, the Data Analysis and Methodology sections are where ND 2 Statistics Dept. students make the greatest mistakes. Nevertheless in the 2021–2022 session, just 10% of errors were found in the Abstract and References parts, compared to 19% in the Data

Analysis portion. As a result, the Data Analysis and Methodology sections are where students in the ND 2 Statistics Dept. make the greatest mistakes.

Table 1 Error distribution by source for ND 2 students in 2020/2021 and 2021/2022 sessions

	2020/2021 SESSION		2021/2022 SESSION	
SOURCE OF ERROR	Frequency	Percentage	Frequency	Percentage
Title	40	8%	49	10.9%
Abstract	60	12%	45	10%
Introduction	68	13.6%	60	13%
Literature Review	75	15%	48	11%
Methodology	80	16%	68	15%
Data Analysis	92	18.4%	85	19%
Conclusion	55	11%	50	11%
References	30	6%	43	10%
Total	500	100%	448	100%

Table 2 Error distribution by source for HND 2 students in 2020/2021 and 2021/2022 sessions

	2020/2021 SESSION		2021/2022 SESSION	
SOURCE OF ERROR	Frequency	Percentage	Frequency	Percentage
Title	50	10.5%	45	9.6%
Abstract	55	11.5%	60	12.8%
Introduction	60	12.6%	55	11.7%
Literature Review	45	9.4%	50	10.6%
Methodology	60	12.6%	68	14.5%
Data Analysis	89	18.7%	80	17%
Conclusion	70	14.7%	52	11%
References	48	10%	60	12.8%
Total	477	100%	470	100%

Error distribution by source is presented in Table 2. Only 9% of errors were made in the Literature Review portion, according to the results for the 2020 – 2021 session. This means that 19% of errors were in the Data Analysis area. Therefore, mistakes made by HND 2 Statistics Department students are primarily found in the Data Analysis and Conclusion sections, respectively. Nonetheless, in the 2021–2022 session, just 10% of errors were in the Title part, compared to 17% in the Data Analysis Statistics Department students make the greatest mistakes.
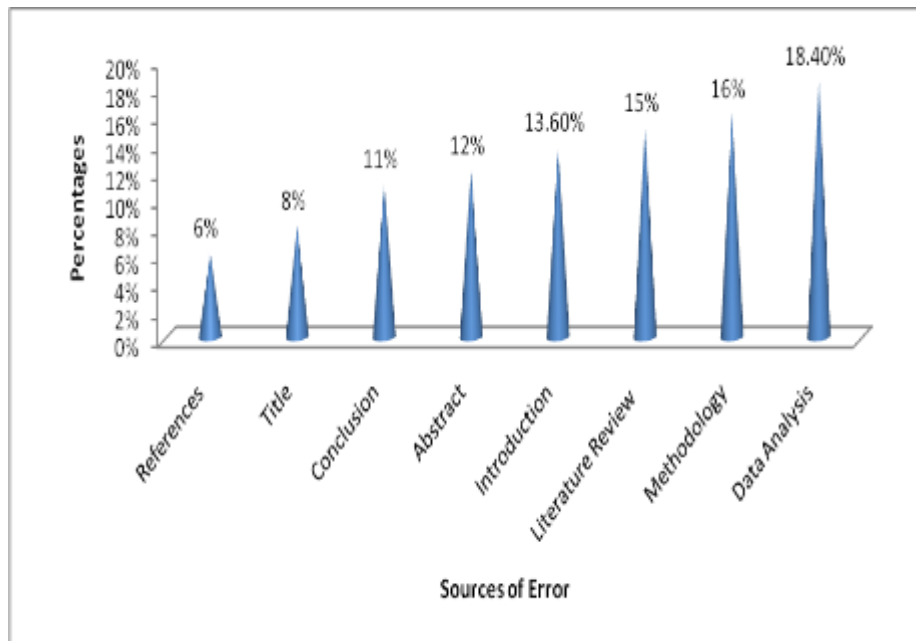
Figure 1 A Simple Bar Chart showing percentage of sources of errors committed by ND 2 students in the Dept. of Statistics 2020/2021 session.
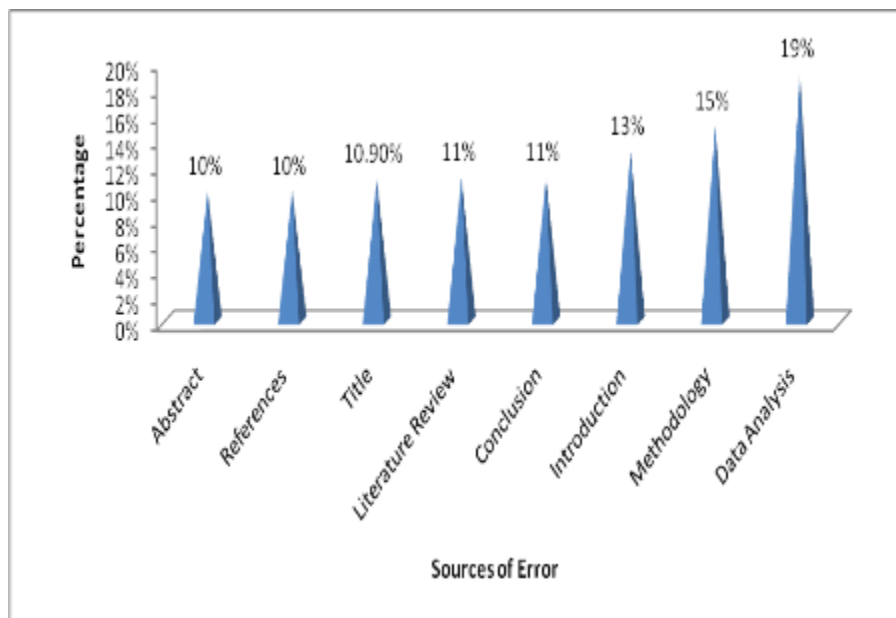

Figure 2 A Simple Bar Chart showing percentage of sources of errors committed by ND 2 students in the Dept. of Statistics 2021/2022 session.
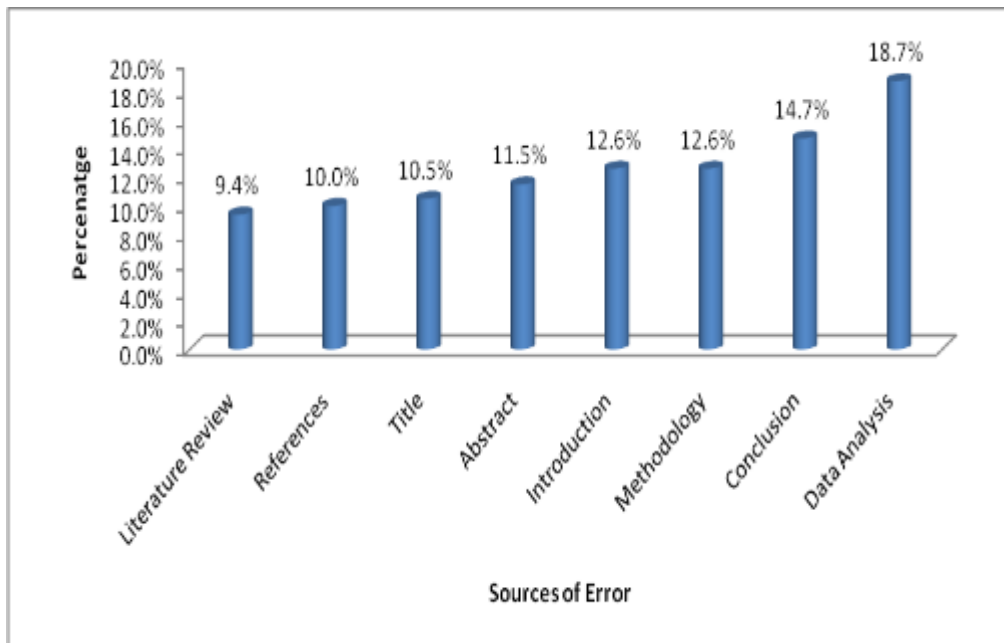
Figure 3 A Simple Bar Chart showing sources of errors committed by HND 2 students in the Dept. of Statistics 2020/2021 session.
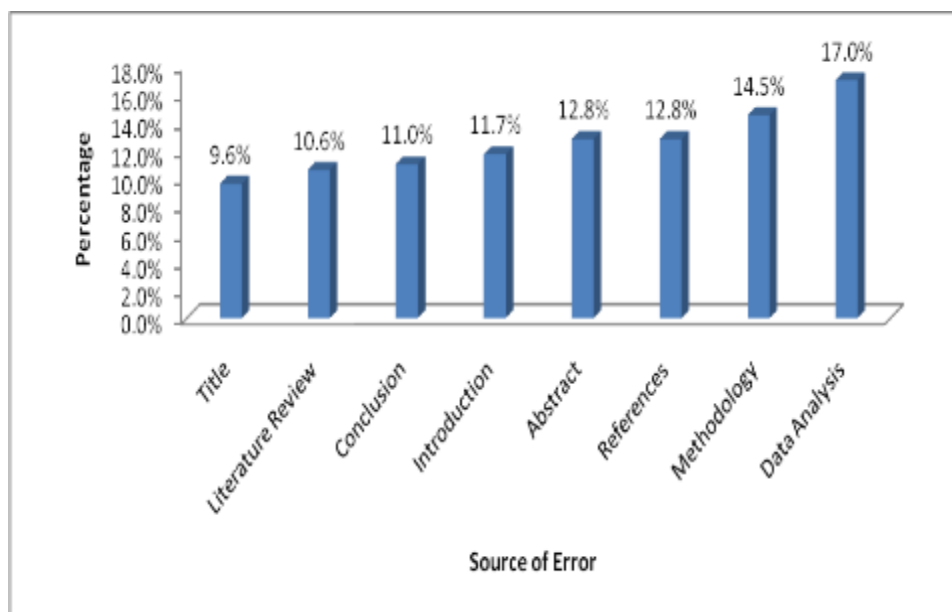

Figure 4 A Simple Bar Chart showing sources of errors committed by HND 2 students in the Dept. of Statistics 2021/2022 session**.**
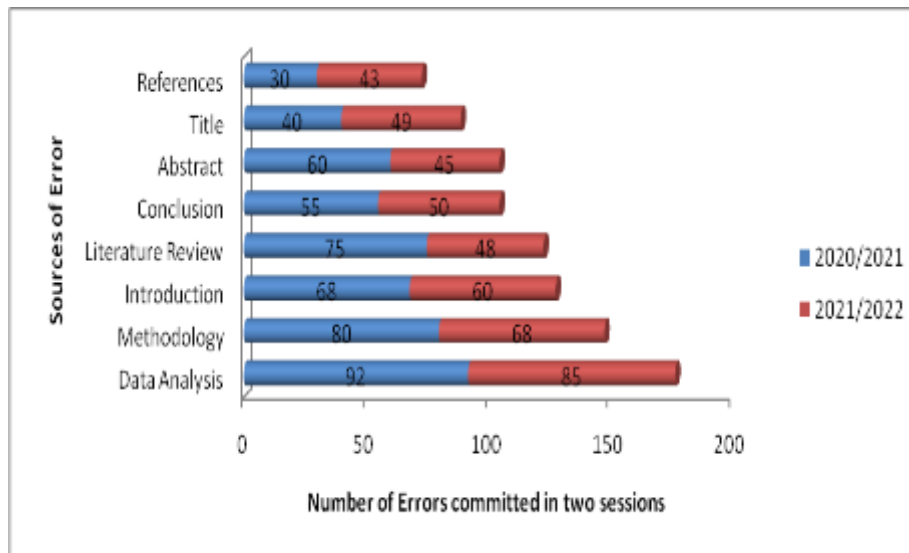
Figure 5 A Component Bar Chart showing sources of errors committed by ND 2 Statistics students in two sessions.
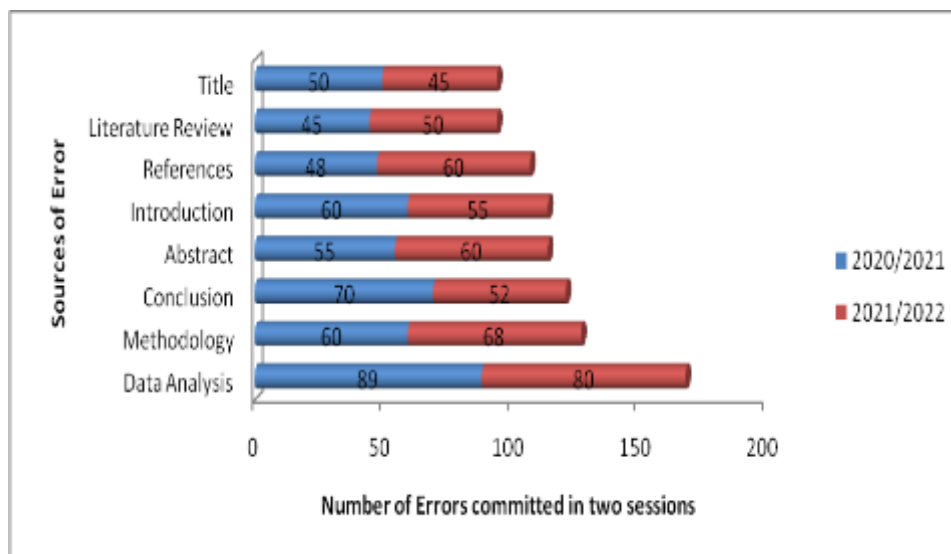

Figure 6 A Component Bar Chart showing sources of errors committed by HND 2 Statistics students in two sessions.

3.1. Analysis using Kruskal Wallis test (SPSS 23.0 output)

Table 3 Test Statistics

Test Statistics[a,b]	
	No of Errors committed
Chi-Square	4.198
df	3
Asymp. Sig.	.241

a.   Kruskal Wallis Test; b. Grouping Variable: CLASSES

3.2. Hypothesis Statements

H_0: The errors committed in all classes are the same

H_1: The errors committed in all classes are not the same

3.2.1. Conclusion

Since P – Value > α – Value i.e. 0.241 > 0.05, we do not reject H_0 and conclude that errors committed across the classes are the same at 5% sig. level.

4. Conclusion

It can be inferred from the examination of this study's results that, during the 2020 – 2021 session, the Data examination part accounted for 18% of errors committed, while the References portion only accounted for 6%. As a result, the Data Analysis and Methodology sections are where ND 2 Statistics Department students make the greatest mistakes. But in the 2021 – 2022 session, just 10% of errors were found in the Abstract and References parts, compared to 19% in the Data Analysis portion. As a result, the Data Analysis and Methodology sections are where students in the ND 2 Statistics Department make the greatest mistakes.

According to the results for the 2020 – 2021 session, just 9% of errors were found in the Literature Review component, compared to 19% in the Data Analysis section. Therefore, the majority of mistakes made by HND 2 Statistics Department students are in the Data Analysis and Conclusion sections, respectively. Nonetheless, in the 2021 – 2022 session, just 10% of errors were in the Title part, compared to 17% in the Data Analysis portion. As a result, the Data Analysis and Methodology sections are where HND 2 Statistics Department students make the greatest mistakes.

Lastly, at the 5% significance level, the Kruskal – Wallis test indicates that the errors made by ND 2 and HND 2 students throughout the two sessions are identical. Thus, the school administration should endeavor to provide seminars for students in order to guarantee a decrease in the amount of mistakes that students make when working on their final year projects.

Compliance with ethical standards

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