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A QUANTITATIVE STUDY ON JARGONS IN RESEARCH OUTPUTS AS BASIS FOR SYLLABUS DEVELOPMENT

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ABSTRACT

Research in Daily Life 02 (Quantitative Research) is an applied subject in Senior High School. It encourages students to showcase their application skills through investigative projects. Thus, research works tends to be heavy with "jargons." To strengthen the current curriculum of PR2 in Letran Manila, the research outputs of students in Quantitative Research undergo linguistic analysis. Data reveals that "Statement of the Problem" and "Conclusions" are the sections that are very specific to the students' discipline. In contrast, "Sampling Method" is the section that makes use of specialized words the least. It is further found out that jargon usage in the papers' "Introduction," "Methodology," "Results," and "Discussion" has a significant difference. This solidifies that each section of the paper shall not be taught with sameness in pedagogy. Certain parts of the course syllabus for CTRDL02/PR2 must be contextualized, promoting an extensive collaboration with Specialized Subject teachers from each learning strand.

Keywords: jargons, practical research, contextualized, specialized, course syllabus

INTRODUCTION

Background of the Study

The birth of the K to 12 curriculum, particularly the inclusion of Senior High School in basic education, saw to it that research writing was one of the students' contextualized undertakings. Contextualized courses, otherwise known as applied subjects, were integrated in all programs regardless of one's strand.

However, the approach to teaching them was highly dependent on the student's specialization. These were subjects taken by all SHS students to ensure that they all received and developed the same competencies. However, contextualized subjects differed in content for they depended on which track the student had chosen (Cruz, 2014). Cruz further emphasized that even if contextualized subjects have varying contents, their primary goal was still for students to have the same competencies.

Contextualized subjects were distinguished from core subjects to be more discipline-focused. Otherwise known as specialized subjects, some subjects are unique to one's chosen career track or strand. Specialized subjects on another hand were like major subjects taken in college but were designed to be less complex than their college counterparts (Courses.com.ph, 2018).

Although contextualized subjects were taken by all strands, it was still very similar to specialized subjects. This was because the pedagogies being employed by the teachers were anchored from the specialized way of teaching strand courses. These subjects were specific to the discipline or learning track of the students. For instance, Practical Research as a contextualized subject was being taught with methodologies that were sensitive to the field the students were specializing in. The examples being given in class were different across disciplines.

The uniqueness of applied subjects was where jargon came in. One way of contextualizing such courses was with the use of specialized terms both in instruction and assessment. As defined in an article by Gallo in 2016, that explored the characteristics of professional jargon and its appropriate use. It was mentioned there that these terms were often mocked by outsiders to the profession while being criticized by those within.

Meanwhile, on the aspect of effective communication within a company, Patoko and Yazdanifard (2014) emphasized that an organization's smooth communication rested on the proper use of jargons. That particular study stated that fewer jargons should be used in conversations to avoid miscommunication.

There were also a lot of other literatures on jargon use; however, they focused merely on describing them in a particular field as well as their advantages and disadvantages in communication. Isolating these specialized terms provided an opportunity to identify how much students in research apply their knowledge and skills in concepts relevant to their chosen learning area and expertise.

Nonetheless, these studies still lacked data on how extensive these technical terms were being used in academic writing, specifically in student research. Such data would have helped in determining the contextualization level of the teaching of Practical Research. Likewise, information on this would aid improve both the curriculum and the pedagogies in teaching Practical Research as a contextualized course.

The lack of an extensive discourse analysis on the technical terms used in research outputs, eventually leading to the incongruity of teaching pedagogies, was what this study intended to address.

It had already been established that Practical Research as an applied subject was a highly contextualized area of instruction. However, it could be argued that the topics covered in this course were not all reliant on specialized concepts. Each part of PR outputs and the sections of an IMRaD research should be examined in terms of jargon usage. This ultimately led to the recommendation for curriculum development, particularly the revision of the syllabus in CTRDL02.

Literature Review

Practical Research in Senior High School

The common notion of many students was that research was exclusively for scholars and other professionals who worked in laboratories such as scientists and actual researchers. High School Moms in 2021 emphasized that research played a key role in making sure that the students become knowledgeable in certain concepts and explore learning areas that were still left unexplored. Specifically, the site cited several reasons as to why practical research was included as a contextualized subject in senior high school.

Aside from it being fascinating, involving students to think critically and view topics from new perspectives, research also set students apart from others as it encouraged them to showcase their application skills through investigative projects. As they ventured into research writing, they were also exposed to various trends concerning their topic of interest. Their outputs consequently produced new information, adding to the existing body of knowledge. Ultimately, these processes expanded students' knowledge and skills, not just in research, but across disciplines.

Roxas (2020) supported this by describing research as the foundation of knowledge and innovation. That is why when the basic education landscape in the Philippines shifted to the K to 12 structure, the curriculum became "research-infused." This was to develop the research culture among SHS learners.

In his study, Roxas determined that the SHS students exhibited a generally positive attitude toward research. This was despite their high level of anxiety towards it. Furthermore, the study revealed that students' attitudes toward research had no significant relationship with their academic performance. Thus, it was not solidified whether the contextualization of practical research subjects contributed oto r benefited from the contextualized concepts students learned in the specialization subjects of their respective strands.

Jargon in Written Communication

Jargon is often used in written communication in numerous sectors such as corporations and education to interact with one another with efficiency and effectiveness (Sharma & Patnaik, 2018). Written communication has always been one of the important types of communication in any industry; jargon in written communication was mostly used in patient-professional communication or in healthcare agreements wherein numerous professionals agreed to use jargon to communicate effectively with their patients (Sharma & Patnaik, 2018).

Nonetheless, other professionals such as scientists, communicated their analysis or findings without an overabundance of jargon to minimize confusion in which the audience was unable to successfully relay the data (Willoughby, Johnson, & Sterman, 2020). Moreover, many professionals and researchers found that the usage of jargon in other circumstances may be a barrier to gaining broad concepts and knowledge (Zukswert, Barker, & McDonell, 2019).

Even students who are exposed to jargon in written communication have been observed to have an adverse outcome on their cognitive learning and performance (Zukswert, Barker, & McDonell, 2019; McDonnell, Baker, & Wieman, 2015). Thus, it should be noted that jargon in written communication is recognized as an acceptable language wherein it can be useful according to how groups or sectors will utilize it effectively.

Certain individuals may speak one particular language and understand each other. Still, no two speakers talked the same. Individuals communicate differently from one another, and it is seen in our ability to recognize symbols and meanings when we listen to others talk. "The unique characteristics of the language of an individual speaker are referred to as the speaker's idiolect (Hai Liaw et al. 2013)."

They further emphasized that these differences in the language of groups of people may exhibit variations depending on how these groups speak the language. "When speakers in different professions and from different social groups show systematic differences, the groups are said to speak different codes of the same language."

In academic papers such as research, jargon has always been used. Liaw et al. (2013) even suggested that many jargons already passed into standard language. as a result, it is not easy to distinguish jargon from slang. Specifically, jargons were specialized terms that may be discerned by college students for more than four years in their specializations.

In Senior High School, jargons were the words denoting concepts that were learned in the specialization subjects of each strand. Since these words were being utilized in such writings, a quantitative analysis done to observe their usage would also describe students' knowledge and application of the concepts they acquired in their specialization.

Romanos (2017) described jargon as terms that are "out of place" with the subject matter being written about. Romanos highlighted the definition of jargon provided by the English Oxford Living Dictionary as "special words or expressions used by a profession or a group that were difficult for others to understand." Thus, identifying these specialized words could be very difficult and easy at the same time.

As per these definitions, if a word in a particular subject matter did not make sense to a regular reader outside the discipline, it was jargon. At the same time, jargon could camouflage as regular words, too. For instance, the word "operation" was a different jargon among policemen and doctors. This was where the confusion between jargon and slang came in.

Advantages and Disadvantages of Jargon

Following the study of Rakedzon, et al., (2017), many professionals have been using jargon as one of their ways to communicate with others wherein it has its advantages and disadvantages to others concerning comprehending jargon. In the field of science, scientists and other professionals were required to detour using jargon in their analysis and data collection.

However, with their educational background wherein they studied and were trained to enunciate data with specialized and proper language, expressing themselves in public with specialized language made it hard for their audience to comprehend the data. Thus, using jargon could not be avoided in such circumstances (Rakedzon, et al., 2017).

Furthermore, studies have shown that when compared to high-status individuals, low-status folks tended to resort to jargon to easily convey their experiences, opinions, and ideals which had been an advantage to others to easily understand them (Brown et al., 2020). Contrary to its advantage, jargon had also been an impediment that hindered constructive communication between professionals, specifically, professionals who were in the healthcare field (Sevinc et al., 2005).

Hence, it had been also projected that the use of jargon depends on circumstances wherein it could result in a positive or negative outcome.

Theoretical Framework

This present study was theoretically anchored on the study of Arasti, Falavarjani, and Imanipour, which tackled the Study of Teaching Methods in Entrepreneurship Education for Graduate Students (2012). The findings of Arasti, et al., stated that entrepreneurship education and its effectiveness were vital nowadays, however, many effective teaching methods could be used to improve entrepreneurship education, it was important to comprehend the various pedagogical approaches that were most effective at enhancing students' knowledge.

For Arasti, et al., effective instructional techniques had had a significant impact on the advancement of entrepreneurship education. Furthermore, effective entrepreneurship education could not be delivered without effective teaching methods. Thus, different teaching strategies depending on their students' specialization and course had an advantage in carrying out an effective teaching method.

Moreover, Tudor's study about The Specific of Using Educational Strategies in Teaching and Learning Psycho-pedagogical Disciplines from Preschool and Primary Pedagogy Specialization (2015), revealed that most teachers use a similar approach for their students. Having said that, it was still believed that teachers must utilize new and different teaching techniques depending on their students' in-class circumstances and lessons.

Conceptual Framework

The research outputs of CTRDL01 students were prescribed to do the IMRaD format of Letran's Research and Publication Department. With that said, all manuscripts were composed of four significant parts: the introduction, methodology, results, and discussion. As the final output of research courses such as this subject, a full research paper was expected to be accomplished. Particularly in the locale, the prescribed research paper followed the IMRaD format. It stood for introduction, methods, results, and discussion.

Ultimately, this research intended to propose revisions on CTRDL02's course outline and course syllabus. Such revisions shall focus on the addition of more collaborative activities between CTRDL and the specialized subjects of each SHS strand to highlight this paper's findings. The objective of such an endeavor was to boost the knowledge and skills acquisition of the students in research writing as an application of their respective specialization in senior high school.

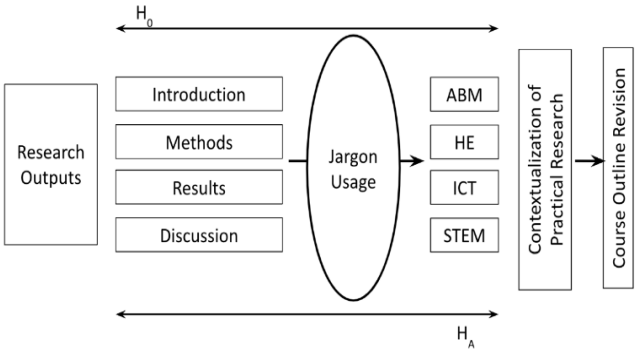

Figure 1. Conceptual Framework of the Study

Statement of the Problem

This study aimed to know how much the teaching of Practical Research was contextualized through the jargon that the students used in their research outputs. Specifically, its purpose was to answer the following questions:

- What were the total number of words and the frequencies of jargon usage in each part of the research papers?
- What were the percentage values of jargon usage in each part of the research papers?
- What was the contextualization level of each part of the research papers?
- Was there a significant difference among the average values of jargon usage in each IMRaD section of the research papers?
- What changes were necessary in selected sections of the course outline and course syllabus of CTRDL02 to exhibit collaborative teaching with specialized subjects?

H_0: There was no significant difference between the frequencies of jargon usage in the research outputs of each SHS strand.

H_A: There was a significant difference between the frequencies of jargon usage in the research outputs of each SHS strand

METHODOLOGY

Design

To achieve the objectives of the study and satisfy the research questions that this study intended to answer, this paper would adopt one quantitative research design. Primarily, it would determine the level of contextualization CTRDL02 possesses based on the research outputs of the students. A quantitative analysis would be employed to gauge the frequency of jargon usage in each of the parts integrated in the IMRaD outputs of CTRDL02 students.

To fulfill this endeavor, a correlational research design would be utilized. This design would likewise provide answers on whether a significant difference between the frequency of jargon usage across varying SHS strands exists or not. Since this study would not manipulate any of the variables to test the hypotheses, it would not be engaging with any of the experimental research designs.

This type of research design employed a variety of methods, including quantitative and qualitative data collection, control or comparison groups, and longitudinal studies. In conclusion, the results produced by evaluative research designs contributed to evidence-based decision-making and directed the analysis of effective applications, strategies, and interventions across a range of studies (Adam, 1975).

Sampling Method

This study would not be utilizing human subjects as participants or respondents. Instead, it intended to harvest statistical data from available documents, which were the outputs of CTRDL02 students in their subject, Research in Daily Life 02 (Quantitative Research). The proponents intended to acquire the approval of the department head, which was the SHS principal, when it came to the observational study that would be targeted towards the said research outputs.

Since one of the researchers was a SHS faculty member handling CTRDL subjects, the research outputs that would serve as the study's subjects were accessible. It was in this light that a convenience sampling method would be employed when choosing the documents to be studied. Being one of the non-probability sampling techniques, convenience sampling, sometimes called availability sampling, provides the comfort of garnering subjects according to the convenience of the researcher(s).

If convenience sampling were followed, only the research outputs in CTRDL02 under the supervision of one of the proponents would be utilized. In statistics, to get the minimum number of sample size according to a predetermined margin of error, Slovin's formula is used ($n = N / (1 + Ne^2)$), where:

n = sample size
N = population size
e = acceptable margin of error

With a population size of 26 (research outputs) and an acceptable margin of error of 0.05, the sample size was 24.413 or 24 research outputs.

Procedures

Following the scope of a correlational research design, the researchers would use statistical analyses that would establish the relationships between its variables. An extensive quantitative analysis would take place on its subjects, which were the CTRDL02 research outputs. A sufficient number of document samples would be selected from the outputs of each strand to attain objectivity and fairness. Once the documents were grouped according to strand, the researchers would determine the jargon used in the papers.

To determine the frequency of jargon usage in each research output and to summarize the data gathered from the quantitative analysis, a non-parametric statistical analysis was to be utilized. The researchers would specifically get the data summary through the measurement of its central tendency, particularly by getting their mean, median, and mode.

Consequently, the data sets for the research outputs of each strand would undergo statistical comparative analysis. An independent T-test will establish whether there was a significant difference between the frequency of jargon usage between strands or none. The ultimate objective of this research was to recommend a curricular revision on CTRDL02's course outline and course syllabus based on the subject's level of contextualization.

Thus, if a significant difference is established, the curriculum of CTRDL will undergo revisions unique for each strand it catered to. Consequently, if no significant difference was determined, a uniform curricular framework for CTRDL02 across strands would be forwarded.

RESULTS AND DISCUSSION

Number of Words and Jargon Usage in Each Section of the Research Paper

Having counted the total number of words in each part of the research papers, it turned out that the review of related literature garnered the highest mean value ($\bar{x} = 1810.7$). Aside from ideally being the longest part of the research paper, it was also the part with the greatest number of words. Thus, it could be hypothesized that this part also had the greatest number of jargon usage. On another hand, the abstract only had a mean value of $\bar{x} = 245.88$ in terms of word count. This made it ideally the shortest part of the research paper.

After conducting an extensive quantitative analysis of the selected research outputs in CTRDL02, the jargon usage was quantified. The technical terms under each discipline (ABM and STEM) were highlighted and counted.

Table 1 Jargon Usage in Each Part of the Research Paper

Research outputs	Abstract	Background of the Study	Statement of the Problem	Review of Related Literature	Research Framework	Scope and Limitations	Significance of the Study	Research Design	Sampling	Results	Conclusions	Recommendations
ABM12A1	16	52	16	185	3	14	15	3	0	11	35	21
ABM12A2	21	91	15	235	39	23	46	10	6	102	15	13
ABM12A3	4	25	8	119	14	1	13	9	1	40	20	15
ABM12A4	15	32	9	240	31	15	17	8	6	51	39	39
ABM12A5	25	86	15	183	19	20	19	7	2	85	35	49
STEM12A1	6	25	7	105	10	11	21	8	1	6	33	32
STEM12A2	54	81	21	64	26	43	15	13	22	80	51	27
STEM12A4	32	70	20	114	27	21	27	16	7	15	39	29
STEM12A5	36	57	27	132	17	28	16	18	23	28	68	43
STEM12A6	19	104	13	165	29	24	32	10	22	51	20	8
STEM12B1	23	138	27	243	44	36	26	16	16	48	49	29
STEM12B2	48	96	22	304	19	20	30	12	15	83	34	14
STEM12B3	25	39	11	194	8	19	5	5	5	15	16	15
STEM12B4	18	74	19	242	63	19	19	18	9	64	43	58
STEM12B5	14	83	13	144	6	13	17	10	0	74	17	7
STEM12C1	25	98	33	123	59	23	32	13	9	34	30	15
STEM12C2	12	44	19	140	23	27	18	5	15	72	27	11
STEM12C3	15	75	31	121	16	22	20	16	11	62	26	4
STEM12C4	15	44	18	58	15	13	18	12	0	70	43	27
STEM12C5	15	62	11	137	48	20	5	15	3	33	46	18
STEM12C6	14	88	23	127	37	24	32	45	3	23	16	33
STEM12F1	62	105	27	198	32	35	23	16	21	49	80	28
STEM12F2	25	59	26	211	22	24	18	7	0	6	41	50
STEM12F3	17	40	16	225	21	18	36	16	6	24	26	19
$\bar{x}$	**23.17**	**69.5**	**18.63**	**167**	**26.17**	**21.38**	**21.67**	**12.83**	**8.458**	**46.92**	**35.38**	**25.17**

After conducting an extensive quantitative analysis of the selected research outputs in CTRDL02, the jargon usage was quantified. The technical terms under each discipline (ABM and STEM) were quantified to determine which part was the most and least contextualized. Table 1 indicated that the background of the study had a mean value of $\bar{x} = 69.5$ jargon usage, technically making it the part of the research paper that had the greatest number of jargons. Meanwhile, sampling methods were the part of the research paper that had the fewest jargon used ($\bar{x} = 8.56$).

Percentage of Jargon Usage

Comparing the total number of words in each part of the research outputs with the total number of jargons used results to the percentage of jargon usage in each section. It was computed by dividing the total number of jargons with the total number of words and multiplying it to 100 (jargons / words * 100).

Table 2 Percentage of Jargon Usage in Each Part of the Research Paper

Research outputs	Abstract	Background of the Study	Statement of the Problem	Review of Related Literature	Research Framework	Scope and Limitations	Significance of the Study	Research Design	Sampling	Results	Conclusions	Recommendations
ABM12A1	4.5	5.6	10.5	7.2	1.7	5.1	5.0	2.3	0.0	1.4	10.2	5.5
ABM12A2	7.6	8.3	8.4	11.2	11.3	5.9	8.1	5.0	2.0	5.5	8.0	8.0
ABM12A3	2.7	4.0	7.1	7.4	6.1	0.9	5.3	2.3	0.4	3.0	3.6	6.6
ABM12A4	8.4	7.5	6.2	10.8	6.9	3.3	5.4	2.7	1.7	5.0	5.3	6.9
ABM12A5	10.1	14.2	11.0	11.8	6.8	9.9	10.5	4.3	1.0	9.8	8.7	13.0
STEM12A1	2.3	4.4	6.1	4.8	4.3	4.0	4.6	2.8	0.3	2.5	6.5	5.3
STEM12A2	16.8	9.2	12.9	7.0	8.7	9.0	5.9	5.6	6.0	10.2	7.8	11.0
STEM12A4	13.2	7.0	16.0	9.3	8.1	8.2	8.4	7.0	3.2	9.4	24.5	6.7
STEM12A5	10.1	9.7	17.8	8.5	7.4	8.8	6.6	9.4	5.3	10.4	12.6	6.6
STEM12A6	7.9	10.9	11.8	15.2	8.2	8.4	7.0	6.0	5.2	8.6	11.3	4.6
STEM12B1	8.6	10.2	14.6	9.7	8.4	7.9	8.2	6.8	5.3	8.3	9.4	6.2
STEM12B2	37.5	11.5	13.5	11.9	5.3	4.9	8.8	5.4	5.3	10.6	10.6	6.2
STEM12B3	7.5	5.4	10.1	6.2	2.8	5.4	2.9	2.9	2.3	10.3	7.5	3.8
STEM12B4	11.1	10.4	16.0	11.0	12.1	7.8	5.1	7.6	5.1	8.0	9.1	6.5
STEM12B5	6.3	6.8	10.4	6.6	15.4	3.7	4.0	3.2	0.0	6.8	7.1	5.1
STEM12C1	9.1	9.4	14.3	7.5	8.9	5.3	6.5	5.0	2.3	4.3	6.6	4.1
STEM12C2	8.9	5.9	14.5	7.8	5.5	7.5	4.2	2.3	6.7	7.3	9.2	5.8
STEM12C3	9.4	8.4	13.2	10.3	5.2	8.3	6.1	8.6	4.7	7.8	26.0	2.6
STEM12C4	6.3	7.3	14.1	12.2	5.5	6.4	6.4	4.6	0.0	7.0	9.0	6.7
STEM12C5	8.1	5.2	10.6	8.8	9.1	7.7	1.5	4.4	0.7	3.9	8.0	6.5
STEM12C6	8.3	7.9	14.7	8.5	10.9	7.7	7.6	23.4	1.7	8.3	12.4	8.4
STEM12F1	14.6	11.2	15.7	12.6	5.9	10.1	7.7	5.9	7.0	5.8	13.0	8.3
STEM12F2	7.8	7.4	19.5	13.2	8.5	7.7	3.5	3.6	0.0	3.2	7.5	10.3
STEM12F3	6.7	5.8	12.7	8.8	3.8	5.6	9.0	3.5	1.5	6.3	9.1	4.9
$\bar{x}$	9.74	8.07	12.57	9.51	7.37	6.65	6.18	5.60	2.82	6.83	10.13	6.64

It could be drawn from Table 2 that the papers' statements of the problem garnered the highest percentage average of jargon usage ($\bar{x}$ = 12.57). This was despite review of related literature having the greatest number of words and jargon used as illustrated in Table 1. Meanwhile, sampling, as supported by the previous data analyses, had the smallest percentage average of jargon usage ($\bar{x}$ = 2.82). The maximum value ($\bar{x}$ = 12.57) would serve as the basis in assigning the value of intervals for a 5-point contextualization leveling.

Level of Contextualization in Each Part of the Research Paper

After indicating the percentage of jargon usage in each part of the research paper, the highest value was used to assign the intervals for the contextualization level. A 5-point leveling was then set with descriptors ranging from highly decontextualized, decontextualized, fairly contextualized, and contextualized, to highly contextualized.

The percentage of jargon usage would be assigned according to the corresponding level where each fall under. Thus, Table 3 illustrates the contextualization level of each part of the research papers.

Table 3 Level of Contextualization of Each Part of the Research Paper

Research Part	% of Jargon Usage	Level of Contextualization
Abstract	9.74	Contextualized
Background of the Study	8.07	Contextualized
Statement of the Problem	12.57	Highly contextualized
Review of Related Literature	9.51	Contextualized
Research Framework	7.37	Contextualized
Scope and Limitations	6.65	Fairly contextualized
Significance of the Study	6.18	Fairly contextualized
Research Design	5.60	Fairly contextualized
Sampling	2.82	Decontextualized
Results	6.83	Fairly contextualized
Conclusions	10.13	Highly contextualized
Recommendations	6.64	Fairly contextualized

Table 3 shows the level of contextualization of each part of the research paper. As per the percentage of jargon usage, statements of the problems and conclusions were the most contextualized parts of CTRDL02 outputs (highly contextualized). In contrast, sampling was a decontextualized part of the research paper. It only had an average of 2.82% jargon usage. These results would be used as a basis for the forwarding of recommendations, specifically in revising selected parts of the syllabus in CTRDL02.

Level of Contextualization in Each Part of the Research Paper

After indicating the percentage of jargon usage in each part of the research paper, the highest value was used to assign the intervals for the contextualization level. A 5-point leveling was then set with descriptors ranging from highly decontextualized, decontextualized, fairly contextualized, contextualized, to highly contextualized.

Table 4 Contextualization Levels Interval Assignment

Interval	Minimum Value	Maximum Value	Level of Contextualization
Level 1	0	2.5	Highly decontextualized
Level 2	2.6	5.1	Decontextualized
Level 3	5.2	7.7	Fairly contextualized
Level 4	7.8	10.3	Contextualized
Level 5	10.4	12.9	Highly contextualized

Table 4 would serve as the basis for assigning the contextualization level of each part of the research paper. The percentage of jargon usage would be assigned according to the corresponding level which each fall under. Thus, Table 5 illustrates the contextualization level of each part of the research papers.

Difference among the Percentage of Jargon Usage in each IMRaD Section of CTRDL02 Outputs

The data on average percentage of jargon usage in each of the parts of research papers were averaged to get the average percentage of jargon usage in each IMRaD section. The IMRaD sections were the research paper's introduction, methodology, results, and discussion. The data sets of these four sections would undergo an analysis of variance (ANOVA) to determine whether they have a significant difference or not.

Table 5: Percentage of Jargon Usage in Each Section of IMRaD

Research Outputs	Introduction	Methodology	Results	Discussion
ABM12A1	5.7	1.2	1.4	7.9
ABM12A2	8.7	3.5	5.5	8.0
ABM12A3	4.8	1.3	3.0	5.1
ABM12A4	6.9	2.2	5.0	6.1
ABM12A5	10.6	2.2	5.0	6.1
STEM12A1	4.4	1.6	2.5	5.9
STEM12A2	9.9	5.8	10.2	9.4
STEM12A4	10.0	5.1	9.4	15.6
STEM12A5	9.8	7.3	10.4	9.6
STEM12A6	9.9	5.6	8.6	7.9
STEM12B1	9.7	6.1	8.3	7.8
STEM12B2	13.3	5.3	10.6	8.4
STEM12B3	5.8	2.6	10.3	5.7
STEM12B4	10.5	6.3	8.0	7.8
STEM12B5	7.6	1.6	6.8	6.1
STEM12C1	8.7	3.6	4.3	5.3
STEM12C2	7.8	4.5	7.3	7.5
STEM12C3	8.7	6.6	7.8	14.3
STEM12C4	8.3	2.3	7.0	7.8
STEM12C5	7.3	2.6	3.9	7.2
STEM12C6	9.4	12.6	8.3	10.4
STEM12F1	11.1	6.4	5.8	10.7
STEM12F2	9.7	1.8	3.2	8.9
STEM12F3	7.5	2.5	6.3	7.0
$\bar{x}$	**8.6**	**4.2**	**6.8**	**8.4**

Table 5 indicates the average percentage of jargon usage in each section of IMRaD. Introduction and discussion (8.6% and 8.4% respectively) had the higher jargon usage percentage. It was contrasted by methodology and results (4.2% and 6.8% respectively). The data sets would undergo an analysis of variance to determine whether they had a significant difference or not. ANOVA results are shown in Table 6.

Table 6: ANOVA Summary

Source	Degrees of Freedom	Sum of Squares	Mean Square	F-Stat	P-Value
Between Groups	3	293.9413	97.9804	15.2458	0
Within Groups	92	591.2583	6.4267		
Total	95	885.1996			

F-Stat value = 15.2458
F Table value = 2.70

The degrees of freedom between groups were 3 and within groups is 92. Using the F table, it was determined that the F Table value is 2.70. Since the F Test Result (15.2458) was greater than the F Table value (2.70), the null hypothesis was rejected. There was a significant difference between the average jargon usage in each IMRaD section of the research papers.

CTRDL02 Course Syllabus Parts that Need Revisions

Now that data on the contextualization of research parts has been generated and analyzed, the parts of its syllabus that need revising can be determined. As per the level of contextualization of research parts, some sections were identified to be highly contextualized, contextualized, fairly contextualized, and decontextualized. The more contextualized a research part was, the more that it was recommended for its teaching to be collaborative with specialized subject teachers (SP teachers).

Statement of the problem and conclusions were the parts of the research paper that were identified to be significantly contextualized. These were the two parts

that garnered the greatest number of jargon usage in the entire paper. Thus, when it came to the teaching of these topics, it was seen as necessary that the SP teachers be highly involved.

CTRDL02 students may consult with their SP teachers during the writing process. Similarly, CTRDL teachers may seek supervision or support from SP teachers in the delivery of these discussions. For instance, ABM SP teachers, HE SP teachers, ICT SP teachers, and STEM SP teachers may serve as support in the teaching and writing of these research parts under their respective disciplines.

In this light, CTRDL teachers and SP teachers may subscribe to the idea of team teaching or collaborative teaching. This was when one teacher handled a discussion instead of the original teacher, taking over a class in a predefined instance.

It had been determined that the significance of the study, scope and limitations, research designs, results, and recommendations were parts of the research paper that were fairly contextualized. Meaning to say, jargons were still being fairly used in these parts. In this light, minimal supervision from the SP teachers was still seen as necessary. The CTRDL teacher may also make use of his/her general knowledge in the teaching of these topics since they were not jargon-heavy.

Writing sampling techniques in methodology made use of a small number of technical terms. It means that when teaching this part, the CTRDL teacher did not need to heavily rely on the support of SP teachers. He/she also did not need to have an in-depth knowledge of the concepts related to the specialization of the student researchers.

Instead, the CTRDL teacher shall focus on research concepts related to sampling methods and techniques. Thus, this part of the syllabus needed not to be revised extensively. Additional examples on the technicalities of research methodology may be provided instead of reliance on the concepts of specialized subjects.

CONCLUSION

The analyst found that the jargon used in the research findings by senior high school scholars revealed much about their academic language ability and writing of the research papers. When it came to jargon usage in different sections of a research paper among various groups of students, there existed significant variations in the findings that showed both strengths and areas for improvement regarding their academic communication skills. Specifically, the following conclusions are drawn from the data gathered:

“Review of Related Literature” was, on average, the longest part of the research paper. Although it was not necessarily the most contextualized section, it was nonetheless the part that was most consuming, if not most complex to write. On average, it was written with about 1810 words and tackles a lot of different concepts that were both technical and irrelevant to the respective specializations of the student researchers. In contrast, “Abstract” was the shortest part of the research paper, averaging to around 246 words.

The variations that were seen in the use of language and the separations in the different lengths of sections shown in students' research papers pointed to the need to make targeted changes when designing course outlines. In a situation where a course outline was still to be developed to maintain quality in the work of the students, it was advisable to emphasize the use of academic language in the various parts of research papers.

The “Review of Related Literature” section had the highest number of jargon (167) than any other section. It was followed by “Background of the Study” (69.5) and “Results” (46.92). It suggested that when it came to discussing theoretical constructs or explaining why their studies were important, most students use specialized language. The fewest jargon was in “Sampling” (8.458), which meant simpler language was used to describe the boundaries of this study room.

The average number of jargons used in each part of the research was not congruent with their percentage once compared to the total number of words. The parts that emerged as the most contextualized parts were “Statement of the Problem” (12.57) and “Conclusions” (10.13). It means that these parts had the highest quantity of specialized language used in writing. On another hand, with an average jargon usage percentage of 2.82, “Sampling” was deemed as the least contextualized part of the research paper.

Ultimately, it was resolved that the four sections of the research paper (Introduction, Methodology, Results, and Discussion) had a frequency of jargons usage that were significantly different from each other. ANOVA results that there was a significant difference among the data sets, proving that the teaching of these sections shall not be equal in the manner of language approach. It also demonstrated how complex the teaching of CTRDL subjects was since it is anchored from multiple disciplines.

RECOMMENDATION

Based on the analysis of jargon usage in the research outputs of senior high school students, several key recommendations could be made to enhance the effectiveness and clarity of student research writing:

Curriculum Development/Revision:
Targeted Instruction on Jargon:
Introduce specific modules in their curriculum as far as the suitable use of jargon is concerned. It should also give guidelines to the students as to how they should be able to present their work, especially in a way that will be understood by people elsewhere by balancing the use of technical terms with the simple elaboration of the findings.

Course Syllabus Revision:
Sections of the course syllabus for CTRDL02 that are found to be significantly contextualized shall include teaching and learning pedagogies that are collaborative with specialized subjects. The support of specialized subject teachers may be sought by the teacher in the execution of certain topics. Their assistance may also be utilized by student researchers through consultations and research advising.

Workshops and Seminars:
Writing Workshops:
Organize writing skills seminars that are specific to communication in research. Such workshops may be valuable in familiarizing students with the style and use of such terms at various parts of the paper especially in the areas dense with such terms such as the literature review section or the conclusion part of the paper.

Peer Review Sessions:
The professor should organize a debate session that involves the students rendering feedback on the utilization of jargon by their counterparts. Such feedback from their peers can assist the students in perceiving how the pedagogical language, which they employ in teaching, is received and what modifications can be made, if any.

Faculty Training:
Professional Development for Educators:
Offer training to educators so they can enhance their awareness of language complexity in student’s papers. This training can go a long way to improving the formulation of concise and to-the-point research findings and help the teachers provide better feedback to students on their work.

Resource Development:
Facilitate and promote the creation of teaching aids by the faculties, some of which include, locally constructed dictionaries or glossaries of the ever-used jargon.

Assessment:
Rubrics for Jargon Usage:
Provide specific performance indicators that cover the proper use of specialist terms. These rubrics can assist the teachers in being a bit more impartial when grading the students' writing and specific feedback can be offered on how often the students use jargon.

Future Researches:
Expansion of this study:
This research assesses the outputs of CTRDL02 students, which means that only the quantitative research outputs are used for data collection. Although it has been justified in the study’s limitations that CTRDL02 is selected as the main focus

of this study for its nature of being contextualized, a curriculum revision for CTRDL01 is also necessary.

Future researchers may conduct similar research with the use of outputs in qualitative research for syllabi modifications and improvement.

Through these recommendations, educational institutions of learners can enhance the comprehensibility and quality of learners' research papers and, therefore, learners' readiness for higher learning activities and jobs.

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