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The Comparison of Verb Use in Social and Science Research Article Abstract: A Corpus-Based Study

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Abstract
A research article is a kind of academic writing that is extensively utilized by scientists to explain their thoughts in the present day. This paper focuses on the abstract part since it is an important representation of the substance of an academic paper. This study intends to compare the verb use in abstracts of scientific and social research articles. To examine this conversation, qualitative descriptive research is performed in this study. This research investigates the frequency of the verbs identified by LancsBox 6.0 using corpus analysis. This research employs 15 scientific abstracts and 15 social abstracts produced by Indonesian authors and published between April 1st until September 30th, 2021 in order to determine the most and least commonly utilized verb types in each study. This study's objectives are to determine the types of verbs used in science and social article abstracts, to determine the frequency of verb use in science and social article abstracts, and to explain why x types of verbs are the most and y types are the least prevalent in science and social research article abstracts. Material, relational, cognitive, possessive/relational, perception/relational, feeling, existential, verbal, and corporeal are the verb kinds utilized in abstracts of scientific and social research articles, according to the study's findings. In both scientific and social abstractions, the material verb type that conveys a definite meaning is used most often. In contrast, corporeal, which expresses subjective meaning, is utilized least often in abstracts of scientific and scholarly articles. It may be argued that material verbs are most commonly utilized in academic writing that requires an objective statement as a defining property of the genre.
Keywords: Corpus analysis, Verbs, Abstracts, Frequency, Text Characteristics

INTRODUCTION

The research article is one of the academic writing forms used by scientists to communicate their thoughts in writing. Hartley (2008) explains that a research article is expressed exactly, impersonally, and objectively, as shown by the use of the third-person pronoun, the passive tense, complicated vocabulary, and numerous footnoting and reference systems. This study focuses on the abstract of research articles since an abstract is an essential component that provides a concise summary of an academic paper's introduction section. According to Lores (2004: 281), an abstract is a "brief overview" of the underlying document. In addition, Dijk (quoted in Swales 1990: 179) notes that abstracts serve as distinct discourses or as indications of the content and structure of the subsequent text.

According to Ingthorsson (2013), there are two primary academic fields of the research: natural science, which studies phenomena regulated by natural laws or mind-independent, and human science, which studies human beings' social interactions, experiences, ideas, purposeful acts, attitudes, etc. Jaffe (2014) says that the natural sciences have adapted their research methodologies to landscapes with big conglomerated knowledge clusters, whereas the social sciences have adapted to landscapes with many tiny isolated information clusters. Both fields' discourse is different. Based on these understandings, this comparison aims to highlight the literary quality embodied by the verb, despite both texts being academic writing. Ordem and Bada (2016) studied noun and verb collocations across academic subjects. Their study shows

that academic writing interchanges similar verbs and collocations. Based on prior study, this debate aimed to reveal the verb use across written academic disciplines by assessing the verb type used in both academic fields using the corpus tool. Scheibman (2002)'s verb type is the most current revision of Halliday (1985) and Dixon (1991)'s verb taxonomy. Verbs are fundamental in syntactic sentence building. Chafe (1970) says the verb determines the types and quantity of sentence arguments. Verbs determine sentences' internal and external arguments, according Van Galderen (2017). English clause verbs inflect for tense.

This research attempted to use corpus study as its analytical framework. Using corpus may result in an accurate estimate of the frequency of certain terms in a text. Biber and Quirk (2012) claim that the usage of corpora may result in a quicker and more accurate study of frequency of use, which is the primary corpus study analysis. In addition, Baker (2010:125) feels that frequency signifies significance; it suggests that a frequently occurring thought is significant. Szudarski (2017) also stresses a corpus-based analysis that finds the frequency, which seems to support the study's objective of determining the relationship between verb use and text features. This research was aided by the corpus tool offered by Lancaster University, called LancsBox 6.0. This tool serves the non-commercial objective of enhancing corpus analysis research.

In this research, LancsBox 6.0 was used to determine the verbs and their frequency in each abstract. The study's issues might be expressed as follows:

1. What are the types of verbs used in social and science article abstract?
2. What is the frequency of use of verb type in social and science article abstracts?
3. Why is *x* type of verb mostly used and *y* type least used in social and science article abstracts?

Literature review

Language is essential to humans since it is used in their everyday lives. Chomsky (1976) underlined that language is essential to every area of human action. SFL (Systemic Functional Linguistics) is a very helpful theory for discussing language. Moreover, Fontaine (2013: 5) argues that SFL is the organization of the ways we might produce meaning via language through patterns of usage. Therefore, SFL might infer that language has the capacity to stress meaning via the language's symbols and utterances. According to Ridwan (1997), language is the arbitrary vocal symbols employed by members of society (social groupings) for the sake of collaboration, mutual understanding, and identifying individuals and their needs, wants, and desires. Systemic functional linguistics pertains to the creation of a meta function-related meaning resource. According to Halliday and Matthiessen (2004), the function of language is to establish personal and social relationships (interpersonal meta function), to construct our experience of the world and consciousness (experiential meta function), and to organize discourse and create continuity and flow in our texts (the textual meta function). Halliday (1985a) divides meta function into three categories, including ideational function, textual function, and interpersonal function.

This study analyzes the frequency of verbs in research paper abstracts. Verbs are words that describe or claim something about a person or object (Wren and Martin, 1990: 63). According to Baker (2004), verbs correlate to the need of tense inflection in English sentences, and in order to have tense inflection, the phrase must have verbs. After that, Scheibman (2002) revises the verb taxonomy based on Halliday (1994) and Dixon's theory (1991). Halliday contributed the types of cognition, existential, emotion, material, perceptual, relational, and linguistic, while Dixon contributed the corporeal type, and the possessive type was accepted throughout the coding procedure (Scheibman, 2002: 50). Following is a categorization table.

Table 1. Classification of Verbs based on Scheibman (2002)

Verb Types	Description	Examples
Cognition	Cognitive activity	*know, think, remember, figure out*
Corporeal	Bodily gestures, bodily interaction	*eat, drink, sleep, live, smoke*
Existential	Exist, happen	*be, have, sit, stay, happen*
Feeling	Emotion, wanting	*like, want, feel, need, bother, enjoy*
Material	Concrete and abstract doings and happenings	*do, go, take, teach, work, use, play, come*
Perception	Perception, attention	*look, see, hear, find, notice,*
Perception/relational	Perception (subject not senser)	*Look, smell, sound*
Possessive/Relational	Possession (x has a)	*have, get*
Relational	Processes of being (x is a, x is AT a)	*be, get, be like, become*
Verbal	Saying, symbolic exchange of meaning	*say, talk, mean, tell, ask,go* (quotative), *be like* (quotative)

Then, Academic writing has simple sentence structure, extensive information, an objective viewpoint, and logical reasoning. Salam, Mahfud, and Nurhusna (2018: 132-133) described academic works based on systemic functional linguistics as simple in sentence structure, rich in substance, and logically clear. This study also covers research. Creswell (2008) defines research as acquiring and evaluating facts to develop knowledge. The research paper adds to knowledge by presenting scientific facts in sentences. Hartley (2008) says research articles are exact, objective, and dispassionate. It employs third person, passive voice, sophisticated language, and footnoting. In most cases, Abstracts give a brief summary of research papers. Lores (2004: 281) defines the abstract as a "short summary" Martin (2003:26) says the abstract should "explain the article's content." Academic writing relies heavily on abstractions. Weissberg and Buker (1990) say an abstract should include a background, purpose, method, results, and conclusion. According to Hanafiah and Yusuf (2016), students must grasp how to arrange meaning and written language to produce a good abstract.

A corpus (or corpora in the plural form) is a collection of machine-readable text fragments used for a study. According to Sinclair (2005), a corpus is a collection of electronic language texts chosen based on external criteria to represent a language or its variants as a data source for a study. In addition, Baker et al. (2006: 48) assert that a corpus is often a substantial collection of machine-readable texts that may be utilized for study. This investigation employs corpus study, a branch of linguistics concerned with language and connected to statistical analysis. The study of corpus can determine the frequency of words that appear in a text. The significance of a writer's message is influenced by the frequency with which certain words appear in a corpus analysis. According to Baker (2010), the frequency of something shows its significance.

In order to discuss this analysis, the writer used scholarly publications that employed corpus study to analyze data as references for this investigation. Deliana, Panah, and Manshor (2021) investigate English collocations improvement among 20 TESOL students from Malaysia, Indonesia, and Brunei (UKM). The pupils had 40 minutes to write 300 words on the theme 'Educational Technology' Native speakers employ collocations naturally, but not non-natives. Google Scholar corrects 62% of users' collocations, according to this study. The analysis improves ESL learners' Google Scholars collocations. Another research came from Oktavianti and Adnan (2020) analyzed Jakarta Post opinion articles and verbs. Opinion pieces vary from typical newspaper texts, such as verb choice. They looked at The Jakarta Post's opinion pieces' verbs to determine frequency and text characteristics. Lancsbox was used to detect verb lemmas and count verb frequency in opinion section texts. Scheibman's (in Bybee and Hopper, 2001) major verb categorization is based on Halliday and Matthiessen (2004) and Dixon's

(2005) verb kinds. They detected material, verbal, and emotional verbs in The Jakarta Post's editorial pieces.

RESEARCH METHOD

This study adopted a qualitative descriptive approach since its emphasis was on gaining comprehension via descriptive word usage. According to Bodgan and Biklen (1992:30), qualitative research is descriptive, meaning the acquired data are in the form of words or images rather than statistics. In addition, Moleong (2008:6) explains that descriptive research technique is a study that depicts and characterizes the research object scenario based on actual events. As a consequence of qualitatively evaluating the data, the outcome of this analysis was disclosed by articulating structured questions that were responded in sentences as part of descriptive qualitative research.

The verbs of this study is Using a corpus tool called LancsBox, the verbs in this research were detected and tallied (Brezina, Weill-Tessier, & McEnery, 2020). This application was created at Lancaster University and is available for free download at http://corpora.lancs.ac.uk/lancsbox/download.php. The version of LancsBox utilized in this article was 6.0. The position of the functions menu in older (or more recent) versions may vary. In descriptive qualitative research, the methodology yields descriptive data such as words and notes pertaining to meaning, value, and definition (Bogdan and Taylor, 1975: 5). This study's data is a phrase containing a lexical verb that has been examined using a corpus-based method.

The categorization of verb types may result in ambiguity for certain words, such as have, which may be classified as both an auxiliary and a possessive/relational verb. This kind of difficulty may be resolved by studying the clause's use context. Therefore, *Lancsbox* requires the *KWIC* functionality that generates concordance lines for each result. The usage of have in the concordance lines of numbers 1 and 2 is possessive/relational based on the second image. In the meanwhile, the usage of have between numbers 3 and 10 is removed from the statistics since it is an auxiliary. The data source was English abstracts of Indonesian-authored articles published in Universitas Indonesia Journals at http://journal.ui.ac.id/. The author has identified 30 abstracts of research articles that were published between 1st April until 30th September 2021 that meet the criteria for this study. There are 15 abstracts of scientific research articles and 15 abstracts of social research articles. The following table provides a list of publications containing the requisite abstracts depending on academic disciplines.

Table 2. The List of Science and Social Journals

No.	Name of Science Journal	Amount of Abstracts	Name of Social Journal	Amount of Abstracts
1	International Journal of Technology	5	Indonesian Journal of International Law	4
2	Interioty	1	Politic Journal	4
3	Jurnal Kesmas	3	Psychological Research on Urban Society	3
4	Makara Journal of Science	3	Discourse Journal	2
5	Medical Journal of Indonesia	3	Indonesian Capital Market Review	2
Total		15		15

Since the data were gathered in the form of abstract words, document analysis is ideal for assisting with this study. According to Babbie (2010), document analysis is the study of human communications that have been documented, such as books, websites, artworks, and

legislation. There are 15 abstracts of scientific research articles and 15 abstracts of social research articles were retrieved from UI Journals or http://journal.ui.ac.id/ for the purpose of comparing them in this study. Since there are a large number of abstracts published in UI Journals, the author opted to restrict the scope of the object analysis by collecting data according to a number of criteria.

According to Patton (2002), intentional sampling (or purposive sampling) is a strategy used often in qualitative research to locate and choose material for the most efficient use of limited resources. This research is confined to scholarly works by Indonesian authors published between 1st April until 30th September 2021 and indexed by Scopus and Sinta 2 databases. In order to discuss this topic, numerous data collection methods are available: 1) Downloading the papers from the website http://journal.ui.ac.id/. 2) Carefully reading and scrutinizing article abstracts. 3) Categorizing the field of abstracts for articles. 4) Importing the abstract into the program LancsBox. 5) Determine the verbs of each phrase from the abstracts using the program LancsBox. 6) Incorporating verbs into notes. 7) Analyzing the verb depending on the clause's context using the program LancsBox. 8) Manually classifying the verbs according to Scheibman's idea (2002). 9) Calculating the most common and least frequent verbs. 10) Calculating the proportion of the most common and least frequent verb type using the method presented by Bungin (2001: 189): $N = \frac{f(x)}{n}\ x\ 100\%$. For the N is the percentages of types, followed by $f(x)$ is the total types frequency of the sub category, and n is the total types of all categories. This study use Miles, Huberman and Saldana (2014) as a figure for the data analysis, the visualization of this data analysis can be seen below:

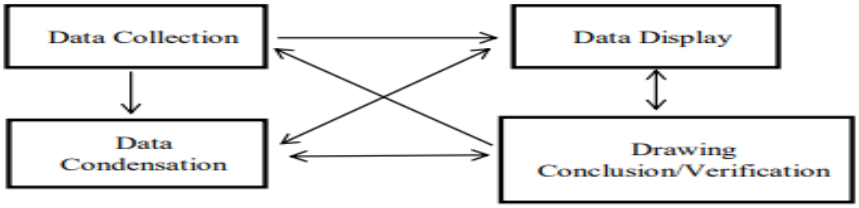

Figure 1. Four Characteristics in Technique of Data Analysis

RESEARCH RESULTS AND DISCUSSION

Types of Verb in Social and Scientific Research Article Abstracts

After examining the abstracts to determine verb use in accordance with Scheibman's (2002) collection of verb types, the results were summarized in the tables. There were 278 clauses in 15 abstracts of scientific research articles and 240 clauses in 15 abstracts of social research articles. A phrase needed one subject and one predicate, each of which required a lexical verb to convey its full meaning. Therefore, each detected verb represented a single phrase. To properly convey the recognized verb and its kind, the following table displays the verb type in abstracts of scientific research articles.

Table 3. Classification of Verbs in Science Abstracts

No.	Journal ofAbstract Research Article	Frequency of Verb Type										Frequency Total
		Cognition	Corporeal	Existential	Feeling	Material	Perception	Perception /relational	Possessive /relation	Relational	Verbal	

1	International Journal of Technology	19	0	3	0	34	0	4	4	38	2	104
2	*Interioty*	3	0	0	0	8	0	0	0	2	1	14
3	*Jurnal Kesmas*	6	1	2	1	12	0	2	2	16	1	43
4	Makara Journal of Science	10	0	1	3	27	0	2	5	17	0	65
5	Medical Journal of Indonesia	8	2	1	3	16	0	0	4	18	0	52
Total												**278**

According to the table 3, 278 verbs per sentence were detected in the abstracts of scientific research articles. Verbs such as cognition, corporeal, existential, emotion, material, perception/relational, possessive/relational, relational, and verbal are used in this academic discipline. The recognized verb of each sentence in the abstracts of scientific research articles was represented and explained to provide a clear understanding of the verb's usage and kind.

Table 4. The Example of Concordance Lines of *Material* Verb *Show* inScience Abstracts of Research Article

No.	Clauses	Verb Type
164	XRD characterization result **showed** an angle shift (20) characteristic at1.609°.	Material

Abstracts of scientific research articles included 164 instances of clauses with the material verb type. The past tense of the verb *show* was used to indicate the subject, XRD characterization result, which affects the object, an angle shift (20) characteristic at 1.609°. Scheibman (2002: 50) explains that the material verb type indicates that the subject performs an action.

Table 5. The Example Concordance Lines of *Relational* Verb *Include* inScience Abstracts of Research Article

No.	Clauses	Verb Type
257	Postoperative evaluation **includes** pain scores...	Relational

Data 257 represented the detected verb used in the present tense in the abstracts of scientific research articles. The word *include* is categorized as a relational verb that connects the subjects Postoperative evolution and pain ratings. Scheibman (2002: 50) argues that a verb with a third-person inanimate subject is defined as relational since it establishes a relationship between two elements.

Table 6. The Example Concordance Lines of *Cognition* Verb *analyze* inScience Abstracts of Research Article

No.	Clauses	Verb Type
74	Each type of bentonite soap was **analyzed** in accordance with the Indonesian National Standards (SNI).	Cognition

The word *analyze* was discovered in the scientific study paper abstract including data 74 and in passive voice. By Indonesian National Standards, the word was classed as a cognition verb type that showed the cognitive action of assessing the topic, each form of bentonite soap (SNI). According to Scheibman (2002: 5), cognition refers to cognitive activities such as know, remember, think, etc.

Table 7. The Example Concordance Lines of *Possession/Relational* Verb *have* in Science Abstracts of Research Article

No.	Clauses	Verb Type
101	... the social influence of e-learning **has** a strong positive relationship with behavioral intention.	Possession/relational

The word *has* in data 101 indicated the possession verb used in present-tense clauses including scientific research article abstracts. It demonstrated that the possession/relationship verb type is also used in the abstract of scientific research articles. Scheibman (2002: 50) characterizes possession as possessive/relational (x has a). The subject of the phrase, the social effect of e-learning, had the clause's goal, a strong positive association with behavioral intention.

Table 8. The Example Concordance Lines of *Verbal* Verb *call* in ScienceAbstracts of Research Article

No.	Clauses	Verb Type
103	..., a method commonly **called** e-learning.	Verbal

This clause's predicate was the passive voice verb *call* discovered in the abstract of a scientific study publication. It was classed as a verbal verb, indicating that it was used to describe something. According to Scheibman (2002: 50), verbal kinds reflect symbolic communication and representation. The approach, which was the topic, was described as the object, e-learning.

Table 9. The Example Concordance Lines of *affect* Verb *Feeling* inScience Abstracts of Research Article

No.	Clauses	Verb Type
215	... the accumulation of chromium in plants **affected** the absorption of magnesium, ...	Feeling

Data 215 revealed the sentence in the abstract of scientific research articles that had the past tense of the verb *effect*. It was categorized as a feeling verb. This clause's subject was constructed to influence the object, magnesium absorption. According to Scheibman (2002, p. 50), the feeling verb type includes words like feel, desire, like, and require.

Table 10. The Example Concordance Lines of *identify* Verb *Perception/relational* in Science Abstracts of Research Article

No.	Clauses	Verb Type
95	This developed method successfully **identified** areas...	Perception/relational

The usage of the perception/relational verb type in data 95 was detected in the abstract of a scientific study publication. The past form of the word *identify* conveyed awareness of the object, regions. This meaning is pretty similar to that of the perception verb type. However, the theme is used differently by each style. This clause's topic was identified as the phenomena. However, the subject was the sensory experience for the perception verb type.

Table 11. The Example Concordance Lines of *Is* Verb *Existential* in ScienceAbstracts of Research Article

No.	Clauses	Verb Type
92	..., there **is** an increase in possible interference,...	Existential

The predicate involving *is* that was classified as existential was also included in the abstract of scientific research articles. According to the feature of the existential verb, the subject employed it to demonstrate the existence of an object. According to Butt et al. (2003), existential verbs are distinguished by the usage of if there. In addition, Scheibman (2002, p. 50)

defines an existential verb as one that indicates existence or occurrence, such as be, occur, remain, etc.

Table 12. The Example Concordance Lines of *Corporeal* Verb *Introduce* in Science Abstracts of Research Article

No.	Clauses	Verb Type
153	In Indonesia, 44% of infants were **introduced** to solid/liquid feeds in their first three days oflife.	Corporeal

The past form of the word introduce, which appeared in data 153, was recognized as a corporeal verb in the abstract of a scientific study. 44% of newborns were included in the clause as the subject. Then, it was connected to the word introduce, which implies to have a part in expressing the babies' physical needs through introducing solid/liquid food. According to Scheibman (2002:50), corporeal verbs communicate body gestures and bodily interaction. The next study found the usage of verb in abstracts of social research articles. The verb form used in this academic may be found in the table below.

Table 13. Classification of Verbs in Social Abstracts

No.	Journal ofAbstract Research Article	Frequency of Verb Type										Frequency Total
		Cognition	Corporeal	Existential	Feeling	Material	Perception	Perception /relational	Possessive /relation	Relational	Verbal	
1	Indonesian Journal of International Law	18	0	1	3	27	0	3	1	22	1	76
2	Politic Journal	10	0	2	2	21	0	3	4	15	4	61
3	Psychological Research on Urban Society	15	1	0	2	17	0	3	1	16	3	58
4	Discourse Analysis	6	0	0	2	11	0	0	1	10	3	33
5	Indonesian Capital Market Review	3	0	1	1	4	0	0	2	2	0	13
Total												240

The table 13 provided the abstracts of social research articles' results. In abstracts of social science research articles, 240 phrases containing a primary verb were discovered. Verbs such as cognition, corporeal, existential, emotion, material, perception/relational, possessive/ relational, relational, and verbal are used in this academic discipline.

Table 14. The Example Concordance Lines of *Material* Verb *Show* in SocialAbstracts of Research Article

No.	Clauses	Verb Type
507	The findings **show** the price of gold ...	Material

The data 507 shown the word exhibit in abstracts of social science research articles. The modern form of the verb *show* was categorized as a material verb. This clause's subject stated that the discoveries do something or reveal something to the object, the gold price.

Table 15. The Example Concordance Lines of *Relational* Verb *Include* inSocial Abstracts of Research Article

No.	Clauses	Verb Type
318	..., **including** the exercise of enforcement jurisdiction ...	Relational

In social research article abstracts, the usage of related verbs was also discovered. Data 318 shows the shortened form of the verb *include* in the phrase. The word include showed a relationship between the specified facts and the exercise of enforcement authority... Scheibman (2002: 50) classifies the verb that appears with a third-person inanimate subject as relational because it establishes a relationship between two elements.

Table 16. The Example Concordance Lines of *Cognition* Verb *Analyze* inSocial Abstracts of Research Article

No.	Clauses	Verb Type
344	... a doctrinal study that will **analyze** Article 26 of the Indonesian Patent Law.	Cognition

Data 344 indicated the employment of a cognitive verb type using the verb *analyze* and the will modal. The use of the word analyze implied the subject's future cognitive activity, a doctrinal investigation.

Table 17. The Example Concordance Lines of *Possession/Relational* Verb *Have* in Social Abstracts of Research Article

No.	Clauses	Verb Type
516	... the price of gold doesn't **have** a significant effect on the gold stock price ...	Possession/relational

The possession/relationship verb type is commonly present in the abstract of social research articles. Data 516 indicated the use of the present tense of the verb *have*, indicating the negative ownership of the subject, the gold price, over the clause's object, a major impact on the gold stock price.

Table 18. The Example Concordance Lines of *Verbal* Verb *Describe* in SocialAbstracts of Research Article

No.	Clauses	Verb Type
354	This paper also **describes** all states' rights to cross the archipelagic sea ..	Verbal

The usage of the word *describe* in data 354 exemplified the linguistic nature of abstracts of social research articles. It was discovered that the present form of the verb describe reflected the subject's explanation in this work.

Table 19. The Example Concordance Lines of *Feeling* Verb *Affect* in SocialAbstracts of Research Article

No.	Clauses	Verb Type
403	...low-income households **affected** by the pandemic, the distribution of staple foods, ...	Feeling

Data 403 shown the usage of feeling-type verbs in abstracts of social science articles. It was determined that the past form of the verb *affect* in the phrase represents the emotion verb type. The pandemic had an effect on the topic of the clause, low-income families.

Table 20. The Example Concordance Lines of *Perception/Relational* Verb *Find* in Social Abstracts of Research Article

No.	Clauses	Verb Type
404	This research **found** that, ...	Perception/relational

The perception/relational verb type was illustrated by the use of the word *find* in a social research paper. Data 404 included the past tense of the verb discover in relation to this investigation, which represented the phenomenon. It was said that the subject of the phrase did not play the role of the sensory experience, as indicated by the perception/relational verb type.

Table 21. The Example Concordance Lines of *Existential* Verb *Are* in SocialAbstracts of Research Article

No.	Clauses	Verb Type
518	There **are** two liquidity risk premium proxies ...	Existential

Existential verbs were also common in abstracts of social research articles, as illustrated by data 518. The clause included the subject there that refers to demonstrate existence and was coupled with to be.

Table 22. The Example Concordance Lines of *Corporeal* Verb *Live* in SocialAbstracts of Research Article

No.	Clauses	Verb Type
463	... young people **living** in megacities such as Jakarta.	Corporeal

The corporeal verb type specified in the abstract of a social research study is reflected in data 463. It was discovered that the word live was lowered in the phrase about the body language of the individuals. As an adverb, Jakarta was used to describe the contact that has taken place between the subject's young people and the location where they have chosen to settle. Scheibman (2002: 50) notes that the word live describes the bodily gesture or body engagement. These results focused on the primary verb of each phrase, excluding the finite, to-infinitive, and gerund. Based on the examination of tables 4.1 and 4.2, verb types such as cognition, corporeal, existential, feeling, material, perception/relational, possessive/relational, relational, and verbal are used similarly in scientific and social academic subjects. Furthermore, neither academic sector detected the usage of perception verb types or verbs that reflect the sensory experience of the experiencer.

The Most and The Least Frequently Used Types of Verb

This section investigated the usage of verbs in abstract scientific and social research articles based on Scheibman's (2002) notion of verb types. In the tables below, the list of verb types analyzed by frequency of usage in both academic domains was arranged from most common to least frequent.

Table 23. Frequency of The Verb Types in Science Abstracts of Research Article

Rank	Verb Type	Exampleof Lexical Verb	Token Frequency	Frequency	Percentage
1	Material	Use	7	97	34,89%
2	Relational	Obtain	3	92	33,09%
3	Cognition	Examine	2	46	16,55%
4	Possessive/Relational	Have	15	15	5,39%
5	Perception/Relational	Recognize	1	8	2,88%
6	Feeling	Affect	3	7	2,52%
7	Existential	Be	6	8	2,88%
8	Verbal	Suggest	1	4	1,44%
9	Corporeal	Introduce	1	1	0,36%
10	Perception	-	0	0	0%
Total				**278**	**100%**

According to the table above, material is the term that appears most often in the corpus of scientific abstract research articles. It constitutes 34.89% of all verb kinds, making it the most prevalent. Then came relational (33.19%) and cognitive (16.55%) skills. In contrast, corporeal (0.36%) was discovered to be the term used least often in this academic discipline. The next two categories are linguistic (1.44%) and existential (2.88%).

Table 24. Frequency of The Verb Types in Social Abstracts of Research Article

Rank	Verb Type	Exampleof Lexical Verb	Token Frequency	Frequency	Percentage
1	Material	Use	5	80	33,33%

2	Relational	Occur	2	64	26,67%
3	Cognition	Analyze	2	52	21,67%
4	Verbal	Mention	1	11	4,58%
5	Feeling	Affect	3	10	4,17%
6	Possessive/Relational	Have	9	9	3,75%
7	Perception/Relational	Find	3	9	3,75%
8	Existential	Be	3	4	1,67%
9	Corporeal	Live	1	1	0,41%
10	Perception	-	0	0	0%
Total				**240**	**100%**

The examination of verb use in social research paper abstracts revealed that material is the most commonly used verb type (33.33 percent). Then come relational (26.67%) and cognitive (21.67%) skills. Meanwhile, corporeal was the verb type with the lowest frequency (0.41%). Existential (1,67%) and perceptional/relational (3,75%) then follow.

The Reason of The Most and The Least Frequently Used Types of Verb

Based on the above data analysis, it has been determined that the most common verb type in both scientific and social abstract research articles is the material verb type. It was then followed by the same second and third most common types, which are relational and cognitional verbs, respectively. It demonstrated that while these academic writings have distinct context analysis studies, the verb usage is comparable based on Scheibman's verb type (2002). It compared the characteristics of two studies that use the same genre of writing, namely academic writing, which requires a concrete verb to objectively communicate the authors' ideas. However, bodily abstract scientific and social research articles are the least common. The verb type that belongs to corporeal (bodily gesture) (Scheibman, 2002: 50) may incorporate subjectivity that is unrelated to the academic writing feature that is less important to convey the writer's thought. According to Hartley (2008), a research paper should be written in a precise, dispassionate, and objective manner.

CONCLUSION

The abstract of the essay comparing academic fields in science and social research provides the usage of verb type in academic writing genre in an investigation of cross-academic fields. Based on the results of this study, scientific academic areas found the usage of verb types such as cognition, corporeal, existential, feeling, material, perception/relational, possessive/ relational, relational, and verbal in the abstracts of research articles. These verb kinds are also present in the usage of verb type in social research paper abstracts. However, neither the usage of the perception verb type nor the verb type that identifies the experience via the senses of the experiencer or by feeling was classified as acting by the subject or nominal group. After analyzing the frequency of verb type use, it has been determined that the material verb type is the most prevalent in both academic disciplines with a tangible meaning. Meanwhile, corporeal was the least common verb type in both academic disciplines. The purpose of corpus-based research on the frequency of verb usage is to examine the relationship between verb use and text properties. Thus, the reason why material is most often found in abstracts of scientific and social research articles is that, in order to produce academic writing, the author must present his or her thought objectively. It relates to the qualities of academic writing, which requires objectivity and material verbs as concrete verbs, despite the fact that scientific and social academic areas analyze analysis differently. In the meanwhile, the link between text qualities and the least commonly used verbs may be interpreted to be that corporeal is bodily gesture

because the verb type indicates subjectivity that is unconnected to the feature of academic writing genre.

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