



Semantic and syntactic analysis of the language used in research papers

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Abstract

This paper endeavored to analyze the language used in research articles at syntactic and semantic domain. It was a purely qualitative research in which the descriptive analytical design was used to accomplish the study. In this paper the tool, observation was used. The quantitative data were collected by different universities of Pakistan. The qualitative data was collected from five 'Higher Education Commission Pakistan's approved research journals in the field of English language, literature and linguistics. Ten papers were collected from these journals for analysis by using random sampling technique. The text of these papers was critically observed, along with their writing style and the way of expression. Semantic analysis and syntactic analysis was done from these papers. The collected quantitative data sets were analyzed qualitatively. Based on the qualitative analysis some results were deducted; and based on the results findings were produced according to the research questions and objectives. The findings of the study recommended the dire need of conspicuous trainings in research and academic writing to solve the problems of the researchers. It also helped to prepare and recommend the guideline for writing research articles, critical reviews and theses in the field of English Language, literature and linguistics.

Keywords: semantic analysis, syntactic analysis, research papers, HEC recognized journal

1. Introduction

Writing is basic thing in every field of literature. It is an evidence to say what the best piece of writing is and what an ordinary is. Through writing a work can be valuable or worthless. But, one has to know the parameters of a standard Writing and the points which make a piece of writing appreciable and valuable. Writing cannot be separated from research paper. So before analysis, one should know about linguistics and its basic components such as; morphology, semantics, Grammar, syntax, phonetics, etc. Thus, in the present research the writing of different research papers would be analyzed. Before this it should be made clear to the readers that a research paper is basically a piece of academic writing in which the researcher deals with particular topic which a researcher explains and analyze. In this proposal morpheme, word, phrase, clause sentence and discourse are included. This study will show the grammatical and syntactical analysis of different research papers in the field of linguistics, literature and language.

1.1 Background of the study

In this research proposal, the researcher will first discuss the background of the study. Previously there was recitation method which was being focused in classes. In 1910, the plagiarism in research was introduced and the sale of research paper started which changed the course of research and gave way to an entire changed outlook of the concept of formal research and problems. "Plagiarism is the act of taking others work and passing it off as your own" (Bailey, 2011). It is high time now for familiarize the researchers with the new set of research guidelines and new methodologies of research in writing research papers. In present work, the researcher will try to bring forth those

reasons which cause of plagiarism and mistakes in their work. In this study, the researcher will analyze the writing of different research of different discipline papers written by researchers.

1.2 Statement of the problem

The writing in a research paper has key importance because all the fields of studies related to pure or applied science or humanities demand an accurate study and perfect presentation of findings. Language is an effective tool to shape the concept of people. Expressing the thought perfectly needs to know a perfect use of words, vocabulary, style, connotation, denotation, phrasal verbs, idioms, grammar and most importantly formal use of language. Thus, analysis of language to be used in a research paper is as important as the writing paper itself. Analysis of the language of research paper will help to make it possible to write a standardized research paper specially in under developing countries like Pakistan where research culture is not as much developed as is needed as compared to Foreign countries where research is enriched even in Montessori level. There students are given conducive environment in which they think critically and produce new things on their own. So it is a dire need of this time to give a way for future researcher to adopt such a writing style that attracts readers' attention towards the work. For this purpose the researcher has selected this topic that will throw light on those areas which will help out the beginners in the field of research.

1.3 Research questions

The following research questions are answered in this research study:

1. What type of linguistics elements are being used for writing Research Papers?

2. What are the similarities and differences in different research papers of language, literature and linguistics?
3. How much the semantic and syntactic accuracy is present in different types of research papers?
4. Which sort of the semantic and syntactic errors are committed by the authors in the research papers?
5. What kind of Linguistics elements are used in research papers?

2. Literature review

Before starting to give different opinion of other researcher, first of all writing style is to be discussed. Writing can be defined as tongue of thoughts that a person put down on a paper. It is a way of communication in which a writer talks and shares his feelings, emotions and ideas with his reader. But before putting the ideas on paper one has to be proficient in writing.

Writing proficiency means performance determined by National Assessment of Education Progress (NAEP). It is mastery of skill that is shown by excellent performance. To be proficient in writing, one should know the basic components of writing. The writing components may include the ideas, arguments, organization, word choice, grammar, spelling, punctuation, expression etc. Any piece of writing completes when all these components are present in that. There are different types of writing style As, Expository writing, in this style writer tries to explain the ideas, concepts and any topic. It is one of the most simpler, familiar and typical writing style. This style avoids other's opinion and discuss facts as; text, recipe, news, articles etc. The other is Descriptive writing. In this there is only description in which only things are described. Logical writing Argumentative writing demands the person to investigate, gather, generate and evaluate evidence. According to Russell, (2002) knowledge and expression are two different things that means to have knowledge of one topic is different but to put it down on a paper is totally different. One may have deep knowledge of particular topic but when tries to write any piece of writing i.e. "Research Paper" then the problems occur. Such as, Grammar mistakes, syntax, wrong use of phrases and clauses or over writing etc.

Writing is skill that is to learn it is not inborn quality. When a child is born he is not learnt to speak even it takes a lot of time and practice. With the passage of time, after observation he learns speaking and then he starts to go to school and there he learns different skills like speaking, reading and writing. One is not born as a proficient writer. He is dependent on others to learn any skill. His teacher or learned person. As Stephen Joseph 2008 said in his research paper that most students are not proficient when they move to campus and this skill is developed in them (Baglione, 2008). In their campus the students are taught to be a proficient writer. It requires a lot of practice and time along with that proper guidance of learned person is needed. When the student is given adequate guidance he becomes able to write himself.

All the purpose is not to make person write but to produce a quality work. In last few decades the work is not up to mark. And a low quality work is produced without maintaining the standard. The work is of low quality at college level and it is not touching the standard, in response writing centers are

developed (Pool, Writing Better Writing Assignments, 2014) ^[9]. The worth of any work is dependent on its outlook. The presentation should have to be best. It should be presentable. The worth of it is hidden in the work. If a work is not written improperly and it is not standardized it will lost its original worth as Kennet B. 2014said, "The value of research is lost if it is not communicated to others." (Kennett, 2014) ^[5]

Writing is a way to express ideas. It is a source to show the knowledge on a piece of paper. It is for a long time and remains even after the death. It is a source to store knowledge and keep it for decades. It is the easiest way to communicate and express ideas as Ondrusek Anita L.(2012) ^[8] "Writing is the vehicle that most graduate programs embrace as the means for reviewing how well students are able to assimilate knowledge and integrate that knowledge into new ideas (Ondrusek, 2012) ^[8]

To learn how to write properly takes long time. A researcher when starts writing dissertation or a research paper, he faces a lot of problems in selecting appropriate words, he may have the problem of sentence structure or of vocabulary because he has to focus all the areas which are considered standard one. For example, a sentence, a black smart cat was stitching her dress. In this example the sentence structure is correct but logically it's wrong. The issue which is being under discussion is simply that a researcher may face many problems while start writing on research. The same argument has been discussed in another report by a researcher (?). Processes in publications, they are generally less forthcoming about their writing processes (Bridges-Rhoads, 2013) ^[3]. This statement shows that a qualitative researcher comes According to him, while qualitative researchers include reflexive analyses about their research across with different writing issues in writing. He may not have ample knowledge of writing process or writing methodology.

Every problem has a solution. As everyone has heard the quotation "where there is a will, there is a way". So, for the researcher there are many institutions, universities, and academies are offering classes and programs to make them know about the wright criteria for research writing. One of the most widely circulated ongoing research efforts comes from the National Commission on Writing, which was created by the College Board in 2002. (United States) According to this Commission, quality of writing must be improved if students are to succeed in college and in life (McGee, 2010) ^[7].

The given example of program is in United States but in Pakistan also there are a number of universities and institutions having programs related to writing style and methodology for research writing. As Higher Education Commission (HEC), is presenting National Research Program for Universities. In this program students are provided `substantial support for research work. HEC is also offering Textbook and Monograph Writing Scheme to promote the writing skills of researchers.

The importance of writing cannot be denied. The one, who has the skill of writing, falls in the category of perfect people. As Sir Francis Bacon writes in his Essay (Of Studies) "Reading maketh a full man; conference a ready man; and writing an exact man" (Bacon, 1975) ^[1]. Writing not only helps to share the ideas and feelings it is helpful

tool in enhancing the critical thinking of not only the writer but the reader as well. It adds power to the imagination and teaches to think in a broader way. Writing is more likely in courses that seek to enhance students' critical thinking; transactional writing is used in courses stating critical thinking and sociological imagination/thinking as goals; and expressive writing is used more often in courses specifying critical thinking as a goal (Liz Grauerholz, 2013) [6].

2.1 Syntactic Analysis

Syntactic analysis is the process of analyzing the string of symbols in a language confirming the rules of a formal grammar. In syntactic analysis the parts of speech are analyzed such as; nouns, pronouns, adjectives, adverbs etc at micro level. Phrases and clauses are also analyzed at macro level. These all parts of speeches are connected with each and other through cohesion. Cohesion is the central concept in discourse analyses. Discourse analysis is the analysis of the text. Discourse analysis refers to studies of the sentence in its linguistic context (Simensen 2007).

The researchers have found out the writing styles of the research papers. It is observed the writers used different writing styles; some used descriptive while others used narrative. The other thing that is observed by the researcher is existence of linguistics elements in research papers. So the researcher reaches to the point that different elements are used by the researchers like; clipping, blending compounding and etc. The fourth objective was to find out the semantic and syntactic errors. As the sample was HEC approved journals, so as such errors are not found in the papers but in one paper the word "morality" is used twenty eight times that does not sound good as different synonyms can be used such as "virtuousness or righteousness". In some papers 40 verb phrases are used while in some 91 used. So, different writers adopted different writing styles for their writing.

2.2 Semantic analysis

As compare to syntactic analysis, semantic analysis is the process to find out the lexical semantic in the text. Semantic gives the meaning to the text. The use of hypernyms, hyponyms, synonym, antonyms, compounding, acronyms, and clipping is analyzed the different way of using these lexical semantics in different research papers.

3. Research Methodology

3.1 Research design

In this study the researcher selected a cluster random sampling technique and inductive reasoning that are observed in qualitative research type. The purpose of selecting this technique is to analyze the data more carefully and lead the research towards the validated results Judd (2017) 'a good plan is like a road map: It shows the final destination and usually the best way to get there'. The qualitative research is one in which there is understanding of underlying reasons, opinions, and motivations. The qualitative research is basically exploratory research. This type of research is helpful in developing ideas and hypotheses. Qualitative research is also used to go deeper in details. The methods which are used in qualitative research are; focus group, individual interview, participation, observation and etc. The sample taken in qualitative research is smaller in size than the sample determined in quantitative research.

3.2 Sample of study

Different research papers will be chosen as the sample of study. There will be 5 different journals in each there will be 2 papers so 10 different research papers will be taken for semantic and syntactical analysis. Sample criteria that will be used in this study is Cluster Random Sampling Technique.

Table 1. List of journals determined as sample statistic

No	Name of Institute	Journal Name	Publication Years	ISSN No.	Volume No.
1	University of Azad Jammu and Kashmir Muzaffarabad 13100 Pakistan	Kashmir Journal of Language Research	2015	1028-6640	18 No. 3
2	Department of Education, The Islamia University of Bahawalpur Pakistan	Journal of Educational Research	2016	1027-9776	19 No. 2
3	National University of Modern Languages Islamabad, Pakistan	Journal of Critical Inquiry	2017	2222-5706	15 (ii)
4	Department of English, University of Gujrat	Hayatian Journal of Linguistics and literature	2017	2521-568X	No. 1
5	Department of Education, The Islamia University of Bahawalpur Pakistan	Journal of Educational Research	2013	1027-9776	16 No. 1

Table 2. List of journals and selected papers for Content Analysis

1. Hayatian Journal Of Linguistics and Literature	1. Conflicting Moralities in Pakistan as Represented by Shoaib Mansoor's Feature Film Bol: A Nietzschean Critique 2. Media Discourses of Pakistan Government Officials on Panama Leaks: A Critical Analysis
2. Kashmir Journal of Language Research	1. Correlation between the written and verbal Performance of Urdu speaking learners in the area of English pure vowels 2. Minority Language Speakers' Journey from Mother Tongue to the Other Tongue: A Case Study
3. Journal of Critical Inquiry	1. Black Masks, White Skin: Neo Orientalism and Contemporary Pakistani Fiction in English 2. Linguistic Analysis of Pakistani Book Blurbs on New Textual Dimensions
4. Journal of Educational Research	1. Impact of School Councils on Head Teachers' Efficiency 2. Assessing the Parental Involvement in Schooling of Children in Public /Private Schools, and its Impact on their Achievement at Elementary Level
5. Journal of Educational Research	1. Active and Receptive Behaviours of Trainee Teachers and Students during Teaching-Learning Process in Classrooms 2. Learning Styles and their Relationship with Achievement of English Scores from Higher Secondary Schools and Colleges Students of District Lahore Achievement at Elementary Level

3.3 Data collection tools

The data collection tool will be the Observation. Observation is basically to observe something it is used as a tool for collecting data. It is one of the most important tools in qualitative research.

There are two types of observations;

- (1) Living
- (2) Non- Living

In this study non-living observation has been taken as data collection tool because the researcher is going to take different approved research papers from HEC, of English Language, English literature and English linguistics.

3.4 Delimitation of the Study

In this study, the data is collected from the research paper of linguistics, language and literature. Other fields are not to be taken under analyzing process like medical, sociology, Mathematics and so on. Only those papers which are HEC approved are taken under the process of observation.

4. Findings and Discussions

4.1 Syntactic findings

In the following consolidated table these articles are given codes as A1, A2, A3, A4, A5, A6, A7, A8, A9, A10. The frequency of different grammatical markers present in the selected sample is given as under:

Table 3. Syntactic categories found in the articles

Parts of Speech	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10
Noun and types	430	350	362	374	372	428	478	428	451	223
Pronoun and types	25	62	34	21	24	18	19	55	28	26
Verbs and types	152	97	114	116	109	91	110	161	358	290
Adjective and types	28	19	25	16	10	20	17	25	16	22
Adverb and types	109	66	69	77	89	90	73	51	79	67
Conjunction and types	89	55	59	43	62	55	51	58	59	87
Phrases	191	104	33	59	84	122	63	94	114	77
Clauses	30	30	32	38	36	29	39	35	33	35

It is found in the research papers that different writers have used different writing style for writing research papers. As the use of verbs, nouns, pronouns, conjunctions, adjective, phrases and clauses are used. As in article A1 430 nouns, 25 pronouns, 152 verbs, 28 adjectives, 109 adverbs, 89 conjunctions, 191 phrase and 30 clauses are used. In second article, article A2 350 nouns, 62 pronouns, 97 verbs, 19 adjectives, 66 adverbs, 55 conjunctions, 104 phrase and 30 clauses are used. In third article, article A3 362 nouns, 34 pronouns, 114 verbs, 25 adjectives, 69 adverbs, 59 conjunctions, 33 phrase and 32 clauses are used. In fourth article, article A4 374 nouns, 21 pronouns, 116 verbs, 16 adjectives, 77 adverbs, 43 conjunctions, 59 phrase and 38 clauses are used. In fifth article, article A5 372 nouns, 24 pronouns, 109 verbs, 10 adjectives, 89 adverbs, 62 conjunctions, 84 phrase and 36 clauses are used. In sixth article, article A6 428 nouns, 18 pronouns, 91 verbs, 20 adjectives, 90 adverbs, 55 conjunctions, 122 phrase and 29 clauses are used. In seven article, article A7 478 nouns, 19 pronouns, 110 verbs, 17 adjectives, 73 adverbs, 51 conjunctions, 63 phrase and 39 clauses are used. In eighth article, article A8 428 nouns, 55 pronouns, 161 verbs, 25 adjectives, 51 adverbs, 58 conjunctions, 94 phrase and 35

clauses are used. In ninth article, article A9 451 nouns, 28 pronouns, 358 verbs, 16 adjectives, 79 adverbs, 59 conjunctions, 114 phrase and 33 clauses are used. In tenth and the last article, article A10 223 nouns, 26 pronouns, 290 verbs, 22 adjectives, 67 adverbs, 87 conjunctions, 77 phrase and 35 clauses are used. In different articles, the use of part of speech is different but in few the uses are approximately same as in A6 and A8, the number of nouns is same while in the rest it is different. Use of pronouns is different among all the papers. In article A3 and A8 the number of adjective is same while in others, it is vary. Adverbs are used differently. There is no similarity in the number of adverbs. In article A2 and A7 the number of conjunction is same. The number of conjunction and phrases is different among all. In article A1 and A2 the number of clauses is 30 and in article A8, A10 it is 35 which is similar while it is vary in remaining.

4.2 Semantic Findings

Semantic categories consisted o hypernyms, hyponyms, synonyms, antonyms, compounding, clipping and blending. The frequency of semantic markers found in selected sample is given below:

Table 4. Semantic categories found in the articles

Lexical / Semantic	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10
Hypernyms	1	2	2	3	4	1	3	2	2	3
Hyponyms	4	5	4	7	10	1	4	3	2	4
Synonyms	17	14	32	21	30	34	23	29	46	25
Antonyms	5	2	11	10	8	7	2	8	10	6
Compounding	28	23	21	20	19	14	16	17	16	16
Clipping	0	1	2	1	1	3	2	2	1	2
Blending	3	13	3	5	1	7	7	7	4	4

The next aim was to find out the semantic relation in the selected research papers. It is analyzed by the researcher that use of lexical semantic is different in different articles. As in the chosen articles; A1, A6 the number of hypernyms is same which is 1, in article A2, A3, A8, A9 it is 2 while in

remaining it is different. The next category is hyponym. It is same in articles A1, A3, A7, and A10 that is 4. The number of synonym is different in all. So there is no similarity in this case. Now the next lexical is used, is antonym. In article A2, A7 it is same which is 2 and in articles A5, A8 the

number is 8 while in remaining it is different one. The researcher has also found the use of compounding in different articles that is same in some and varies in others. As in articles A7, A9 and A10 it is 16 while in remaining it is different. The use of clipping is approximately same in all. As in articles A2, A4, A5, A9 clipping is used only once. In the use of clipping article A1 has distinction as not a single time clipping is used. The last selected semantic lexical is blending. In articles A1, A3 it has been used in the same number that is 3. In articles A6, A7, A8 the number of blending is 7 while in remaining articles it is varies.

5. Conclusion

Analysis of different articles from the universities of Pakistan, draw the conclusion that different writers use the different writing style. The main aim of this research has been to demonstrate the semantic and syntactic relationship in the text. The text has not only the order of the words but it has also the mechanism of meaning that gives sense to the text. How the words are formed through the process of forming. The current topic may be very contributed for the society. In this case the differences and similarities of different research papers have been put forward. Different semantic and linguistics devices also are discussed in great detail. In a nutshell, the research is a qualitative one that throws light on semantic and syntactic relationship of the text. Different linguistic elements are shown and how they are being used in the text is mentioned in this research. The study concludes that authors use specific type of jargon with limited semantic and syntactic scopes. It has also been found that there is lack of cohesion and coherence in the text found in analysis and conclusion sections. Authors are found to use grammatical and syntactic categories in redundancy. On the other hand, semantic markers and varieties are found remote in the language of articles.

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