

# **Exploring Authorial Voice in Citation Patterns: A Corpus-Based Study of Literature Review Sections of PhD Theses**



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(Ijaz Ali Khan)

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## List of Abbreviations

Thesis Writer one, Thesis Writer two, Thesis writer three, etc	TW1,TW2,TW3,etc
English Language Teaching	ELT
Master of Arts	MA
Creating A Research Space	CARS
English for Academic Purposes	EAP
Literature Review	LR
First Language	L1
Second Language	L2
Research Articles	RAs
Higher Education Commission	HEC
Higher Education Commission	HEC
Pakistan Research Repository	PRR
Doctor of Philosophy	PhD

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## **Abstract**

In PhD thesis, citation practice is a necessary part of the argument developed through different chapters. This practice refers to “the attribution of propositional content to other sources” (Hyland, 1999a, p. 341). Writing arguments need appropriate form of citation that enables the writers to make their work more convincing (White, 2004). Citation as an essential discursive feature contributing to authorial voice has been underexplored (Jalilifar, 2012; Kafes, 2017; Lee, Hitchcock & Casal, 2018; Peng, 2019), notwithstanding fruitful research on citation practices. Moreover, the PhD theses written in Pakistan have not been sufficiently explored regarding citations. Thus the objectives of the study are: to discern the referring patterns of the theses writers at the doctoral level in Pakistan; to observe the frequency of citation patterns in terms of writers’ preferences, in both- intra discipline and inter-disciplines; to identify the interface between the theme and structure of various citation patterns; to classify the construction of Integral citations through reporting verbs for authorial voice; to suggest various strategies employed by the writers at the doctoral level while incorporating their voice and announcing their attitude towards the authors cited. This study attempted to analyze in-text citations used in PhD theses across three major disciplines, namely, English Studies, Biological Sciences and Social Sciences. For this purpose, a corpus which consists of ninety literature review (LR) chapters of PhD theses (thirty per discipline) was built. The study was delimited to 100 citations per thesis. In this way, total number of citations was 9000. The results were obtained by using AntConc as the software tool and concordance as its sub option. Thompson and Tribble’s (2001) and Thompson and Ye’s (1991) studies were combined to use as integrated theoretical model. The study focused on Integral (cited author being part of the citing sentence) and Non-Integral (citation enclosed in parenthesis)

citation patterns along with reporting verbs. It was found that majority of the writers were more inclined to use Non-Integral citations (56.36%), while Source (47.84 %) was found to be the most preferred sub-pattern. Similarly, Non-Factives exceeded the other forms of Verb-Control as Integral citation pattern. In conclusion, to enhance the quality of their works and make the reported text worth presenting, the thesis writers need to have thorough engagement with previous studies. In fact, they need using multiple patterns of citation to incorporate the rhetorical effects in the arguments developed. Finally, the reporting verbs used may also be employed in accordance to its context or functional significance in order to help reflect the authors' intended meanings.

**Keywords:** Integral, Non-Integral, Source, Identification, Reference, Origen, Non- Citation, Naming, Verb-Control.

## CHAPTER 1: INTRODUCTION

Citation practice has been an essential part of the literature review chapter of theses; therefore, researchers are required to create an inter-textual relationship by referring their propositions to the existing literature on the subject matter. To put the research into a larger context, in research, this method refers to “the attribution of propositional content to other sources” (Hyland, 1999a, p. 341). Writing arguments need relevant form of citation as it enables the writers to situate their research work in the broader network of knowledge. These rhetorical practices make the writers’ work more convincing (Jonsen et al., 2018) and appropriate to identify a research space. Hence, the appropriate use of citation makes an academic writing more authentic, rich in content, more acceptable and guarded against plagiarism.

Citations may either be direct or indirect depending upon the situation, the rhetorical structure of argument and the discursive norms of the discipline. Direct citations imply transmitting the cited authors’ proposition as mentioned within the quotation marks. This kind of citation helps writers to invoke others’ observation/stance without blending the statements for keeping both the voices apart. On the contrary, indirect citation allows one to have a number of different interpretations as a result of various forms of paraphrasing. In this form, the cited author’s own statement is not quoted as such, but rather stated indirectly by the author. This broader form of citation is utilized for various purposes such as; to signify centrality of the issue, to indicate alignments, to approve of a statement, to counteract an argument, or to integrate ones’ argument to the wider spectrum of epistemology of the field of study (Swales, 1990). More specifically, the purposes of using different citation patterns are to emphasize, to identify various studies, to identify the originator, and to refer to other works for detailed descriptions.

Swales (1990) elaborated two basic types of citation patterns: integrated or ‘Integral’ and non-integrated or ‘Non-Integral’. ‘Integral’ citation implies a statement in which the cited author makes part of the sentence and plays an explicit grammatical role. Non-Integral citation, on the contrary, refers to a situation in which the cited author appears in brackets, or may also appear in the digit form, referring to a name which appears elsewhere. The choice regarding the use of Integrals or Non-Integrals depends upon the prominence given to the author or the statement accordingly; as it is conventional in scientific writing to de-emphasize the role of researchers for the human factor does not maintain any bearing upon the process carried out (Hu & Wang, 2014; Hryniuk, 2016; Jomaa & Bidin, 2019). Hence, the lack of understanding to incorporate appropriate citations in academic writing by the novice writers leads to misinterpretation and misjudgment for the readers. Eventually, researchers and academics focused citation practices to judge the quality of the works done by scholarly writers.

As for instance, Thompson and Tribble (2001) analyzed and compared data for ‘Integral’ and ‘Non-Integral’ citations. Accordingly, ‘Integrals’ occur in three sub classes like ‘Naming’, ‘Non-citation’, and ‘Verb-Control’; while the ‘Non-Integrals’ are comprised of four sub-categories such as ‘Source’, ‘Identification’, ‘Reference’, and ‘Origin’. This categorization explains citation patterns or types along with the intended voices and functions. These types of citation may also be illustrated as to know its significance and meaning within a particular context.

First, ‘Source’ as ‘Non-Integral’ citation, attributes a proposition, a piece of information or a statement to another author’s text. It indicates that from where the idea or information has been taken. For instance, the name in brackets, mentioned in the following excerpt refers to the author

of the work whose statement is quoted: “...a better retention rate has been observed in student centered experiments (Randle & Hulde, 2007)” (see, Figure A5, p. xxvii).

Second, ‘Identification’ as Non-Integral pattern refers to an agent within the sentence as proposition. This pattern identifies the author of the study referred to. Such type of citation pays more attention to the works produced than the researcher/author. The information cited in a work remains more prominent than the author of the work. The example given below illustrates this type: “The pragmatists’ school (Jenkins, 2000; Kachru, 1986; Seidlhofer, 2003) considers all those who use English as the owners of the language” (see Figure A10, xxviii).

Third, ‘Reference’ is another pattern of Non-Integral citations that may be signaled by the directives (mostly by using “see”, “e.g.” or “for example”). This citation may be aimed at providing support to the proposition or substantiate the argument in favour of the claim. Furthermore, this pattern of reference serves as a handy device to refer to detailed procedure, illustrations or proof of discussions which are too lengthy to be repeated, for example: “...and they are socially less competent as their counterpart without behavioral problems (see review by Nottelman & Jensen, 1995)” (see Figure A16, p. xxx).

Fourth, ‘Origin’ is a form of ‘Non-Integral’ citations which identifies the originator of a concept, theory, model, technique, or product. Although, its use as a citation is usually very rare but functionally very useful to indicate the originators and refers to certain concepts, theories, some commonly used terminologies and frameworks or models. For instance: “Theories of reading called Automaticity Theory (LaBerge & Samuels, 1974; Samuels, 1994) and Verbal Efficiency Theory (Perfitte, 1985, 1988)” (see Figure A20, p. xxxi). To conclude, Non-Integral citation in all

its four categories does not make part of the sentence for keeping the information prominent and not to focus on the author.

Contrary to these, there are patterns which integrate the name of author with the sentence cited. Firstly, Naming citation refers to a noun phrase or part of a noun phrase (Thompson & Tribble, 2001). The writers, by using this structure, mention the author in such a way that the author does not receive the agency role in the sentence. As for instance the pattern, ‘according to’, clearly depicts the form of ‘Naming’ citation. This pattern, they say, refers to a textbook or an article, rather than a human agent, and is known as reification. To elaborate further, this form of citation may also refer to a work done by someone, or to a definition, equation, method or formulation, given by a researcher. Its example can be: “According to Shami and Hussain (2005), the elementary education cycle is of eight years...” (See Figure A22, p. xxxii).

Secondly, Verb controlling citation acts as an agent that controls a verb, in active or passive voice sentences. In this case, the writer tends to justify or to augment his own argument (Hyland, 1999b). Thus, the agency role is given to the cited author in order to give him prominence as compared to statement-prominent in Non-Integral citations. For example: “Auer (1995), after conducting different studies, asserts that it is important to list the functions of CS.” (see Figure A23, p. xxxii). Hence, the writer supports his argument through putting the cited author at a verb controlling position.

Thirdly, another similar form of Integral citations is called Non-citation. This kind of citation is used where the writer refers to another writer, but the name is given without reference to year in which the work was produced, for example: “As Bialystok asserts that it is important to examine both the conditions ...” (see Figure A23, p. xxxii) It is usually used when the reference

has been given earlier in a text and the writer does not want to repeat it. Besides this, it may also be used as a secondary source where the writer does not remember actual date of publication but the use of citation is necessitated by the argument developed. Another significant reason could be the situation where the person invoked through reference to a thought associated with him in general such as Marxist or Darwinian (Jalilifer, 2012), rather than with reference to a specific work or set of works.

As per the above mentioned categories, Thompson and Ye (1991) worked on reporting verbs in order to identify writer's stance in the form of different verbs used in Verb-Controlling pattern of citations. This framework has been extensively applied by researchers on various sections in different disciplines (Hyland, 1999a). Based on this taxonomy, reporting verbs used by writers were grouped into three sub-categories: (1) Factives, they enable writers to portray an author as presenting true information or a correct opinion. In academic discourse, especially theses writing, researchers tend to choose appropriate information, to support a statement on factual grounds, by using verbs like, 'acknowledge', 'bring out', 'demonstrate', 'identify', 'improve', 'notice', 'prove', 'recognize', 'substantiate', 'throw light on', etc. (Thompson & Ye, 1991, p. 372). (2) 'Non-Factives', the second category, are reporting verbs where the writers give no clear signal of their attitude towards the cited author's statement or opinion, for example, 'advance', 'believe', 'claim', 'examine', 'generalize', 'propose', 'retain', 'urge', 'utilize' (Thompson & Ye, 1991, p. 372). (3) Contrary to these, the writers while using 'Verb-Controlling' citations, sometimes choose to portray the author as presenting false information or an incorrect opinion, for example, 'betray', 'confuse', 'disregard', 'ignore', 'misuse', etc. (Thompson & Ye, 1991, p. 372).

Keeping in view the above mentioned patterns, citation as part of communicative strategy, has always been of interest to the researchers in academic context (Swales, 1990; White, 2004;



Thompson, 2005; Charles, 2006; Hyland, 2015; Hryniuk, 2016; Badenhorst, 2019). Many studies have been conducted to compare citation practices across disciplines and identified disciplinary differences in citation density (Hyland, 1999a; Thompson & Tribble, 2001; Mansourizadeh, & Ahmad, 2011; Bahadofar & Gholami, 2017), sources of citations (Charles, 2006; Nesi, 2013; Pecorari, 2016), citation functions (Petrić & Harwood, 2013; Beck & Chiapello, 2018), types and tenses of reporting clauses (Charles, 2006; Hinkel, 2013; Nguyen, 2018), frequency of reporting verbs (Hyland, 1999a; Agbaglo, 2017), and preferences concerning particular types of reporting verbs (Thompson & Ye, 1991; Charles, 2006; Marco, 2018). Hence, this very thought of discursive homogeneity leads towards grouping researchers into disciplinary groups and discourse communities with their specific function, norms, conventions, and specific goals.

Remarkably, disciplinary differences, in terms of citations, have been found to signify to a broad contrast between hard and soft disciplines (Becher & Trowler, 2001; Leach, 2016). Hyland (2000), for example, found a greater citation density and a higher proportion of Integral citations in research articles (RAs) from the soft disciplines such as Humanities, than in those from the hard disciplines like engineering and physics. He also reported complete absence of direct quotations in hard sciences, though they were present in soft disciplines. In addition, RAs in soft disciplines tended to adopt a critical writer's stance/voice to cited sources, in contrast to a more neutral stance manifested in RAs from hard disciplines. Such differences have been observed to reflect stylistic tendencies of individual writers that emerge from "different procedures and epistemological understandings of particular fields of enquiry" (Hyland, 2002, p. 1093).

However, this diversity was also observed in mode of tendencies in citation practices across different genres even within the same discipline (Okamura, 2008; Shooshtari & Jalilifar, 2010). Some other studies have been conducted on the role of citations and were found with preferences

for particular patterns in Master and PhD theses. For instance, writers of research articles and Master theses in applied linguistics might exhibit distinct citation behaviors due to the fact that the two groups of researchers address different audience and thus, citation marks the power relations between the cited and the one who cites (Petrić & Harwood, 2013). In the same way, Thompson (2005) investigated the nature of genre and citation practices in eight PhD theses within Agricultural Botany at a British university. He recognized citation types and observed their relation to content, writer, and rhetorical purposes.

Moreover, in academic studies, citations have often been examined in terms of reporting verbs (Thompson & Ye, 1991). Hyland's (1999a) work confirmed that hard disciplines and sciences draw on more non Integral and more research activity verbs as against soft disciplines like Humanities and Social Sciences, having more inclination towards Integral and discourse activity verbs. Such studies, as conducted on reporting citation, have referred variously to this phenomenon such as the linguistic environment (Bloch, 2010) and reporting structure of citations (Jalilifar, 2012). It is, therefore, assumed that reporting verbs are the key feature which enable the writers to position their work in relation to that of other members of the discipline. Thus, this failure on the part of non-English students leads to charges of plagiarism on account of repeating the ideas of others without proper acknowledgment; misrepresenting the stance of the cited author (Bitchener, 2017).

The academics in Pakistan focused on only few determinants regarding citation and bibliometric evaluation (Sharif & Khalid, 2006; Javed & Shah, 2008; Rattan, 2014; Haq & Alfouzan, 2019). The authors mentioned are only few out of a large number of studies conducted to get knowledge about the impact factor, the number of publications, the frequency of citations, the authorship pattern, gender-wise distribution, geographical and institutional affiliation. So the

academic context in Pakistan is obviously underexplored in terms of linguistic analysis of citation patterns. The discursive practices such as the rhetoric, the meta-discoursal features offering various communicative strategies voicing different meanings to the readers have been dealt in this study.

Motivation for this study is based upon the studies which summed up that citation practices contributing to authorial voice have been underexplored, (Jalilifar, 2012; Kafes, 2017; Lee, Hitchcock & Casal, 2018; Peng, 2019). These studies also highlight the underpinnings such as small corpus, partial analysis that was either qualitative or quantitative, little discussion of the reasons behind using a particular pattern, and limitations of generalization to other disciplines, genres, and cultures. Furthermore, based on the literature reviewed regarding the aspects of citations, it was assumed that the academic context in Pakistan has not been explored for this purpose. Loan and Pramoolsook (2016) endorse this assumption by saying that citation behavior reflects cultural differences. Thus, the writings of Asian writers need to be investigated.

Hence, the present study aimed at analyzing citation pattern across different subjects as well as different disciplines. This was further intended to know how far these subjects and disciplines were similar or different in terms of citation patterns. Added to these, the study also verified how we as Pakistanis behave in terms of citation patterns or how similar and different we are from the existing academic and discursive practices going on in the countries where English is used for academic communication. Besides these the forms and functions of these citation patterns have also been discussed. Drawing on the typologies suggested by Thompson and Tribble (2001), Thompson and Ye (1990), the purpose of the investigation is to suggest a revised taxonomy and identify the rhetorical functions of citations in the corpus. The findings of the contrastive analysis of variation in the functions of citations and their distribution across the subjects indicate that there are divergences in the strategies they use to create inter-textual connections when attributing

knowledge or methods to others, relating their research to the work of others and evaluating previous research.

The study was conducted using larger data (9000 citations out of more than 1.5 million words) which consisted of three major disciplines, i.e. English Studies, Biological Sciences and Social Sciences. The study focused on the literature review chapters of PhD theses, placed in Pakistan Research Repository of HEC Islamabad which was available online. It should be noted that literature review is an extension of introduction, hence a part-genre (Dudley-Evans, 2002), therefore, it was thought essential for researchers to have some knowledge concerning appropriate citation to establish themselves within the discourse community. Samraj and Monk (2008) also acknowledged the works which have been done on published academic texts, such as research articles, but in terms of theses writing, they admit paucity of work.

An inter-discipline comparison highlights the fact that writers use Non-Integral citations extensively in Biological and Social Sciences. Thus, Non-Integral citations were found to be 56.36% of the total occurrences in the corpus constructed for the study. Similarly, the writers' preferences for individual categories tend to show that Source is the most frequently used type of citation. Verb-Controlling citation was found as the next most preferred form of Integral citations. The remaining forms of both Integral and Non-Integral citations were found to be the less preferred forms, which refer to the non-native practices of the writers who prefer grammatical perfection rather than thematic/semantic significance of the statements.

Lastly, the three variants of Verb-Control show the Non-Factive form is the most dominant form of reporting verbs used. Hence, the figures obtained confirmed that the writers, across the disciplines, were more inclined to use Non-Integral citations, which indicates the tendency to make

the information more prominent than the author cited. To illustrate further and have a detailed qualitative analysis of these categories, another study of this kind is recommended.

Thus focusing the structure and format of citation, the study conducted has found its functions. The results obtained (see appendices) after researcher's verification with computer concordance applications, led to a comparison of the citation practices of writers in different disciplines and various rhetorical practices of these disciplines. Different categories were judged thoroughly in terms of types, contexts, syntactic variations, thematic and structural significance. Thompson and Tribble's (2001) and Thompson and Ye's (1991) studies were used as theoretical models. The study focused on Integral (cited author being part of the citing sentence) and Non-Integral (citation enclosed in parenthesis) citation patterns along with reporting verbs. Finally, the choice of reporting verbs by different writers as per the traditional requirements of various disciplines have also been elaborated and cross compared. The differences in the patterns suggest not only the types as the different names given to various categories but also elaborate the functions as were aimed by the authors. These functions may be to show as author prominent or statement prominent in the form of integral and non-integral formats; to show source of statement borrowed in the 'Source' format; to identify studies relevant to an argument in the category of 'Identification'; to refer readers to the details about certain statements in 'Reference' form; to signify to the origin or originator of certain theories, assumptions, devices or tools, in using 'Origin' form. Similarly, the categories under integral format have their own functional and thematic significance. Similarly, 'Non-citations' are used to signify that either to avoid repetition of cited name when an argument goes beyond sentence level or a given name refers to certain established theories like Darwin and Karl Marx; Naming pattern is aimed at showing the citation to signify to a work done by someone, or to a definition, equation, method or formulation, given

by a researcher; to show the stance of the cited author, the citation is often structured in Verb-Controlling, integral form. This is how the structure makes the authors' voice explicit through different textual formations.

### **1.1. Thesis Statement**

The researchers while writing their PhD theses use citations to refer to previous works and researchers, using different citation patterns. These different structural forms of citations help researchers voicing their stance and viewpoint regarding their own research. These patterns vary across disciplines. There is a considerable number of studies related to citations. However, Jalilifar (2012) and Peng (2019) have asked for further researches in this area considering the issues in the previous studies such as, partial analysis, small corpus, little discussion, and limited scope of generalizations to other disciplines or cultures. The researchers further hypothesized that the citation patterns and the voice produced do not coincide with a particular context and are usually repetitive. Moreover, the PhD theses written in Pakistan have not been sufficiently explored regarding citation practices. Therefore, there exists a wide gap in research in non-native English contexts especially in Pakistani academic discourse which needs to be filled. Hence, the current study is aimed to explore the PhD theses written in Pakistani context and confirm the status of citation practices in Pakistan. The study investigates authorial voice in the citation patterns and to find their similarities/differences across the disciplines. The study of such nature would also make suggestions for enhancing the quality of literature review section of PhD theses, particularly in Pakistani academic discourse.

### **1.2. Objectives of the Study**

- i. To discern the referring patterns of the theses writers at the doctoral level in Pakistan.

- ii. To observe the frequency of citation patterns in terms of writers' preferences, in both-intra discipline and inter-discipline corpora.
- iii. To identify the interface between the theme and structure of various citation patterns.
- iv. To classify the construction of Integral citations through reporting verbs for authorial voice.
- v. To suggest various strategies employed by the writers at the doctoral level while incorporating their voice and announcing their attitude towards the authors cited.

### **1.3. Research Questions**

- i. How do the writers of theses at the doctoral level refer their propositions to the previous researchers and their works across disciplines?
- ii. What are the frequencies of various citation patterns in terms of preference in both intra-discipline and inter-discipline corpora?
- iii. How do the theme and structure of these various citation patterns interface?
- iv. How do different reporting verbs help modify the author's voice?

### **1.4. Significance of the Study**

The area of the study and the topic selected for research is important from ontological, epistemological, and methodological perspectives. Citation, i.e. "the attribution of propositional content to other sources" (Hyland 1999a, p. 341), enables writers to refer to previous research in order to put current research into a larger context and thus establish credibility by showing affiliation to particular views and methods, provide justification for argument and stance. Reporting verbs may be used to indicate the writer's attitude to the quoted source and thus enhance the persuasiveness of the argumentation (Basturkmen & Von Randow, 2014). In Pakistani context,

the same phenomenon is unknown and unexplored; hence, the present study would contribute to the ontological basis of this specific aspect of academic discourse.

As far as the epistemological aspect of the topic is concerned, its significance lies in the fact that complex social activities like educating students, demonstrating learning, disseminating ideas and constructing knowledge, rely on language. Textbooks, dissertations, and research articles are central to the academic enterprise and are essentials of education and knowledge creation which are unlikely to grow and sustain without enough understanding of specialized generic features. Thus, the study may accomplish its role in contributing its due part in terms of highlighting these features. The study may also educate the novice writers in a non-native context by sensitizing them to the devices necessary for producing persuasive arguments. The study may also lead to further studies and works in this area by academics to explore this phenomenon from other possible angles such as interactional strategies and authorial voice following the models of Swales (1980, 1990, & 2004), Hyland (1999a), Thompson (2001), Thompson and Tribble (2001) and Thompson and Ye (1991).

### **1.5. Justification of the Problem**

The issue undertaken can be justified on account of a number of reasons. Firstly, academic discourse has been an area of interest for the academics around the world. Secondly, in Pakistan, academic discourse, genre analysis and citation analysis in terms of authorial voice are underexplored. Similarly, this issue needs further large scale consideration, free from the issues like small corpus, partial analysis, paucity of discussion, limitation of generalization. Additionally, the issue has not been explored in Pakistan. Hence, an empirical study was conducted aiming a contribution to the field of academic discourse analysis in a non-native English context.



## **1.6. Delimitation of the Research**

The population consists of the theses submitted in or after 2011 to 2015. The size of population is 90 theses of three disciplines: English Studies, Biological Sciences, and Social Sciences. Furthermore, it was delimited to the literature review sections, 1000 citations per subject, and 3000 per discipline, focusing on the following types of citations:

- a. Integral citations with reporting verbs (citation acts as an agent that controls a verb)
- b. Integral citation without reporting verbs (citation used as a noun phrase or part of a noun phrase; also known as Naming citations)
- c. Non Integral citations (citation in brackets, not making part of a sentence containing citation). It was further divided into the following sub categories:
  - i. Source (indicates the source where the idea is taken from)
  - ii. Identification (identifies an agent within a sentence it refers to)
  - iii. Reference (refers to a major source for detail, signaled by “see” or “e.g.”)
  - iv. Origin(indicates the originator of a concept, technique or product)

## **1.7. Structure of the Study**

The thesis consists of seven chapters. Chapter one introduces the layout of the study conducted. It includes the background of the study, the previous researches done in the field, the issues pin pointed in the previous studies, the procedure adopted, major findings, thesis statement, the objectives, research questions, hypothesis, Significance, justifications, and delimitations of the study. Hence, this chapter presents a brief and comprehensive view of the study.

Chapter two is literature review which presents the overall context of the research conducted in detail. It further illustrates the epistemological significance of the study in terms of its general background in order to establish the territory, identify the niche while pin pointing the issues, and occupying the niche by highlighting the procedure adopted. Hence, the chapter place the issue in a proper context and provides valid grounds for the study.

Chapter Three is about methodology which presents the methods and procedures adopted for the study. This is a detailed layout presenting the population, the sample corpus, the corpus analysis tools, the methods, framework of the study, and design of the study conducted. It, therefore, shows a systematic procedure of corpus based analysis.

Chapter Four is about quantitative analysis of the data which presents a complete picture of the choices the writers make in terms of citing the works of others. The details given show the frequency occurrence of each pattern used in each subject, per thousand, as well as the whole discipline, per three thousand citations. The chapter describes the relative position of each category out of total patterns used in each discipline compared to other disciplines. Thus, an overall view of the citing patterns in the selected theses has been presented.

Chapter Five consists of qualitative analysis of the data which highlights further about the stance and authorial voice of the writers. Different categories, as given in this chapter, were judged thoroughly in terms of types, context, syntactic variations, thematic and structural significance. Finally, the choice of reporting verbs by different writers as per the traditional requirements of various disciplines have also been elaborated and cross compared in this chapter.

Chapter Six is about the major findings and conclusions. The findings suggest a broader overview of the study and a kind of rhetorical appeal to the readers which duly confirmed not only

the native-English norms but also the non-English local norms in displaying various categories of citations. Lastly, the questions asked in introduction have been answered in conclusions. It presents an overview of how the researchers manage to meet the rhetorical strategies in terms of citations. Further studies have also been suggested at the end to conclude the chapter.

## **1.8. Summary of the Chapter**

Following Swales' (2004) CARS model, this chapter has been presented in three different moves. In move one, the territory of the study has been established through topic generalization, background knowledge about citations, its definition, significance, and types along with appropriate examples. Some details about the studies conducted previously also make part of this move. These previous researches not only validate the problem but it may also create a context to highlight the issue. Identifying the niche is considered to be the second move of the chapter. A number of questions identifying the issues such as small corpus, biased judgment, insufficient discussion about the reasons behind using different patterns, and limitation of generalizations to other disciplines, genres and cultures, were pinpointed in the previous studies. In addition to these, the paucity of the research about the issue of citations and authorial voice in Pakistan was also discussed as part of the problem. To occupy the niche is another significant move of the chapter. The procedure adopted added with plan of the study including thesis statement, research questions, hypothesis, objectives, significance and justification of the study, delimitation of the research, and structure of the study, makes the finishing move of the chapter.

## CHAPTER 2: LITERATURE REVIEW

The present study deals with the issues of authorial voice in various patterns of citations in the literature review sections of PhD theses. The study is certainly not new in the area of academic genre. There have been many studies which have contributed much by offering theories and analytical frameworks for the studies in the related areas. The frameworks and concepts proposed by them not only provide a theoretical background for the study but also helped in carrying the analysis to a logical conclusion. It is, therefore, essential to discuss these works that deal with the concepts of discourse community, academic discourse as an interactive process and academic discourse as academic communication. The study focuses more specifically on citations as a meta-discourse device as pattern of interaction or rhetorical strategy feature (Amiryousafi & Rasekh, 2010), its various patterns and approaches regarding discourse analysis. The discussion concerning these items establishes the epistemological territory of the study.

In the next stage, the researcher has made an effort to identify the niche or space by examining the studies conducted in the area of citation analysis. The nature of investigation opted by the researchers; focusing on the frequency, the form and function relationship, the use of reporting verbs, and the choice of the voice, have been examined critically. A number of studies have been consulted in terms of the corpora size, the issues evaluated, and the findings achieved. Besides these, corpus linguistics, as a methodological tool along with the approaches commenting on corpus, has also been illustrated as to demonstrate the utility of the modern techniques in the field research. At the end, the discussion has been concluded by providing the thematic significance of the issue through incorporating some major findings of the study. Hence, the

literature review provides a strong theoretical foundation to the study in the field of academic discourse.

## **2.1. Academic Discourse**

The issues pertaining to EAP and academic discourse have attracted the academics and linguists around the world. Textbooks, essays, conference presentations, dissertations, lectures and research articles are central to the academic enterprise and are the very material of education and knowledge creation. Hyland (2009) defines academic discourse as the way of viewing and using language which exists in academic circles. He further asserted that such a discourse means acquiring knowledge specifically for reading and writing, for presenting verbally, for reckoning and solving problems as well as for conducting research activities. Its significance, at maximum, lies in the fact that multifaceted activities like educating students, representing learning, disseminating thoughts and building knowledge, rely on the discursive knowledge. But academic communication does more than enable research institutions to get on with the business of teaching and follow a line of investigation as well as to keep harmony in intra-discipline and inter-disciplinary groups.

### **2.1.1. Academic Disciplines as Discourse Communities**

To work in a discipline, a researcher should be able to engage in the academic debate following the specialized norms of that community. This very thought tends to lead us towards grouping learners into disciplinary groups and discourse communities with their specific function, norms, conventions, and specific goals. Becher (1989), therefore, concludes that each discipline could be named as an academic tribe with its specialized norms and ways of doing things. The notion stated is termed as discursive homogeneity by Johns (1997) which implies specificity of the

norms of a particular academic community. To put it more precisely, Barton (1994, p. 57) suggested:

A discourse community is a group of people who have texts and practices in common, whether it is a group of academics, or the readers of teenage magazines. In fact, discourse community can refer to the people the text is aimed at; it can be the people who read a text; or it can refer to the people who participate in a set of discourse practices both by reading and writing.

Hence, learning a discipline means learning to use language in academically approved ways, following certain set conventions. Similarly, learning a discipline implies learning to communicate as a member of a specific discourse community. Thus, academic discourse is a tool of interaction and communication which helps the scientists and students of general and applied linguistics to shape approved ways of producing varieties of texts having specific styles and purposes in academic context.

### **2.1.2. Academic Discourse as an Interactive Process**

Academic communication is a social activity which functions in disciplinary cultures to facilitate the production of knowledge. The writers are, therefore, advised to organize the data and observations into meaningful patterns for readers (Swales, 1990, 1996). This needs apposite interactive indications that the writers incorporate in their texts. Assuming this, Sinclair (1988) also mentions that writing is an interactive process and a competent writer is sensitive to his readers like a competent conversationalist. In fact, a writer must be even more able to work interactively than a speaker, because the writer has to imagine the reader's behavior, while the speaker is face to face with it. Also a writer has to write for a considerable range of readership. If we view

knowledge as "the social justification of belief" (Rorty, 1979, p. 79), it is clear that the writers should consider reactions of their expected audience, anticipating their background knowledge, interests and interpersonal expectations. In other words, as Harris (1991) highlights, academic writers tend to produce texts that realize specific responses in an active audience, both informing and persuading readers about the truth of their statements. In short, the academic practices like these duly serve to bridge the gap in communication and also show the writer's stance as well as his specific identity.

Writers' identities are directly related to the choices they make in their discourses. Cadman (1997) claims that researchers have explored different ways in which the writers present themselves in their texts. Among the discourse mechanisms used by the writers to position themselves are the expressions like hedges and boosters which are used to qualify what is said. These expressions indicate the value, the readers ascribe to given statements, considering the degree of precision or reliability they deserve. Hyland (2005) mentions that the use of these expressions approves that the author's claims are based on credible interpretation rather than on the assurance of knowledge, and they indicate the degree of confidence that can be accredited to them. Hence, all statements are evaluated and interpreted through the prism of disciplinary assumptions; writers must calculate how to present a claim.

As an illustration of the rhetorical choices made by the writers, the use of tense may also be noticed as part of discourse mechanisms. It has been noticed that the shift in status of a bit of information from 'being a finding' in a particular study to 'being a principle' of science is to accompany modification in the tense of the argument. Findings are first reported in simple past tense in a study, because at the time of writing, the results are still research-specific: they have not yet been established by the discourse community and become part of shared scientific knowledge.

Thus, to put it technically, simple past tense is a hedging device, says Hyland (1998). But once published in a journal of repute, the information is established as part of scientific knowledge. Henceforth, other researchers may acknowledge this by referring to it in the simple present tense. Hence, a move from past to present perfect and then to present would imply that the research reported is increasingly close to the writer's own opinion, close to the writer's own research, or close to the current state of knowledge, according to Swales and Feak (1994). A more credible indication of the tense choice is the use of reporting verbs, appropriate enough to express the writer's stance as part of interactive functions. Thus employing these verbs and reporting statements, the writers highlight their attitude towards the cited authors as they present, discuss, reformulate, evaluate, argue against, and comment on one another or their own research.

### **2.1.3. Academic Discourse as Academic Communication**

Communication made in academic contexts corresponds to a social activity which may occur in disciplinary traditions to facilitate comprehension. This may help the writers to organize information as well as observe occurrences into meaningful patterns for readers. Bruffee (1986), therefore, claims and Swales (1996) approves it that part of an academic competence involves acquaintance with the usual type of discourse practiced in a particular disciplinary community. This makes one assume that a writer's knowledge about audience is significant because putting one's academic claims on established track entails both rational exposition and treatment of rhetorical and interactive features. As the endorsement of knowledge involves argumentation before the readers, so they would try to envisage the lines of thinking and investigate authors from the perspective of their personal research goals (Bazerman, 1985). Thus, it sought by academic writers to produce texts that realize specific responses in an active audience. Hence, the purpose of such academic communication is both informing and persuading readers to a specific point and



trying further to "weave discourse into fabrics that others perceive as true" (Harris, 1991, p. 289). This is how the goal of academic discourse is achieved up to the entire satisfaction of both the writer and the reader which culminates in the end product as an academic accomplishment.

Such academic undertakings besides other cohesive devices would need a number of meta-discoursal, syntactic, verbal and other rhetorical strategies. Put it simply, such a text would involve relating illocutionary acts to perlocutionary effects, means a writer wants a message to be understood and to be accepted. As there could be more than one possible interpretation for a given piece of data and readers always keep hold of the option of negating the writer's message. This would obviously need a kind of active role played upon the readers in making the message actual meaning possible. Meta-discourse is, therefore, a tool and one indication of a writer's response to the potential negatibility of his/her claims; and looks forward to possible objections or difficulties of interpretation. .

#### **2.1.4. Significance of English in Academic Discourse**

According to the British Council (2014), around 750 million people speak English as a foreign language and one out of four of the world's population speaks English to some level of competence with an increasing and steady demand from other three quarters to learn it (Spicer-Escalante & deJonge-Kannan, 2014). The number of published research articles, theses written and produced in various disciplines of sciences and humanities testify a rapid growth of English as the world predominant language of research and academic writings. McCabe (2003) mentions that this growth has, consequently, been at the cost of other languages. It, therefore, becomes more demanding for the students of all disciplines to be proficient and skillful in the art of gathering, analyzing, and synthesizing information.

This process despite unanimity of the purpose tends to categorize learners into disciplinary groups or communities having vernacular norms, strategies, and goals. According to Becher (2001) each discipline seems to be an academic tribe with its specific norms and methods of doing things. Hyland (2009) also expresses that in each community researchers seek specific discourse strategies to work as members of the discourse family. It is also essential to work in a discipline and be able to carry out the norms and practices of that community.

Hyland (2009) also argues that academic achievements are consequent upon presenting oneself in a way valued by that particular discipline. For instance, students do not feel comfortable with the term ‘me’ they mention in their academic writing, referring to discrepancy between the identities of their academic tribes and those they indicate. This means that writers of researches seems more successful when they present arguments in ways that their readers and listeners will find most convincing (Hyland, 2009).

Silva (1993) concluded in his study conducted on academic English that L2 writing is different from L1 in terms of rhetoric and conventions of various disciplines. Anglo-American writers tend to be more explicit about its structure and purpose. They employ latest citations, use lesser rhetorical questions, use fewer digressions, and seems more careful in making claims (Silva, 1993). He elaborates further that these writers maintain stricter conventions for sub-sections and keep inclined to use more sentence connectors such as ‘therefore’ and ‘however’ (Silva, 1993).

### **2.1.5. English as Language of Academia in Pakistan**

English is considered the most widely used language of international communication in an age of economic and technological globalization (Warschauer, 2000). In Pakistan’s academic context, English is the predominant medium for communication in all kinds of written assignments

and publications. Due to increasing recognition of English as the language of scholarship, many L2 writers in Pakistan may prefer to publish their research findings in international and national journals whose language of publication is English. Use of English for this purpose among non-native English-speaking scholars can lead not only to better access to the literature but also to an enhanced reputation in the academic community (Salager-Meyer, 2014). Thus, the number of research papers in English written by non-native English-speaking scholars will likely continue to grow in the future. Al-Khasawneh (2017), therefore, claims there is a need for non-native English writers to acquire appropriate writing skills to participate in this international community and also for writing teachers to provide appropriate instruction.

## **2.2. Literature Review as a Part Genre**

Bruce (1994) elaborated literature review as part genre of dissertations, presented different approaches about this section such as: literature review as a list of studies, literature review as a search for epistemological contents, as a survey of studies, as a tool for learning, as a facilitator in research, and finally as a report of studies conducted. This how do the researchers view literature review as part genre of different academic reports. It also urges academics to consider literature review as an issue.

Literature reviews is a record of primary or original scholarship or reports of written documents (Cooper, 1998). This explored knowledge is usually comprised of analytical reports which attempt to describe, summarize, clarify, evaluate and synthesize the material of primary reports (Cooper, 1998). This process may also involve seeking and evaluating studies or observations conducted and concluded earlier (Boudah, 2010). Okoli (2015), mentions that literature review is a systematic process as well as product of identifying, evaluating, and synthesizing current body of knowledge produced by students.

In research handbooks, literature review as part genre thesis is also defined in terms of process and product. Literature review as process involves the scholar in identifying the relevant literature, formulate an issue, and compare the conclusions and thoughts of others. Phillips and Pugh (2015), therefore, argue that the intention of the reviewer is to demonstrate a professional grasp of the background theory. These attempts therefore signify reviewing of the previous previous work done in the field. To this end major sources of seeking literature are dissertations, research articles, books, and newspapers. It is therefore safe to conclude that literature review facilitate a researcher in finding a solid and knowledgeable foundation for the study conducted in any area of learning.

### **2.3. Significance of Citation Patterns as Meta-Discoursal Devices**

Among many other discursive, rhetorical and linguistic features, appropriate reference to other sources is an essential part of academic writings. This very aspect of the write up ensures not only the appropriateness of the claim of the writer to frame and support his own work but also to establish a niche for themselves within their special discourse community. An important aspect is to learn how to cite other works in an appropriate style. Citations with its different patterns perform a similar meta-discoursal role by displaying the source of textual information which originates outside the current text. These patterns, therefore, assist in guiding the reader's interpretation and establishing inter-textuality, signifying the need for academics to display knowledge of other texts in the field. To understand the importance of citation in the academic setting, it would be enough to say that citation, if used rightly, would avoid plagiarism. Kuhl and Behnam (2011) believe that academic writers not only need to make the results of their research public and persuasive, they should also need to show that their success in gaining acceptance for their work is at least partly dependent on the strategic manipulation of various rhetorical and

interactive features. In discourse analysis, citations have often been examined in terms of reporting verbs (Hyland, 1999a; Thompson & Ye, 1991) which enable the writer to position their work in relation to the works of other researchers.

Tadros (1994) states that reporting others' views often predict an assessment of that author (stated in Thetela, 1997). Thus, from meta-discoursal viewpoint, it is significant to distinguish "citation from evaluation" (Thomas & Hawes, 1994, p. 129). Citations are seen here as both reporting previous work and providing an assessment of that work. Citing others is not all about picking and choosing the authors but instead an appropriate communicative process. Acknowledging this fact, White also regards citation as a complex communicative purpose with syntactic, semantic, and pragmatic variables (Jalilifar & Dabbi, 2012) which is of interest not only to EAP scholars (Charles, 2006; Hyland, 1999a, 1999b; Petric, 2007; Swales, 1990; Thompson, 2001, 2005) but also to IT scientists (White, 2004). These evidential patterns of citations forward the writer's position by demonstrating awareness of prior research and acknowledging allegiance to the academic community.

The form of citation is, therefore, a useful strategy for making the dialogue more explicit. As for the form and function of citations, Hyland (1999a, p. 341) says that citation is "the attribution of propositional content to other sources" which enables writers to refer to previous studies with a particular purpose to put current research into a larger context. Thompson and Zhou (2000) are of the view that reporting verbs may be used to indicate the writer's attitude to the quoted source and may also enhance the persuasiveness of the argumentation, while adding more to the perception of 'evaluative coherence' of the text (p. 343). Acknowledging the fact, Hyland (1999b) also mentions that besides indicating the type of activity referred to such as research acts,

cognition acts and discourse acts, reporting verbs may also be exploited by writers to take a personal stance towards reported information and evaluating it as true or false.

To acknowledge one's claim and accommodate an argument in right place is a rhetorical strategy which obviously needs enough understanding on the part of writers as researchers. Therefore, appropriate use of citations and references is an important discursive tool to persuade, justify or discuss one's own arguments and views as well as those of others. Portilla and Teberosky (2007) favour this view and highlight that citations help to position the text in space-time, epistemological and disciplinary coordinates and, in cases of academic texts, they help define the context-specific problems or gaps regarding which the writer's own text is a contribution. It is important, therefore, to make an appropriate and calculated use of the different kinds of citations which can be classified according to their function and integration in the text.

This needs to be illustrated further that citations could be both direct and indirect as per the essential requirements of the context and the potential strategy to meet the discursive norms of the discipline. Hyland (1999a) postulates that direct citations imply transmitting ideas of other authors literally, for example: "Hard disciplines and sciences draw on more non integral and research activity verbs as against soft disciplines- Humanities and Social Sciences, having more inclination towards integral and discourse activity verbs" (p. 352). These kinds of citations help the writer to invoke others without blending their voices, as to keep both the contributions formally apart. On the contrary, indirect citations allow us to have a number of various interpretations as a result of a varied degree of paraphrasing while putting the cited author's own words and formulation to aside. Instead, we merge the cited author's message in our own words for various reasons and purposes such as, to signify centrality of the issue, to clarify our own alignments, to approve of a statement,

to negate an argument, or to integrate ones' argument to the wider spectrum of epistemology of the field.

### **2.3.1. Types of Indirect Citations**

It is essential to concentrate on the issue of citation patterns in association to the study conducted on authorial voice incorporated in these patterns. The uses of indirect citations observed in academic texts are numerous and varied. These forms are observed to know that whether the name of the cited author is part of the sentence or just placed within the parenthesis. Thus, if the cited author is part of the sentence, it is known as the Integral pattern of citations. Although, in this form, the writer's literal wording is not included, yet much prominence is given to this author in the text. Hence, the immediate writer remains in the background. Even then, this is the immediate writer who voices his treatment of the arguments in the literature reviewed.

In the case of Non-Integral citations, the cited author does not make part of the sentence, but rather placed in parenthesis. Here in this pattern, the writers tend to move further away from the cited author's literal wording, because the author's name is enclosed in brackets and the ideas or information referred to becomes part of the citing writers' own discourse. To employ this pattern, the writer makes the cited author's voice less audible to the readers. For instance: "Reporting verbs may be used to indicate writer's attitude to the quoted source and may also enhance the persuasiveness of the argumentation, while adding more to the perception of evaluative coherence of the text (Thompson, 2001)". Thus, as far as the Non-Integral form of citation is concerned, the aim is to have more focus on the statement rather than on the author cited.

Thompson and Tribble's (2001) taxonomy give a useful framework to analyze and compare Integral and Non-Integral citations data. The categories, they set, were divided first into two groups which are known as Integral and Non-Integral citations. The same taxonomy suggested further the sub-categories which may reflect a detailed view of citation forms chosen by the writers to develop an argument.

### **2.3.1.1. Non-Integral Citations**

This form of the patterns is mentioned with the cited author and the year of publication enclosed in parenthesis. The statement does not carry the name of the author as the agent or part of the noun phrase. Hence, the statement appears more prominent than the citation attached. Further division of this group suggests categories such as Source, Identification, Reference, and Origin.

Through Source as a Non-Integral category, the writer attributes a proposition, a piece of information or a statement to another author's work. In other words, it mentions where the idea or information has been taken from, for example: "More than 600 ESBLs have been recognized to date (Jacoby G & Bush, 2012)" (Figure A1, p. xxv). Hence, the name in brackets refers to the author of the work; statement has been taken from.

Identification as sub pattern of citation indicates an agent within the sentence it refers to. To put it simply, this pattern identifies the author of the study referred to. It is used with an objective as to identify the studies made for and against. This is how a writer tends to align his study to the studies previously done in the field as for example: "studies have suggested that corrective feedback would work for acquisitions (Ellis, et al., 2008; Sheen, 2007)" (Figure A7, p. xxvii).



Reference pattern of citation is signaled by the directives, “see” or mostly by using “e.g. or for example”, means to provide support for the proposition or substantiate the argument, made in favour of the claim. Thus, it serves as a short hand discursive device to refer to detailed procedure, illustrations or proof of the discussions which are too lengthy to be repeated, for example: “...believe that WAIS R vocabulary subtest is an excellent measure of the verbal ability (see Newmark, 1985, p. 45)... (Figure A12, p. xxviii). Thus the term “see” identifies the source for further detail and the given pattern is termed as Reference citation.

Origin form of citation identifies the originator of a concept, theory, model, technique, or product. Although, its use as citation is usually very rare but functionally very useful as to indicate the originators, as reference, of certain concepts, theories, some commonly used terminologies, or frameworks of others. It tends to support the author’s views based on solid methodological and theoretical grounds, for instance: “...behaviorism (Skinner, 1953), system theory (Bertalanffy, 1965), integrative theory (Merton, 1968) as cited by Zeichner and Gore ...” (Figure A18, p. xxx). Hence, the bracketed names tend to be the originator of the theories.

### **2.3.1.2. Integral Citations**

Apart from the patterns mentioned under Non-Integral group of citations, there are citation forms which are known as Integral citations. These patterns are indicated by two elements in the argument stated. Firstly, the name of the author is placed either as active agent in the subject position or as a passive one; however, it controls the verb. It may either be given with or without the year of publication. Secondly, the author’s name may also be used as part of the noun phrase, also known as naming citation.

As per the classification of Integral citation, Naming pattern refers to a noun phrase or part of a noun phrase. The writers, through using this structure, mention an author as, it does not receive the agency role in the sentence. For instance: “According to Ebsworth and Schweer (1997) another strong element which influences teachers ...” (Figure A22, p. xxxii). This example clearly indicates the form of Naming citation. Thompson & Tribble (2001) explain that this pattern, sometimes, refers to a textbook or an article rather than a human agent which is also known as reification. They also elaborate that this form of citation may also refer to a work done by someone, or to a definition, equation, method or formulation, given by a researcher.

Another form of Integral citation, known as Non-citation, is used where the writer refers to another writer but the name is given without a date reference, for example: “Cohen asserts that it provides data on cognitive processes and learner responses” (Figure A23, p. xxxii). It is usually used when the reference has been given earlier and the writer does not want to repeat it. Besides this, it could be given for the use of a secondary source where the writer does not usually remember the date and use of citation as necessitated by the argument developed. Another significant reason could be the situation where the authors invoked through reference to the thinking associated with them in general, rather than with reference to a specific work or set of works, for example, Marxist or Darwinian (Jalilifar, 2007).

The citation is sometimes used to act as the agent that controls a verb, in active or passive voices. Hyland (1999b) held that in this case, the writers who tend to justify their claims or to acknowledge their arguments would, therefore, prefer to give the author agency role as to give him prominence against the statement in Non-Integral citations. Its example can be: “Khan et al. (2005) suggested that outbreaks of HPS are mostly post vaccination...” (Figure A25, p. xxxiii).

The category of Verb-Control has further been worked out by Thompson and Ye (1991). They worked on reporting verbs in order to identify the writer's stance in the form different verbs used in verb controlling form of citations. Hyland (1999a) confirmed that this framework has been extensively applied on different sections in different disciplines by researchers. Based on this taxonomy, reporting verbs used by the writers in academic discourse are further categorized into three sub-categories such as, Factives, Non-Factives, and Counter-Factives.

Through Factives, a writer portrays an author as presenting true information or a correct opinion. In academic discourse, especially in theses writing, the researchers tend to choose appropriate verbs, showing their attitude that the statement is true and based upon factual grounds. These verbs could be, for example, acknowledge, bring out, demonstrate, identify, improve, notice, prove, recognize, substantiate, throw light on, and the others. As for Non-Factive reporting verbs, the writer do not give a clear signal concerning his/her attitude towards the author's statement or opinion, for example, advance, examine, generalize, propose, retain, urge, utilize. The writers while using Counter-Factives tend to portray the author as presenting false information or an incorrect opinion, for example, betray, confuse, disregard, ignore, misuse, and the verbs like these.

## **2.4. Approaches and Issues of Citations in Discourse Perspective**

The history of citation analysis does not go any farther than the mid-decade of 20<sup>th</sup> century as originating from an initiative to launch citation indexing by the pioneering scientist, Garfield (1955). As per the studies conducted by Liu (1993) and White (2004), three approaches held more attention of the researchers in the field owing to their resemblance to discourse analysis. The first mainly concerned the reclamation (authenticity) of cited work in the discourse community, referred to the notion of impact factor. Okamura (2008) pointed out that this notion was used as a

criterion to judge the importance of the work within a discipline. Hence, based on this assumption, the more citations a paper obtains, the greater impact it would have on the academic community. Pho (2008) elaborated further that this can be compared to quantitative analysis of linguistic forms such as investigating the frequency count of reporting verbs as well as the occurrences of passive voice compared with active voice. However, Cronin (1982) concludes that the trend was soon shifted to examine the function of the citations within a text bearing different aims, for instance, to establish a theoretical framework as well as negate a claim.

Thus, concerning citation analysis, the researchers attempted to examine its surrounding context of citation, initiating the second approach to citation analysis. This development gave rise to introduce the categories such as negative citation and developmental citation in order to classify the roles of cited work in a research. Likewise, Shaw (1992) referred to a similar tendency as found in discourse analysis, for instance the choice of using passive vs. active voice. To classify the content of citations, linguists were of the view that one citation may belong to more than one category and that the same range of categories cannot be used across all disciplines (Chubin & Moitra, 1975). Lastly, MacRoberts (1984) contended that the real intention of the author could not possibly be evaluated through content analysis as the writer might have a soft version of the critical comment. Hence, all this debate demands further studies and discussion to develop an understanding of the writers' intention behind different forms of citations.

According to White (2004) the motives behind using a particular form of citation by researchers attracted the attention of analysts and established a new approach for citation analysis. Liu (1997) had mentioned two types of motives based on either normative theory or on a micro-sociological perspective. The former considers that citation makes part of the collective activity of knowledge construction in the discourse community (Davenport & Cronin, 2000) and was

thought to be the main reason for citation. The latter according to Gilbert (1977) is used for persuasion as the writers cite in order to persuade the readers (cited in Case & Higgins, 2000). This very claim shifted attention from citation itself to the role of citation in a text, examining the individual writers' viewpoint rather than that of the discourse community. He argued that works by authoritative figures in the discipline were cited because they were considered more persuasive in the discourse community.

Cozzens (1989) observed a number of critics who had criticized the latest approach but subsequent studies tried to balance the argument by presenting the idea, rhetoric first, reward second. The interviews with writers of academic texts about the motivation for citation confirmed this claim (Higgins et al., 1999). To establish the same, Hyland, in his studies (1999a, 2000), combined interviews of research scholars with analysis of a large corpus of academic texts, found similar views of the citers' motivation in citation analysis. He, therefore, states, "Reference to previous work is virtually mandatory in academic articles as a means of meeting priority obligations and as a strategy for supporting current claims" (1999, p. 362). Pho (2008) identified that some other analysts also adopted the same approach to understand the writers' motivation behind a particular citation form, suggesting the analysis of a social dimension in scientific discourse that how scientific research articles employ politeness strategies: positive politeness for solidarity, and negative politeness for deference to the discourse community. While citation analysis focuses on the use of citation itself, discourse analysis could further enquire into the purposes of citation forms.

#### **2.4.1. Generic Perspective of Citations**

Keeping in view the significance of citation, it is imperative to discuss the areas sought by the researchers in order to have a context based view of the issue. Hence, the nature of genre as

well as variations across disciplines was targeted very frequently, apart from statistical and linguistic features. Linguistic contexts in terms of socio-cultural and pragmatic competence were also taken into account in order to judge how the writers refer to previous researches in order to put current research into a larger context. Hyland (1999b), therefore, concludes that this is how they establish credibility by showing affiliation to particular views and methods which may provide justification for arguments, and claim novelty for a position or findings presented.

The point for expanding the scope of investigation was to have a comprehensive view on the part of the writers, like, how to make references as to integrate the ideas of others into their arguments and to indicate what is known about the subject of study. To illustrate further, Pennycook (1996) explained this point that novice writers do not have appropriate knowledge about these generic features; thus, they more often face a number of problems. Accordingly, Bitchener (2017) held that this failure on the part of non-English students leads to charges of plagiarism for repeating the ideas of others without appropriate acknowledgment and misrepresenting the stance of the cited author.

Therefore, as both Borg (2000) and Petrić (2012) confirmed, it was essential to explore how the writers of thesis and dissertation referred to the previous literature in order to augment their argument; an essential step which most of the novice writers took for granted, particularly in non-native context. Having had the same assumption, Hyland (1999a) and Thompson (2000) conducted their studies based on different genres. Thompson (2005) investigated the nature of genre and citation practices in eight PhD theses within Agricultural Botany. He recognized citation types and observed their relation to content, writer, and rhetorical purposes. Nevertheless, owing to the size of the corpus as well as the lack of comparison with other discipline, the findings achieved may not be generalized. Kumar and Sritharan (2003) focused their attention on the

linguistic, semantic and formal thematic value of citation, along with examining the 'referencing pattern of the Sanskrit researchers. Similarly, Vijay Kumar (1997) worked on the citation forms in PhD theses in English literature (cited in Zafrunnisha, 2012). The net value of these studies turns out to be the same; lack of universality and insignificant size of the corpus selected. Hence, majority of the writers like, Hyland (1999a), Thompson and Tribble (2001) and Thompson and Ye (1991), Nasir and Kumar (2011) and Swales (2014), conducted similar kind of works on citation practices in social science dissertations and articles. All the studies were predominantly quantitative in nature.

#### **2.4.2. Disciplinary Perspective**

As mentioned earlier, one of the most important realizations of research writer's concern for audience is not only that of attributing propositional content to the existing literature but also of accommodating himself to the community knowledge (Hyland, 1999a). Because citation involves creating inter-textual relationships between the citing and the cited texts, it tends to have specialized knowledge about subject specific norms and also the technical expertise to maintain the explicit as well as implicit conventions of referring to the sources of knowledge. To put in other words, Pecorari (2006) mentions that these signals for source reporting are, therefore, needed to allow the writer to present as much of the relationship as she or he thinks his readers need to know. This is, therefore, likely to assume that the writers in different disciplines follow different rhetorical conventions and have different preferences. To confirm the hypothesis made, Charles (2006), in a study of Social Sciences vs. Natural Sciences theses, found that reporting clauses were considerably more frequent in Social Sciences than in Natural Sciences. The other difference noticed in the Social and Natural Sciences was that both the disciplines roughly made use of research sources equally. In sum, the study highlighted disciplinary variations in the frequency and

stance function of the clauses as the two corpora confirmed that human subjects occurred more frequently in Politics while non-human and ‘it’ subjects were more frequent in Materials. Hence, it proved that writers created a stance which was appropriate to their discipline and purpose.

Thomson and Ye (1991) have put the same idea of disciplinary variation in different terms while giving the concept of insiders and outsiders. He argues that negative opinion is often presented in a subtler manner (Thompson & Ye, 1991) and might, therefore, be visible to insiders of the discipline only. The insiders’ viewpoint concerning citations has also been investigated in other studies (Cozzens, 1985; Small, 1982; Shadish et al., 1995; White & Wang, 1997) on the disciplines of Information Science and Social Sciences as stated in Harwood (2009), and Dehkordi and Allami (2012). Despite the studies conducted in this area by the linguists, starting from Swales (1986) to the more recent work by Harwood, White, Thompson, Tribble, Ye, and others, researchers, particularly in the non-English contexts, still lack appropriate understanding regarding disciplinary conventions of citations (Jalalifer, 2010; Bloch, 2010; Khan, 2013; Jomaa & Bidin, 2017).

#### **2.4.3. Nature of Investigation**

The nature of enquiry in terms of citation analysis was focused more on structural categorization. For instance, Petric (2007) aimed at identifying the relationship between the types of citation in both high and low rated theses of Master. The corpus used in the study consisted of 16 theses (eight A grade theses and eight low grade theses) written by L2 writers from 12 countries of Central and Eastern Europe. To this end, he used Thompson's (2001) classification of citation types (attribution or source, origin, reference, and example) with some modifications to classify both, Integral and Non-Integral citations. The numbers of citations explored were 1981 within 310'624 number of words analyzed. Out of total citations explored, 1253 were in the high-rated



theses (182'896 words) while 729 were noticed in the low-rated theses (127'728 words). The study showed greater citation density in high-rated theses with more syntactic and rhetorical complexities. Despite the seemingly valid results, the corpus size and the absence of intra-grade comparisons lead to a number of questions which could be answered through these studies. Similarly, the functional and thematic comparisons were also given a thought to cover the qualitative aspect of the issues mentioned above. To sum up, the study conducted gave only partial view as the Integral patterns could have made the study more comprehensive.

#### **2.4.4. Form and Function**

Thematic analysis of citation was given less attention at an age as much early as in 1980s. Swales (1981, 1986, 1990), being one of the pioneers, categorized citations into Integral and Non-Integral forms where Integral refers to a citation that makes part of the sentence and plays an explicit grammatical role in it, while the latter is placed outside the sentence, usually kept within brackets, and which plays no explicit grammatical role in the sentence. Two other types identified by him were "Short" and "Extensive" which were used to describe citations which are at a single sentence level and those consisting of more than one sentence. Furthermore, majority of the studies discussed so far underlined two groups (Swales, 1990): Integral and Non-Integral citations. Later on, Hyland (1999b) divided Integral citation into three categories: subject, non-subject (passive) and part of noun-phrase (adjunct agent structure). To mention some other studies on citation forms, it was observed that social science disciplines such as political science use more Integral citation forms than Natural Sciences (Charles, 2006; Hyland, 1999a). Similarly, Hyland (2000), in a study of academic corpus, found that papers in the fields of physics, mechanical engineering, and electronic engineering preferred non-subject (passive) position to subject position, showing its preference for the impersonal structure of a sentence, with noun-phrase construction being the

least common choice (less than 20% of all the Integral citation forms) in these disciplines. This study also indicates that biology was the only field which preferred subject position (46.7%) to non-subject position (43.3%) for Integral citation. However, he attributes this phenomenon to the writers' language background, as to observe these proportional differences in the use of citation forms. For instance, the writers in the L2 context share similar knowledge about the citation practices and they may not always be linguistically as skillful as those in the L1 context. This was shown by Okamura and Shaw (2000) in an analysis of cover letters written by L1 and L2 professionals accompanying a manuscript for publication. The analysis may help to clarify that L2 novice writers need to pay accurate attention to the use of citation forms.

Keeping in view the expected readers and their schema, analysis of citation patterns in terms of form and function were made from different perspectives and meanings as intended by the writers in academic discourse. This notion is fully endorsed by Rorty (1979) who says that writers of the research reports must consider reactions of their expected audience, anticipating their schematic background knowledge, processing problems, interests and interpersonal expectations (cited in Hyland, 1999a). Hence, the linguists working on the issues of citations focused on the form and function relationship of citations. Swales (1990) along with some other linguists like Shaw (1992), Thomas and Hawes (1994), Thompson and Ye (2001) worked on citations focusing specifically on the use of reporting verbs with a correlation of frequency, form, tense, voice, and functional implications. Similarly, Bloch (2010) conducted a similar study, concordancing Verb-Controlling citations, aimed at possible categories.

#### **2.4.5. The Issue of L1 and L2 and the Significance of Pedagogy**

Besides these, quite recently, students' citation practices in terms of surface forms, rhetorical functions, and writer's stance, were analyzed and it was found that L2 students used a

restricted range of reporting structures, using sources for attribution function to display their knowledge of the topics (Aranuy, 2013). Zhang (1995), for instance, summarizes that the students belonging to both L1 and L2 may attempt the writing with distinctly different primacies about response at the correction stage. It has also been suggested by Nelson and Carson (1998) that the L2 writing teachers are required to be careful in applying any such strategies to deal with the teaching of L2 writing. It was also endorsed by Hyland (2003) saying that non-native English students in higher educational perspectives may get the writing assignments, where genre knowledge is deemed significant to students' understanding of their L2 milieu, and also central to their achievements. The knowledge about these genre specific practices is, thus, a bridge for helping learners to equip themselves enough to perform in that particular academic environment. This goal can be achieved by making the peculiarities of L2 generic practices discernible and achievable through plain instruction. Hyland (2003) also points out that such guided activities may offer learners with linguistic constructions commonly used in particular contexts. Johns (2003) endorses that such kind of instructions may provide learners with shortcuts to the successful meting out and producing of written texts. It is therefore essential for research in L2 context to know the customs favoured by the specific discourse community.

The reasons for L1 and L2 differences in the discursive norms are both cultural and educational. In view of that, the research assignment which are supposed to be written in English and at same time written by non-native English writers may be regarded poor undeveloped by the L1 English discourse community. As for instance, Bhatia (1993) states, in one of his studies on job application, that the applicants from South Asia used the cover letter just to enclose the curriculum vitae, without offering self-appraisal to convince the reader about their strong application. It is therefore essential to develop a good understanding of the different rhetorical

structures or styles preferred by members of various cultures to help learners raise awareness of their writing and to assist the academia in teaching learners in the same pattern.

To be able to produce academic texts in English, non-English speaking (L2), novice writers need to master various means to strengthen their argument in English, one of which is thought to be citation (Charles, 2006; Harwood, 2004; Hyland, 2001). Swales (1986, 1990, 2004) suggested these writers to learn not only what to cite but also how to cite others. Previously although disciplinary variations in the use of citation and citation forms have been analyzed (Hyland 1999a, 2000), relatively little attention has been paid to the variation due to their linguistic environments. It may be the case that those working in the non-English speaking environment (L2 context) have more difficulty in the use of citation forms to construct a persuasive argument as than those in the English speaking environment (L1 context). The study conducted by Lee et al. (2018) examined L2 undergraduate students' citation practices in terms of surface forms, rhetorical functions, and writers' stance. The findings of this study indicates that L2 students use a restricted range of reporting structures, and they primarily use sources for attribution function to display their knowledge of the topics. Furthermore, as opposed to taking a strong positive or negative position, the findings show that L2 student writers mainly adopt a non-committal stance by merely acknowledging or distancing themselves from cited materials, suggesting that L2 students are inclined to show deference to the perceived authority of published sources. The study, thus concludes with academic options for enhancing L2 university scholars' citation practices. The current study thus is an effort, having the same pre-supposition that compares the use of citations forms in 90 theses of different disciplines in L2 context.

#### **2.4.6. Reporting verbs**

Apart from Non-Integral citation patterns as well as part of the noun phrase form in Integral citations, there are citations where authors take the role of agents while reporting upon the writer's attitude towards the cited author and his work. For example, Thompson and Ye (1991) studied the introduction sections of more than 100 papers to examine that how the writers show their evaluation of previous work, and interact with their discourse community, through the use of reporting verbs. Their findings are significant but the corpus could have been improved to generalize the results as an established phenomenon across the subjects. Similarly, an inter discipline comparison could also be made to show the relative engagement of the writers in various disciplines. Later on, confirming the findings of the studies made earlier, Okamura (2008) states that citations have often been observed in association with reporting verbs presenting authorial voice. He further states that the writers demonstrate positive and negative evaluation of previous studies by the choice of reporting verbs. This issue was also verified by Chen (2009) who aptly remarks that tense and reporting verbs are some of the works done specifically on the writers' voice while keeping neutral, forcing his views, taking sides, refuting claims, mentioning cues, offering opinions, hedging and sometimes magnifying others' claims. Hu and Wang (2014) also identified writers' voice in four types of voicing features, such as, acknowledge, endorse, distancing, and contest. Thus, having a range of readership in mind, a thesis writer is persistently engaged in communicative or rather interactive processes using various strategies, upholding the discursive norms and schema of the specific discourse community (Peng, 2019).

#### **2.4.7. Choice of the Voice**

Choice of the voice, the presence or absence of personal pronouns (I, we, our etc.) in research articles or theses, tells not only the active or passive manner in which authors present

their materials but also throws light on their relationship with readers and with the discourse community. Shehzad (2016) states that usage or avoidance of first person pronouns in academic writing has always puzzled native and non-native students and teachers. It has also been a long lasting topic of debate among scholars. Her work on authorial presence in the scientific discourse is an in-depth attempt to analyze Computer Scientists' voices, studied through computer-based techniques (Shehzad, 2007). The work dealt with the following points regarding the writer's voice: the voice that computer scientists use in terms of activity and passivity; the role that personal pronouns play in computer science discourse; the distinction, if any, exists between the inclusive and exclusive use of 'we', as used by computer scientists. Lastly, how the Computer Scientist's voice is different from that of authors of research articles in other disciplines such as those studied by Hyland (1999, 2000, 2001). Hence, her findings, contrary to Hyland's, mentioned earlier, indicate that the Computer Scientist's voice is explicit, undisguised and clear. Despite all the merits, the scope of the study covers one aspect only. It is, therefore, important to conduct studies like those conducted by the present researcher to analyze authorial voice in citation patterns in a corpus comprised of ninety (90) theses' literature review sections of three major disciplines: English Studies, Biological Sciences and Social Sciences.

## **2.5. Corpus Linguistics as a Methodological Tool**

Corpus Linguistics as a tool has brought revolution in the field of research as it helps in analyzing the data not only quantitatively but also qualitatively. In modern linguistics, a corpus (plural corpora or corpuses) is a large and structured set of texts which can be stored and processed electronically. Meyer (2004) elucidated that it is a scientific process of studying language based on samples of corpora or real world texts. Baker (2008) theorizes that corpus linguistics offers a high degree of objectivity in data analysis because its techniques enable the researchers to view a

text free from any predetermined notions. This kind of research usually uses the corpora available online like Australian Corpus of English, International Corpus of English, and British National Corpus (Kennedy, 1998). Besides these, there are researchers who would tend to base their studies on preconceived hypothesis using a text constructed for the purpose.

## **2.6. Approaches Regarding Corpus Linguistics**

In corpus linguistics, corpus-driven and corpus-based are two different approaches to analyze corpus data. A researcher can use any of them depending upon his/her objectives. These approaches are elaborated as under:

### **2.6.1. Data Driven Corpus Linguistics**

The corpus-driven approach is one in which the already existing corpus data become an empirical basis of research, an assumption or theory without any prior hypotheses or expectations. In fact, the assumptions or hypotheses are not determined before going through the corpus or data of research. The corpus-driven linguists wish to build theory from scratch. Elewa (2004) held that they make claims or assumption exclusively on the basis of observed corpus data. As a part of this process, the researcher tends to exploit the online available corpora and the hypothesis may also be restructured or revised a number of times based on the investigations made.

### **2.6.2. Data Based Corpus Linguistics**

The corpus-based approach entails a process that uses corpus data to support or prove an existing hypothesis, an assumption, or a theory. The objectives of this method are to test, confirm, or improve linguistic theories and assumptions. Accordingly, the evidence of corpus data is used to support or examine an already existing theory rather than as a determining factor of a theory or assumption. By and large, this approach uses corpus data to support a theory or a claim rather to challenge it. McCrostie (2008) elaborates that normally this approach does not challenge the pre-

existing theories and cannot render unexpected results, yet it is used to extend, elaborate, or improve some classic assumptions. In corpus based discourse analysis, a group of lines of the text is concordanced with AntConc as a Unicode compliant freeware programme and then analyzed manually to identify the broad themes and patterns that exist in the corpus which cannot be easily identified through other analytical options. To make sense of the linguistic patterns in the corpus based analysis, the researcher had to rely on two theoretical frameworks discussed in Chapter 3. The present study adopted the same approach in order to answer the questions put and confirmed a number of hypotheses which had been made before constructing the corpus.

## **2.7. Citation Analysis as a Core Issue**

Citation analysis is an important area which needs more attention as it highlights voice of the writers in academic contexts (Liu & Hu, 2021). Masic (2014) states that different citation styles like, APA, MLA, Chicago, Turabian, and IEEE are recommended by publishers to ensure clear and consistent presentation of written material. These styles commonly concern the SOPs (standard operating procedures) regarding the uniform use of such elements as selection of headings, rules of punctuation and abbreviations, presentation of numbers and statistics, construction of tables and figures, citation of references and other such elements of the manuscript. The purposes of establishing the set procedures, or style rules, were to codify many components of academic writing and to enhance reading comprehension processes. Despite all these merits, the various styles mentioned would offer technical ways, a writer would choose according to the manuals prescribed by the institutions concerned without any specific reference to the functional or linguistic values of the text composed. The only purpose deemed here is to offer a kind of uniformity and codification of the academic contents. The existing manuals or the prescribed editorial styles do not offer any suggestions regarding various patterns of citations, bearing



different versions of authorial voice. Hence, it seems worth exploring how the issue of citation patterning had been treated over a period of time, since the emergence the issue.

Initially, majority of the linguists either focused the frequency feature of citations or the linguistic elements of the cited arguments in the texts. To put in other words, in the very beginning of its emergence as an issue, the analysts focused more on the quantitative aspect only. Another thing to mention is that majority of them focused physical and Natural Sciences. Two thousand, seven hundred and twentysix (2756) references from fifteen doctoral (Veterinary Medicine) dissertations were analyzed by De Oliveria (1984) mentioned in Zafrunnisha (2012). Rajasree (1887) investigated impact factor in Botany PhD dissertations and Kabir (1990) in Agricultural Sciences doctoral dissertations (cited in Zafrunnisha, 2012). Besides these researchers, some of the researchers keeping in view more or less the same purpose did prefer Social Sciences for the analysis of citations, for instance, Omuruy (1982), as mentioned in Zafrunnisha (2012), analyzed the citations mentioned in social science dissertations. Even in the recent past, a number of contemporary researchers from Natural Sciences, physical sciences, Social Sciences and information technology such as Shokeen and Kaushik (2004), Radev et al. (2016), Meho and Yang (2007), examined the impact factor and authorship pattern. Hence, less attention was given to the form and function of citations.

Henceforth, the trend in the area of citation analysis was felt to be diverted towards rhetoric, structure, authorial position, function, as well as authorial voice. As for instance, Charles (2006) examined reporting clause used by the writers in a cross disciplinary study of theses to make reference to others' work. He identified relatively larger number of Integral citations than were explored by Hyland (2002) in his analysis of research articles. Later on, in his findings, he attributed this phenomenon to the size of the text, as theses need extended discussions compared

to the explanation given in a paper or article. Thus, onward researchers like Swales (2010), Olatokun and Makinde (2009), and Haycock (2013) focused their studies on dissertations in order to analyze the citation practices, structure of literature, and competitive position of the authors. Likewise, Hyland (1999a), Thompson and Tribble (2001), Shoostari and Jalilifar (2010), Hu and Wang (2014), among others, identified positioning, form, function, stance/voice, uses and misuses, through citation analysis and the study of discursive practices in academic writings. These works were positive developments in the area of citation analysis; however, mostly restricted to the English speaking contexts. Therefore, their outcomes may not be applied to the non-English context for the pragmatic competencies lacking in these writers. Hence, in order to have a critical analysis of the academic accomplishments, the framework of the studies mentioned above may also be applied to the works conducted in Pakistan.

Citation analysis is obviously a challenge confronting the researchers and the thesis writers, particularly in non-English context. It should never be taken for granted and full attention may also be paid to the discursive practices of the writers and also to the corrective measures that could be adopted in academia. Keeping in view the academic as well as pedagogical significance, an analytic-synthetic approach (Loi, 2010) may also be considered for the purpose of teaching academic discourse. Bruce (2014) suggested the same, as the knowledge gained through the tasks becomes part of students' schema to help them write apposite academic prose. To test the assumptions made, the writers like Thompson (2005) categorized all instances of citation in a corpus of agricultural botany theses written by native speakers and investigated how writers position themselves and what they preferred to focus on. His findings show that in introduction, literature review, and discussion sections, the tendency was to use Non-Integral citation forms with a focus on information rather than on the people cited. However, some writers did integrate the

names of researchers into the sentence to signify the eminence of the issue through the cited authors.

The area of citation analysis is not new to the academics in Pakistan. Researchers have been attracted to this genre of various disciplines including, Medicine, Agriculture, Economics, Library and Information Sciences. To this end, eight volumes of Pakistan Economic and Social Review were analyzed to find out citation patterns, the citation sources, number of authors in the articles, the age of citation sources, and the countries of the published papers (Sharif & Khalid, 2006). Another study of the same kind was conducted by Javed and Shah (2008), revealing the authorship pattern (single or coordinated) of citations in the Rawal Medical Journal within a span of one year, from January to December, 2006. Added further, Sharif (2012) investigated all volumes published in five years (2005-2009) of three core Pakistani medical journals, namely, Journal of Ayub Medical College (JAMC), Journal of Pakistan Medical Association (JPMA), and Journals of Physicians and Surgeons Pakistan (JSPSP). The data were analyzed to find out citation pattern of their editorials. The result revealed that JPMA has been the most cited journal. The result further revealed that contribution of more than three authors in an editorial remained prominent in all three journals under discussion. The most citations' age remained 1-5 years old. Interestingly out of three journals, two of them were most cited articles from the same journals, thus a trend of self-citation of journals were found in these two journals.

Rattan (2014) investigated the articles published in the journal Pakistan Journal of Library and Information Science. He found the growth of citations in terms of frequency, and the authorship pattern. The study was conducted to prepare a list of the journal cited and to know the rank of the journals, as well as the impact factor. Later on, Haq and Alfouzan (2019) conducted a bibliometric evaluation of Pakistan Library and Information Science Journal from 2008 to 2017.

The purpose of the study to determine the authorship pattern, gender-wise distribution, geographical and institutional affiliation. The data were analyzed by using the Microsoft spread sheet.

In the field of medical sciences, Memon (2019) conducted a bibliometric analysis of the citable documents published in the Journal of Pakistan Medical Association from 1965 to 2018. The findings of this study suggest that there is a continuous increase in the number of publications, citations, and impact factor of the Journal of Pakistan Medical Association. In addition, the journal appears to attract wider audience, which is reflected by the analysis of its two-thousand highly cited papers. Quite similar to these, a study conducted by Haq (2021) found a strong correlation between the authorship pattern and number of citations, as multi-author papers received more citations as compared to a single author.

Despite all these contributions, the researchers focused on only few determinants regarding citation and bibliometric evaluation. The group of authors cited above is a hypothetical sample of a large number of studies conducted to determine, impact factor, the number of publications, the frequency of citations, the authorship pattern, gender-wise distribution, geographical and institutional affiliation. So the academic context in Pakistan is obviously underexplored in terms of linguistic analysis of citation patterns. The discursive practices such as the rhetoric, the meta-discoursal features offering various communicative strategies voicing different meanings to the readers have been dealt in this study.

As far as the issue of authorial voice and citation patterns are concerned, this is significant to mention that majority of the studies conducted so far have opted for finding impact factor or general tendencies for citation patterns, mostly in the native environment. Hence, keeping in view

the importance of the issue for the betterment of academic practices of the students as well as researchers, the area selected is worth exploring. Citation as an essential discursive feature contributing to authorial voice has been underexplored, notwithstanding fruitful research on citation practices (Kafes, 2017; Lee, Hitchcock & Casal, 2018; Peng, 2019). According to Jalilifar (2012), the earlier studies despite their contributions to research on citations, have had a number of issues, such as, partial analysis, small corpus, little discussion, and limited scope of generalizations to other disciplines or cultures. He recommended conducting further studies to overcome these issues.

Moreover, the citation practices in the PhD theses written in Pakistan have not been sufficiently explored regarding citations. Only few people like Shehzad (2005, 2008, 2011), Khan (2013), Abbas and Shehzad (2018) have worked on authorial presence and mostly in the field of genre analysis. Thus, it may be assumed that in Pakistani context little work has been done on exploring authorial voice in citation patterns using corpus based techniques of analysis.

Thus, taking the role of citations into account, the current study investigates intertextuality, based on Thompson and Tribble's (2001) framework for classification of citation patterns with a special focus on citations' phraseology and authorial voice in the literature review sections of PhD theses across various disciplines. Samraj and Monk (2008) acknowledge a large quantity of works on published academic texts such as research articles. So, it was intended to use literature review sections as sub part of the theses, as genre, that bear pretty rich number of the citations with equally more chances of a rich kind of variety of patterns.

Disciplinary variations have also been observed in terms of using integral and Non-Integral citations along with their respective sub-forms, thus proving the assumption of community based

practices. The present study also observed citation patterns in terms of reporting verbs for the expression of authorial voice, particularly based on Thompson and Ye's (1991) classification. The study of authorial voice has been analyzed from different angles, like frequency value, citations' patterning value, semantic or discourse value of citations as well as reporting verbs and adverbs as modifiers. The gap indicated was filled up through negotiation of the meaning while going through a set procedure mentioned in the methodology part and the mentioned research design. The findings indicate how the writers of the theses construct their argument and how they position themselves, varies not only from writer to writer but also from subject to subject and discipline to discipline. Hence, paying attention to citations in academic writing courses would motivate students to identify different types of citations which may help them to produce an effective argument and be more communicative to persuade the reader.

## **2.8. Summary of the Chapter**

The chapter begins with an overview of the epistemological context of the issue that illustrates the works that deal with the concepts of discourse community, academic discourse as an interactive process and academic discourse as academic communication. The studies discussed, highlighted contributions offered by the researchers, in terms of different aspects of academic discourse, the theories developed and analytical frameworks, suggested for further studies in the area. These frameworks and concepts proposed not only a theoretical background for the study but also suggest the methods for carrying the analysis to a logical conclusion.

It also highlighted the significance of citation patterns as meta-discoursal devices. To acknowledge ones'claim and accommodate an argument in right place is a rhetorical strategy which obviously needs enough understanding on the part of writers as researchers. Therefore, appropriate use of citations and references is an important discursive tool to persuade, justify or

discuss one's own arguments and views as well as of others. It was pointed out that citations helped to position the text in space-time, epistemological and disciplinary coordinates, and define the context-specific problems or gaps. Thus, appropriate and calculated use of different kinds of citations is needed to be chosen according to their function and integration in the text. The issues regarding discursal perspective of citations have also been elaborated. This was therefore illustrated that citations could be both direct and indirect as per the essential requirements of the context and the potential strategy to meet discursive norms of the discipline. The chapter further focused on indirect citation with its different types, the Integral pattern of citations and Non-Integral citations based on Thompson and Tribble's (2001) taxonomy. This taxonomy suggested further sub-categories which may reflect a detailed view of citation forms chosen by the writers to develop an argument, namely, Source, Identification, Reference, Origin, Naming, Non-Citation, and Verb-Control. The category of Verb-Control has further been worked out by Thompson and Ye (1991). They worked on reporting verbs with the purpose to identify the writer's stance in the form different verbs used in verb controlling form of citations. Based on this taxonomy, reporting verbs are further categorized into three sub-categories namely, Factives, Non-Factives, and Counter-Factives. Added to theses, different approaches and issues regarding discursal perspective of citations have been discussed in detail. Corpus linguistics as a methodological tool has been explained in reference to the studies conducted as well as the approaches regarding corpus linguistics have been incorporated which identify the ways for conducting such studies.

### **CHAPTER 3: RESEARCH METHODOLOGIES**

Strictly speaking, in Pakistan's academic perspective, the issue is that the writers choose different citation patterns with inadequate attention to its different types and the general inclination is towards a few well known patterns of citations. It was, therefore, felt to take citations into account in order to know that how the writers refer to the previous researchers and their work using different citation patterns. It was also significant to know why the writers preferred one type of citation pattern over the others. Hence, the purpose of this study was to highlight strategies employed by the writers while incorporating their voice and announcing their attitude towards the authors cited.

As many of the researches, conducted in the native context, had shown that there were variations across the disciplines, particularly in the use of citations, for multiple reasons. The hypotheses made at the beginning of this study were that the variations in citations, owing to the influence of their respective disciplines, were the specific requirements of the rhetoric, the context and the function or the theme of the argument that the researcher/thesis writers were supposed to highlight.

On the base of a number of studies conducted in the area (Swales, 1990, 2004; Hyland, 1999a; Thompson & Tribble, 2001; Thompson & Ye, 1991), the researcher decided to explore this phenomenon in non-English Pakistani academic context. Hence, the field of study chosen is academic discourse in general and citation analysis of PhD theses in particular. The study was delimited to three major disciplines: English Studies, Biological Sciences and Social Sciences with three sub-disciplines in each. The study was further delimited to the literature review sections of



PhD theses. The corpus constructed is comprised of the literature review chapters of 90 PhD theses, chosen as to serve the purpose. The data were obtained from the HEC Islamabad's research repository which is freely available on its internet website ([prh.hec.gov.pk](http://prh.hec.gov.pk)). The software selected for analysis was AntConc 3.2.1w (Anthony, 2007) which is a free concordance programme. Quantitative analysis was conducted to determine the frequency of citations along with their types through using concordance as an option. The same option was also applied for making qualitative analysis of the data. The studies undertaken by Thompson and Tribble (2001) and Thompson and Ye (1991) were followed as framework of the research.

### **3.1. Corpus of the Study**

Prior to the process of constructing a corpus, it is necessary to specify the type of data, the time period, the variety of language, the sample size, and the corpus design (Meyer, 2004; Renouf & Sinclair, 1991). To this end, Pakistan Research Repository, placed in HEC Islamabad makes the population of this study. The corpus consists of the literature review part of PhD theses, obtained from three major disciplines, i.e. Biological Sciences, English Studies and Social Sciences with three sub-disciplines in each: Biotechnology, Botany, Zoology (Biological Sciences); Linguistics, ELT, Literature (English Studies); Education, Political Science, Psychology (Social Sciences). The most recent available theses were chosen on purposive basis. The corpus was constructed in plain text after clean-up of graphics, visuals, formulae, algorithms, captions, foot notes, and page numbers. Hence, more than one million (1000000) lexical items made the corpus of this study.

### **3.2. Sample and Sampling Procedure**

The procedure adopted for the data collection was purposive sampling technique which was made on the basis of choosing the theses defended in or after 2011. The rationale was that

they would have the latest trends in the use of language. The study was delimited to the literature review section as for the abundance of citations occurs in the said part of the thesis. Lastly, the disciplines selected were English Studies, Social Sciences and Biological Sciences. The subjects chosen were with sufficient theoretical material and satisfactory number of approved theses. The total number of theses studied for this purpose was ninety (90). To be precise, ten theses from each subject and thirty from each discipline were selected. The following table further elaborates the sampling procedure.

Table 3.1  
*Study Sample*

Disciplines	English Studies			Social Sciences			Biological Sciences		
Subjects	Linguistics	ELT	Literature	Pol. Science.	Psychology	Education	Bio-tech	Botany	Zoology
Theses per Subject	10	10	10	10	10	10	10	10	10
Theses per discipline	30			30			30		
Total Theses	90								

### 3.3. Corpus Analysis Tools

The study undertaken needed a software tool to analyze the data in terms of both quantity and quality of the linguistic patterns. The programme used for this purpose is AntConc 3.2.1 w (Anthony, 2007) which had the concordance option that fulfilled all the requirements of the study with efficient and clear results. It has the features to see concordance which helps to read the text in its original place. Furthermore, it has features of calculating frequencies of the items to be explored. However, the option of concordance could be used only along with human judgment. Thus, the software and its option of concordance was run on the corpora of three main disciplines

(English Studies, Biological Sciences, and Social Sciences) having literature review sections of 90 theses.

The computer software, mentioned above, was used as a tool to analyze the data through concordance of citations, reporting verbs and adverbs to categorize citations into their sub types. The Concordance analysis was used to identify the occurrences of citations individually as well as in its immediate context. The study undertaken needed to go through the context of citation items, so that the meaning could be deduced by the virtue of the context created.

### **3.4. Procedure for Analysis**

For this purpose, a list of references was secured from each thesis and the cited authors were sorted one by one saving the results in the individual files for each thesis of the subject and then each discipline. Eventually, ten files for each subject and thirty files for each discipline were constructed and saved as a result of using concordance programme. Each of the files was analyzed manually and the results were recorded in the given tables, specially constructed for this purpose. Citation types were first searched on the AntConc concordance in order to capture all citations in the corpus. The key word “cited” was also employed in searching for the citation types because a number of secondary citations were noticed. Based on Thompson and Tribble (2001) and Thompson and Ye’s (1991) frameworks and with careful investigation of the context of each citation shown in the concordance lines, the citation types and functions were carefully classified. However, for identifying citation types, Hyland’s (2000) criteria were followed. In this process, after the first citation was counted, each occurrence of another author’s name was counted as one citation, regardless of whether or not it is followed by the year of publication. In addition, in cases where more than one work was cited for a particular statement, only one instance was counted because the count indicates that a citation has been made, but it does not show whether it is a single

or a multiple reference citation (Mansourizadeh & Ahmad, 2011). Moreover, expressions which did not point to a specific author or source such as “some authors” or “Marxists” were ignored (Hyland, 2002). Finally, the occurrences of citation types and their functions were first calculated per thesis (per 100 citations) and then compared with those in the same subject (per 1000 citations). The comparisons were further in terms of intra discipline (per 3000 citations) as well as inter disciplines (per 9000 citations).

Hence, a close analysis of each result was carried out, looking for similarities as well as differences of the patterns reflecting a variety in the writers’ voice or signifying their attitude towards the author cited. Similarly, verbs and reporting references were also analyzed and classified into categories using Thompson and Ye’s (1991) classification such as, Factives, Non-Factives and Counter-Factives. Initially, the results were recorded manually on a loose sheet and later put in the specific tables constructed for this purpose. Finally, calculation of the instances of each category per subject as well as per discipline was made and registered. The categories were then judged and compared both quantitatively and qualitatively to test the hypotheses.

### **3.5. Theoretical Framework**

Thompson and Tribble's (2001) framework, for Integral and Non-Integral citations, was used as the instrument to analyze and compare the results obtained. Compared with other recent analytic schemes such as Hu and Wang (2014) which embraces more facets of citation as a literacy practice across different cultural and disciplinary contexts. Thomson and Tribble’s (2001) framework was selected because it has been extensively applied in analyzing the citation types and functions employed in different disciplines (Jalilifar & Dabbi, 2012; Mansourizadeh & Ahmad, 2011; Petric, 2007; Shoostari & Jalilifar, 2010). Some other latest works (Hu & Wang, 2014; Jalilifar, 2012; Kafes, 2017; Lee, Hitchcock & Casal, 2018; Peng, 2019) have also followed this

model in a modified way. So, what makes this integrated model (Thompson & Tribble, 2001; Thompson & Ye, 1991) more suitable for the current study is its relevance as well as the scope delimitation that restrict the study to cross-disciplinary perspective only. The main categories which Thompson and Tribble (2001) set are as follows:

- Integral citations
- Non-Integral citations

Thompson and Ye's (1991) framework was used to identify authorial voice in the verb controlling pattern of Integral citations. The categories both major and minor are as under:

Table.3.2  
*Integral Citation*

S/No.	Citation Type	Explanation	Example
1	Naming	citation as a noun phrase or part of noun phrase	the present study, based on Swales' (1990) division of citation forms
2	Non-Citation	name is given without a year	Hyland investigated the issue from a different angle
3	Verb-Control	citation acts as agent that control a verb	Cozzens (1989) observed a number of critics.

Table.3.3.  
*Non-Integral Citations*

S/No.	Citation Type	Explanation	Example
1	Source	indicates the source where the idea is taken from	For English teachers assessment includes means of checking what students can do with the language (Drummond, 1993).
2	Identification	identifies an agent within the sentence it refers to.	An opposite view to this one propounded by sociologists and linguists (Gramsci 1971; Bourdieu 1990).
3	Reference	refers to a major source for detail, signaled by "see"	Students are often advised to keep their academic prose as impersonal as possible, avoiding the use of 'I' and expressions of feeling (see Hyland, 2009).
4	Origin	This indicates the originator of a concept, technique or product.	The Classroom Observation Code (Abikoff & Gittelman, 1985) was used to quantify child behavior along mutually exclusive dimensions.

Based on Thompson and Ye's (1991) taxonomy, reporting verbs which the writers used were categorized into three sub-categories:

**Factives:** The verbs under this category could be for example, 'acknowledge', 'bring out', 'demonstrate', 'identify', 'improve', 'notice', 'prove', 'recognize', 'substantiate', 'throw light on' (Thompson & Ye, 1991, p. 372).

**Non-Factives:** By using such reporting verbs, the writer gives no clear signal as to his/her attitude towards the author's statement or opinion, for example, the verbs, 'advance', 'examine', 'generalize', 'propose', 'retain', 'urge', 'utilize' (Thompson & Ye, 1991, p. 372).

**Counter-Factives :** The writers while using Counter-Factives tend to portray the author as presenting false information or an incorrect opinion for example, 'betray', 'confuse', 'disregard', 'ignore', 'misuse', (Thompson & Ye, 1991, p. 372).

Table3.4.  
*Thompson and Ye's (1991) Model of Reporting Verbs*

S/No.	Citation Type	Explanation	Example
1	Factives	in which the writer portrays the author as presenting true information or a correct opinion.	acknowledge, bring out, demonstrate, identify, improve, notice, prove, recognize, substantiate, throw light on, and the others.
2	Non-Factives	in which the writer gives no clear signal as to his/her attitude towards the author's information or opinion.	advance, examine, generalize, propose, retain, urge, utilize
3	Counter-Factives	in which a writer portrays the author as presenting false information or an incorrect opinion.	betray, confuse, disregard, ignore, misuse,

Hence, the reason for adopting the above mentioned theoretical models was that they comprehensively cover the maximum possible aspects of authorial voice (writer's voice) employed

in different forms of citations. Thus, a model having all the categories identified in the frameworks was adopted and applied to the corpus constructed for this purpose.

### **3.6. Method of Analysis**

Mixed method approach was adopted for the study. The data were analyzed in quantitative as well as qualitative terms in order to answer the questions of the study. Following mixed method approach was quite useful as quantitative and qualitative analyses complement each other which helped in drawing well defined conclusion. The methods were thought to give a holistic picture of the issues considered. The quantitative method determines the percentage of various citation patterns and thus enables to conduct comparative analysis of different citation patterns used in the sampled theses of various subjects in each disciplines. The results obtained using computer concordance applications and human judgment lead to a comparison of the citation practices of writers in various disciplines and the different rhetorical practices of these disciplines. Different categories were thoroughly compared quantitatively in terms of types, context, syntactic variations, thematic and structural significance. Finally, the choice of reporting verbs by different writers as per the traditional requirements of various disciplines were also elaborated and cross compared. These methods are further elaborated below:

#### **3.6.1. Quantitative Analysis**

Quantitative analyses were aimed at determining the frequency counts of citation types as well as reporting verbs. As stated earlier, Integral and Non-Integral citations were counted while using the option of concordance in AntConc. Reporting verbs were analyzed likewise and were classified accordingly into its various forms as mentioned by Thompson and Ye (1991), such as 'Factive', 'Non-Factive', and 'Counter-Factive'. This was done through concordance along with

human judgment. The results were displayed in terms of comparative number of occurrences to underline the relative strength of the various categories. These tables are detailed enough to give a comprehensive account of all the categories, mentioning the frequency count of each pattern as well as its variants occurred in each subject, in the whole discipline, and in all disciplines collectively. The results obtained through quantitative analysis were mentioned in three different tables for each discipline. In other words, the results displayed in this manner clearly highlight the instances of various citation patterns at different levels such as, at thesis (per 100), at subject (per 1000), at discipline (per 3000). At the end, the occurrences of ‘Integral’ and ‘Non-Integral’ citations were compared to show an overall view of the trends concerning citations in the sampled theses. Eventually, the trend regarding use of citation patterns by the writers has been illustrated with a percentage of each category out of total 9000 instances of citations.

### **3.6.2. Qualitative Analyses**

The qualitative method was used to go through the semantic features and implied meanings embedded in each pattern. It also provided an overall view of the use of various citation patterns. The syntactic and semantic implications were elaborated through human judgment and concordancing as part of qualitative analysis. This is how the authorial voices are inferred owing to the strategies employed by the writers. The sub types of citations as well as those of reporting verbs were identified through concordances added by human judgment. They confirmed the writers’ tone about the works of others. The results concluded after human judgment and concordance applications led into a comparison of the citation practices of writers in various disciplines and the different rhetorical practices of these disciplines. Different categories, compared in the quantitative section, were judged qualitatively in terms of types, context, syntactic variations, thematic and structural significance. Finally, the choice of reporting verbs by different



writers as per the traditional requirements of various disciplines were analyzed and cross compared. To validate the categorization of the reporting verbs, the inter-coder reliability assessment was conducted through other experts of PhD level. Inter-coder agreement was improved and the discrepancies were resolved through discussion. Furthermore, the use of adverbs as modifiers was also studied in order to categorize further the stance of the writers in intra-discipline and inter-disciplines analysis. These methods duly confirmed authorial voices in the selected data based.

### **3.7. Design of the Study**

The design of the research elaborates when and how the data were collected and analyzed. These processes are discussed below:

- i. Types of citations used across discipline are part of quantitative analysis which was counted through using the option of concordance and human judgment of the researcher. For the frequency counter in the AntConc was unable to recognize the patterns mentioned by Thompson and Tribble (2001) as well as by Thompson and Ye (1991). The data obtained and analyzed as such were presented in tabular form showing intra-subject, inter-subject, as well as intra-discipline and inter-discipline comparisons. Present study is helpful in this regard as it will give a broader picture of the usual trend followed by the authors in a non-native context.
- ii. Similarly, reporting verbs, as part of these patterns, were also analyzed applying concordance added by human judgment. The results are presented in the same manner as adopted for citation. This will again apprise students of the usual trends for using reporting verbs in Integral citations. Inter-discipline and intra-discipline variations have

surfaced which may give a brief overview of the writers' attitude towards the authors as well as their works cited. Additionally, the study is clear enough to highlight the grip and command of the writers over linguistic skills in the area of discourse analysis.

- iii. Qualitative analysis of citations was conducted for further implications of the categorization of citations as well as reporting verbs and adverbs verified by the researcher as an additional analytical measure to quantitative analysis of the data. The option of concordance was used through AntConc to find out qualitative variations within the citations already categorized. This was an inter category analysis of the data which aimed to qualify the syntactic presentation of the arguments. This kind of analysis leads the study towards further interpretation and decoding of the data into meaningful manifestation of the writers' voice through using various patterns along with different tense and forms of reporting verbs and adverbs.

How the data were collected, as a technical matter, needed computer and internet skills. This was easily managed by using HEC's website. To this end, the Higher Education Commission (HEC) official website was accessed for the soft copies of dissertations/theses of various disciplines, present in the Pakistan Research Repository (henceforth PRR). The data obtained were saved and were later on converted to plain text for further analysis. This was unannotated and untagged (raw data) form of the data suitable enough for the present study.

### **3.8. Summary of the Chapter**

The chapter has delineated the systematic procedure adopted for the study. Corpus linguistics was taken as a methodological tool. The approach followed for analysis is data based

corpus linguistics which used the corpus data to prove the hypothesis. The corpus consisted of literature review sections of 90 theses which were available on HEC official website. The tool selected for corpus analysis was AntConc, 3.2.1 w (Anthony, 2007) with a specific feature known as concordance analysis. The theoretical framework of the study is based on the studies made by Thompson and Tribble (2001) and Thompson and Ye (1991). The methods used for analysis of the data were both quantitative as well as qualitative in order to answer the questions regarding various aspects of the issue. In short, the design of the study explained how the research was carried out in terms of data collection and analysis of the data.

## **CHAPTER 4: ANALYSIS AND DISCUSSION (QUANTITATIVE)**

It is now generally accepted that written academic discourse makes a rhetorical appeal to the readers, seeking to persuade them to accept the writer's viewpoint rather than simply stating neutral facts. This has led to increased interest in how academic writers incorporate into their texts their own 'personal feelings, attitudes, value judgments, or assessments' (Biber et al. 1999, p. 966). This is also known as critical engagement which the writers are supposed to maintain in their dissertations through evaluation of the inter-textual references. The phenomenon or process mentioned may also be termed as authorial voice, reflected in a variety of manners including the choice of lexical items, the pattern adopted and the sentence structure used. Hyland (2002) put it as; the writers' identities are directly related to the choices writers make in their discourses.

Hence, exploring the writer's voice is a complex phenomenon; as it involves going through a number of syntactic patterns used to bridge the gap between the reader and the sources cited in the text. These sources are placed appropriately in the form of citations in order to validate one's argument as well as persuade the readers. Thus, the writers go for a number of rhetorical patterns that enable them to refer to previous research, and imply a kind of attitude with a specific purpose, for instance, to enhance the persuasiveness of the argument induced. Similarly, the verbs used, reporting the statements as part of citations, also signify the writer's attitude towards the quoted source while contributing to the evaluative coherence of the text (Thompson & Zhou, 2000). In other words, through using these verbs, the writers tend to take personal stances regarding arguments and relate those as true or false; or remain neutral with no personal comments.

Thus, the researcher is going to portray a complete picture of the writers' choices concerning citation patterns in three different disciplines: 'English Studies', 'Biological science' and 'Social Sciences'. These choices may also be taken for researchers' respective commitments to others' views or provide justification for their arguments and positions. The given tables indicate the percentage of various citation patterns by different writers. Citation patterns are divided into 'Integral' and 'Non-Integral' citations with their sub-types under each category. Thus the chapter has been divided into two sections. Section one (I) contains intra discipline analysis of citations while section two (II) contains inter discipline analysis of citations.

### **Section I (Intra Discipline Analysis of Citation)**

Details given in this section not only highlight the frequency occurrence of each pattern but they also compare citation patterns used in the sampled theses of various subjects in each discipline. The data displayed signify the frequency of various citation patterns, in each subject, per thousand, as well as the whole discipline, per three thousand citation of each category of citations.

Table No. 4.1  
*Citation Analysis of Linguistics*

Thesis #	Average citations/Thesis	Non Integral Citation				Integral Citation					
		Source	Identification	Reference	Origin	Non Citation	Naming	Verb-Control			
								Factive	Non-Factive	Counter Factive	Verb-Control Total
Linguistics1	100	28	8	4	1	10	11	25	13	0	38
Linguistics 2	100	21	6	5	1	10	12	15	30	0	45
Linguistics 3	100	54	0	1	0	5	15	8	17	0	25
Linguistics 4	100	8	3	22	0	1	20	21	25	0	46
Linguistics 5	100	49	10	10	0	22	7	2	0	0	2
Linguistics 6	100	4	0	0	0	10	31	24	31	0	55
Linguistics 7	100	5	0	5	0	3	20	10	57	0	67
Linguistics 8	100	49	1	0	0	44	5	1	0	0	1
Linguistics 9	100	39	2	3	5	1	12	9	25	4	38
Linguistics 10	100	19	00	3	00	3	16	27	30	2	59
Total	1000	276	30	53	7	109	149	142	228	6	376

Table 4.1 presents the percentage of various citation patterns by different writers in linguistics. These patterns are generally divided into ‘Non-Integral’ and ‘Integral’ citations with a number of sub-types under each category. The details concerning frequency occurrence of each type of citation, which in other words signifies the choice and voice of the theses’ writers, is given below:

#### **4.1.1. Source Pattern in Linguistics**

This is one of the citation patterns which come under the category of ‘Non-Integral’ citation. The frequency occurrence of this type varies from writer to writer. As indicated in the table above, thesis writer (henceforth TW) one has used this pattern very frequently as up to 28 times which is more than any other type, under both categories, except Verb-Control, a sub-type of ‘Integral’ citations. Similarly, TW2, TW3, TW5, TW8, TW9, and TW10 have used this type 21, 54, 49, 49, 39 and 19 times respectively. Four of them TW3, TW5, TW8, and TW9 have used this type having the highest frequency, even more than any other type under both Integral and Non-Integral citations. Three of the writers like TW1, TW2, and TW10 have preferred this type only next the highest. Only three writers: TW4, TW6, and TW7 have made less use of source pattern as compared to other types. As a result of the preferential practice by the writers, this type of citation patterns falls next to the most preferred type that is Verb-Control. Collectively, the selected writers have used this type 276 times compared to 376 times use of Verb-Control, the highest one in terms of occurrences.

#### **4.1.2. Identification Pattern in Linguistics**

This citation pattern also comes under the category of ‘Non-Integral’ citation. The frequency occurrence of this type has been observed in single digits in all the theses selected except for TW5 who has used this type up to 10 times. Here again the frequency of occurrence varies from writer to writer. As is indicated, thesis writers, TW1, TW2, TW4, TW8, and TW9 have used this type 8, 6, 3, 1 and 2 times respectively. While four writers: TW3, TW6, TW7, and TW10 have not used Identification as sub-type of ‘Non-Integral’ citations. Now if we compare this type to other types of citation patterns, it is obvious from table 4.1 that this type is one of the least attended

patterns of citations as far as the scholars of Linguistics are concerned. The total number of this type used in the selected theses is only 30. Hence, this is the second lowest type of citation pattern after ‘Origin’ as the least preferred citation pattern.

#### **4.1.3. Reference Pattern in Linguistics**

As is indicated in the column of Reference, another sub-type of ‘Non-Integral’ citations, the preferential range of this type varies from zero (0%) to twentytwo (22%). The percentage of this type is fiftythree (53). Two of the writers: TW4 and TW5 have used this pattern in double digits as 22 % and 10 % respectively. While TW1, TW2, TW3, TW7, TW9, and TW10 have made less use of this, as up to 4%, 5%, 1%, 5%, 3%, and 3% respectively. The remaining two writers: TW6 and TW9 have not used this pattern at all. Thus, compared to other types of citation patterns, ‘Reference’ pattern is the third lowest from the bottom after ‘Origin’ and ‘Identification’ as types of citation patterns.

#### **4.1.4. Origin Pattern in Linguistics**

Table 4.1 shows that ‘Origin’ as a type of citation pattern is the least preferred one out of the total given patterns. Its total occurrence is only 7% for all the ten writers selected. Only three writers: TW1, TW2 and TW9 have preferred this type with 1%, 1% and 5% respectively. The remaining seven writers have not used this type at all. In comparison to other types of citation patterns, ‘Origin’ falls in the bottom of the table.

#### **4.1.5. Non-Citations Pattern in Linguistics**

This citation pattern is one of the regularly attended patterns by all the selected writers. This comes under the major category of Integral citations where the name of author, being cited, makes part of the sentence. The given table shows that its frequency occurrence ranges from 1 to



44 percent. TW1, TW2, and TW6 have used this type up to 10 percent each, while TW5 and TW8 have preferred to use this 'Non-citation' pattern up to 22 percent and 44 percent respectively. The remaining five of the writers, TW3, TW4, TW7, TW9 and TW10 have opted to use this type up to 5, 1, 3, 1, and 3 percent respectively. As far as its use in comparison to other patterns is concerned, the writers of the sampled theses have used this pattern only up to 109 times out of total 1000 occurrences. Hence, it is more than 10% of the total citation patterns found in the sampled data of Linguistics.

#### **4.1.6. Naming Pattern in Linguistics**

This is another type of Integral citations. Here the name of the author cited makes part of the sentence in a different position, other than controlling the verb. As the table indicates, this type of citation patterns makes a considerable quantitative part of the citation patterns. Total occurrences of this type used by the ten writers are 144 out of 1000 citations in linguistics. The preference of the writers for this type of pattern differs from writer to writer. TW1, TW2, TW3 TW4, TW6, TW7, TW9 and TW10 have used 'Naming' type of Integral citations more than 10 percent that is 11%, 12% 15%, 20%, 31%, 20%, 12% and 16% respectively. Only two writers: TW5 and TW8 have used this type less than 10 percent that is 7% and 5% respectively. Hence, the preferential ratio of this type compared to other types of citation patterns is 149 out of 1000 occurrences in linguistics.

#### **4.1.7. Verb-Control Pattern in Linguistics**

This is one of the major types among both Integral and 'Non-Integral' citations. Here name of the author being cited makes part of the sentence as agent of reporting verbs. As the table presents, this pattern contributes a substantial part to the total number of citations obtained. Total occurrences of this type used by the ten writers are 376 out of 1000 citations. The preference of

the writers for this type of pattern differs from writer to writer. The writers such as TW1, TW2, TW3 TW4, TW6, TW7, TW9 and TW10 have used this pattern up to 38%, 45% 25%, 46%, 55%, 67%, 38% and 59%, respectively. Only two of the writers: TW5 and TW8 have used this type up to 2% and 1% respectively that is less than 5percent. Hence, the preferential ratio of this type as compared to other types of citation patterns is 376 out of 1000 occurrences, the most frequently attended pattern in all the ten theses of linguistics. This category has three sub-categories which are described as under:

#### **4.1.7.1. Factives**

The occurrences of this sub-type of ‘Verb-Control’ have been observed in double digits, in five selected theses of linguistics, i.e. TW1, TW2, TW4, TW6, TW7 and TW10. The use of this pattern in these theses is up to 25%, 15%, 21%, 24%, 10% and 27% respectively. The occurrence of this pattern in the remaining is TW3 (8%), TW5 (2%), TW8 (1%) and TW9 (9%). Now if we compare this type to other sub-types of ‘Verb-Control’ citation pattern, it is obvious from the table that this type is the second most attended one after ‘Non-Factive’ citation pattern. Its total frequency occurrence is 142 against 228 of ‘Non-Factive’ citation pattern.

#### **4.1.7.2. Non-Factives**

‘Non-Factive’ type of ‘Verb-Control’ has been observed in double digits in all the theses of Linguistics except two, i.e. TW5 and TW8 in this pattern have not been used at all. The frequency occurrence of this pattern in the remaining theses, i.e. TW1, TW2, TW3, TW4, TW6, TW7, TW9 and TW10 is 13%, 30%, 17%, 25% 31%, 57%, 25% and 30% respectively. Now if we compare this type with the other sub-types of Verb-Control, the table shows that this type is the most attended pattern. Its total number is 228 out of 376 time use of Verb-Control.

#### **4.1.7.3. Counter-Factives**

This is the last sub-type of ‘Verb-Control’ and it has been observed that only two writers have used this pattern. The table shows that TW9 and TW10 have used this pattern up to 4% and 2% respectively. The remaining eight writers have avoided this pattern completely. Thus, its total contribution to the overall occurrences of ‘Verb-Control’ is only 6 in terms of frequency occurrence. It is the least preferred pattern out of not only ‘Verb-Control’ citations but also among the other types of both Integral and Non-Integral patterns of citations.

Table No. 4.2  
Citation Analysis of ELT

Thesis #	Average citations/Thesis	Non Integral Citation				Integral Citation					
		Source	Identification	Reference	Origin	Non Citation	Naming	Verb-Control			
								Factive	Non-Factive	Counter Factive	Verb-Control Total
ELT 1	100	33	5	13	3	0	20	18	8	0	26
ELT 2	100	44	7	0	3	2	25	8	11	0	19
ELT 3	100	52	5	0	2	6	10	9	16	0	25
ELT 4	100	22	4	2	2	0	33	15	22	0	37
ELT 5	100	36	1	5	1	2	24	11	20	0	31
ELT 6	100	12	0	0	0	19	13	28	28	0	56
ELT 7	100	53	1	5	0	9	17	7	8	0	15
ELT 8	100	19	0	4	0	3	6	33	35	0	68
ELT9	100	50	3	3	0	3	18	4	19	0	23
ELT10	100	47	6	1	0	2	8	8	28	0	36
Total	1000	368	32	33	11	46	174	141	195	0	336

Table 4.2 provides the preferential use of various citation patterns by different theses writers of ELT. The detail of frequency occurrences of each type of citation pattern is given below:

#### 4.2.1. Source Pattern in ELT

This citation pattern comes under the category of Non-Integral citation. The frequency occurrence of this type varies from writer to writer. As mentioned, thesis writers from TW1 to

TW10 have used this pattern very frequently, i.e. from 12 to 53 times. It is the most preferred type of citation pattern out of both Integral and Non-Integral citation patterns. The total occurrence of this type in TW1, TW2, TW3, TW4, TW5, TW6, TW7, TW8, TW9, and TW10 is 23, 44, 52, 22, 36, 12, 53, 19, 50 and 47 times respectively. Only two of the writers have used this pattern less than 20% while the other eight writers have made excessive use of this pattern, more than any other sub-type of both the major categories. As against discursive practices carried out by the writers in Linguistics who preferred Verb-Control type of citation pattern, ELT writers seem more inclined towards this type of citation pattern. Thus, this is obvious that Source is the most preferred one out of all the patterns amounting to a total 368 times and Verb-Control is just next to this type with 336 occurrences.

#### **4.2.2. Identification Pattern in ELT**

This citation pattern also comes under the category of Non-Integral citation. In ELT, the frequency occurrence of this type has been observed in single digit in all the theses. Its maximum use is up to 7% only. Here again the frequency of occurrence varies from writer to writer. As is given, thesis writers such as TW1, TW2, TW3, TW4, TW5, TW7 TW9, and TW10 have used this pattern up to 5%, 7%, 5%, 4%, 1%, 1%, 3% , and 6%, respectively. While two of the writers: TW6 and TW8 have not used 'Identification' as sub-type of 'Non-Integral' citations. Now if we compare this pattern to the other types of citation patterns, it is obvious from the table that this is one of the least attended patterns as far as the scholars of ELT are concerned. Its use in all the theses has been observed up to 32 times in total. Thus, this is the second lowest type of citation pattern after 'Origin' as the least preferred citation pattern.

### 4.2.3. Reference Pattern in ELT

The category of Reference as the sub-type of ‘Non-Integral’ citations, as is shown in the table above, is also the less preferred citation pattern. The preferential range of this type varies from zero (0%) to thirteen (13%). The total number of frequency occurrence of this type is 33. Only one of the writers, i.e. TW1 has used this pattern in double digits (13%). While TW4, TW5, TW7, TW8, TW9, and TW10 have used this type as much as 2%, 5%, 5%, 4%, 3%, and 1% respectively. While the remaining three writers: TW2, TW3 and TW8 have not used this pattern at all. Consequently, as compared to other types of citation patterns, ‘Reference’ as pattern is the third lowest from the bottom after ‘Origin’ and ‘Identification’ as types of citation patterns.

### 4.2.4. Origin Pattern in ELT

Table 4.2 shows that this type of citation pattern is the least preferred one out of the given patterns. Its total occurrence is 11% only in all the ten theses selected. Only five writers, i.e. TW1, TW2, TW3, TW4, and TW5 have preferred this type as much as only up to 3%, 3%, 2%, 2% and 1% respectively. The remaining five writers have not used this type. Hence, comparing this type to other citation patterns, it just happens to fall in the bottom.

### 4.2.5. Non-Citations Pattern in ELT

The given table shows that ELT writers have regularly attended this pattern of Integral citation. This comes under the major category of Integral citations where the name of author, being cited, makes part of the sentence but without showing the year of publication. Its frequency occurrence ranges from 0 to 19 percent. Its total frequency of occurrence is 46 out of 1000 for all the ten theses of ELT. Out of all the ten writers, TW6 has made the highest use of this pattern as much as up to 19% of the instances observed. The other writers of ELT: TW2, TW3, TW5, TW5,

TW7, TW8, TW9 and TW10 have used this pattern up to 2%, 6%, 2% 9%, 3%, 3% and 2% respectively.

#### **4.2.6. Naming Pattern in ELT**

As the table for ELT indicates, this pattern makes a considerable part of the citation observed. The writers' preference for this type of pattern differs from case to case. ELT theses writers like TW1, TW2, TW3 TW4, TW7, and TW9 have used this type of Integral citations up to 20%, 25% 10%, 33%, 24%, 13%, 17% and 18% respectively. The other two writers: TW8 and TW10 have used this type up to 6% and 8% respectively that means less than 10 percent. Hence, the writers' preference for this type compared to other types of citation patterns goes up to 174 out of 1000 occurrences in all the ten theses of ELT. Thus, the percent use of this pattern out of all the ten theses is 17.4.

#### **4.2.7. Verb-Control Pattern in ELT**

Verb-Control is one of the most frequently attended types of both 'Integral' and 'Non-Integral' citations. Here the name of the author cited makes part of the sentence while using reporting verbs. As the table indicates, this type of citation patterns also makes a considerable part of the citations. Total frequency of this type in the sampled ten theses is 336 out of 1000 citations or 33.6% out of the total occurrences of the other categories or the patterns used. The preference for this type of pattern differs from writer to writer. TW1, TW3 TW4, TW5, TW8, TW9, TW10 have used this type of Integral citations up to 26%, 25% 37%, 31%, 56%, 68%, 23% and 36% respectively. Only two of the writers, i.e. TW2 and TW7 have used this type up to 19% and 15% respectively, which is less than 20 percent. As a result, it is next to 'Source' as the most frequently attended pattern in all the ten theses of ELT. This category has three further sub-categories which are described as under:

#### **4.2.7.1. Factives**

The writers in this pattern portray an author as presenting true information or correct opinion. The occurrences of this sub-type of ‘Verb-Control’ are in double digits, in five of the theses selected for ELT, i.e. TW1, TW4, TW5, TW6, and TW8 have used this pattern up to 18%, 15%, 11%, 28% and 33% respectively. The remaining writers: TW2, TW3, TW7, TW9, and TW10 have used this pattern less i.e. up to 8%, 9%, 7%, 4% and 8% respectively. Thus, its total frequency is 141 and is just next to ‘Non-Factive’ citations in terms of total occurrences.

#### **4.2.7.2. Non-Factives**

Here in this kind of reporting verbs, the writer gives no clear signal as to his/her attitude towards the author's statement or opinion. This sub-type of ‘Verb-Control’, as shown in the table, is well attended one, for eight out of ten writers have used this pattern of ‘Verb-Control’ in double digits. The writers such as, TW2, TW3, TW4, TW5, TW6, TW8, TW9 and TW10 have used this pattern 11%, 16%, 22%, 20%, 28%, 35%, 19% and 28% respectively. Only two of the writers have preferred this type up to 8 times each. Hence, the preferential use of this sub-type is the maximum one compared to ‘Factives’ and ‘Counter-Factives’ as variants of ‘Verb-Control’ citation. Its total number of occurrences is 195 out of 336 time use of Verb-Control.

#### **4.2.7.3. Counter-Factives**

The writers while using these verbs tend to portray the author as presenting false information or an incorrect opinion. This is the third sub-type of ‘Verb-Control’ and it has been observed that none of the writers have preferred this pattern. The given table shows that all the writers have avoided this pattern. It is the least preferred citation pattern out of not only ‘Verb-Control’ citations but also among other types of both Integral and ‘Non-Integral’ citation patterns.



Table No. 4.3

*Citation Analysis of Literature*

Thesis #	Average citations/Thesis	Non Integral Citation				Integral Citation						
		Source	Identification	Reference	Origin	Non Citation	Naming	Verb-Control				Total
								Factive	Non-Factive	Counter-Factive	Verb-Control	
Literature 1	100	7	0	0	0	33	15	12	31	2	45	
Literature 2	100	0	2	2	0	50	25	0	21	0	21	
Literature 3	100	32	3	3	0	38	9	4	10	1	15	
Literature 4	100	25	4	3	0	40	22	0	6	0	6	
Literature 5	100	11	0	2	0	25	17	7	37	1	45	
Literature 6	100	25	5	3	0	49	10	0	8	0	8	
Literature 7	100	16	3	1	0	42	13	10	15	0	25	
Literature 8	100	74	0	6	0	18	0	2	0	0	2	
Literature 9	100	65	5	0	0	20	0	0	10	0	10	
Literature 10	100	51	0	7	0	37	1	1	3	0	4	
Total	1000	306	22	27	0	352	112	36	141	4	181	

Table 4.3 shows trend of the theses writers concerning various citation patterns in literature. The detail of occurrences of each type is given below:

#### 4.3.1. Source Pattern in Literature

The frequency occurrence of this type differs from writer to writer. As table 4.3 shows, the occurrence of this pattern ranges from 0% to 74%. Hence, the theses writers: TW1, TW3, TW4,

TW5, TW6, TW7, TW8, TW9, and TW10 have used this type up to 7, 32, 25, 11, 25, 16, 74, 65, and 51 times respectively, out of one hundred occurrences each for all the ten theses selected. Only one of the writers has avoided this pattern. While three of them, i.e. TW8, TW9, and TW10 as given above, have made the maximum use of this pattern. Its total occurrences are 306 out 1000 for all the ten theses. This pattern falls next to the category of ‘Non-Citation’, being the highest one among all the patterns.

#### **4.3.2. Identification Pattern in Literature**

This citation pattern is, as usual, one of the least preferred one by the theses’ writers in literature. The frequency occurrence of this type in all is in a single digit. The writers used this pattern up to 5% in all the theses selected. Here again the frequency of occurrence varies from writer to writer. The writers such as TW2, TW3, TW4, TW6, TW7, and TW9 have used this type up to 2%, 3%, 4%, 5%, 3%, and 5% respectively. Again four of the writers: TW1, TW5, TW8 and TW10 did not use Identification as sub-type of ‘Non-Integral’ citations. Now if we compare this type to the other types of citation patterns, it is obvious from the table that this type is one of the least attended patterns of citation used by the writers in Literature. There were 22 instances of this pattern in all the theses. Hence, this is the second lowest type of citation pattern used after ‘Origin’.

#### **4.3.3. Reference Pattern in Literature**

‘Reference’ as the sub-type of ‘Non-Integral’ citations, shown in the table above, has got less attention on the part of the writers in the genre of Literature. The frequency of this type of pattern varies from zero (0%) to seven (7%). The total number of occurrence of this type is 27 only. None of the writers has used this pattern in double digits. Writers like TW2, TW3, TW4, TW5, TW6, TW7, TW8, and TW10 have used this type as much as up to 2%, 3%, 3%, 2%, 3%, 1%, 6% and 7% respectively. The remaining two writers: TW1, and TW9 have not used this

pattern. As a result, compared to other types of citation patterns, ‘Reference’ is the third lowest from the bottom after Identification with 22 and ‘Origin’ with 0 out of 1000 occurrences in total. Writers in the genre of Literature have preferred this pattern the least against ELT with 33 and Linguistics with 53 out of 1000 total occurrences in each.

#### **4.3.4. Origin Pattern in Literature**

As table 4.3 indicates, this pattern has been totally avoided by the writers of this genre. None of the writers has used this pattern even once in one hundred occurrences each. While comparing this type to other citation patterns, it just happens to fall in the bottom not only in Literature but also among the three sub-disciplines of ‘English Studies’. ‘Origin’ has got 0 occurrences against those in Linguistics having 7 and ELT with 11 out of 1000 in total.

#### **4.3.5. Non-Citations Pattern in Literature**

Table 4.3 shows that the writers used this pattern the most among the three sub-disciplines of ‘English Studies’. Its total occurrences are 352 out of 1000 for all the ten theses of this genre even more than the usually preferred patterns like ‘Source’ with 306 and ‘Verb-Control’ having 181 out of 1000 occurrences in total. Table 4.3 shows that the range of occurrences across the theses selected is 18 to 50 percent. Writers such as, TW1, TW2, TW3, TW4, TW5, TW6, TW7, TW8, TW9 and TW10 have used this pattern up to 33%, 50%, 38% 40%, 25%, 49%, 42%, 18%, 20 and 37% respectively.

#### **4.3.6. Naming Pattern in Literature**

Table 4.3 shows that the majority of writers have given due preference to this form of citation except for two writers: TW8 and TW9 who avoided using this pattern. The writers’ preference for this pattern ranges from 1% to 25%. The writers in Literature like TW1, TW2, TW3

TW4, TW5, TW6, TW7, and TW10 have used this pattern up to 15%, 25%, 9%, 22%, 17%, 10%, 13% and 1% respectively. Other writers, i.e. TW8 and TW9 have not used this type at all. The occurrences of this type when compared to other types of citation patterns goes up to 112 out of 1000 total occurrences in all the ten theses, selected from literature. In terms of total, this pattern stands fourth as compared to other types of citation patterns, used in the sampled theses of literature. Now when this pattern is compared vertically with the theses of ELT and Linguistics, the writers in Literature stand third in terms of using this pattern.

#### **4.3.7. Verb-Control Pattern in Literature**

Verb-Control is one of the most frequently attended types of citation patterns. Table 4.3 shows that the total frequency of this type in the sampled ten theses is 181 out of 1000 different citations. The preference of the writers for this type differs from writer to writer. For example, TW1, TW2, TW3, TW5, TW7, and TW9 have made maximum use of this pattern. The occurrences of Verb-Control in the mentioned theses are 45%, 21%, 15%, 45%, 25%, and 10% respectively. Only three writers: TW4, TW6 and TW10 have used this pattern up to 6%, 8%, and 4% respectively. It means its use is in single digits. As a result, this pattern is 3<sup>rd</sup> in frequency strength after ‘Source’ that stands on second and ‘Non-citation’ on 1<sup>st</sup> in all the ten theses of Literature. Now to compare this with other subjects, like ELT (336) and Linguistics (376), the use of this pattern in Literature (181) stands third again. Its further sub-categories are described as under:

##### **4.3.7.1. Factives**

The occurrences of this sub-type of Verb-Control range from 0% to 12% across the sampled theses of literature. Only two of the writers such as TW1 with 12% occurrences and TW7 having 10% occurrences have attained relatively maximum frequency of this variant of ‘Verb-Control’. The remaining theses such as, TW3, TW5, TW8, and TW10 were found using this pattern

as 4%, 7%, 2%, and 1% respectively. Contrary to these, TW2, TW4, TW6, and TW9 have not used this sub-type of ‘Verb-Control’. Its total frequencies are 36 only. This is just 2<sup>nd</sup> to ‘Non-Factives’ (141) in terms of occurrences. While comparing this with Linguistics (142) and ELT (141), its occurrences are the lowest in number in the genre of literature (36).

#### **4.3.7.2. Non-Factives**

This sub-type, as table 4.3 shows, is one of the well-attended patterns, not only as a variant of Verb-Control but also among other sub types of both Integral and ‘Non-Integral’ citations. Six out of ten writers have used this pattern of Verb-Control in double digits. The writers like, TW1, TW2, TW3, TW5, TW7, and TW9 have used this pattern up to 31%, 21%, 10%, 37% 15% and 10% respectively. While three of the writers have preferred this type of ‘Verb-Control’ up to 6 %, 8% and 3% respectively. Only one of the writers as TW8 has avoided this pattern. Its total occurrences are 141 out of 181 occurrences of ‘Verb-Control’.

#### **4.3.7.3. Counter-Factives**

The third variant, ‘Verb-Control’, has only 4 occurrences in all the ten theses of Literature. The table shows that the writers such as TW1, TW3, and TW5 have used this variant only up to 2%, 1%, and 1% respectively. The rest of writers have simply avoided this pattern. It is the least preferred citation pattern not only in literature but also in ELT.

Table No. 4.4

*Citation Analysis in English Studies*

Subjects	Average citations/ Subject	Non Integral Citation				Integral Citation					
		Source	Identification	Reference	Origin	Non Citation	Naming	Verb-Control			
								Factive	Non-Factive	Counter Factive	Verb-Control Total
ELT	1000	368	32	33	11	46	174	141	195	0	336
Linguistics	1000	276	30	53	7	109	149	142	228	6	376
Literature	1000	306	22	27	0	352	112	36	141	4	181
Total	3000	950	84	113	18	507	435	319	564	10	893

Table 4.4 presents comparative analysis of different citation patterns used in the theses of various subjects in ‘English Studies’. The table shows per thousand use of each category of citations along with its relative position in all the three subjects. Furthermore, this also indicates relative position of each category out of total patterns used in ‘English Studies’. Detailed description of each pattern is given as under:

#### 4.4.1. Source Pattern in English Studies

The specific column in the given table indicates that the number of occurrences of this pattern in ELT, Linguistics and Literature is 368, 272, and 306 respectively. Thus, it is obvious from the column that ELT has got relatively the most preferred status with 368 occurrences out of 950 in total followed by Literature with 306 and Linguistics with 276. It also indicates that this

pattern has got maximum frequencies, i.e. 950 out of 3000 total occurrences of citations in English Studies. Hence, this pattern stands on top in the given discipline.

#### **4.4.2. Identification Pattern in English Studies**

The table shows that this pattern is comparatively the less preferred one among the various types of citations. It was also noticed that this pattern has got the maximum frequencies in ELT, securing 32 out of 84 in totals, against Linguistics with 30 and Literature with 22. It may also be compared with other patterns across the table. Hence, it has got 84 out of total 3000 occurrences of different citation patterns in ‘English Studies’. As a result, this pattern stands on the 2<sup>nd</sup> lowest after Origin pattern with 18 out of 3000 in total.

#### **4.4.3. Reference Pattern in English Studies**

Table 4.4 indicates that this pattern has got 33, 53, and 27 occurrences in ELT, Linguistics and Literature respectively. It is visible, from the data displayed, that Linguistics has got the maximum number of occurrences across the subjects. Hence, it is obvious from the Reference column that this pattern has got 113 occurrences in total. It stands third from the bottom among the various patterns of citations in ‘English Studies’.

#### **4.4.4. Origin Pattern in English Studies**

The table indicates that the number of occurrences of ‘Origin’ pattern in ELT, Linguistics and Literature are 11, 7, and 0 respectively. These findings signify the writers are not inclined towards this pattern in their citations. Occurrences of the same pattern may also be compared among the theses of ELT, Linguistics and Literature. Thus, it is obvious from the column that ELT has got relatively the most preferred status with 11 frequencies out of 18 in total. It is followed by Linguistics with 7 and Literature with no occurrence of this pattern. The sampled theses of ELT,

Linguistics and Literature had 18 occurrences of this pattern. Lastly, the results indicate that this pattern has got the least number of frequencies, i.e. 18 out of 3000 total occurrences of citations in ‘English Studies’.

#### **4.4.5. Non-Citation Pattern in English Studies**

The column specified for ‘Non-Citation’ in the given table indicates that this pattern has got maximum number of instances in ‘English Studies’. The data given indicates that this pattern has got 46, 109, and 352 numbers of occurrences in ELT, Linguistics and Literature respectively. It is again obvious, from the data displayed, that Literature has got the maximum number of occurrences across the subjects. It was also noticed that this pattern had got 507 occurrences in total. Hence, to conclude, ‘Non-citation’ as pattern stood third from the top among the various patterns of citations in ‘English Studies’.

#### **4.4.6. Naming Pattern in English Studies**

The table indicates that ELT, Linguistics and Literature had 174, 149 and 112 occurrences of this pattern respectively. Occurrences of the pattern may also be compared among the theses of ELT, Linguistics and Literature. As a result, it is obvious from the column that ELT is on top with 174 citations out of 434 in total. It is followed by Linguistics with 149 and Literature with 112. It also indicates that this pattern has got 435 occurrences out of 3000 total citations in ‘English Studies’. Eventually, this pattern stands fourth among the different citation patterns.

#### **4.4.7. Verb-Control Pattern in English Studies**

The table shows that this pattern is comparatively one of the most preferred ones among the various types of citations. It was also found that this pattern has got maximum frequencies in ELT, i.e. 336 out of 893. It is followed by Linguistics with 376 and Literature with 181. It may



also be compared with other patterns across the table. Hence, it has got 893 out of total 3000 occurrences of different citation patterns in ‘English Studies’. Thus, total occurrences of this pattern are next to the ‘Source’ (950) pattern. Its sub-variants with their respective contributions are as under:

#### **4.4.7.1. Factives**

Table 4.4 indicates that this pattern is a highly contributing variant with 319 out of 893 occurrences of ‘Verb-Control’. It is next to Non-Factive as a variant having 564 occurrences. Table 4.4 also indicates relative occurrences of this pattern in ELT (141), Linguistics (142), and Literature (36). Hence, comparatively speaking, Linguistics has got maximum frequencies of this pattern.

#### **4.4.7.2. Non-Factive**

This pattern is the most preferred one and a highly contributing type of ‘Verb-Control’. Total occurrences of this pattern are 564 out of 893 occurrences of ‘Verb-Control’ in total. The table also indicates that the relative occurrences of this variant in ELT, Linguistics, and Literature are 195, 228, and 141 respectively. Thus, Linguistics compared to ELT and Literature has got the maximum frequencies of this pattern.

#### **4.4.7.3. Counter-Factives**

This is one of the least and rarely attended pattern of citations. The three sub-disciplines of ‘English Studies’ like ELT, Linguistics, and Literature have used this pattern as 0, 6 and 4 times respectively. Its total contribution to the overall number of ‘Verb-Control’ is 10. As results show, it is the least preferred variant in terms of the number of instances and falls in the bottom with ‘Non-Factives’ as the highest and Factives in middle.

Table 4.5

*Intera-Discipline Analysis of Integral and Non-Integral citations*

Citation Type	ELT	Linguistics	Literature	Total Per 3000 Citations	Total in %
Integral	556	634	645	1835	61.17
Non-Integral	444	366	355	1165	38.83

**4.5. Intra-Discipline Analysis of Integral and Non-Integral Citations**

Table 4.5 indicates a clear tilt towards ‘Integral’ form of citations. All the three subjects: ELT, Linguistics, and literature have used ‘Integral’ citations up to 556, 634, and 645 respectively out of 1000 times each. Against these, the respective use of ‘Non-Integral’ citations is 444, 366, and 355 times respectively. Similarly, the total occurrences of ‘Integral’ citations are 1835 as compared to ‘Non-Integral’ (1165) out of 3000 citations used in total. Thus, it is very much clear that the total use of ‘Integral’ citations is 61.17 % and the use of ‘Non-Integral’ citations is 38.83%. Hence, one can safely conclude that the writers of ‘Social Sciences’ and ‘Humanities’, including ‘English Studies’ do emphasize to refer to the researchers working already in the field. The same has also been pointed out by Thompson (2000) and Hyland (1999a) who associated the use of various citation patterns to different subjects as genres.

**Discussion**

Comparison of the two groups of citation showed that the frequency of Integral citations was higher than ‘Non-Integrals’. A clear tilt was found in the writers of ‘English Studies’ towards ‘Integral’ form of citations. It was found that the total use of ‘Integral’ citations was 61.17 % against ‘Non-Integral’ citations with 38.83%. The figures obtained, signify that writers of ‘English

Studies' were inclined more to refer to the people who were already in the field. The variation noted here is not a new phenomenon as this has also been pointed out by Thompson (2000) who associates this to the norms held by the writers across the subjects. It appears that in non-native context, the writers of 'English Studies' stress the readers to focus more on writers, hence think the author more significant than the information with an objective to align themselves to the specific academic community (Peng, 2019). These findings are in conformity with Hyland (1999a) who also concluded that hard disciplines and sciences draw on more Non-Integral and more research activity verbs as against soft disciplines-Humanities and 'Social Sciences', having more inclinations towards 'Integral' and discourse activity verbs. While 'Non-Integral' citations foreground ideas and propositions, 'Integral' citations foreground scholars, thus, giving authors greater prominence.

In terms of intra-discipline analysis; it was found that ELT had got maximum frequencies of Integral (556) citations as compared to Non-Integral (444). 'Source' pattern (368) is the highest out of 950 in total. It is followed by Literature with 306 and Linguistics with 276. It was also found that this pattern had had the maximum frequencies, i.e. 950 out of 3000 total occurrences of citations in 'English Studies'. Hence, this pattern has got the most preferred status among all categories across both Integral and 'Non-Integral' groups. These findings conform to the study made by Shoostari and Jalilifar (2010) that frequency of the 'Non-Integral' 'Source' was the highest with 'Origin' attracting the least attention. They also observed that international writers had greater tendency in using 'Source', 'Identification', and 'Reference' patterns. Hence, part of the statement goes against the findings of this research as 'Identification' and 'Reference' did not occur as much while 'Origin' was not employed neither by the local nor international writers. The obvious reason for the paucity of 'Origin' pattern is the purpose; it is used; for instance, referring

to a theory, a concept, or a tool which are not always that much abundant in number (Thompson, 2005). The results also indicates that ‘Identification’ as pattern has got maximum frequencies in ELT, securing 32 out of 84 in total followed by Linguistics with 30 and Literature with 22. It has got 84 out of total 3000 occurrences of different citation patterns in ‘English Studies’. The total occurrences of this pattern were 2<sup>nd</sup> lowest and more in number against ‘Origin’ with 18 out of 3000 in total. The less use of Identification has also been observed in a study conducted by Loan (2016) in a similar non-native context. Contrary to this, Shoostari and Jalilifar (2010) observed that international writers had greater tendency in using ‘Source’, ‘Identification’, and ‘Reference’ patterns. Hence, the trend of using ‘Identification’ in Pakistani context duly conforms to the behavior of the non-native writers concerning citation.

It was also observed that ‘Reference’ secured 113 occurrences in total. Thus, it stood third from the bottom among various patterns of citations in ‘English Studies’. The only remarkable point noticed here is the lesser use of ‘Reference’ pattern which goes contrary to the greater inclination of international writers in using this citation pattern (Shoostari & Jalilifar, 2010). Concerning ‘Reference’, writers employ this pattern as a ‘shorthand device’ (Thompson, 2001, P. 105) to direct the reader to another text in which exact details can be found. For Hyland (2002, p. 215), these strategic devices (e.g. see) belong to ‘directives’ which, in fact, the writers suggest for readers, asking them to “perform an action or to see things in the way determined by the writer”. This writer-reader engagement, as a characteristic of native type of writing, appears to be lacking in the non-native writers including Pakistani writers.

Likewise, it was found that the sampled theses of ELT, Linguistics and Literature had 18 occurrences of ‘Origin’ altogether. It was also found that this pattern was the least preferred one out of 3000 total occurrences of citations in English Studies. Moreover, Jalilifar’s (2010) study

also tells that ‘Origin’ pattern was not used at all, i.e. attracting the least attention. It is endorsed again that international as well as local writers had lesser inclination towards the use of ‘Origin’ (Shoostari & Jalilifar, 2010). Thus, three categories, i.e. ‘Identification’, ‘Reference’, and ‘Origin’ were found with lesser number of occurrences which refer to the non-native practices of the writers who go for the grammatical perfection rather than the functional value of the statements.

Besides these, ‘Integral’ citations make considerable part of citations in the corpora, as a kind of academic communication. ‘Non-citation’, as one of ‘Integral’ categories, aims to provide further discussion on the previously cited research by employing the name of earlier cited authors without a year reference since it has been supplied earlier (Thompson, 2001; Thompson & Tribble, 2001). The non-citation function was found with 507 occurrences in total, mostly by the students of literature. Hence, it stood third from the top among various patterns of citations in ‘English Studies’. Many of the non-native researchers are extremely picky and they regard non-citations as unacceptable and unconventional. It has, therefore, been observed that the local or non-native journals encircle such items and the manuscripts are returned to the authors for not supplying the year reference, even though the year is mentioned earlier in the immediately preceding text (Shoostari & Jalilifar, 2010). In contrast to this, they also observed that international writers used ‘Non-citation’ to a higher degree than local writers. Despite the linguistic behavior of non-natives depicted above, the writers in the current study, particularly in the genre of literature, appeared to have more inclination towards ‘Non-citation’ which means that they do conform to the writing conventions of international writers instead of non-English writers.

Similarly, ‘Naming’ as citation pattern was used 435 times out of 3000 in ‘English Studies’. ELT was on top with 174, Linguistics on the second with 149 and Literature on the third with 112 occurrences. This pattern stands fourth as compared to ‘Source’, ‘Verb-Control’, and ‘Non-

citation'. In terms of comparison to native and non-native communities, its occurrences appear to be in complete conformity with non-native writer's practices. Shoostari and Jalilifar (2010) observed that the frequency of 'Naming' in the local data was extraordinarily high. They assumed that local writers may use 'Naming' as to stress the agents of research rather than acknowledge their works. The non-native writers' common practices may easily be confirmed through these observations which signify that these writers also make use of 'Naming' with more or less the same implications behind these. This further confirms that non-English culture seems to be more people oriented than their performances. Thus, they value people more than their achievements, contrary to the tendency in the West to credit the works irrespective of who the researcher is.

It was observed that 'Verb-Control' as pattern had got 893 occurrences of different citation patterns in 'English Studies'. ELT had 336, Linguistics 376 and Literature had 181 occurrences of citation patterns. Hence, total occurrences of this pattern were next to the Source pattern. In this study, however, the preference for 'Integral' citation does not seem to be only related to the citation conventions, but to the functions of citations in journals, in which writers prefer to emphasize the author especially in the subject position by controlling verb. Hence, they want to augment their claims by emphasizing the authors rather than information. In academic writing, either article or thesis, researchers tend to choose appropriate information supporting their study by means of verbs, such as 'Factives', 'Non-Factives', and 'Counter-Factives'. In fact, they do not evaluate the reported text; rather they only tend to report it, often using appropriate grammatical patterns. Thompson and Ye (1991) worked on reporting verbs in order to identify a writer's stance in the form of different verbs used in 'Verb-Controlling' citations. Their framework has been extensively applied by researchers on different sections in different disciplines (Hyland, 1999b), showing that the writers created a stance which was appropriate to their discipline and purpose. To confirm this

notion, Charles (2006), in a study of 'Social Sciences' vs. 'Natural Sciences' theses, found that reporting clauses were considerably more frequent in 'Social Sciences' than in Natural Sciences. 'Factives', as a variant of 'Verb-Control', occurred 319 times out of 893 in 'English Studies'. 'Non-Factives' as pattern were the most preferred and highly contributing type of 'Verb-Control'. Total occurrences of this variant of 'Verb-Control' were 564 out of 893 occurrences. Linguistics compared to ELT and Literature had the maximum frequencies of this pattern. The total occurrences of 'Counter-Factives' were 10 only. Thus, in terms of frequencies, it was placed in the bottom. The overall trend, in 'English Studies', seems to prefer the authors over the information. To conclude the argument, this study shows that writers of 'English Studies' maintained the usual convention of preferring 'Integral' citations.

Table No. 4.6

*Citation Analysis of Biotechnology*

Thesis #	Average citations/Thesis	Non Integral Citation				Integral Citation					
		Source	Identification	Reference	Origin	Non Citation	Naming	Verb-Control			
								Factive	Non-Factive	Counter Factive	Verb-Control Total
Biotech-1	100	40	6	0	0	5	33	0	16	0	16
Biotech-2	100	85	8	0	1	0	6	0	0	0	0
Biotech-3	100	50	29	4	5	0	0	0	12	0	12
Biotech-4	100	70	15	0	0	0	0	2	13	0	15
Biotech-5	100	71	20	0	0	0	1	1	7	0	8
Biotech-6	100	59	7	0	1	1	12	1	19	0	20
Biotech-7	100	29	37	0	0	0	0	5	29	0	34
Biotech-8	100	51	20	0	0	0	2	6	21	0	27
Biotech-9	100	45	10	0	3	1	0	2	39	0	41
Biotech-10	100	70	10	0	12	4	4	0	0	0	0
Total	1000	570	162	4	22	11	58	17	156	0	173

Table 4.6 provides the percentage of various citation patterns in different theses of Biotechnology.

The citation patterns are divided into Non-Integral and Integral citations with their sub-types under each category. The detailed description of each pattern of citation, which in other words signifies the choice and voice of the thesis writer, is given below:



#### **4.6.1. Source Pattern in Biotechnology**

This is one of the citation patterns which comes under the category of ‘Non-Integral’ citation. The frequency occurrence of this type varies from writer to writer. As is mentioned, thesis writer such as TW2 has used this pattern very frequently up to 85 times which is more than any other type in both the categories except for Verb-Control, a sub-type of ‘Integral’ citations. Similarly, TW1, TW3, TW4, TW5, TW6, TW7, TW8, TW9, and TW10 have used this type up to 40, 50, 70, 71, 59, 29, 51, 45, and 70 times respectively. Four of them, i.e. TW2, TW4, TW5, and TW10 have used this type with the highest frequency, more than any other type in both Integral and ‘Non-Integral’ citations. Three of the writers: TW3, TW6, and TW8 have preferred this type only next to the highest. As a result of the preferential practice by the writers, this type of citation patterns proves to be highly preferred one among all categories. Collectively, the selected writers have used this type 598 times as compared to 173 times use of ‘Verb-Control’ which is the next highest in the table.

#### **4.6.2. Identification Pattern in Biotechnology**

This citation pattern also comes under the category of ‘Non-Integral’ citation. Frequency occurrence of this type has been observed in double digit in all the theses selected except TW1, TW2, and TW6. In these theses, this type is in single digits as 6%, 8%, and 7% respectively. Here again, the frequency of occurrence varies from writer to writer. As is given, thesis writers: TW3, TW4, TW5, TW7, TW8, TW9, and TW10 have used this type up to 29, 15, 20, 37, 20, 10, and 10 times respectively. Now if we compare this type to other types of citation patterns, it is obvious from table 4.6 that this type stands third in terms of preference. All the theses selected had 162 occurrences of this type. Hence, this is obvious here that in the subject of Biotechnology more preference is given to this pattern as compared to the subjects of ‘English Studies’.

#### **4.6.3. Reference Pattern in Biotechnology**

The column of 'Reference' as sub-type of 'Non-Integral' citations shows that all the writers did not use this pattern except TW3 who has used this pattern four (4) times only. The total number of frequency occurrence of this type is four (4). Other writers, in this subject, have not used this pattern at all. Thus when compared to other types of citation patterns, 'Reference' as pattern is the least preferred type of citation patterns.

#### **4.6.4. Origin Pattern in Biotechnology**

Table 4.4 shows that this type of citation pattern is third from the bottom. Its total occurrences are only 22 used by ten writers in Biotechnology. Only five of the writers such as TW2, TW5, TW6, TW9 and TW10 have preferred this type as much as 1%, 5%, 1%, 3%, and 12% respectively. While the remaining five writers have not used it at all. In comparison to the subjects in 'English Studies', the frequency occurrence of this type is the highest in this subject.

#### **4.6.5. Non-Citation Pattern in Biotechnology**

This citation pattern is one of the least preferred patterns. The table shows that its frequency occurrence ranges from 0 to 5 percent. TW1, TW6, TW9 and TW10 have used this type up to 5%, 1%, 1% and 4% respectively. The other six writers have not used this pattern. As far as its use in comparison to other patterns is concerned, the writers of the selected theses have used this pattern up to 11 times out of total 1000 occurrences. As compared to 'English Studies' Biotechnology has got the least number of occurrences of this pattern.

#### **4.6.6. Naming Pattern in Biotechnology**

This is another type of Integral citations where the cited author makes part of the sentence as noun phrase or part of the noun phrase instead of controlling the verb as agent. Table 4.6

indicates, this type of citation patterns makes a reasonable quantitative part of the citation patterns. Total occurrences of this type in the ten theses are 58 out of 1000 citations. The preference of the writers for this type of pattern differs from writer to writer. TW1, TW2, TW5, TW6, TW8, and TW10 have used 'Naming' type of Integral citations as up to 33%, 6%, 1%, 12%, 2%, 4%, respectively. Only two of the writers: TW1 and TW6 have used this type in double digits, i.e. 33% and 12% respectively. Hence, the total occurrences of this type of citation patterns in all the ten theses of Biotechnology are 58 out of 1000 occurrences. The occurrences of this pattern compared to those in any subject of English Studies are the least.

#### **4.6.7. Verb-Control Pattern in Biotechnology**

This is one of the major types out of both 'Integral' and 'Non-Integral' citations where the cited author controls the verb as an active or passive agent. As the table indicates, this type of citation patterns also makes a substantial part of the citation patterns. Total occurrences of this type used by ten writers are 173 out of 1000 citations. The preference of the writers for this type of pattern differs from writer to writer. The writers: TW1, TW3, TW4, TW6, TW7, TW8, and TW9 have used this type up to 16%, 12%, 15%, 8%, 20%, 34%, 27% and 41% respectively. Only two of the writers: TW2 and TW10 have not used this type at all. Hence, the preferential occurrence of this type as compared to other types of citation patterns is 173 out of 1000 occurrences, as one of the normally attended patterns in all the ten theses of linguistics. But when we compared this pattern to the same in 'English Studies', it was found that Biotechnology got the least occurrences of this pattern. This category has three sub-categories which are described as under:

#### **4.6.7.1. Factives**

The frequency occurrence of this sub-type of ‘Verb-Control’ has been observed in single digit in five of the theses selected for Biotechnology. As the theses writers: TW4, TW5, TW6, TW7, TW8, and TW9 have used this pattern as much as 2%, 1%, 1%, 5% 6% and 2% respectively. The remaining writers: TW1, TW2, TW3 and TW10 have avoided using this pattern. Now if we compare this type to the other sub-types of Verb-Control citation patterns, it is obvious from table 4.6 that this type is the second most attended one after ‘Non-Factive’ citation pattern. Its total frequency occurrence is 17 only compared to 156 of ‘Non-Factives’. Here again this pattern is the least preferred one compared to those in ‘English Studies’.

#### **4.6.7.2. Non-Factives**

This sub-type of ‘Verb-Control’ has been observed in double digits in the theses selected for Biotechnology except for TW2, TW5 and TW10 where the use of this pattern is 0%, 7% and 0% respectively. The rest, i.e. TW1, TW3, TW4, TW6, TW7, TW8 and TW9 have used this pattern up to 16%, 12%, 13%, 19%, 29%, 21% and 39%, respectively. Now if we compare this type to the other sub-types of ‘Verb-Control’ citation pattern, the table shows that this type is the most preferred type of all the variants of ‘Verb-Control’. Its total frequency occurrence is 156 out of 173 times use of ‘Verb-Control’. This pattern in comparison to the same in ‘English Studies’ is found to be less in number than ELT (195) and Linguistics (228).

#### **4.6.7.3. Counter-Factives**

This is the last sub-type of ‘Verb-Control’ and it has been observed that none of the writers have used this pattern. Thus, its total contribution to the overall use of ‘Verb-Control’ is zero in terms of instances. It is the least preferred citation pattern of not only ‘Verb-Control’ citations but also among other types of both ‘Integral’ and ‘Non-Integral’ citation patterns.

Table No. 4.7

*Citation Analysis of Botany*

Thesis #	Average citations/Thesis	Non Integral Citation				Integral Citation					
		Source	Identification	Reference	Origin	Non Citation	Naming	Verb-Control			
								Factive	Non-Factive	Counter Factive	Verb-Control Total
Botany-1	100	89	1	0	0	0	3	0	7	0	7
Botany-2	100	92	5	0	0	0	2	0	1	0	1
Botany-3	100	37	2	0	0	0	9	13	39	0	52
Botany-4	100	05	01	0	0	0	17	15	62	0	77
Botany-5	100	70	9	0	0	0	0	1	20	0	21
Botany-6	100	78	04	0	0	0	10	0	08	0	08
Botany-7	100	72	02	0	0	0	0	0	26	0	26
Botany-8	100	50	12	0	0	0	07	04	27	0	31
Botany-9	100	61	29	0	0	01	0	01	08	0	09
Botany-10	100	44	21	0	0	0	17	04	14	0	18
Total	1000	598	86	0	0	1	65	38	212	0	250

Table 4.7 shows the preferential use of various citation patterns by different theses writers in the subject of Botany. The citation patterns are divided into Non-Integral and Integral citations with the sub-types under each category. The detail of the occurrences of each type of citation pattern is given below:

#### **4.7.1. Source Pattern in Botany**

This citation pattern comes under the category of ‘Non-Integral’ citation. The occurrence of this type varies from one writer to another. As being mentioned, ten thesis writers have used this pattern very frequently as ranging from 5% to 92 %. It is the most preferred type of citation pattern out of both ‘Integral’ and ‘Non-Integral’ citation patterns. Hence, TW1, TW2, TW3, TW4, TW5, TW6, TW7, TW8, TW9, and TW10 have used this type up to 89%, 92%, 37%, 05%, 70%, 78%, 72, 50%, 61% and 44% respectively. Only one of the writers has used this pattern less than 5% while the other nine writers have made excessive use of this pattern, even more than any other sub-types of both the major categories. As per the discursive norms carried out by the writers in sciences, these writers seem more inclined towards this type of citation pattern. Thus, this is obvious here that Source is the most preferred one out of all the patterns amounting to a total of 598 times and ‘Verb-Control’ is just next to this with 250 occurrences only.

#### **4.7.2. Identification Pattern in Botany**

This citation pattern also comes under the category of ‘Non-Integral’ citation. The frequency occurrence of this type is from 1% to 29%. As is given, thesis writers: TW1, TW2, TW3, TW4, TW5, TW7, TW8, TW9, and TW10 have used this type up to 1%, 5%, 2%, 1%, 9%, 4%, 2%, 12%, 29%, and 21%, respectively. Now if we compare this type to other types of citation patterns, it is obvious from the table that this type has been used by almost all the writers as far as the writers in Botany are concerned. The total occurrences of this pattern in the theses are 86. Thus, this is the third most preferred type of citation pattern in Botany after ‘Verb-Control’ (250) and ‘Source’ (598) out of 1000 occurrences.

#### **4.7.3. Reference Pattern in Botany**

The category of ‘Reference’ as the sub-type of ‘Non-Integral’ citations, shown in the table above, is the least preferred citation pattern in the theses selected for Botany. The preferential trend of the writers in this subject is zero (0%). Hence, compared to other types of citation patterns, Reference as pattern is the lowest along with ‘Origin’ having zero occurrences and ‘Identification’ has been referred to only once.

#### **4.7.4. Origin Pattern in Botany**

Table 4.7 indicates that this type of citation pattern is also the least preferred one out of the given patterns. The writers of the selected theses have not used this pattern at all. While comparing this type to other citation patterns, it just happens to fall in the bottom.

#### **4.7.5. Non-Citations Pattern in Botany**

Table 4.7 shows that the writers in this subject have avoided this pattern of non- citation except for an incidental occurrence found in TW9. This comes under the major category of Integral citations but its frequency of occurrence is one (1) out of 1000 total occurrences. Thus, in comparison to other patterns, it stands third from the bottom.

#### **4.7.6. Naming Pattern in Botany**

As the table indicates, this type of citation pattern makes a due part of the citation patterns. The writers’ preference for this pattern differs from writer to writer. Three writers: TW4, TW6, and TW10 have used this pattern up to 17%, 10%, and 17% respectively; while four writers: TW1, TW2, TW3 TW4, and TW8 have used this type of Integral citations in single digit, i.e. 3%, 2% 9%, and 7%, respectively. The remaining three writers: TW5, TW7 and TW9 have not used this pattern. Hence, the total occurrences of this type as compared to the other types of citation patterns

goes up to 65 out of 1000 occurrences in all the ten theses. As compared to other subjects, Naming as pattern has been preferred less than its occurrences in ‘English Studies’, but more in Biotechnology.

#### **4.7.7. Verb-Control Pattern in Botany**

‘Verb-Control’ is one of the most frequently attended types of both ‘Integral’ and ‘Non-Integral’ citations. As the table above shows, this type of citation patterns also makes a considerable part of the total citations used in Botany. Total occurrences of this type in the ten theses are 250 out of 1000 citations. The preference for this type of pattern differs from writer to writer. Writers such as TW3, TW4, TW5, TW7, TW8, and TW10 have used this type of ‘Integral’ citations up to 52%, 77%, 21%, 26%, 31%, and 18%, respectively. The other four writers: TW1, TW2, TW6, and TW9 have used this type up to 7%, 1%, 8% and 9% respectively that is less than 10 percent. Thus, it is next to Source as the most frequently attended pattern in all the ten theses of Botany. This category has three further sub-categories which are described as under:

##### **4.7.7.1. Factives**

The occurrences of this sub-type of ‘Verb-Control’ are in single digits in four theses, i.e. TW5, TW8, TW9, and TW10 have used this pattern up to 1%, 4%, 1%, and 4% respectively. The remaining two writers: TW3 and TW4 have used this pattern up to 13%, and 15% respectively. The remaining four writers have avoided using this pattern. Thus, its total frequencies are 38 and are just next to ‘Non-Factive’ citations in terms of total occurrences.

##### **4.7.7.2. Non-Factives**

This variant of ‘Verb-Control’, as shown in the table, is the well-attended one, as six out of ten writers have used this pattern of ‘Verb-Control’ in double digits. The writers like, TW3,



TW4, TW5, TW7, TW8, and TW10 have used this pattern as much as up to 39%, 62%, 20%, 26%, 27% and 14% respectively. Four out of ten writers have preferred this type of ‘Verb-Control’ up to 7, 1, 8 and 8 times respectively. The remaining four writers have not used it. Thus, this sub-type is used more frequently as compared to the ‘Factive’ and ‘Counter-Factive’ types of citations. Its total instances are 212 out of 336 time use of Verb-Control.

#### **4.7.7.3. Counter-Factives**

This is the third sub-type of ‘Verb-Control’ and it has been observed that none of the writers have preferred this pattern. The given table shows that the frequency occurrence of this type is zero percent as all the writers have avoided this pattern. It is the least preferred citation pattern out of not only ‘Verb-Control’ citations but also among other types of both ‘Integral’ and ‘Non-Integral’ citation patterns.

Table No.4.8

*Citation Analysis of Zoology*

Thesis #	Average citations/Thesis	Non Integral Citation				Integral Citation					
		Source	Identification	Reference	Origin	Non Citation	Naming	Verb-Control			
								Factive	Non-Factive	Counter Factive	Verb-Control Total
Zoology-1	100	72	0	0	0	0	0	2	26	0	28
Zoology-2	100	65	31	0	0	0	0	0	4	0	4
Zoology-3	100	59	25	0	1	0	5	0	10	0	10
Zoology-4	100	49	3	0	0	0	3	0	45	0	45
Zoology-5	100	61	0	0	0	0	0	0	39	0	39
Zoology-6	100	34	11	1	0	0	1	4	49	0	53
Zoology-7	100	19	0	0	0	1	0	6	74	0	80
Zoology-8	100	71	6	0	2	0	6	0	15	0	15
Zoology-9	100	78	0	0	0	0	1	0	21	0	21
Zoology-10	100	57	1	10	0	0	6	3	23	0	26
Total	1000	565	77	11	3	1	22	15	306	0	321

Table 4.8 indicates trend of the theses writers regarding various citation patterns in the subject of Zoology. The details of occurrences of each type of citation pattern used by the theses writers of this subject are given below:

#### 4.8.1. Source Pattern in Zoology

The frequency occurrence of this type differs from writer to writer. As the table shows, the frequencies of the occurrences of this pattern range from 19% to 78%. Hence, TW1, TW2, TW3,

TW4, TW5, TW6, TW7, TW8, TW9, and TW10 have used this type up to 72, 65, 59, 49, 61, 34, 19, 71, 78 and 57 times per hundred respectively. Its total occurrences are 565 out of 1000 for all the ten theses. This citation pattern was found the highest in terms of frequencies of occurrences among all the patterns. It is the third highly preferred pattern of citation after Botany (598) and Biotechnology (570).

#### **4.8.2. Identification Pattern in Zoology**

This citation pattern is not frequently used by the thesis writers of Zoology. The occurrence of this type has been observed in all the theses selected except TW1, TW5, TW7 and TW9 where this type has not been used even once in hundred occurrences each. Thesis writers like TW2, TW3 and TW6 have used this pattern up to 31%, 25% and 11% respectively. Three of them, TW4, TW8, and TW10 have used this pattern less than 10% that is 3, 6 and 1 times per hundred occurrences respectively. Again four writers: TW1, TW5, TW7 and TW9 have not used ‘Identification’ as sub-type of ‘Non-Integral’ citations. Now if we compare this type to the other types of citation patterns, it is obvious from the table that this type is one of the less occurring patterns of citations as far as the scholars of Biotechnology (162) and Botany (86) are concerned. All the theses selected in the subject of Zoology have only 77 out of 1000 total occurrences.

#### **4.8.3. Reference Pattern in Zoology**

‘Reference’ as the sub-type of ‘Non-Integral’ citations, as the table above shows, has got less attention on the part of the writers in the subject of Zoology. This type of pattern occurs in a range from zero (0%) to ten (10%). The total number of occurrence of this type is 11. Only one of the writers has used this pattern in double digits. Writers like TW6, and TW10 have used this type up to 1%, and 10%, respectively. The remaining eight writers have avoided the use of this pattern completely. Hence, as compared to other types of citation patterns, ‘Reference’ as a pattern stands

on the third lowest from the bottom with origin at second (3) and ‘Non-Citation’ (1) at the bottom out 1000 total occurrences. Writers in this subject have preferred this pattern more as compared to Biotechnology and Botany where there is no occurrence of this pattern.

#### **4.8.4. Origin Pattern in Zoology**

Table 4.6 shows that this pattern has been almost avoided by writers of this subject. All the writers except TW3 and TW8 have not used this pattern even once in one hundred occurrences each. Two of the writers, i.e. TW3 and TW8 have been found using this pattern as much as up to 1% and 2% respectively. Thus, this pattern has got only 3 frequencies out of 1000 total occurrences in the theses. While comparing this type to other citation patterns, it happens to fall only next to ‘Non-Citation’ from the bottom. It is again 2<sup>nd</sup> from the bottom as compared to Botany having no occurrence and Biotechnology having 22 out 1000 total occurrences.

#### **4.8.5. Non-Citations Pattern in Zoology**

Table 4.8 shows that writers do not prefer this pattern. Its total number of occurrence is only one out of 1000 in all. The table given above indicates that all the theses except for TW7 do not have this particular pattern. TW7 has only one incidental occurrence of this type. Thus, compared to other patterns in the selected theses, ‘Non-Citation’ proves to be the lowest in terms of frequencies, while at par with Botany as well as Zoology.

#### **4.8.6. Naming Pattern in Zoology**

Table 4.8 shows that majority of the writers have given preference to this form of citation except four of the writers, i.e. TW1, TW2, TW5, and TW7 who have avoided using this pattern. The writers’ preference for this pattern ranges from 1% to 6%. The writers in Zoology, like TW3, TW4, TW6 TW8, TW9, and TW10 have used this pattern up to 5%, 3% 1%, 6%, 1%, and 6%

respectively. The occurrences of this type as compared to other patterns go up to 22 out of 1000 total occurrences in all the ten theses of Zoology. In terms of comparison, this pattern is on the fourth lowest from the bottom compared to other types of citation patterns used in the theses of this subject. Now when this pattern is compared vertically with the theses of Biotechnology (58) and Botany (65), the writers in Zoology stood third in terms of using this pattern.

#### **4.8.7. Verb-Control Pattern in Zoology**

‘Verb-Control’ is one of the most frequently attended types of citation patterns. As the table shows, the total frequencies of this type in the theses are 321 out of 1000 different citations. The preference of the writers for this type of pattern differs from writer to writer. For example, TW7 has made maximum use of this pattern up to 80 out of hundred. On the contrary, TW2 is the lowest in terms of using this pattern as it has only four (4) occurrences out of hundred. The other writers, like TW1 TW3, TW4 TW5, TW6, TW8, TW9 and TW10 have used this pattern up to 28%, 10%, 45%, 39%, 53%, and 15%, 21% and 26% respectively. Its total occurrences are 321 which make this pattern next to Source, as the most frequently attended pattern in all the ten theses of Zoology. Now to compare this with other subjects like Biotechnology (173) and Botany (250), use of this pattern in Zoology is the highest. Its sub-categories are described as under:

##### **4.8.7.1. Factives**

Occurrence of this sub-type of Verb-Control ranges from 0% to 6% across the theses of Zoology. Only four of the writers, i.e. TW1 (2%), TW6 (4%), TW7 (6%), and TW10 (3%) have preferred this variant of ‘Verb-Control’. The remaining writers have not used this pattern. Its total frequencies are 15 only. This pattern is just 2<sup>nd</sup> to ‘Non-Factives’ having the maximum occurrences up to 306 out of 321 frequencies of ‘Verb-Control’. While comparing this with the occurrences in Biotechnology (17) and Botany (38), it is the lowest.

#### **4.8.7.2. Non-Factives**

This sub-type, as table 4.8 shows, is one of the most preferred patterns not only as a variant of ‘Verb-Control’ but also among other sub types of both ‘Integral’ and ‘Non-Integral’ citations. Nine out of ten writers have used this pattern in double digits. Writers such as TW1, TW2, TW3, TW4, TW5, TW6, TW7, TW8, TW9 and TW10 have used this pattern up to 26%, 4%, 10%, 45%, 39%, 49%, 74%, 15%, 21%, and 23% respectively. Its total occurrences are 306 out of 321 occurrences of ‘Verb-Control’. In terms of comparing this variant vertically with Biotechnology having 156, and Botany with 212 occurrences, its occurrences stand highest.

#### **4.8.7.3. Counter-Factives**

The third variant of ‘Verb-Control’ has not been used in the ten theses of Zoology. The given table shows that all of the writers have simply avoided this pattern. It is the least preferred citation pattern not only in Zoology but also in other subjects of Biological Sciences.

Table No. 4.9

*Citation Analysis in Biological Sciences*

Subjects	Average citations/ Subject	Non Integral Citation				Integral Citation					
		Source	Identification	Reference	Origin	Non Citation	Naming	Verb-Control			
								Factive	Non-Factive	Counter Factive	Verb-Control Total
Biotechnology	1000	570	162	4	22	11	58	17	156	0	173
Botany	1000	598	86	0	0	1	65	38	212	0	250
Zoology	1000	565	77	11	3	1	22	15	306	0	321
Total	3000	1733	325	15	25	13	145	70	674	0	744

The given table 4.9 presents a comparative statement of different citation patterns used in the theses of ‘Biological Sciences’. It tells us about per thousand occurrences of each type of citation pattern along with its relative position in all the three subjects. Furthermore, it signifies a kind of horizontal analysis which in other words indicates the relative position of each category out of total patterns used in ‘Biological Sciences’. The detailed description of pattern is given as under:

#### 4.9.1. Source Pattern in Biological Sciences

The column titled as ‘Source’, in the given table, indicates respective frequencies of this pattern in Biotechnology (570), Botany (598) and Zoology (565). Hence, it is obvious from the column that Botany is on the top with 598 frequencies out of 1733 in total. It is followed by Biotechnology (570), and Zoology (565) respectively. It is also found that this pattern has got maximum frequencies, i.e. 1733 out of 3000 total occurrences of citations in ‘Biological Sciences’.

#### **4.9.2. Identification Pattern in Biological Sciences**

The respective column in the given table shows that this pattern is comparatively preferred one among the various types of citations. Vertical comparison shows that this pattern has got its maximum frequencies in Biotechnology that is 162 out of 325, followed by Botany and Zoology with 86 and 77 occurrences respectively. It may also be compared with other patterns across the table. Hence, it has got 325 out of total 3000 occurrences of different citation patterns in ‘Biological Sciences’ which is the third highest number after Source (1733) and ‘Verb-Control’ (744).

#### **4.9.3. Reference Pattern in Biological Sciences**

The given table 4.9 indicates the relative occurrences of this pattern against Biotechnology, Botany and Zoology. It is obvious from the given data that this pattern has got 4, 0, and 11 numbers of occurrences in Biotechnology, Botany and Zoology respectively. It is visible from the data displayed that Zoology has got the maximum number (15) of occurrences among the subjects. It stands 2<sup>nd</sup> lowest from the bottom among the various patterns of citations in ‘Biological Sciences’.

#### **4.9.4. Origin Pattern in Biological Sciences**

The data under the category of ‘Origin’, in the given table, indicates use of this pattern in Biotechnology (22), Botany (0) and Zoology (3). It highlights that writers are not inclined towards this type of pattern in their citations. Occurrences of this pattern may also be compared among the theses of the selected three subjects of ‘Biological Sciences’. Thus, it is obvious from the column that Biotechnology has got relatively the most frequencies, i.e. out of 25 in total, against Botany (0), and Zoology (3) occurrences. The column also indicates that this pattern has got less number of frequencies that is 25 out of 3000 total occurrences of citations in ‘Biological Sciences’. Hence, it stands third lowest from the bottom.



#### **4.9.5. Non-Citation Pattern in Biological Sciences**

The category of ‘Non-Citation’ in the given table indicates that this pattern has got the least number of citations. This pattern has got 11, 1, and 1 number of occurrences in Biotechnology, Botany and Zoology respectively. It is significant to know that Biotechnology has got the maximum number of occurrences, i.e. 11 of the citations in view, among the subjects. Thus, it is obvious from the column that this pattern has got 13 occurrences in total and stands at the lowest one, in terms of occurrences, among the various patterns of citations.

#### **4.9.6. Naming Pattern in Biological Sciences**

The given table indicates that Biotechnology, Botany and Zoology have got 58, 65, 22, number of occurrences of this pattern respectively. Occurrences of this pattern may also be compared among the theses of three subjects of ‘Biological Sciences’. Hence, it is obvious from the column that Botany has got the most preferred status with 65 occurrences out of 145 in total of this pattern against Biotechnology having 58 and Zoology with 22. It also indicates that this pattern has got 145 out of 3000 total occurrences of citations in ‘Biological Sciences’. Hence, this pattern is at fourth position among the different citation practices as the table shows.

#### **4.9.7. Verb-Control Pattern in Biological Sciences**

The column under ‘Verb-Control’, in the given table, shows that this pattern is comparatively the next most preferable one among various types of citations. It was also found that this pattern has got maximum frequencies in Zoology, i.e. 321 out of 744 as compared to Botany with 250 and Biotechnology with 173. It may also be compared with other patterns across the table. Hence, it has got 744 out of total 3000 occurrences of different citation patterns in ‘Biological Sciences’. Thus, total occurrences of this pattern are next to the ‘Source’ as pattern out of 3000 in total. Its further sub-variants with their respective contributions are as under:

#### **4.9.7.1. Factives**

Table 4.9 indicates that this pattern is comparatively a less contributing variant. It has got 70 out of 744 occurrences of ‘Verb-Control’. It is next to ‘Non-Factive’ type of ‘Verb-Control’ with 674 occurrences. The table also indicates the relative occurrences of Biotechnology (17), Botany (38), and Zoology (15). Accordingly, comparatively speaking, Botany has got the maximum frequencies of this pattern as a variant of ‘Verb-Control’.

#### **4.9.7.2. Non-Factives**

This pattern is the most highly contributing type of ‘Verb-Control’. Total number of occurrences of this pattern is 674 out of 744 occurrences in total. The table also indicates the relative occurrences of Biotechnology (156), Botany (212), and Zoology (306). Consequently, it was noticed that Zoology as compared to Biotechnology and Botany has got the maximum frequencies of this pattern, a variant of ‘Verb-Control’.

#### **4.9.7.3. Counter-Factives**

This is one of the least attended patterns of citations. The three sub-disciplines of ‘English Studies’ like Biotechnology, Botany, and Zoology did not have this pattern. Its total contribution to the overall number of ‘Verb-Control’ is zero. As the data indicate, in terms of the number it falls in the bottom with no contribution at all.

Table 4.10

*Intra-Discipline Analysis of Integral and Non-Integral citations*

Citation Type	Biotechnology	Botany	Zoology	Total Per 3000 Citations	Total in %
Integral	242	316	344	902	30.06
Non-Integral	758	684	656	2098	69.93

**4.10. Intra-Discipline Analysis of Integral and Non-Integral Citation**

Table 4.10.1 provides that writers in ‘Biological Sciences’ are more inclined towards ‘Non-Integral’ form of citations. All the three subjects, i.e. Biotechnology, Botany, and Zoology have the use of ‘Integral’ citations up to 242, 316, and 344 out of 1000 times each respectively. Against these, the respective use of ‘Non-Integral’ citations is 758, 684, and 656 times. To sum up, the total occurrences of ‘Integral’ citations are 908 as compared to ‘Non-Integral’s 2098 frequencies out of 3000 occurrences of citations used in discipline. Accordingly, it is clear that the total use of Integral citations is 30.06 % against ‘Non-Integral’ citations with 69.93%. Therefore, it is more obvious that writers of ‘Biological Sciences’ tend to de-emphasize the role of the authors as agent against the arguments made. ‘Integral’ citation patterns are often governed by the decisions which signify how much prominence is to be given to the people involved (See Thompson, 2000). Thompson also mentions that it is conventional in scientific writing to de-emphasize the role of the researchers as the human factor does not maintain any bearing upon the process carried out.

**Discussion**

Integral or Non-Integral citations are used to show writers’ emphasis on cited authors or reported messages respectively. It was found that the writers in ‘Biological Sciences’ were more

inclined towards 'Non-Integral' form of citations. It was also found that Biotechnology, Botany, and Zoology had the use 'Integral' citations up to 242, 316, and 344 out of 1000 times each respectively. Against these, the respective use of 'Non-Integral' citations is 758, 684, and 656 times. Thus, the total use of Integral citations was 30.06 % against 'Non-Integral' citations with 69.93%. Therefore, it is clear that the writers of 'Biological Sciences' tend to de-emphasize the role of the researcher as agent against argument made or the scientific procedure carried out. Hyland (2000) also finds that soft disciplines have a tendency to employ Integral citations which place the author in the subject position while hard disciplines display a preference for 'Non-Integral' ones in order to downplay the role of the author. Thus, the study conducted conforms to the trend adopted by the community in a native context. The same point is endorsed further by Charles (2006) who believes that "the choice of 'Integral' and 'Non-Integral' citation is a complex product of a number of factors including citation convention, genre, discipline and individual study type" (p. 317).

The comparison among the given subjects of 'Biological Sciences' indicates that Botany had got the highest frequencies of 'Source' as citation pattern, i.e. 598 out of 1733 in total, against Biotechnology (570) and Zoology (565). It was also found that this pattern had got maximum frequencies, i.e. 1733 out of 3000 total occurrences of citations in 'Biological Sciences'. A study conducted by Thompson and Tribble (1991) also showed that writers in Agricultural Botany used the Non-Integral Source and Identification types more frequently as compared to Agricultural Economists who made far greater use of 'Integral Naming' citations and more mention of names without giving full citation information. Hence, the current study is in conformity with the frame selected.

It was also found that ‘Identification’ as a pattern occurred with maximum frequencies in Biotechnology, i.e. 162 out of 325 against Botany (86) and Zoology (77). Hence, this pattern got 325 out of total 3000 occurrences of different citation patterns in ‘Biological Sciences’. It has been observed, as mentioned earlier, that ‘Identification’ got the maximum occurrences in Agricultural Botany (Thompson & Tribble, 1991) in a study conducted in the native situation. Contrary to these, the researchers in the non-native context tend to make less use of ‘Identification’ as observed in a study conducted by Loan (2016). Thus, in case of ‘Biological Sciences’, writers have shown affiliation to the native authors as against the non-English writers’ practices of citations.

Similarly, it was observed that Zoology had got 11 as the maximum number of ‘Reference’ occurrences among the subjects of ‘Biological Sciences’ (15). It is on the third lowest position from the bottom among the various patterns of citations in ‘Biological Sciences’. The reason could either be the context (Fakhri, 2004) or lack of communicative competence on the part of researchers. Thus, the less number of ‘Reference’ patterns conforms to the trend prevailing in the non-native texts mentioned above. Furthermore, the inclination of English writers for using this pattern (Shoostari & Jalilifar, 2010) entails an obvious divergence between them and the non-English authors.

Added to these, the theses of all the three subjects had 25 occurrences of ‘Origin’ pattern altogether out of 3000 occurrences of total citations in Biological Sciences. This pattern is thought to be the least preferred pattern out of 3000 total occurrences of citations in ‘Biological Sciences’. Lack of interest in using this pattern may also be observed in the work of Iranian scholar who could not identify even a single occurrence of ‘Origin’ in the corpora (Jalilifar, 2010). The lack of such patterns in the research practices of the writers suggests their endeavors for grammatical perfection rather than the functional or semantic significance of the statements.

The functional significance gets more explicit when it comes to ‘Integral’ form of citations. ‘Non-citation’, as a kind of it, occurred 13 times only. Hence, it happened to be the least attended pattern among the various patterns. As compared to other disciplines, the writers in ‘Biological Sciences’ have used this pattern the least, partially for the specific genre and partially for the non-English origin of the writers. In contrast to this, it was explored that international writers used ‘Non-citation’ to a higher degree than local writers (Shoostari & Jalilifar, 2010). Despite the non-native’s linguistic behavior depicted above, the writers in the current study, particularly in the genre of literature, appeared to have more inclination towards ‘Non-citation’. Thus, it shows that writers in ‘Biological Sciences’ do not conform to the writing strategies found in the English context. On the other hand, these divergences get them closer to the non-native academics.

The analyses and findings of the data show that Botany secured 65 as the highest occurrences of ‘Naming’ citations out of the 145 in total against Biotechnology (58), and Zoology (22). It was found that this pattern had got 145 out of 3000 total occurrences of citations in ‘Biological Sciences’. Hence, this pattern stood 4th among different citation practices in this discipline. Similarly, ‘Naming’ as citation pattern was used lesser than those in ‘English Studies’ (435) and even less than ELT (174) as well as Linguistics (149) as sub disciplines. Hence keeping in view figures obtained, its occurrences appear to be in complete contrast with choices of citation practices opted by non-natives writers as observed by Shoostari and Jalilifar (2010). It is elaborated further that this phenomenon may occur due to the very conventions of the discipline where the writers credit the work or information irrespective of who the researcher is which goes against the person oriented practices in other disciplines like Humanities and ‘Social Sciences’. The statistics reported by Thompson and Tribble (2001) suggest that there are clear divergences in the citation practices of writers in different disciplines, and also between genres of academic writing. They

further observed that writers in Agricultural Botany use the ‘Non-Integral’ ‘Source’ and Indent types much more frequently, while the Agricultural Economists make far greater use of ‘Integral’ ‘Naming’ citation which endorses the disciplinary perspective of the study.

It was also found that ‘Verb-Control’ had got its maximum occurrences in Zoology (321) as compared to Botany (250) and Biotechnology (173). Hence, it has got 744 out of total 3000 occurrences of different citation patterns in ‘Biological Sciences’. It is also significant to mention that the total occurrences of this pattern are next to ‘Source’ pattern (1733). The writers intend to show a strong point for their claims by emphasizing the authors rather than information. To get this point, the researchers tend to choose appropriate verbs, such as ‘Factives’, ‘Non-Factives’, and ‘Counter-Factives’. Charles (2006) analyzed the choice of these verbs in terms of discipline and said that reporting clauses were considerably more frequent in ‘Social Sciences’ than in Natural Sciences. Thus, the findings of the current study duly verify the less number of verb clauses in Natural Sciences; the occurrences in ‘Biological Sciences’ (744) are less than those occurring in ‘English Studies’ (893). A corpus analysis by Mansourizadeh and Ahmad (2011) indicated that verb controlling was employed twice more frequently than naming in LR chapters of theses. Hence, it proves to be the most frequently occurred pattern of citations. Such commonalities in citation functions suggest that placing the name(s) of cited authors at the subject position followed by a verb tends to be the easiest way in integrating citations into texts (Loan, 2016).

The data indicated the instances of ‘Factives’ (70) and its relative occurrences in Biotechnology (17), Botany (38), and Zoology (15). Consequently, comparatively speaking, Botany has got the maximum frequencies of this pattern as a variant of ‘Verb-Control’. It was also found that total occurrences of ‘Non-Factives’ were 674 out of 744 in the whole discipline. Accordingly, the findings show that Zoology as compared to Biotechnology and Botany has got

the maximum frequencies of this pattern. It was found that total contribution of ‘Counter-Factives’ to the overall number of ‘Verb-Control’ is zero. As the data show, its occurrence is the minimum in terms of the number and falls in the bottom with no contribution at all. By using ‘Factives’, the writer portrays the author as presenting true information or a correct opinion, associated more with the rhetoric found in soft disciplines, like ‘English Studies’ and ‘Social Sciences’. Apart from these, ‘Non-Factives’ are the verbs, where the writer gives no clear signal as to his/her attitude towards the author's statement or opinion (Thompson & Ye, 1991, p. 372). As the current findings, having small numbers of ‘Factives’ with no ‘Counter-Factives’ and great numbers of impersonal and test or experiment oriented verbs, are in complete conformity with the conventions held by the academic community. Hence, the writers’ collective voice in this discipline seems to be more distancing and less contesting (Hu & Wang, 2014). The idea regarding inter-discipline analysis of citations in terms of authorial voice will get clearer after going through the next discipline of ‘Social Sciences’.



Table 4.11

*Citation Analysis of Education*

Thesis #	Average citations/Thesis	Non Integral Citation				Integral Citation					
		Source	Identification	Reference	Origin	Non Citation	Naming	Verb-Control			
								Factive	Non-Factive	Counter Factive	Verb-Control Total
Education-1	100	25	4	0	0	3	11	35	22	0	57
Education-2	100	74	1	0	0	0	12	5	8	0	13
Education-3	100	30	0	0	0	1	19	14	36	0	50
Education-4	100	70	0	0	0	11	9	7	3	0	10
Education-5	100	60	2	2	0	3	10	14	9	0	23
Education-6	100	50	0	7	0	14	14	9	6	0	15
Education-7	100	10	0	0	0	5	25	24	36	0	60
Education-8	100	70	2	0	0	0	8	9	11	0	20
Education-9	100	55	5	0	3	2	15	11	8	1	20
Education-10	100	50	10	2	0	0	13	9	16	0	25
Total	1000	494	24	11	3	39	136	137	155	1	293

Table 4.11 shows the use of various citation patterns in different theses of Education. The citation patterns are divided into ‘Non-Integral’ and ‘Integral’ citations with the sub-types under each category. The details of the frequency of each type of citation, which in other words signifies the choice and voice of thesis writers, as given below:

#### **4.11.1. Source Pattern in Education**

This is one of the most frequently used citation patterns which comes under the category of Non-Integral citation. The frequency occurrence of this type varies from writer to writer. As the data shows, TW2 has used this pattern very frequently up to 74 times which is more than any other type, under both ‘Integral’ and ‘Non-Integral’ citations. The minimum use of this citation here is 10, which is made by TW7. Similarly, TW1, TW3, TW4, TW5, TW6, TW8, TW9, and TW10 have used this type up to 25%, 30%, 70%, 60%, 50%, 70%, 55%, and 50% respectively. As a result of the preferential practices by the writers, this type of citation patterns proves to be the highly preferred one among all categories. Collectively, the writers, selected, have used this type as much as 494 times out of 1000 total occurrences in selected theses of this subject.

#### **4.11.2. Identification Pattern in Education**

This citation pattern also comes under the category of ‘Non-Integral’ citation. The occurrence of this type has been observed in single digits in all the theses selected. As the table indicates, some of the writers like TW3, TW4, TW6 and TW7 have not used this type. The other six writers such as TW1, TW2, TW5, TW8, TW9, and TW10 have used this type up to 4%, 1%, 2%, 2%, 5%, and 10% respectively. Now if we compare this type to the other types of citation patterns, it is obvious from the table that this type is the lowest third from the bottom in terms of preference. All the theses selected had 24 occurrences of this pattern. Hence, this is obvious here that in the subject of Education little preference has been given to this pattern as compared to the other patterns.

#### **4.11.3. Reference Pattern in Education**

The respective column of Reference as the sub-type of Non-Integral citations shows that seven writers did use this pattern. However, three, i.e. TW5, TW6, and TW10 have used this

pattern up to 2%, 7%, and 2% only. The total number of occurrences of this type is 11 out of 1000 in total. Consequently, as compared to other types of citation patterns, 'Reference' as pattern is at the second lowest from the bottom.

#### **4.11.4. Origin Pattern in Education**

Table 4.11 shows that this pattern of citation is used rarely. Its total occurrences are only 3 out of 1000 among the ten writers selected for the study. Only one writer, i.e. TW9 has used this type as much as up to 3% only. The remaining writers have not used this type. In comparison to other subjects in 'Social Sciences', the occurrence of this type is less than Psychology and more than Political Science.

#### **4.11.5. Non-Citations Pattern in Education**

This citation pattern is not used frequently by all the selected writers. The given table shows that its frequency ranges from 0 to 14 percent. Two of the writers, i.e. TW4 (11%) and TW6 (14%) have used this pattern in double digits. The other five writers: TW1, TW3, TW5, TW7, and TW9 have used this type up to 3%, 1%, 3% and 5% and 2% respectively. The remaining three writers have not preferred to use this pattern. As far as its use in comparison to other patterns is concerned, the writers of the theses have used this pattern up to 39 times out of total 1000 occurrences. In comparison to other subjects in the discipline, this subject has got a smaller number of frequencies of this pattern than those in Political Science and more than those in Psychology.

#### **4.11.6. Naming Pattern in Education**

This is another type of Integral citations. As table 4.11 indicates, this type of citation patterns makes a considerable part of the citation patterns used in the theses of Education. Total occurrences of this type among the ten writers are 136 out of 1000 citations. The preference of the

writers for this type of pattern differs from writer to writer. Writers such as TW1, TW2, TW5, TW6 TW7, TW9, and TW10 have used Naming type of Integral citations up to 11%, 12% 19%, 10%, 14%, 25%, 15% and 13% respectively. Only two of the writers: TW4 and TW8 have used this type in single digits up to 9% and 8% respectively. Thus, this type is on the third as compared to other types of citation patterns that is after ‘Verb-Control’ with 293 and Source with 494 times out of 1000 total occurrences in the theses of Education. Its total occurrences are more than Political Science (74) and less than Psychology (183).

#### **4.11.7. Verb-Control Pattern in Education**

This is one of the major types of both ‘Integral’ and ‘Non-Integral’ citations. As table 4.11 indicates, this type of citation patterns also makes a substantial part of the total citation patterns. Total occurrences of this type among the ten writers are 293 out of 1000 citations. The preference of writers, for this type of pattern, differs from writer to writer but almost all of them have used this pattern in double digits. Hence, TW1, TW2, TW3, TW4, TW5, TW6, TW7, TW8, TW9 and TW10 have used this pattern of citation up to 57%, 13% 50%, 10%, 23%, 15%, 60%, 20%, 20% and 25% respectively. The results show that it is one of the frequently attended patterns after Source as sub-type of Non-Integral citations in all the ten theses of Education. But if we compare this pattern to the same in ‘Social Sciences’, it is found that Education has got the highest number of occurrences of this pattern. This category has three sub-categories which are described as under:

##### **4.11.7.1. Factives**

The occurrence of this sub-type of ‘Verb-Control’ has been observed in both single digit and double digits equally. Five of the writers: TW1, TW3, TW5, TW7, and TW9 have used this pattern as much as up to 35%, 14%, 14%, 24% and 11% respectively. The remaining writers, i.e. TW2, TW4, TW6, TW8 and TW10 have preferred the use of this pattern as much as up to 5% 7%

9%, 9% and 9% respectively. Now if we compare this type to the other sub-types of Verb-Control citation pattern, it becomes obvious from table 4.11 that this type is the most attended one after ‘Non-Factive’ citation patterns. Its total occurrence is 137 as against 155 of ‘Non-Factive’ type of ‘Verb-Control’. Hence, this pattern is the less preferred one.

#### **4.11.7.2. Non-Factives**

This sub-type of ‘Verb-Control’ has also got double digit occurrences in the theses such as, TW1, TW3, TW7, TW8 and TW10 having 22%, 36%, 36%, 11% and 16% use of this pattern respectively. The rest of them, i.e. TW2, TW4, TW6, TW7, and TW9 have used this pattern as much as up to 8%, 3%, 9%, 6% and 8% respectively. Now if we compare this type to the other sub-types of ‘Verb-Control’ pattern, table 4.11 shows that this type is the most preferred one. Its total occurrences are 155 out of 293. Thus, use of this pattern is on top in ‘Social Sciences’ as compared to Political Science (52) and Psychology (94).

#### **4.11.7.3. Counter-Factive**

This is the last sub-type of ‘Verb-Control’ and it has been observed that only one of the writers has used this pattern once only. Hence, this is the most rarely used citation pattern not only in ‘Verb-Control’ citations but also among other types of both ‘Integral’ and ‘Non-Integral’ citation patterns.

Table 4.12

*Citation Analysis of Political science*

Thesis #	Average citations/Thesis	Non Integral Citation				Integral Citation					
		Source	Identification	Reference	Origin	Non Citation	Naming	Verb-Control			
								Factive	Non-Factive	Counter Factive	Verb-Control Total
Pol.Science 1	100	89	0	0	0	0	7	0	4	0	4
Pol.Science 2	100	85	0	1	0	1	9	0	4	0	4
Pol.Science 3	100	76	0	4	0	9	11	0	0	0	0
Pol.Science 4	100	90	0	1	0	1	8	0	0	0	0
Pol.Science 5	100	37	0	3	0	5	0	34	20	1	55
Pol.Science 6	100	86	0	1	0	7	6	0	0	0	0
Pol.Science 7	100	71	2	0	0	4	0	10	13	0	23
Pol.Science 8	100	47	0	0	0	6	14	22	11	0	33
Pol.Science 9	100	82	0	0	0	7	3	7	0	1	8
Pol.Science 10	100	53	0	6	2	21	16	3	0	0	3
Total	1000	716	2	15	2	61	74	76	52	2	130

Table 4.12 displays the trend of different theses writers concerning various citation patterns in the subject of Political Science. Generally the citation patterns, as given, are divided in Non-Integral and Integral citations with the sub-types under each category. The detail of the frequency of each type of citation pattern is given below:

#### **4.12.1. Source Pattern in Political Science**

This citation pattern comes under the category of ‘Non-Integral’ citation. The frequency occurrence of this type varies from writer to writer but it is the highest among all the sub-categories mentioned in the table. As displayed, TW1, TW2, TW3, TW4, TW5, TW6, TW7, TW8, TW9, and TW10 have used this type up to 89%, 85%, 76%, 90%, 37%, 86%, 71%, 47%, 82% and 53% respectively. Almost all the writers have made excessive use of this pattern (716) more than any other sub-types of both the major categories. As per tradition of the discursive practices carried out by the writers in ‘Social Sciences’, these writers were also found more inclined towards this pattern. As compared to other subjects in the ‘Social Sciences’, Political Science has got the highest number of occurrences of this pattern.

#### **4.12.2. Identification Pattern in Political Science**

This citation pattern also comes under the category of ‘Non-Integral’ citation. The frequency occurrence of this type has been observed only in TW7, only two times out of hundred. The rest of writers have not preferred this pattern as compared to other types of citation patterns. The total occurrences of this pattern, in the selected theses, are two only. As a result, this is one of the least preferred types of citation patterns.

#### **4.12.3. Reference Pattern in Political Science**

The category of ‘Reference’ as the sub-type of ‘Non-Integral’ citations is not used frequently in Political Science. The trend of the writers in this subject ranges from 0% to 6%. The total number of frequency of this type is 15 in all the ten theses. Writers such as, TW2, TW3, TW4, TW5, TW6, and TW10 used it up to 1%, 1%, 3%, 1% and 6% respectively. The remaining four writers had no use of this pattern. Hence, as compared to other types of citation patterns, ‘Reference’ is among the least occurring patterns. As for its comparison to other subjects of ‘Social

Sciences’ is concerned, its use is more than Education and less than Psychology in terms of total frequencies.

#### **4.12.4. Origin Pattern in Political Science**

As table 4.12 shows, this type of citation pattern is rarely used. Its total frequency is two out of 1000 in all the ten theses selected. All the selected writers have not used this type except TW10 who has used this pattern only twice. While comparing this type to other citation patterns, it just happens to fall in the bottom, along with ‘Identification’ as another type of ‘Non-Integral’ citations. In comparison to other subjects in ‘Social Sciences’, it is again at the bottom in terms of total occurrences.

#### **4.12.5. Non-Citations Pattern in Political Science**

As the given table indicates, the writers in this subject have opted for this pattern of ‘Non-citation’ considerably. Except for only one, that is TW1 who has avoided using this pattern. TW2, TW3, TW4, TW5, TW6, TW7, TW8, TW9, and TW10 have used this pattern up to 1%, 9%, 1%, 5%, 7%, 4%, 6%, 7%, and 21% respectively. Its total occurrences are 61 out of 1000 in the ten theses of Political Science. It is fourth in position as compared to other citation patterns but on the top among the subjects of Social Sciences.

#### **4.12.6. Naming Pattern in Political Science**

As table 4.12 indicates, this type of citation pattern contributes considerably due to the total number of citation patterns used in the theses of Political Science. The writers’ preference for this type of pattern differs from writer to writer. Three of the writers like, TW3, TW8, and TW10 have used this pattern as much as up to 11%, 14%, and 16% respectively; while the frequency of five writers regarding this pattern was in single digits each. Hence, writers like TW1, TW2, TW4 TW6,



and TW9 have used this type up to 7%, 9% 8%, 6%, and 3%, respectively. The other two of the writers: TW5 and TW7 have avoided using this pattern. Thus, the total occurrences of this type of citation pattern goes up to 74 out of 1000 in all the theses. In comparison to other subjects, this pattern is not used much compared to Education (136) and Psychology (183).

#### **4.12.7. Verb-Control Pattern in Political Science**

‘Verb-Control’ is one of the most frequently attended types of both ‘Integral’ and ‘Non-Integral’ citations. As table 4.12 shows, this type also makes a considerable part of the citation pattern. Total frequencies of this type in the ten theses are 130 out of 1000 citations. The preference of writers for this type of pattern differs from writer to writer. For example, TW1 TW2, TW5, TW7, TW8, TW9, and TW10 have used this type of Integral citations up to 4%, 4%, 55%, 23%, 33%, 8%, and 3% respectively. Other three of the writers: TW3, TW4, and TW6 have not used this pattern. Hence in use, it is next to ‘Source’ as the most frequently attended pattern in all the ten theses of Political Science. This category has three further sub-categories which are described as under:

##### **4.12.7.1. Factives**

This variant of ‘Verb-Control’ makes a larger part of the collective occurrences. Its total occurrences are 77 out of total 1000 in total. Only five of the theses were found with the occurrences of this variant of ‘Verb-Control’. Three of the writers; TW5, TW7, and TW8 have used this pattern in double digits as much as up to 34%, 10%, and 22% respectively. Two of the writers such as TW9 and TW10 have used this pattern up to 7% and 3% respectively, while rest of them did not use this pattern. In relative terms, this variant has got maximum number of occurrences of ‘Verb-Control’.

#### **4.12.7.2. Non-Factives**

This sub-type of ‘Verb-Control’, as shown in table 4.11, has been used by five writers while the other five did not use this variant. Its total occurrences are 52 out of 1000 occurrences in all. The writers: TW5, TW7, and TW8 have used this pattern up to 20%, 13%, and 11%, while only two of the writers have used this pattern in single digit that is 4% each. Accordingly, in comparison to ‘Factive’ and ‘Counter-Factive’ variants, this pattern has got the next highest number of occurrences.

#### **4.12.7.3. Counter-Factive**

This is the third sub-type of ‘Verb-Control’ and it has been observed that only two of the writers have preferred this pattern. The given table shows that the occurrence of this type is two only as TW5 and TW9 have used it once each. Rest of the writers did not prefer to use this pattern even once. Hence, it is the least preferred variant of ‘Verb-Control’.

Table 4.13

*Citation Analysis of Psychology*

Thesis #	Average citations/Thesis	Non Integral Citation				Integral Citation					
		Source	Identification	Reference	Origin	Non Citation	Naming	Verb-Control			
								Factive	Non-Factive	Counter Factive	Verb-Control Total
Psychology-1	100	85	4	0	2	1	1	5	2	0	7
Psychology-2	100	36	9	5	8	4	12	21	5	0	26
Psychology-3	100	31	6	0	7	6	29	20	1	0	21
Psychology-4	100	16	1	0	0	0	50	16	17	0	33
Psychology-5	100	52	0	0	0	7	10	11	20	0	31
Psychology-6	100	37	6	8	2	0	20	21	4	2	27
Psychology-7	100	22	0	0	0	5	24	26	23	0	49
Psychology-8	100	48	22	12	0	0	7	7	4	0	11
Psychology-9	100	41	8	5	1	1	25	14	5	0	19
Psychology-10	100	45	9	14	0	5	5	8	13	1	22
Total	1000	413	65	44	20	29	183	149	94	3	246

Table 4.13 shows the trend of using various citation patterns by writers. The detail of occurrences of each type of citation pattern is given below:

#### 4.13.1. Source Pattern in Psychology

Frequency occurrence of this type differs from writer to writer. As the table above shows, frequency of its occurrence ranges from 16% to 85%. Hence, TW1, TW2, TW3, TW4, TW5, TW6, TW7, TW8, TW9, and TW10 have used this type up to 85, 36, 31, 11, 16, 52, 37, 22, 48, 41 and

45 times respectively, out of one hundred occurrences each. Five of them, i.e. TW1, TW5, TW8, TW9 and TW10 have made maximum use of this pattern. Its total occurrences are 413 out of 1000 in all the ten theses. This citation pattern has got the highest number of occurrences among all the patterns across the theses in Psychology.

#### **4.13.2. Identification Pattern in Psychology**

This citation pattern is not used extensively by the thesis writers in Psychology. The occurrence of this type was in a single digit in seven of the theses selected while only one that is TW8 had 22% occurrences. The writers such as TW1, TW2, TW3, TW4, TW6, TW9, and TW10 have used this type up to 4%, 9%, 6%, 1%, 6%, 8% and 9% respectively. Again two of the writers: TW5 and TW7 have not used ‘Identification’ as sub-type of ‘Non-Integral’ citations. Total occurrences of this pattern are 65 out of 1000 in all the ten theses. Now if we compare this type to the other types of citation patterns, it is obvious from table 4.13 that this type is one of the less preferred patterns of citations as far as the theses writers of Psychology are concerned. Hence, this is the fourth highest type of citation pattern after Source, ‘Verb-Control’, and ‘Naming’ as other citation patterns. Psychology has got the next highest number of total occurrences among the subjects of ‘Social Sciences’.

#### **4.13.3. Reference Pattern in Psychology**

‘Reference’ as the sub-type of ‘Non-Integral’ citations, has got less attention on the part of the writers in Psychology. This type of pattern varies from zero (0%) to fourteen (14%). The total number of occurrences of this type is 44 out of 1000 in total. Only two of the writers: TW8 and TW10 have used this pattern in double digits, i.e. 12% and 14% respectively. Writers like TW2, TW6, and TW9 have used this type as much as up to 5%, 8% and 5% respectively. The remaining five writers have avoided this pattern completely. Thus, as compared to other types of citation

patterns, 'Reference' as pattern is at the third position from the bottom after 'Origin' with 20 occurrences. Writers of Psychology have preferred this pattern the most as against Education (11) and Political Science (15) out of 1000 total occurrences.

#### **4.13.4. Origin Pattern in Psychology**

As table 4.13 shows, this pattern has not been used considerably by the writers in Psychology. The preference for this pattern falls in a range of 0% to 8%. Hence, TW1, TW2, TW3, TW6, and TW9 preferred this pattern up to 2%, 8%, 7%, 2% and 1% respectively. Five of the writers have not used this pattern even once in one hundred occurrences each. Its total occurrences are 20. This pattern happened to be the least preferred among different patterns. However, it is the highest among the sub-disciplines of Social Sciences, as Education has only 3 and Political Science has got two occurrences of this pattern..

#### **4.13.5. Non-Citation Pattern in Psychology**

Table 4.6 shows that writers did not prefer using this pattern extensively. Its total instances are 29 out of 1000 in all. As the table shows, its range in all the theses of Psychology is from zero percent to 7%. TW1, TW2, TW3, TW5, TW7, TW9 and TW10 have got 1%, 4%, 6%, 7%, 5%, 1%, and 5% occurrences of this pattern respectively. Three of the writers: TW4, TW6, and TW8 have not used this pattern at all. Hence compared to other patterns, found among the theses selected, 'Non-Citation' proves to be at the 2<sup>nd</sup> from the bottom after 'Origin' with 20 occurrences.

#### **4.13.6. Naming Pattern in Psychology**

As table 4.13 shows, majority of the writers have given due preference to this form of citation. The writers' preference for this pattern ranges from 1% to 50%. Hence, writers like, TW2, TW3 TW4, TW5, TW6, TW7, and TW9 have used this type of citation pattern as much as 12%,

29% 50%, 10%, 20%, 24%, and 25% respectively. Other three writers: TW1, TW8 and TW9 have used this type below than 10%, i.e. 1%, 7%, and 5% respectively. Total occurrences of this pattern, in Psychology, are 183 out of 1000. When the occurrences of this type are compared to other types of citation patterns, it is the third most preferred citation pattern after Source and ‘Verb-Control’. Now to compare this pattern vertically with the same in the theses of Education and Political Science, the writers of Psychology stand 2<sup>nd</sup> in terms of using this pattern.

#### **4.13.7. Verb-Control Pattern in Psychology**

‘Verb-Control’ is one of the most frequently attended types of citation patterns. As table 4.13 shows, total frequencies of this type in the ten theses are 246 out of 1000 different citations. Only one writer, TW1, has made use of it in single digit, 7% only. Against this, the rest of the writers: TW2 TW3, TW4, TW5, TW6, TW7, TW8, TW9 and TW10 have made the maximum use of this pattern. Occurrences of ‘Verb-Control’ in these mentioned theses are 26%, 21%, 33%, 31%, 27%, 49%, 11%, 19%, and 22% respectively. As a result, this pattern stands 2<sup>nd</sup> in frequency strength after ‘Source’ in all the ten theses of Psychology. Now to compare this with other subjects, like Education (293) and Political Science (130), Psychology stands first. Its further sub-categories are described as under:

##### **4.13.7.1. Factive**

Occurrences of this sub-type of Verb-Control ranges from 5% to 26% across the theses of Psychology. Only three of the writers: TW1, TW8, and TW10 have used it in single digit form, i.e. 5%, 7%, and 8% respectively. Other seven writers: TW2, TW3, TW4, TW5, TW6, TW7, and TW9 have used it up to 21%, 20%, 16%, 11%, 11%, 21% and 14% respectively. Its total frequencies are 149 out of 1000. These are the highest in terms of the relative occurrences. While

comparing these with the occurrences in Education (137) and Political Science (76), this pattern stands on top in number.

#### **4.13.7.2. Non-Factives**

This sub-type, as shown in the table, is one of the preferred patterns not only as a variant of ‘Verb-Control’ but also among other sub types of both ‘Integral’ and ‘Non-Integral’ citations. Four out of ten writers have used this pattern in double digits. The writers like, TW4, TW5, TW7, and TW10 have used this pattern up to 17%, 20%, 23%, and 13% respectively. While six of the writers have preferred this type of ‘Verb-Control’ up to 2%, 5%, 1%, 17%, 4%, 4%, and 5% respectively. Its total occurrences are 94 out of 246 occurrences of ‘Verb-Control’. It rests at the bottom in number among ‘Social Sciences’.

#### **4.13.7.3. Counter-Factives**

The third variant of ‘Verb-Control’ had three occurrences only in the ten theses of Psychology. The given table 4.13 shows that the writers like TW6 and TW10 have used this variant up to 2%, and 1% respectively. Rest of the writers have simply avoided this pattern. Psychology has got relatively maximum number of this pattern among the subjects of ‘Social Sciences’.

Table No. 4.14

*Intra-Discipline Analysis of Citation in Social Sciences*

Subjects	citations/ Average Subject	Non Integral Citation				Integral Citation					
		Source	Identification	Reference	Origin	Non Citation	Naming	Verb-Control			
								Factive	Non-Factive	Counter Factive	Verb-Control Total
Education	1000	494	24	11	3	39	136	137	155	1	293
Pol. Science	1000	716	2	15	2	61	74	76	52	2	130
Psychology	1000	413	65	44	20	29	183	149	94	3	246
Total	3000	1623	91	70	25	129	393	362	301	6	669

Table 4.14 presents a comparative analysis of different citation patterns used in the theses of various subjects of ‘Social Studies’. The data displayed in the table tells us about per thousand use of each category of citations along with its relative position among all the three subjects. Additionally, this also indicates the relative position of each category out of total patterns used in ‘Social Sciences’ (3000). Their respective detailed description is given as under:

#### 4.14.1. Source Pattern in Social Sciences

The given table 4.14 indicates that Education, Political Science and Psychology have got 494, 716, 413 occurrences of this pattern respectively. Hence, it is obvious from the column that Political Science has got 716 occurrences out of 1623 in total against Education (494) and Psychology (413). It was also found that this pattern has got 1623 citations out of 3000 total



citations in ‘Social Sciences’. Similarly, it stands the highest in terms of occurrences in all the three subjects of ‘Social Sciences’.

#### **4.14.2. Identification Pattern in Social Sciences**

The relevant column of ‘Identification’ in the given table indicates that this pattern is not used much. It is also evident that this pattern has got more frequencies in Psychology with 65 out of 91 occurrences in total, against Education having 24 and Political Science having two only. It may also be cross checked with other patterns in the table. This pattern has got 91 occurrences out of 3000 different patterns in all the subjects of ‘Social Sciences’. Thus, this pattern stands at the 3<sup>rd</sup> from the bottom.

#### **4.14.3. Reference Pattern in Social Sciences**

The given table 4.14 indicates that this pattern has got 11, 15, and 44 numbers of occurrences in Education, Political Science and Psychology respectively. It is indicated from the data given, that Psychology has got the maximum number of occurrences across the subjects. So, it is obvious from the column that this pattern has got the 2<sup>nd</sup> lowest number of occurrences in total. It may also be said that this pattern is at the third lowest from the bottom keeping in view total 3000 occurrences in ‘Social Sciences’.

#### **4.14.4. Origin Pattern in Social Sciences**

The column under ‘Origin’, in the given table, indicates that the occurrences of this pattern in Education, Political Science and Psychology are three, two, and 20 respectively. It signifies that writers are not inclined towards using this type of pattern in their citations. Occurrences of the same pattern may also be compared among the selected theses of Education, Political Science and Psychology. Thus, it is obvious from the data that Psychology (20) has got relatively more

occurrences out of 25 in total against Education (3) and Political Science (2). Its total number is 25 out of 3000 total occurrences of citations in ‘Social Sciences’.

#### **4.14.5. Non-Citation Pattern in Social Sciences**

The column titled as ‘Non-Citation’ in the given table indicates that this pattern has got relatively more occurrences of citations against ‘Identification’, ‘Reference’ and ‘Origin’. The data given in the table indicates that this pattern has got 39, 61, and 29 numbers of occurrences in Education, Political Science and Psychology respectively. It is again obvious, from the data that Political Science has got the maximum number of occurrences across the subjects. Hence, it is obvious from the column that this pattern has got 129 occurrences in total. It stands at fourth from the top among the various patterns of citations used in ‘Social Sciences’.

#### **4.14.6. Naming Pattern in Social Sciences**

The given table indicates that Education, Political Science and Psychology has 136, 74, 183, number of occurrences of this pattern respectively. An inter-subject comparison may also be made among the theses of Education, Political Science and Psychology. Hence, it indicates that Psychology has got the top position with 183 citations out of 393 occurrences in total having this type of pattern against Education (136) and Political Science (74). It is also found that this pattern has got the third maximum frequencies, i.e. 393 out of 3000 total occurrences of citations in ‘Social Sciences’. Thus, this pattern stands at third, among the different citation practices as given in the table.

#### **4.14.7. Verb-Control Pattern in Social Sciences**

This pattern as the table 4.14 shows is comparatively one of the most preferred among the various types of citations. It is also found that this pattern has got maximum frequencies in

Education having 293 out of 669 in totals. It is followed by Psychology with 246 and Political Science 130 respectively. It may also be compared with other patterns across the table. Hence, it has got 669 out of total 3000 occurrences of different citation patterns in ‘Social Sciences’. Accordingly, total occurrences of this pattern are next to ‘Source’ pattern in total. Its further sub-variants with their respective contributions are as under:

#### **4.14.7.1. Factives**

As the table shows, this pattern is a highly contributing variant with 362 out of 669 occurrences of ‘Verb-Control’. The occurrences are even more than ‘Non-Factive’ type of ‘Verb-Control’ with 301 occurrences. The table also indicates the relative occurrences of this pattern in Psychology (149), Education (136), and Political Science (76). Thus, comparatively speaking, Psychology has got the maximum frequencies of the sub category.

#### **4.14.7.2. Non-Factives**

Compared with Factives, this variant is not preferred considerably but it is a highly contributing type of ‘Verb-Control’. Total occurrences of this variant of ‘Verb-Control’ are 301 out of 669 occurrences in total. The table also indicates relative occurrences of this pattern in Education (155), Political Science (52), and Psychology (94). As a result, Education compared to Political Science and Psychology has got the maximum frequencies of this pattern..

#### **4.14.7.3. Counter-Factives**

This is one of the least preferred variants of ‘Verb-Control’ as a pattern. The three sub-disciplines of ‘Social Sciences’: Education, Political Science, and Psychology have used this variant 1, 2 and 3 times respectively. Its total contribution to the overall number of ‘Verb-Control’

is 6. In terms of the numbers, it falls in the bottom with ‘Factives’ at top and ‘Non-Factives’ in the middle.

#### 4.15. Intra-Discipline Analysis of Integral and Non-Integral Citations

Intra-Discipline analysis of citation in ‘Social Sciences’ can be seen in the following table:

Table 4.15

*Intra-Discipline Analysis of Integral and Non-Integral citations*

Citation Type	Education	Political Science	Psychology	Total Per 3000 Citations	Total in %
Integral	468	265	458	1191	39.7 %
Non-Integral	532	735	542	1809	60.3 %

Table 4.15 indicates that the writers in ‘Social Sciences’ are more inclined towards ‘Non-Integral’ form of citations. All the three subjects: Education, Political Science, and Psychology had the use of Integral citations up to 468, 265, and 458 out of 1000 times respectively. The preference of the writers towards using ‘Non-Integral’ citation patterns in the sub-disciplines of ‘Social Sciences’ is considerable as the table indicates. Occurrences of ‘Non-Integral’ citation patterns in Education, Political Science, and Psychology are 532, 737, and 542 respectively. Furthermore, total occurrences of Integral citations are 1191 compared to 1809 of ‘Non-Integral’ out of 3000 citations used in total. Thus, the percent use of a total of ‘Integral’ citations is as much as 39.7 % compared to 60.3% use of ‘Non-Integral’ citations in all the three subjects of ‘Social Sciences’. Hence, unlike ‘English Studies’, writers in ‘Social Sciences’ have followed the same trend as those of writers in ‘Biological Sciences’. It seems that in these subjects, the trend of writers

is close to pure sciences in approach to put the theme in the initial position as against the agent. Hence, the writers in ‘Social Sciences’ have tried to align themselves with the writers of pure sciences who as per tradition (Thompson, 2000) tend to give more preference to ‘Non-Integral’ citations.

## **Discussion**

This study presents that the non-native English writers used ‘Non-Integrals’ (1809) more frequently than ‘Integral’ citation pattern (1191) (See Table 4.12). Percentage use of total ‘Integral’ citations was 39.7 % compared to 60.3% use of ‘Non-Integral’ citations in all the three subjects of ‘Social Sciences’. This might be attributed to the fact that its structure is complex and difficult to be handled by Pakistanis being non-English writers. Proficiency in employing ‘Integral’ ‘Naming’ and ‘Verb-Control’ citations enable writers to put their own voice in the cited source (Rababah & Almarshadi, 2013). The same point is also concluded by Borg (2000) who states that the non-native speakers are not skilled enough in establishing textual voice, which entails more challenges to them. The present research indicates that in ‘Social Sciences’ the ‘Integral’ ‘Non-citation’ are the least frequently used pattern (129), followed by ‘Integral’ ‘Naming’ citation (393), and ‘Verb-Control’ (669). Similarly, the ‘Non-Integrals’, ‘Origin’ (25), ‘Reference’ (70) and ‘Identification’ (91) are used less frequently, while ‘Source’ is the most preferred pattern among all the categories framed. It may also be noticed that unlike English Studies, the writers in ‘Social Sciences’ followed the same trend as the one mentioned in ‘Biological Sciences’. Consequently, the writers in ‘Social Sciences’ have tried to align themselves with writers of pure sciences who (Thompson, 2000) sought to show more inclination towards ‘Non-Integral’ forms of citation.

It is significant to know that ‘Source’ (1623) has got the maximum instances out of 3000 total citations in ‘Social Sciences’. That is why it stands at the top in the three sub disciplines. The

given table 4.14 also indicates the occurrences of ‘Source’ in Education (494), Political Science (716), and Psychology (413). It is obvious from the column that Political Science (716) has got the most occurrences out of 1623 in total. These findings are highly in conformity with Petric’s (2006) statement regarding ‘Source’ or attribution that the only job of writers is attributing the information to authors. Hence, it does not need any special creativity on behalf of the writers; a noticeable feature which is used widely and is rhetorically the simplest one. Thus the current findings are in sharp contrast with that of Hyland (1999a) who concluded that hard disciplines and sciences draw on more non Integral and more research activity verbs as against soft disciplines-Humanities and ‘Social Sciences’, having more inclination towards ‘Integral’ and discourse activity verbs. This may be due to the influence of the non-native context.

As for ‘Non-Integral’ citations, it was found that ‘Identification’ (91), ‘Reference’ (70), and ‘Origin’ (25) as patterns were not considerably preferred. Shoostari and Jalilifar (2010), on the contrary, observed that international writers had greater tendency to use ‘Source’, ‘Identification’, and Reference patterns. Thus, the results of the current study do not conform to the practices of academic community in native-English countries. Obvious reasons for the lesser use of these patterns as mentioned by Thompson (2005) are the purposes for which they are used. For instance, referring to a theory, a concept, or a tool, etc. which are not always that much abundant in number. Nevertheless, in our context, it is apparently the trend of inclination towards arguments or information in the form of statements.

It is noticeable that ‘Non-citation’ (129) has got relatively more occurrences as compared to ‘Identification’, ‘Reference’ and ‘Origin’. It may also be observed that it is the fourth most preferred pattern in ‘Social Sciences’. ‘Non-citation’, as one of ‘Integral’ categories, aims to provide further discussion on the previously cited research by employing the name of the earlier

cited authors without mentioning publishing year of work; since it has been supplied earlier (Thompson, 2001; Thompson & Tribble, 2001). Any such practices are looked down upon by the non-native journals, as signs of poor academic practices and such papers are returned to the authors for not supplying the year, even though the year is mentioned earlier (Shoostari & Jalilifar, 2010). As opposed to them, the writers in the current study, particularly in the genre of ‘Social Sciences’ and literature in ‘English Studies’, appeared to have more inclination towards ‘Non-citation’ which implies that they do not conform to the writing conventions of the non-English writers.

The results also indicate that ‘Non-citation’ has got the third maximum frequencies, i.e. 393 out of 3000 total occurrences of citations in ‘Social Sciences’. Thus, this pattern stands third among the different citation practices used. The given table indicates that Education, Political Science and Psychology had 136, 74, 183 occurrences of this pattern respectively. An inter-subject comparison may also be made among the citations in Education, Political Science and Psychology. Thus, it is obvious from the data that Psychology has got top position with 183 citations of this type of pattern out of 393 occurrences in total against Education (136), and Political Science (74).

Similarly, the present research indicates that ‘Naming’ as citation pattern was used for 393 out of 3000 total citations in ‘Social Sciences’, with psychology (183) having the maximum occurrences as compared to Education(136) and Political science(74). This pattern stands third as compared to ‘Source’, and ‘Verb-Control’. It is important to mention that its occurrences are in complete conformity with the practices performed in non-native contexts. Shoostari and Jalilifar (2010) also noticed the overuse of ‘Naming’ pattern in the local, assuming that local writers may make use of ‘Naming’ to stress the agents of research in order to augment their own argument. Contrary to this, the western writers tend to credit the works without considering who the

researcher is. This makes the native speakers use more ‘Non-Integral’ citation and noun phrase Integral citation types than ‘Verb-Controlling’ ‘Integral’ citations (Thompson & Tribble, 2001).

‘Verb-Control’ (669), the last category of ‘Integrals’, appeared to be one of the most preferred among various types of citations. It may also be compared with other patterns where it stands next to the ‘Source’ (1623) in ‘Social Sciences’. Here the writer supports his argument through putting the cited author at a verb controlling position. Therefore, it is likely to assume that the writers in different disciplines follow various rhetorical conventions and have different voices in terms of preferences. To confirm the hypothesis made, Charles (2006), in a study concerning theses of ‘Social Sciences’ vs. ‘Natural Sciences’, found that reporting clauses were considerably more frequent in ‘Social Sciences’ than in Natural Sciences. As far as the frequent use of this pattern is concerned, this is very much obvious from the findings as evidence that Verb-Control has been preferred in all the three genres. This is significant to mention that the choice of verb is usually conceived in terms of stance, the writers want to generate. Thompson and Ye’s (1991) framework worked well in dividing the verbs into ‘Factives’, ‘Non-Factives’, and ‘Counter-Factives’.

In this connection, it was found that ‘Factives’ (362) stood as highly contributing variant out of 669 occurrences of ‘Verb-Control’, even more than ‘Non-Factives’ (301). Psychology (149) got the maximum frequencies against Education (136), and Political Science (76). As opposed to these patterns, ‘Counter-Factive’ as a variant of ‘Verb-Control’ was not used extensively. Its total contribution was six in total. The use of these three categories is dependent purely upon the genre as is mentioned in ‘Biological Sciences’ where there were more instances of ‘Non-Factives’ and no instance of ‘Counter-Factives’. However in ‘Social Sciences’, there is greater use of ‘Factives’



and lesser use of 'Non-Factives'. The audience of this study will obviously require a comprehensive picture of inter-discipline comparison in order to know more about the issue.

## Section II (Inter Discipline Analysis)

Finally, in this section, the data displayed describes the relative occurrences of each category used in each discipline and also compares it with other disciplines. At the end, Integral and Non-Integral citations are compared to show an overall view of the trends pertaining to citation in the sampled theses.

### 4.16. Inter-Discipline Analysis of Citations

The frequencies of various citation patterns that occurred across disciplines can be seen in the following table:

Table No. 4.16

*Inter- Discipline Analysis of Citations*

Subjects	Average citations/ Subject	Non Integral Citation				Integral Citation					
		Source	Identification	Reference	Origin	Non Citation	Naming	Verb-Control			
								Factive	Non-Factive	Counter Factive	Verb-Control Total
English Studies	3000	950	84	113	18	507	435	319	564	10	893
Social Sciences	3000	1623	91	70	25	129	393	362	301	6	669
Bio-Sciences	3000	1733	325	15	25	13	145	70	674	0	744
Total	9000	4306	500	198	68	649	972	751	1539	16	2306
Total %		47.84%	5.55%	2.2%	0.75%	7.27%	10.8%	32.57%	66.73%	0.69%	25.62%

Table 4.16 shows a comparison of citation patterns used in the theses of various disciplines. It shows us per 3000 occurrence of each type of citation pattern along with its relative position among all the three subjects. Additionally, the table also indicates the relative position of each category out of total 9000 patterns used in all the three selected disciplines. Their respective detailed descriptions are given as under:

#### **4.16.1. Source Pattern Used Across Disciplines**

Table 4.16 indicates that the occurrences of ‘Source’ in ‘English Studies’, ‘Social Sciences’ and ‘Bio-Sciences’ are 950, 1623, 1733 respectively. It is clear that ‘Bio- sciences’ have got the maximum occurrences of this pattern, i.e. 1733 out 3000 occurrences in total, while ‘English Studies’ occupy 3<sup>rd</sup> position with 950 of the total occurrences. Similarly, total occurrences of this pattern in all the three disciplines are 4306 out of 9000 in total which are 47.84 % of the total patterns used in all the three disciplines. This relative comparison of the various patterns picked out of the literature reviews of the theses selected bring forward that ‘Biological Sciences’ have got the highest number of frequencies of this pattern. The phenomenal use of this pattern signifies the conventional preference of this pattern on the part of the writers of pure and ‘Biological Sciences’.

#### **4.16.2. Identification Pattern Used Across Disciplines**

The given table shows that this pattern is comparatively one of the less preferred ones among the various types of citations. After having a vertical comparison, it is found that this pattern has got maximal frequencies in ‘Bio-sciences’ (325) against ‘English Studies’ (84) and ‘Social Sciences’ (91). It may also be compared with other patterns across the table 4.16. Hence, it has got

500 out of total 9000 occurrences of different citation patterns used in the theses of three disciplines. Hence, total occurrences of this pattern are 5.5 % of the total citation pattern used.

#### **4.16.3. Reference Pattern Used Across Disciplines**

The given table 4.16 indicates relative occurrences of this pattern against ‘English Studies’, ‘Social Sciences’ and ‘Bio-Sciences’. It is obvious from the given data that this pattern has got 113, 70, and 15 numbers of occurrences in ‘English Studies’, ‘Social Sciences’ and ‘Bio-Sciences’ respectively. It is visible, from the data displayed, that ‘English Studies’ have got the maximum number of occurrences among the three disciplines. Thus, this pattern has got 198 occurrences in total. It has got 2.2 % of the total instances used in all the theses selected.

#### **4.16.4. Origin Pattern Used Across Disciplines**

The table indicates that the occurrences of ‘Origin’ in ‘English Studies’, ‘Social Sciences’ and ‘Biological Sciences’ are 18, 25, and 25 respectively. It signifies that writers are not inclined towards using this type of pattern in their citations. Occurrences of the same pattern may also be compared among the theses of the selected disciplines. Thus, it is clear from the column (Origin) that all the three disciplines have got more or less equal number of instances of this pattern except ‘English Studies’ with a few less than two others. The theses of all the three disciplines had 68 occurrences of this pattern altogether. It was also found that this pattern has got the least number of frequencies, i.e. 68 out of 9000 total occurrences of citations in all the three selected disciplines which is only 0.75 % of the total citations used. Hence, it is the least preferred pattern of citations used in the theses of various disciplines.

#### **4.16.5. Non-Citation Pattern Used Across Disciplines**

The category of ‘Non-Citation’ in the given table indicates that this pattern has got relatively fewer number of occurrences in the theses of various disciplines. The data given in the table indicates that this pattern has got 507, 129 and 14 occurrences in ‘English Studies’, ‘Social Sciences’ and ‘Biological Sciences’, respectively. It is again obvious, from the data displayed, that ‘English Studies’ has got the maximum number of occurrences, i.e. 507 across the disciplines. Thus, it is obvious from the data that this pattern has got 654 occurrences in total. Its relative contribution is 7.75 % to the total body of citations spread across the theses of ‘English Studies’, ‘Social Sciences’ and ‘Biological Sciences’. In other words, its position is relatively higher than ‘Identification’, ‘Reference’ and ‘Origin.’

#### **4.16.6. Naming Pattern Used Across Disciplines**

The given table 4.16 indicates that ‘English Studies’, ‘Social Sciences’ and ‘Bio- Sciences’ have got 435, 393 and 145 occurrences of this pattern respectively. Occurrences of this pattern may also be compared among the theses of three selected disciplines. Thus, it is obvious from the column (Naming) that English Studies has got the most preferred status with 435 occurrences of this type. It is also indicated that this pattern has got 972 out of 9000 total occurrences of citations in all the three disciplines Hence, this pattern is 10.8 % of the total occurrences of different citations used in the literature review chapters of the selected theses.

#### **4.16.7. Verb-Control**

The column under ‘Verb-Control’, in the given table, shows that this pattern is comparatively the next most preferred one among the various types of citations. It is also found that this pattern has got maximum frequencies in ‘English Studies’, having 893 out of 2306 in total, against ‘Social Sciences’ (669) and ‘Bio-Sciences’ (744). It may also be compared with other

patterns across the table. Hence, it has got 2306 out of total 9000 occurrences of different citation patterns in the theses across the disciplines. Thus, total occurrences of this pattern are next to the ‘Source’ as pattern. It is obvious here that it is 25.62 % of the total occurrences of citations found in all the three disciplines. Its further sub-variants with their respective contributions are as under:

#### **4.16.7.1. Factives**

Table 4.6 indicates that this pattern with 751 out of 2306 occurrences of ‘Verb-Control’ is not used extensively. It is 32.57 % of the total occurrences of ‘Verb-Control’. It is next to ‘Non-Factive’ type of ‘Verb-Control’ with 1539 occurrences. The table also indicates relative occurrences of this variant in ‘English Studies’ (319), ‘Social Sciences’ (362), and ‘Biological Sciences’ (70). Hence, comparatively speaking, ‘Social Sciences’ have got the maximum frequencies of this pattern as a variant of ‘Verb-Control’.

#### **4.16.7.2. Non-Factives**

This pattern is the most preferred and highly contributing type of ‘Verb-Control’. Total occurrences of this variant of ‘Verb-Control’ are 1539 out of 2306 occurrences in total. It is 66.73 % of the total occurrences of ‘Verb-Control’. Table 4.16 also indicates that the relative occurrences of this variant in ‘English Studies’, ‘Social Sciences’, and ‘Bio-Sciences’ are 564, 301, and 674 respectively. As a result, ‘Biological Sciences’, as compared to ‘English Studies’ and ‘Social Sciences’, has got the maximum frequencies of this particular variant of ‘Verb-Control’.

#### **4.16.7.3. Counter-Factives**

This is one of the least and mostly avoided pattern of citations. The three disciplines like ‘English Studies’, ‘Social Sciences’, and ‘Biological Sciences’ have got lesser number of frequencies of this pattern collectively. Its total contribution to the overall number of ‘Verb-

Control’ is 16 only in all the three disciplines. ‘English Studies’ have got 10 and ‘Social Sciences’ have got six occurrences. ‘Biological Sciences’ had no use of this pattern at all. As is shown, it is the lowest variant in terms of frequencies found in the theses of all the three disciplines selected for the study. It is 0.69 % of the total occurrences of ‘Verb-Control’.

#### 4.17. Inter-Discipline Analysis Integral and Non-Integral citations

The preference of the writers using Integral and Non-Integral pattern of citations can be observed in the following table:

Table 4.17

*Inter-Discipline Analysis Integral and Non-Integral citations*

Citation Type	English Studies	Social Sciences	Biological Sciences	Total Per 9000 Citations	Total in %
Integral	1835	1191	902	3928	43.64
Non-Integral	1165	1809	2098	5072	56.36

Table 4.17 directs that the writers in all the selected disciplines are more inclined towards ‘Non-Integral’ form of citations. All the three disciplines: ‘English Studies’, ‘Social Sciences’, and ‘Biological Sciences’ had 5072 ‘Non-Integral’ citations against 3928 times of ‘Integral’ citations. Hence, ‘Non-Integral’ citations were found to be 56.36 % of the total occurrences of citations used in the corpus of this study. Similarly, the respective use of ‘Non-Integral’ citations is 1165, 1809, and 2098 times in ‘English Studies’, ‘Social Sciences’ and ‘Biological Sciences’.

## Discussion

It is pertinent to mention that all the writers have preferred ‘Non-Integral’ citations (5072) more than ‘Integral’ citations (3928) except the writers of ‘English Studies’ who preferred ‘Integral’ citations the most. Hence, ‘Non-Integral’ citations were found to be 56.36 % of the total occurrences of citations used in the corpus of this study. Similarly, the respective uses of ‘Non-Integral’ citations were 1165, 1809, and 2098 times in ‘English Studies’, ‘Social Sciences’ and ‘Biological Sciences’ respectively. Two similar studies (Jalilifar, 2012; Jalilifar & Dabbi, 2012) indicate that different audience (socially and culturally) and purposes of writing lead to different voices in terms of citation behavior. Furthermore, Soler-Monreal and Gil-Salom (2012) in their study on citations in the LR chapters of PhD dissertations by both English and Spanish native writers report that citation behaviors reflect cultural differences.

In particular, English writers are more assertive than their counterparts for indicating weaknesses of previous studies to justify the validity of their contribution. On the contrary, the Spanish tend to avoid personal confrontation and mitigate the strength of their arguments through their use of ‘Non-Integral’ citations in passive and impersonal structures (Loan, 2016). Hu and Wang (2014) also identified four types of stance features such as acknowledge, distance, endorse and contest as authorial voice of the citing writers. ‘Integral’ or ‘Non-Integral’ citations, Swales (1990) argues, are used to show writers’ emphasis on cited authors or reported messages. Hyland (2000) finds that soft disciplines have a tendency to employ ‘Integral’ citations which places the author in the subject position while hard disciplines display a preference for ‘Non-Integral’ ones in order to downplay the role of the author. Therefore, it is more obvious that the writers of ‘Social Sciences’ and ‘Biological Sciences’ tend to de-emphasize the role of the researchers as agent against argument made or the scientific procedure carried out. Hence, the choices of these patterns



are often governed by decisions as to how much prominence needs to be given to the people involved (Thompson, 2000). He also mentions that it is conventional in scientific writing to de-emphasize the role of the researchers as the human factor does not maintain any bearing upon the process carried out.

‘Source’, as a distinct pattern was observed with 950, 1623, and 1733 occurrences against ‘English Studies’, ‘Social Sciences’ and ‘Bio-Sciences’ respectively. Total occurrences found of the ‘Source’ pattern in all the three disciplines were 4306 out of 9000 in total which are 47.84 % of the total patterns used in all the three disciplines. Out of these, ‘Biological Sciences’ (1733) got the highest number of frequencies of this pattern. Taking the figure as a whole, ‘Source’ pattern is predominantly present, accounting for 47.84% of the total citations used in these LR chapters. These findings endorse previous studies on citation functions in literature reviews of theses written by non-native English students (Jalilifar & Dabbi, 2012; Petrić, 2007; Loan, 2016), and this citation function is claimed to be sufficient in displaying students’ knowledge and their familiarity with the literature.

It was found that ‘Identification’ (500) as a citation pattern happened to be 5.55% of total citation patterns and can be considered as one of the lesser preferred ones among various categories of citations. It was also observed that this pattern had achieved the maximum frequencies in ‘Bio-sciences’ (325) against ‘English Studies’ (84) and ‘Social Sciences’ (91). Nevertheless, Shoostari and Jalilifar (2010) observed that international writers had greater tendency of using ‘Source’, ‘Identification’, and ‘Reference’ patterns. Hence, the results show that against the conventions held by native English writers, the non-English writers in the non-English contexts use lesser number of these patterns.

The percentage of 'Reference' (2.2%) and 'Origin' (0.75%) was observed to be the least in all the three disciplines: 'English Studies', 'Social Sciences' and 'Bio-Sciences'. This writer-reader engagement, as a characteristic of native English writers, appears to be lacking in the non-native writers including Pakistani writers. Jalilifa's (2010) study also indicates that 'Origin' did not get any attention as there was no occurrence of it. Shoostari and Jalilifar (2010) posited that international as well as local writers had less tendency of using 'Origin'. Thus, these three categories, i.e. 'Identification', 'Reference', and 'Origin' had lesser number of occurrences which refer to the non-native practices of writers who are more inclined towards grammatical perfection rather than thematic significance of the statements.

Similarly, the major three categories of 'Integral' citations, like 'Non-citation', 'Naming, and 'Verb-Control', have enough contribution in the overall number of the citations used in the corpora. The category of 'Non-Citation' got the maximum number of occurrences in 'English Studies' (507) while the total occurrences, amounting to 649, are 7.75 % of the total citation processed. Shoostari and Jalilifar (2010) are of the view that the non-native researchers regard this pattern as improper and unconventional. They also observed that international writers had a higher tendency of using 'Non-citation' than the non-English writers. The writers in the current study, particularly in the genre of literature, appeared to have more inclination towards 'Non-citation' which means that they do conform to the writing conventions of international writers instead of non-English writers.

Likewise, 'Naming' pattern (972) was 10.8 % of the total occurrences of different citations used in the literature review chapters of the theses. Similarly, 'Naming' as citation pattern was used 435, 145, and 393 numbers of times in 'English Studies', 'Biological Sciences' and 'Social Sciences' respectively. It means that non-English Pakistani writers emphasize authors more than

their achievements. On the other hand, Western writers credit the works instead of who the researcher is (Loan, 2016)? Therefore, the results of the study endorse the common practices of non-native writers who make use of ‘Naming’ in order to stress the agents of research rather than acknowledge their works. This further confirms that non-English culture seems to be more people oriented than performance oriented.

‘Verb-Control’ (2306), as one of the frequently preferred category, may also be compared with other patterns where it contributes 25.62 % to the total occurrences of citation patterns. It is the second largest type after Source (47.84 %) as the favourite form of citation used in LR chapters of theses in Pakistan. Another remarkable feature regarding this is the overuse of ‘Verb-Control’ by writers in ‘English Studies’ (883) as compared to ‘Social Sciences’ (669) and ‘Biological Sciences’ (744). It is, therefore, assumed that the writers in different disciplines follow different rhetorical strategies and have different preferences. Charles (2006) also concluded in a study concerning theses of ‘Social Sciences’ vs. ‘Natural Sciences’ that reporting clauses were considerably more frequent in ‘Social Sciences’ than in Natural Sciences. The current study shows that Verb-Control has been preferred in all the three genres. However, the writers of English Studies (883) have preferred this pattern the most, followed by ‘Biological Sciences’ (744) and ‘Social Sciences’ (669) respectively.

The stance of the writers is usually conceived in terms of the choices of verbs used. Thompson and Ye’s (1991) framework did well in categorizing the verbs into ‘Factives’, ‘Non-Factives’, and ‘Counter-Factives’. In this connection, it was noticed that ‘Factives’ (751) were not used as many times as ‘Non-Factives’ (1539). Comparatively speaking, the writers of ‘Social Sciences’ (362) got the maximum frequencies against ‘English Studies’ (319), and ‘Biological Sciences’ (70). As compared to these, ‘Non-Factives’ were also preferred differently in terms of

different disciplines. For example, ‘Biological Sciences’ (674) proved to be the highest in terms of ‘Non-Factives’ as compared to ‘English Studies’ (564) and ‘Social Sciences’ (301). The greater use of ‘Non-Factives’, particularly, in ‘Biological Sciences’ tends to conform to the conventions of science disciplines which signify that Natural Sciences made use of research sources and impersonal scientific vocabulary rather than notional and opinionated kind of verbs (Charles, 2006). Same is the case with ‘Counter-Factives’ which is registered as the least preferred variant of Verb-Control, again a matter of discipline specific conventions. This very notion led to 0% occurrences of ‘Counter-Factives’ in ‘Biological Sciences’.

### **3.18. Chapter Conclusion**

Citation plays a key role in establishing a relationship between a writer’s argument and his discourse community; it is also used for comparison or for support of the writer’s own research. Above all, making references to previous finding, as a strategy for supporting claims, is mandatory in academic articles. Besides this, citing others is not all about picking and choosing the authors but an appropriate communicative process. Acknowledging this fact, it is said that citation has a complex communicative purpose with syntactic, semantic, and pragmatic variables (Jalilifar, & Dabbi, 2013). Citation practices have, therefore, been found to vary according to discipline (Hyland, 1999a) and according to genre (Thompson & Tribble, 2001). The assortment and patterning of citations reflect the complexity of citation practices, and this, in turn, makes difficulties for novice writers in learning to cite appropriately.

The results of this study marked discipline specific tendencies that are reflected in citation patterns of the indigenous PhD theses’ literature reviews. As mentioned earlier, the capacity to cite appropriately has an important role in academic writings. The reasons for the existing differences in stance and voices could be the social and epistemological conventions, the study types, the

audience, and the citation conventions (Hu & Wang, 2014). In short, comparison shows that the writers of the three selected disciplines have a tendency to make more varied use of Integral and ‘Non-Integral’ citations in contrast to native-English and non-native writers and they tend stressing citations differently in different contexts of study.

The framework used in this study can help readers deepen their point of view and extend the range of citation types that they might utilize in their writings. Attention to citation patterns in academic writing would encourage novice researchers to examine the wider context of situation and to become aware of different functions of citations within the text. The typology of citations outlined in this study is based on Thompson and Tribble’s (2001) work on citation analyses. The broader categories, they mentioned, are Integral and ‘Non-Integral’ citations. ‘Integrals’ are further divided into ‘Verb-Controlling’, ‘Naming’, and ‘Non-citation’; while ‘Non-Integral’ are sub divided into ‘Source’, ‘Identification’, ‘Reference’, and ‘Origin’, as various patterns in terms of their functions. The variants of ‘Verb-Controlling’ pattern, based on Thompson and Ye’s (1991), are ‘Factives’, ‘Non-Factives’, and ‘Counter-Factives’, which also signify the writers’ stance or attitude towards the author cited.

The analysis suggests an overall impression that the writers in general were more inclined towards ‘Non-Integral’ form of citations for de-emphasizing the role of authors and stress more upon the information as a source of knowledge. This phenomenon was particularly noticed in ‘Biological Sciences’ where the writers tend to de-emphasize the role of the authors as agent against the argument made or the scientific procedure carried out. Hence, the findings endorse Hyland (2000) who claims that soft disciplines employ ‘Integral’ citations where the author is placed in the subject position while hard disciplines display a preference for ‘Non-Integral’ ones in order to downplay the role of the author cited. Hence, the results of the study conform to the

trend adopted by the community in a native context. The same point is endorsed further by Charles (2006) who believes that “the choice of ‘Integral’ and ‘Non-Integral’ citation is a complex product of a number of factors including citation convention, genre, discipline and individual study type” (p. 317).

‘Source’ as a distinct pattern was registered to be the most preferred citation pattern. Total occurrences of this pattern were up to 47.84 % of the total patterns used in all the three disciplines. These findings confirm previous studies conducted in non-native contexts (Jalilifar & Dabbi, 2012; Petrić, 2007; Loan, 2016), and this citation function is claimed to be sufficient in displaying students’ knowledge. These findings are in conformity with Petric’s (2006) statement regarding ‘Source’ or attribution which says that the only job of the writers is attributing information to authors for it does not need any special creativity on behalf of writers and is rhetorically the simplest one. These findings conform to the study made by Shoostari and Jalilifar (2010) that the frequency of the ‘Non-Integral’ ‘Source’ was the highest with ‘Origin’ attracting the least attention. They also observed that international writers had greater tendency in using ‘Source’ along with ‘Identification’, ‘Reference’, and ‘Origin’ as the other categories of ‘Non-Integral’ citations.

Apart from ‘Source’, the occurrences of ‘Identification’ (5.5%), ‘Reference’ (2.2%) and ‘Origin’ (0.75%) were the least in all the three disciplines: ‘English Studies’, ‘Social Sciences’ and ‘Bio-Sciences’. This kind of wholesome interaction, a characteristic of native academics, appears to be lacking in the non-native writers including Pakistani writers. Moreover, this kind of rhetorical practice is also confirmed by Jalilifar (2010) which claims that ‘Origin’ was not used by Iranian students. It is endorsed again that local writers had less tendency of using ‘Identification’, ‘Reference’, and ‘Origin’ (Shoostari & Jalilifar, 2010). Thus, these three categories, i.e.

‘Identification’, ‘Reference’, and ‘Origin’ were found with lesser number of occurrences which refer to the non-native practices of the writers who are more inclined towards grammatical perfection rather than thematic significance of the statements.

As ‘Integral’ citation, ‘Verb-Control’ (2306), is one of the frequently occurred category, may also be compared with other patterns where it contributes 25.62 % to the total occurrences of citation patterns. It is the second most favourite form of citation used in LR chapters of theses in Pakistan. It is worth mentioning that the writers in English Studies (883) have made enough use of this pattern. This is, therefore, assumed that the writers in different disciplines follow different rhetorical strategies and have different preferences. The current study shows that Verb-Control has been preferred in all the three genres in order to highlight the stances of the authors and to emphasize their role.

The stance of the writers is usually conceived in terms of the choices of verbs used (Thompson & Ye, 1991). In this connection, it was noticed that ‘Factives’ (751) were less than ‘Non-Factives’ (1539). The greater use of ‘Non-Factives’, particularly, in ‘Biological Sciences’ tends to conform to the conventions of science disciplines which signify that Natural Sciences made use of research sources and impersonal scientific vocabulary rather than notional and opinionated kind of verbs (Charles, 2006). Quite the same, ‘Counter-Factives’ were registered as the least preferred variant of ‘Verb-Control’, as a matter of discipline specific conventions. This very notion led to 0% occurrences of ‘Counter-Factives’ in ‘Biological Sciences’.

Similarly, other two categories of ‘Integral’ citations, i.e. ‘Non-citation’ and ‘Naming’ have enough contribution in the overall number of the citations used in the corpora. The category of ‘Non-Citation’ got the maximum number of occurrences in ‘English Studies’ (507) while the

total occurrences, amounting to 649, are 7.75 % of the total citations. It is important to know that although the non-native researchers regard this pattern as unconventional but the writers in the current study, particularly in the genre of literature, appeared to have more inclination towards 'Non-citation', going against the non-native conventions. Likewise, 'Naming' pattern (972) was noticed up to 10.8 % of the total occurrences of different citations used in the literature reviews of the corpora. Its maximum contribution shows that non-English, Pakistani writers, emphasize authors more than their achievements, contrary to the Western tendency to credit the works instead of who the researcher is (Loan, 2016). It may, therefore, be assumed that non-native writers' common practices are more people oriented than performance oriented.



## CHAPTER 5: QUALITATIVE ANALYSES OF CITATIONS

This is very much essential on the part of researchers to validate their arguments by referring appropriately to other researches in the field. The writers having a range of readership in their minds are persistently engaged in a communicative process using various strategies bearing the discursive norms and schema of the specific discourse community (Charls, 2007). Analysis of the corpora indicates much about the discursive practices of the writers. It shows a number of genre specific features as well as academic lexemes usually used by writers. These practices bring forth the writers' choice of citations as well as their individual stance in the form of appropriate verbs and adverbs, having used only to show their stance in approval or disapproval of a certain argument. This has led to increased interest in how academic writers incorporate into their texts their own 'personal feelings, attitudes, value judgments, or assessments' (Biber et al. 1999, p. 966). Numerous works have examined this phenomenon using several different terms for it, including stance (Hyland, 2000) and evaluation (Hunston, 1989, 1994; Thetela, 1997).

It has also been noticed that some of the writers tend to adopt a non-committal stance as opposed to taking a strong positive or negative position. These writers merely acknowledge or distance themselves from cited materials, implying that non-native students were inclined to show deference to the perceived authority of published sources (Radev et.al., 2018). A review of the sampled data shows that attention is paid mainly to the surface feature of citation, focusing just two or three major types of citations, while ignoring the other types or having only few of them. Unlike these, the writers, in majority, have made an extensive use of reporting verbs having rich variety of these which may also present a quality work on their part.

Based on Swales' (1990) division of citation forms into Integral and 'Non-Integral', the present study is going to encompass Thompson and Tribble's (2001) classification of 'Non-Integral' citations into its sub-categories: 'Source', 'Identification', 'Reference' and 'Origen', along with 'Naming' and 'Verb-Control' of 'Integral' citations. Additionally, Thompson and Ye's (2000) classification of 'Verb-Control' into 'Factive', 'Non-Factive' and 'Counter-Factive' types of reporting verbs are also going to be analyzed and judged qualitatively. It was quite difficult to analyze such a huge corpus comprising ninety (90) theses without having any technical support. Thus, AntConc as a corpus tool has been used to reach each and every citation given in the corpus made. Concordance was the best possible option used for this purpose. The texts are doctoral theses, written in 'English Studies', 'Social Sciences' and 'Biological Sciences' with three subjects in each. The results obtained (see appendices) after researcher's verification with computer's concordance applications, led to a comparison of the citation practices of writers in different disciplines and the various rhetorical practices of these disciplines. Different categories, as were compared in the previous chapter, were judged thoroughly in terms of types, context, syntactic variations, thematic and structural significance. Thompson and Tribble's (2001) and Thompson and Ye's (1991) studies were used as theoretical models. The study focused on 'Integral' (cited author being part of the citing sentence) and 'Non-Integral' (citation enclosed in parenthesis) citation patterns along with reporting verbs. Finally, the choice of reporting verbs by different writers as per the traditional requirements of various disciplines have also been elaborated and cross compared.

## **5.1. Non-Integral Citation**

In this study the writers' overall inclination was towards 'Non-Integral' citations— name of an author within brackets, as keeping the argument more prominent than the author of the study,

particularly, in ‘Biological Sciences’ and ‘Social Sciences’. Hence, here the writers followed the set convention established by the predecessors of the discipline for valuing only the argument or the statement not the person, whoever he might have been. On the other side, this is significant to note that the writers in ‘English Studies’ preferred to use a smaller number of ‘Non-Integral’ citations, following the established norms of the respective discipline. They considered the author more important than the argument in order to augment their point of view and to establish a space for their research and for their possible publication. Charles (2006) argues that the choice of ‘Integral’/ ‘Non-Integral’ citation is derived from a number of factors including citation convention, genre, discipline and type of study. Sometimes the writers would tend to follow one pattern while at the other would like to add a quite different pattern keeping in view the thematic or functional value of the argument. Thus, it appears that citation practices reflect the writers’ Voice in terms of discursive attitude established through their social and epistemological conventions, their audiences, and citation conventions. This is mostly done in more expert writings like research articles and theses. Hence, the writers show a keen interest in gathering valuable chunks of knowledge through supplying different citation types according to the standards established by their target discourse community. The following table clarifies the notion with textual examples against each sub-type of ‘Non-Integral’ citations.

Table 5.1

*Non-Integral Citations*

S/No	Sample citations	Citation Type	Discipline
1	For English teachers assessment includes means of checking what students can do with the language (Drummond, 1993)	Source	ELT
2	The finding is similar to previous findings of the studies (Ozlem&Ali 2011; Kanter &Konstantopoulos 2010; Sabine & Franz X 2010; Aydede & Matyar 2009)	Identification	Education
3	The Classroom Observation Code (Abikoff & Gittelman, 1985) was used to quantify child behavior along mutually exclusive dimensions.	Origin	Psychology
4	So it is and will remain important in future as well (Viera, 2006; Barcelos, 2007; Borg & Burns, 2008; Lee, 2009; Phipps & Borg, 2009)	Source	Education
5	Studies conducted on looking into the effect of schooling on cognitive development (e.g. Ceci, 1990, 1996) has found that standard schooling process appears to effect perceptual analysis.	Reference	Psychology
6	The same has been reported by other studies conducted in Korea, France, French Guiana and New Zealand (Choi et al., 1997; Baril et al., 1999; Carme et al., 2002; Lake et al., 2002).	Identification	Zoology
7	Opposite view to this one propounded by sociologists, philosophers and linguists (Gramsci 1971; Bourdieu 1990; Althusser 1971; Barthes 1957; and Williams 1973, 1977) that ideologies are not particularly.....	Identification	Linguistics
8	In this regard, a number of analytical frameworks (Brickhill et al., 1996; Kabira and Kasinjila, 1997; Obura, 1991; Sifuniso et al., 2000), have.....	Origin	Linguistics
9	Some others (e.g., Veenman, 1984; Berliner, 1987) have discovered many challenges.....	Identification	ELT

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### 5.1.1. Source

Non-Integral citations are used when a proposition is attributed to another writer. The function of Source as sub-category of 'Non-Integral' citations tends to be a statement or an idea about a known fact or phenomenon that is attributed to someone else (Thompson & Tribble, 2001).

For example:

For English teachers assessment includes means of checking what students can do with the language (Drummond, 1993).

This type of citation indicates where the idea comes from. In this way, the theses writers not only acknowledge the evidence for a proposition but they also attempt to augment and validates their own point of view. Majority of the writers in the current study have relied upon this category which further leads us to theorize that the epistemological foundations of the study are strong enough to be depended on and in turn provides a sound basis to validate their arguments. Secondly, this was also concluded by Hyland (1990) that Integral citations are usually preferred by the writers in order to emphasize the statement rather than highlighting the author. In other words, they want to underline that they have more interest in the idea or statement than the writer of it. Another associated fact, regarding writers in a non-native context, is that they go for Non-Integral citations and take them for granted without exactly knowing its thematic significance (Jalilifar, 2010).

However, this is not the case in the present study as none of the citations was noticed as being devoid of its structural and thematic significance. In 'Biological Sciences' and 'Social Sciences', all of the writers preferred 'Source' as a type of 'Integral' citations to acknowledge other authors. Nevertheless, it was not so in case of 'Education'. This very discursive practice of the writers seems to indicate that they want to continue tradition of these disciplines. Hence, keeping in view all these factors, we can easily conclude that the writers of 'Biological Sciences'

and ‘Social Sciences’ have attached themselves with the local traditions of the respective disciplines. In contrast, the writers in ‘Education’ have tended aligning themselves with the writers of ‘English Studies’. It may be due to its relatively close association with the subjects of ‘English Studies’, like ‘ELT’ and ‘Linguistics’.

### **5.1.2. Identification**

This category identifies the studies as well as the methods referred to. The aim of using this type of citation is to focus attention on the contents rather than the author of the study. To be precise, it is information prominent as against author prominent citation. In this way, the writer would like to align his study to the studies previously done in the field. For example:

The same has been reported by other studies conducted in Korea, France, French Guiana and New Zealand (Choi et al., 1997; Baril et al., 1999; Carme et al., 2002; Lake et al., 2002).

The data obtained shows that this pattern is used very rarely by the writers, in almost all the theses selected for the purpose. Hence, the trend of citing others is more or less traditional or mythical (Shoostari & Jalilifar, 2010). Non-native writers commonly go for statements or paraphrases and direct quotes instead of referring to other studies conducted. To explore the reasons, why the writers choose one form of citations over any other; it seems that the categories, in general, are based on syntactic distinctions rather than functional (Thompson & Tribble, 2001).

Therefore, it seems very likely that writers in different disciplines follow different rhetorical conventions and have different preferences; however, it is not the case here in this study as almost all the writers did not prefer this category as much as they used the ‘Source’ pattern. It has been observed that international writers had greater tendency in using ‘Source’, ‘Identification’, and ‘Reference’ patterns (Shoostari & Jalilifar, 2010). Apparently, almost all the

writers, in the study conducted, have followed a uniform trend of giving off and on preference to this pattern. Hence, the trend of using ‘Identification’ in Pakistani context is obviously against the citation convention of the international academic community.

### **5.1.3. Reference**

This type of pattern is signaled by the directives, “see” or usually by mentioning “e.g.” or “for example” in order to provide support for the proposition or substantiate the argument made in favour of the claim. ‘Reference’ functions as a shorthand device to refer to detailed procedure, explanations and proof of arguments which are too lengthy to be repeated. For example:

Studies conducted on looking into the effect of schooling on cognitive development (e.g. Ceci, 1990, 1996) have found that standard schooling process appears to effect perceptual analysis.

The study undertaken suggests that the writers mostly preferred the traditionally used patterns like the ‘Source’ and ‘Verb-Control’. The given ‘Reference’ as a pattern has not been given due attention by the writers to persuade the readers. These limited uses of citation patterns necessitate this study to consider the factors which stop the writers from using patterns that persuade the readers more effectively. It could be the style of communication as is stated by Fakhri (2004) that communicative styles differ from culture to culture, in terms of directness, i.e. the degree to which they direct the readers to epistemological resources. Fakhri (2004) argued that western cultures usually prefer direct communication styles whereas the others, like Japanese, Iranian, and Arab cultures value indirectness. The same point has been noticed here in terms of the smaller number of ‘Reference’ patterns which goes contrary to the greater inclination of international writers in using this citation pattern (Shoostari & Jalilifar, 2010). Added to this, one can also assume that non-native writers have fewer resources at their disposal when they come to cite the works of others because they lack expertise in academic discourse.

Thompson (2001) stated that ‘Reference’ is used by the writers as a “shorthand device” to direct the reader to another text in which exact details can be found (p. 105). He further explained that it is up to the writers to decide that whether it is necessary to provide details or to use the word ‘see’ and make the reader responsible for reading and understanding more details about the subject. ‘Reference’, for example, a ‘shorthand device’ (Thompson, 2001, p.105) or ‘directive device’ (Hyland, 2002, p. 215), can be employed not only to show the writer’s ability to gather information from sources but also to direct the reader to another text in which exact details can be found. This pattern, as Pecorari (2006) claims, is one of the commonly used signals which are needed to be used for source reporting in order to show as much of the relationship as she or he thinks the reader needs to know. Hence, the researchers working in a non-native context go for the grammatical perfection of the contents or the rhetoric rather than the functional value of the arguments as far as the form of citation is concerned.

#### **5.1.4. Origin**

This pattern of citation indicates the originator of a concept, theory, model, technique, or product. The study conducted had a much smaller number of the ‘Origin’ pattern of citations in PhD theses. However, its representation cannot be overlooked outright as some of the writers had to refer to the originators of certain concepts, theories, or frameworks of others, for example:

In this regard, a number of analytical frameworks (Brickhill et al., 1996; Kabira & Kasinjila, 1997; Obura, 1991; Sifuniso et al., 2000), have...

In this example, the writer attributed the phrase, “a number of analytical frameworks”, to several originators. Hence, a reader might mistake as how to differentiate between ‘Origin’ and ‘Source’ as two different patterns of citations. According to Thompson and Tribble's (2001, p.95) definition, “where ‘Source’ attributes a proposition to a source; ‘Origin’ indicates the originator of a concept



or a product”. The study was restricted to the Literature Review sections only; therefore, the writers exploited this type of ‘Non-Integral’ citations infrequently. Instead, the writers preferred to denote the cited concept and proposition to an author (Source) rather than to introduce the originator of that concept (Origin). Thompson (2005), in a study of theses, identified citations in different rhetorical sections, where writers were more concerned with Origin citation in the methodology sections; since in the method section the materials and methods are described for the analyses purposes. However, in Introduction sections of theses, no ‘Origin’ could be identified. Thus, he considered this pattern as a typical feature of Methodology section.

## **5.2. Integral Citations**

The writers across the discipline had a relatively lower tendency to use ‘Integral’ citations in which the name of the researcher appears as a sentence element with an explicit grammatical role. It is believed as mentioned earlier that the choice between Integral and ‘Non-Integral’ citation is symptomatic of various factors including citation convention, genre, and discipline of the study (Charles, 2006). Hence, in this study the writers of ‘English studies’ maintained their usual convention of preferring ‘Integral’ citation pattern. Therefore, the study goes in favour of the academic norms held by the community as Hyland (2000) found that soft disciplines have a tendency to employ ‘Integral’ citations which place the author in the subject position while hard disciplines display a preference for ‘Non-Integral’ ones in order to downplay the role of the author. This preference for ‘Integral’ citation does not seem to be only related to the citation conventions, but to the functions of citations in theses, in which writers prefer to emphasize the author, since they want to establish a strong support for their claims. At the structural level, this pattern has got three different variants like, ‘Verb-Control’ by placing the citation in subject position, ‘Naming’ by mentioning it as part of the sentence without controlling the verb, just to emphasize the

researcher rather than the information. A third variant of this pattern is Non-citation which is similar in structure to ‘Verb-Control’ except for the year of publication. It was also observed that out of all these variants, the citation in the position of controlling the verb made a significant proportion of Integral citation.

Table 5.2

*Integral Citations*

S/No.	Sample Citations	Citation Type	Discipline
1	Adeney (2007) envisages that nondemocratic and centralized political system undermines ethnic conflicts	Verb-Control	Pol. Science
2	According to Christie (2000) pragmatics provides a solid descriptive basis for analysis and feminism.....s	Naming	Linguistics
3	Abbas, Ahmad focused on the political activities of MQM during its initial years.	Non-Citations	Pol. Science
4	Shtayeh et al. (2000) reported that in west bank (Palestine)....	Verb-Control	Botany
5	Harisingh described that highest heritability was recorded for secondary branches followed by seed .....	Non-Citations	Biotechnology
6	Christie\92s (2000) work is important in a sense that it offers something new to the Ling1.txt 0 1	Naming	Linguistics
7	heavy metals (separately or in mixture) was reported by McGeer et al.(2000)	Verb-Control	Zoology
8	Mubarak Ali (1986) has highlighted the distortion and omission of historical facts as well as biases and in	Verb-Control	Linguistics
9	In biological conversion of coal, the role of laccases has been determined by Cohen et al. (1987) and it has been suggested that this enzyme is responsible for	Verb-Control	Linguistics
10	The findings of Alleghetti et al. (2006); Srivastava and Thakur (2006); Zhigang et al. (2006); Ali and Dein (2008); Pathak et al. (2009)...	Naming	Botany

11	A study by Dore and Wickens (2004) suggests that for the newly appointed teachers, it is need of hour	Naming	Education
12	illustrated by the following statement of Benson and Lor (1999)	Naming	ELT
13	Allport (1966) was the most influential of the trait theorist	Verb- Control	Psychology
14	In biological conversion of coal, the role of laccases has been determined by Cohen et al. (1987) and it has been suggested that this enzyme is responsible for	Verb- Control	Biotechnology
15	Boullata aptly explains this remarkable feature of Qutbstaswir (artistic representation):	Non- Citation	Linguistics
16	Crystal (2004) also criticizes different forms of synchronous CMC as they are not fully	Verb- Control	Linguistics
17	Crystal (2008b) refutes these disapproving terms and maintains that various features of.....	Verb- Control	Linguistics

### 5.2.1. Naming Citations

This pattern of Integral citations signifies to a noun phrase or a part of a noun phrase. In ‘Naming’ citation patterns, the writer focuses on the author who does not receive the agent position, for example the pattern, "according to", clearly mentions the preferred choice in the selected PhD theses. Naming citation sometimes refers to a text, rather than a human agent (Thompson & Tribble, 2001) which is in fact reification. Thompson and Tribble (2001) further elaborate that this citation may also signify to a work done by someone, or to a definition, equation, method or formulation, given by a researcher. The study undertaken had been useful in observing different naming citations and forms of reification, for example:

According to Christie (2000) pragmatics provides a solid descriptive basis for analysis and feminism...

This “according to” structure is very common and has been noticed frequently in the study conducted. This is because the pattern is easy to be followed; therefore, the writers who lack

language expertise use more often. Hence, it is assumed that the choice of this structure is made purely out of convenience rather than its thematic value or function. Another example of reification found is when the naming citation signifies to a particular method, illustration, definition or similar construct with individual researcher, as for example:

As is illustrated by the following statement of Benson and Lor (1999)...

In this case, as in other typical reification kind of patterns, the citation focuses on the text rather than the author of the statement. This is not unusual in writing a research article or thesis to validate one's argument and persuade the readers in favour of the stance s/he has taken. Apart from this, an alternative type of naming citation is that which refers generally to the work or findings of particular researchers:

The findings of Allegretti et al. (2006); Srivastava and Thakur (2006); Zhigang et al. (2006); Ali and Dein (2008); Pathak et al. (2009), who studied that ...

In this case, the pattern is similar to a 'Verb-Controlling' citation which reports the work done by a group of researchers who worked on a particular topic or a specific area of a major discipline. Thus, it is safe to conclude that 'Naming' citation is one of the most attended types of 'Integral' citations. The use of preposition is an explicit feature of this pattern which may further be analysed, qualitatively, in another study based on the data obtained.

### **5.2.2. Non-citation**

In non-citation, there is a reference to another writer but the name is given without a year reference. It is commonly used when the reference has been supplied earlier in the text and the writer does not want to repeat it. For example;

- i. The "classical" form of the disease, described by Marek, causes significant mortality losses ...

- ii. Harisingh described that highest heritability was recorded for secondary branches followed by seed.
- iii. Boullata aptly explains this remarkable feature of Qutb's taswir (artistic representation)...

Based on the results of the present study, one may make a number of perceptions about the use of this pattern namely Non-citation. One of these reasons could be the use of a secondary source where the writer does not usually remember the date and use of citation as necessitated by the argument developed. However, the factor of repetition, as mentioned earlier, makes a considerable part of 'Non-citation' where the writer intentionally avoids the use of appropriate citation. Another significant factor is the instance where a person invoked through reference to the thinking associated with them in general, rather than with reference to a specific work or set of works, for example, "Marxist" or "Darwinian" (Jalalifer, 2007). This is also significant to mention that the use of 'Non-citation' has been used by the writers across the disciplines. Hence, this category cannot be specified to a subject or discipline, as being a common rhetorical feature of the theses written in Pakistan. Hence, 'Non-citation', as part of the rhetorical practices, was found with almost the same factors behind its use, as are usually considered by the academic circles around the world.

### **5.2.3. Verb-Control**

Verb controlling citations are the most commonly used form of citations, which has been found the second most attended pattern after 'Source'. It is thought to be the easiest and most preferred way of incorporating citations into text. Anyway, this is not the case with professional writers who would have a number of linguistic options to develop an argument which may convey their point of views in the most befitting manner. 'Verb-Control' as a distinctive pattern is opted to be used in different syntactic forms to make the argument in harmony with the thought conveyed by writers. It can be noticed in the given examples:

- i. Shtayeh et al. (2000) reported that in west bank (Palestine)...
- ii. Mubarak Ali (1986) has highlighted the distortion and omission of historical facts as well as biases and in ...
- iii. Adeney (2007) envisages that nondemocratic and centralized political system undermines ethnic conflicts ...
- iv. In biological conversion of coal, the role of laccases has been determined by Cohen et al. (1987) and it has been suggested that this enzyme is responsible for...
- v. Crystal (2004) also criticizes different forms of synchronous CMC as they are not fully...
- vi. Allport (1966) was the most influential of the trait theorist ...

The data obtained suggest that selection of tense in case of ‘Verb-Control’ tend to convey different thoughts. Here the writers tend to be very sensitive towards putting an appropriate verb form regarding the argument being developed. As mentioned here in the above given example, the writer used the verb “envisages” which is obviously present simple. Hence, present simple is usually used as statements regarding certain established scientific principles or facts. Thus, the use of past indefinite, and present perfect tense, could be used with different significance in the writers’ minds. Past indefinite, says Hyland (2000), is used usually for the findings of a study recently conducted which has to undergo a series of repetitive studies to find its due place in the knowledge network. Similarly, the use of present perfect tense, as argued by Hyland (2000), tends to bridge the two situations as the past and present which explicitly signifies towards a phenomenon in a stage of confirmation.

As added a fact, the writers tend to use ‘Verb-Control’ as the easiest way of putting citations irrespective of the thematic value of citation, particularly in non-native contexts (Loan, 2016). Shoostari and Jalilifar (2010) argue that this is an important difference in local and international articles. International writers may emphasize ‘Verb-Control’ to give credit to the works of others and to establish their own academic authority and credibility. On the other hand, local writers may make use of ‘Naming’ to stress the agents of research rather than acknowledge

the works. This seems to be a divergence from the norms of the academic community, which emanates from the non-English writers' culture. Contrary to this, the rhetorical phenomenon in the current study is considerably different from the Persian culture which seems to be more people oriented than performance oriented. They value people more than their achievements, contrary to the Western tendency to credit the works irrespective of who the researcher is. Hence, the present study indicates that the writers, here, pursue the international academic norms as they, per a common tendency, credit the achievements rather than the researchers.

Another fact about the use of 'Verb-Control' is the change of voice, particularly, passivization, as mentioned in the given extracts, where the author was placed in the object position and given a secondary status, while focusing more on the argument or the task being done. Hence, it is closer, as far as the function of the argument is concerned, to 'Non-Integral' form of citations. As a result, it can also be assumed that these patterns of citations would be used for the sack of variety rather than for any other functional value.

Apart from these, another variant of 'Verb-Control' is the use of linking verbs or copular verbs which are obviously used to tell about a state of being rather than putting forth the stance of the author mentioned. As the given example (VI) establishes the author as "the most influential of trait theorists", hence, it tells about his status rather the work. Thus, the patterns which are usually used in the initial parts of literature review with particular purpose of establishing the niche as reviewing the previous researchers are also common (Kuan, 2006; Khan, 2013).

Lastly, the use of different variants of the 'Verb-Control' type of patterns, which are going to be described in detail later in this chapter, is another worth mentioning feature of the type. Generally speaking, the writers of the theses, analyzed, have either supported the stance of the

author cited, or they have contradicted him, or sometimes kept quiet about his stance and just stated the facts or scientific procedures. In this way, this category or pattern is the most significant one as the voice of the author seems to be explicitly observable in these phrases of the text. Hence, it is 'Verb-Control' which marks the writer's voice more explicit regarding a cited author's response to an issue.

In academic discourse, especially in PhD theses, research writers tend to choose appropriate information supporting their study, without making any subjective interpretation by means of reporting verbs. As a matter of fact, expert writers tend to evaluate the reported text, rather than mere reporting it, often using appropriate grammatical patterns, that is, whether to place the author in the subject position in an integrated form, or to enclose it parenthetically. This is how they may opt for any particular rhetorical and discourse level of citation. Thompson and Ye (1991) argue that the emphasis just on reporting particular information, without having appropriate kind of reporting verb, would be equal to miss or misinterpret the purpose. They also claim that "evaluation in text is the signaling of this purpose" (Thompson & Ye, 1991). Writers who are usually novice in the field of research would go for reporting previous researches only, rather than evaluate them in order to integrate them effectively into their studies. Taylor and Chen (1991) also state that the absence of evaluation of previous research can be attributed to the unacceptability of argument. Thus, lacking critical evaluation of the argument referred to someone else may not communicate the point regarding an issue in order to create a space for the study conducted.

As discussed earlier 'Verb controlling' was the most frequently attended citation pattern within Integral citations of PhD theses. Following Thompson and Ye's (1991) framework, the verbs used by the writers have been classified, based on the fact that these writers may refer to the reported statement of an author being cited as true using 'Factive' verbs; using 'Non-Factive' verbs



when stay neutral; and reject a statement at all, using ‘Counter-Factive’ verbs. The data proved that the writers in PhD theses have used all the three variants in order to highlight authorial voice. The data obtained for ‘Factive’, ‘Non-Factive’ and ‘Counter-Factive’, as variants of ‘Verb-Control’ citations, have been analyzed for all the three disciplines in the tables below. The assessment of the verb types was duly verified through adopting inter-coder reliability strategy. Hence, two experts of linguistics were requested to overview the reporting verbs concordanced by the researcher. The categories determined by three coders were cross compared and tabulated with hundred percent inter-coder reliability.

#### **5.2.3.1. Factives used Across Disciplines**

Following Thompson and Ye's (1991) work, ‘Factives’ used by the writers across disciplines can be seen in the following table:

Table 5.3

*Factives Used in Various Disciplines*

Discipline Specific Fatives			Commonly	Preferred
English Studies	Social Sciences	Biological Sciences	Factives in the Three Disciplines	
Suggested, Define, Presented, Emphasize, Point out, Support, Preferred, Identified, Argue, Developed, Concluded, Advanced, Considered, Held, Explained, Articulated, Strongly Subjected, Proved, Accentuated for, Postulated, claimed, Contended, Agree, Confirmed, Stressed, Elucidated Suggested, Re-confirmed, Theorize, Coined, Attested, Distinguished, Hypothesized, Established, Addressed, Recommended			Suggested, Define, Presented, Emphasize, Point out, Support, Preferred, Identified, Argue, Developed, Concluded, Considered, Held, Explained, Accentuated for, Postulated, Stressed, Elucidated Theorize, Coined, Attested, Hypothesized, Established, Addressed, Recommended	

#### **5.2.3.1.1. Factives Used in English Studies**

A particularly interesting point of this study is a cross-disciplinary comparison of the reporting patterns used by the theses writers. There are two things to describe here; the comparative use of different verbs across the discipline and the usual trend or choice for using various kinds of reporting verbs, particularly, Factives, by theses' writers which belong to different disciplines. The most commonly used verb choices of the writers in English Studies were: 'Suggested', 'Define', 'Presented', 'Emphasize', 'Point out', 'Support', 'Preferred', 'Identified', 'Argue', 'Developed', 'Concluded', 'Considered', 'Explored', 'Held', 'Explained', 'Accentuated for', 'Postulated', 'Stressed', 'Elucidated', 'Theorize', 'Coined', 'Attested', 'Hypothesized', 'Recommended', 'Established', 'Addressed'. This wide range of verbs indicates that through these verbs, the writers not only report the kind of activity but also the stance of the authors being cited. As in reporting, reporter is a mediator, the writers tend to highlight their commitment, through employing these verbs, to the statements as well as to the authors being incorporated in their studies. In other words, the writers, while employing Fictive verbs, actually acknowledge the stance of the authors as well the conclusions being derived. Hence, the verbs being used by the writers of English Studies are the ones used as usual by all the writers across disciplines. These are not in any case specific in terms of the discipline or sub-discipline.

#### **5.2.3.1.2. Factives Used in Biological Sciences**

The way that citations are manifested in PhD theses may reflect the context in which citations are used by these writers. Contrary to the common perception, the writers of the theses across the subjects have used more or less similar kind of Fictive verbs while citing the authors to validate their own statements. The reporting verbs used by the writers in English Studies indicated in the above table are almost the same that the researcher has observed in Biological Sciences. The

difference noticed between the two disciplines is the use of some extra variety of verbs used by the writers in Biological Sciences. The verbs noticed specifically are: ‘Indicate’, ‘Illustrated’, ‘Subjected’, ‘Proved’, ‘Agree’, ‘Confirmed’, ‘Re-confirmed’, and ‘Distinguished’. The terms used can be easily judged as signifying tests, experiments or illustrations of scientific procedures and processes. Hence, the way these citations were employed by the writers may reflect the context of its use. The rest of the words found were those commonly used by all the three discipline.

#### **5.2.3.1.3. Factives Used in Social Sciences**

Eventually, the writers in Social Sciences kept on using the rhetorical practices as were judged in the theses of English Studies and Biological Sciences. Majority of the verbs used by the writers of three disciplines, for the purpose citing others, are usually the same except for only a few in number. The verbs used specifically in ‘Social Sciences’, as mentioned in the table, are: ‘envisage’, ‘insisted’, ‘termed’, ‘admitted’, ‘strongly claimed’, ‘advanced’, ‘articulated’, and ‘contented’. Hence, the terms given entail a different context as signified by the force or emphasis of the vocabulary chosen to use. Thus, as per the context, the rhetoric of the writers of ‘Social Sciences’ seem to be more emphatic in their stance as against those in ‘Biological Sciences’ and ‘English Studies’. The use of adverbial phrases like ‘strongly’ is further a testimony to the argument made.

Thus, it is established now that the use of ‘Factive’ verbs, as a variant of reporting verbs, is a common rhetorical and discursive practice by the writers across the subjects. Generally, the writers indicate different commitments to the statements and authors through employing various kinds of reporting verbs but as far as the range of reporting verbs, used by the writers, is concerned, these differ slightly from one discipline to another. Out of all the three disciplines, ‘English Studies’ has got relatively fewer number of reporting verbs which are common to the writers of all

the three disciplines. It is perhaps, the writers in 'English Studies' react to the issues purely as a human phenomenon or day to day matter without involving any sentiments or other scientific procedural language. The other disciplines, like 'Biological Sciences' and 'Social Sciences' have distinguished evidently using subject specific kind of 'Factive' verbs. Hence, it is assumed that academic discourse tends to distinguish through the vocabulary used, particularly, the verbs controlled by the subjects. Furthermore, the shades of differences could also be noticed when observed in juxtaposition with other disciplines. In short, the data, obtained in the form of corpus, discovered disciplinary differences not only in the frequency but also in the stance function of the clauses.

#### **5.2.3.2. Non-Factive Verbs**

Academic discourse is thought to specify the context which means field of study or genre through making lexical choices by the writers. As stated earlier, the pattern of citation, as found in the theses, may reflect the context or genre, the writers are working in. A number of factors are supposed to be kept in mind while choosing an appropriate rhetorical pattern. These factors could be the functional norms of discourse and the expected readers within a discipline. Thus, they may also be supposed to be aware of the rhetorical effect of citations as the expert writers do. Hence, preference for a certain type of Integral citation or a sub variant thereof would be indicative of their being proficient or less proficient in writing citations.

Similarly, the writers' choice for different variants of 'Verb-Control' citations, such as 'Factive', 'Non-Factive', and 'Counter-Factive' may also be considered as per discipline. Therefore, citation is an important feature in academic writing which usually brings to surface those socio-structural differences that exist among different disciplines. 'Non-Factives' are citations in which the writer does not give any signal as to his attitude towards the author's



### 5.2.3.2.1. Non-Factives Used in English Studies

‘Non-Factive’ verbs signify to a kind of commitment on the part of writers which do not refer to any obvious clue to their attitude for given information. The writers, in this case, usually keep neutral and just focus on the statement as a piece of supportive material only. The data manifested by the writers in ‘English Studies’, as given in the table above, portray the usual trend of using ‘Non-Factive’ verbs. The verb items used by the writers in ‘English Studies’ were: ‘Conducted’, ‘Found’, ‘Studied’, ‘Cross-examined’, ‘Operationalized’, ‘Contrasted’, ‘Divided’, ‘Investigated’, ‘Evaluated’, ‘Used’, ‘Carried out’, ‘Believe’, ‘Propose’, ‘Discussed’, ‘Claimed’, ‘Explored’, ‘Stated’ (see Table 5.4). The given table also indicates that the choice regarding reporting verbs is not that much extended as those of the writers in ‘Biological Sciences’ while it seemed to be at par with those used in ‘Social Sciences’. Thus, it tends to be the common rhetorical practices followed by the writers in subjects other than natural, pure and applied sciences where the writers are in need of those terms which signify to tests and experiments.

The selection of using a specific citation pattern at a sentence level can influence the writers’ attempt to persuade readers (Okamura, 2008). Hence, a difference in the use of reporting verbs among disciplinary contexts may consequently be related to the construction of persuasive argument at a discourse level. It is, therefore, obvious that the writers at PhD level are supposed to be aware of the use of citation forms to persuade readers. Based on the findings of this study, as manifested in the choices of the writers of all the three disciplines, regarding reporting verbs, it seems that the verbs employed are purposeful enough yet the variety of verbs used in English Studies is quite limited as compared to those in Biological Sciences. Despite the fact that occurrences of this pattern are frequent enough in ‘English Studies’ and ‘Social Sciences’; however, the purposive factor broadens the scope of reporting verbs, particularly, the ‘Non-

Factives’ in case of Natural Sciences. It has been claimed (Hyland, 1999a) that quantitative analysis shows a quite clear division in the denotative categories corresponding to the traditional division between hard and soft disciplines. Philosophy, sociology, marketing and applied linguistics largely favoured discourse activity reporting verbs and the engineering and science paper display a preference for research type verbs. Thus, ‘Non-Factives’ in ‘English Studies’ although slightly less in number than those in ‘Biological Sciences’ conform to Hyland’s (1999) framework.

#### **5.2.3.2.2. Non-Factives Used in Biological Sciences**

The findings of the data, as indicated by the column under ‘Biological Sciences’, suggest that a wide range of ‘Non-factive’ verbs are used by the writers to persuade their readers both in terms of number as well as variety. In terms of variety, the number of verbs used in ‘Biological Sciences’ is far more extensive than the list of verbs under ‘English Studies’ as well as ‘Social Sciences’. Similarly, Hyland (2000) in a study of academic corpus found that physics, mechanical engineering, and electronics engineering papers preferred non-subject (passive) position to subject position, showing its preference for the impersonal structure of a sentence, with noun-phrase construction being the least common choice (less than 20% of all the ‘Integral citation forms’) in these disciplines. This study also indicates that biology was the only field which preferred subject position (46.7%) to non-subject position (43.3%) for ‘Integral’ citation. It was also found that the abundant use of ‘Non-Factives’ by the writers of ‘Biological Sciences’ is obviously against Charles’ (2006) study who found that reporting clauses were considerably more frequent in Social Sciences than in Natural Sciences. Hence, the current study does not conform to the rhetoric standards set by predecessors of the native academic community.



To elaborate further, less than half of the ‘Non-Factive’ verbs found are those which are common in all the three disciplines. As more than half of verb items are those which may not be aligned specifically to ‘Biological Sciences’, are used generally by the writers across the science disciplines. The verbs used were: ‘Evaluated’, ‘Used’, ‘Propose’, ‘Enlisted’, ‘Described’, ‘Observed’, ‘Explore’, ‘Stated’, ‘Discovered’, ‘Made’, ‘Compare’, ‘Revealed’, and the like. Hence, these findings lead us to know about the writers of ‘Biological Sciences’ who possessed a better understanding of the functional value of language in terms of reporting verbs compared to the other two disciplines.

In addition to these, the writers of ‘Biological Sciences’ also used a number of purely discipline oriented verb items which obviously refer to the genre specific activities within the text. These ‘Non-factive’ verbs, as shown in the table 5.4, are: ‘Evaluated’, ‘Recorded’, ‘Screened’, ‘Recognized’, ‘Investigated’, ‘Observed’, ‘Estimated’, ‘Adopted’, ‘Modified’, ‘Experimented’, ‘Evolved’, ‘Examined’, ‘Devised’, ‘Demonstrated’, ‘Verified’, ‘Collected’, ‘Assessed’, ‘Measured’, ‘Detected’, ‘Transformed’, ‘Cloned’, ‘Isolated’, and so on. In this way, while using this technical and purely scientific jargon in terms of reporting verbs though on one hand avoids showing an attitude; it may also allow us to see the disciplinary differences in citing authors in academic writing. This is usually done, either out of necessity to employ these terms or of the writers’ deliberate intention, to align themselves with the discourse community that they belong to. As a result, it may be easily concluded that the writers of ‘Biological Sciences’ like other sciences keep using ‘Non-Factives’ but subject specific lexical items in order to exhibit their essential coherence with the relevant discourse community. This notion is fully endorsed by Rorty (1979) who says that writers of the research reports must consider the reactions of their expected audience, anticipating their schema-background knowledge, processing problems, interests and

interpersonal expectations. In sum, the discourse oriented choices align the research writers with certain values and beliefs that support particular identities (Hyland, 1999).

#### **5.2.3.2.3. Non-Factives Used in Social Sciences**

The lexical items given in the table above for ‘Non-Factive’ verbs signify to the choices made by the PhD scholars in their respective theses. The verbs, they preferred to use do signify to their intention of focusing on the information only. The voice of the author or writer does not show anything about his inner feelings regarding the statement. The writers, in this case, tend to keep neutral and just focus on the statement as such. The verb items used by the writers are usually the same as those were used by the writers in English Studies such as: ‘Conducted’, ‘Found’, ‘Studied’, ‘Cross-examined’, ‘Operationalized’, ‘Contrasted’, ‘Divided’, ‘Investigated’, ‘Evaluated’, ‘Used’, ‘Carried out’, ‘Believe’, ‘Propose’, ‘Discussed’, ‘Explored’, ‘Stated’, and the words like these. Apart from these, the given table 5.4 also indicates that the writers in Social Sciences added a few more verb items which may also be taken as part of the discourse used in Social Sciences. These items are: ‘Quote’, ‘Encompass’, ‘Limits’, ‘Enlarged’, ‘Contributed’, and the others. Hence, the variety and choice of the reporting verbs by the writers across the disciplines tend to base on the discursive practices, rhetorical needs, the expected audience or readers and above all the writers’ knowledge about the linguistic norms, vocabulary, in case of L2 writers, as functional competence in the language. In short, writers in social science retained enough choices of ‘Non-Factive’ verbs to meet the functional requirements of the discourse in the text. It was also found that the verbs indicating the writers’ belief in the factual status of a report (Factives) exceeded by those withholding judgments (Non-Factives) in all disciplines. The figures also show that there is considerable variation in citation practices among different disciplines, with ‘Biological Sciences’

being the only discipline that prefers the ‘Non-Factives’ form over ‘Factives’. Moreover, greater emphasis is being placed on neutral and test oriented verb items.

### 5.2.3.3. Counter-Factives

The writers also used a number of ‘Counter-Factives’ to challenge or criticize the prior studies and establish a niche. It was observed that writers used these verbs in ‘English Studies’ and ‘Social Sciences’ while the theses’ writers in ‘Biological Sciences’ avoided using these verbs in order to align with the tradition of the scientific disciplines. Hence, none of the writers in all the three subjects, i.e. Bio-technology, Botany, and Zoology chose to challenge or criticize the findings of the previous studies. The theses observed had only few instances of it, for example, criticize, challenged, refuted, condemn, ignored, does not agree, disapproved, strongly criticized, failed to find with an obvious tone of the writers in ‘Social Sciences’, were meant purely to contradict the previous studies as well as to create a niche. The table below clearly demonstrates the various instances of these in each discipline:

Table 5.5

*Counter-Factive Used in Various Disciplines*

Discipline Specific Counter-Factives			Commonly Preferred Counter-Factives in the Three Disciplines
English Studies	Social Sciences	Biological Sciences	
Criticize, Refuted, Ignored, Dismisses	Challenged, Condemns,	Criticize, Challenged, Does not agree, Disapproved, Strongly criticized, Failed to find	

#### **5.2.3.3.1. Counter-Factives Used in English Studies**

Table 5.5 indicates the types of ‘Counter-Factive’ reporting verbs. By the virtue of ‘Counter-Factive’ verbs such as, ‘Criticize’, ‘Challenged’, ‘Refuted’, ‘Condemn’, ‘Ignored’, ‘Dismisses’ and so on, the writers do not acknowledge their acceptance of the author’s results or conclusions. As mentioned in the column under ‘English Studies’, the writers adopt a ‘Counter-Factive’ stance, portraying the authors’ judgment as false or incorrect. This is also worth mentioning that the writers in English Studies although did not entertain these verbs frequently yet as compared to the writers in ‘Biological Sciences’, they, at least, mentioned some of the instances in order to refute the prior studies and establish a niche. These findings are duly confirmed by Hyland (1999a) who states that only papers of ‘Humanities’/‘Social Sciences’ contained ‘Counter-Factive’ examples, which represent information as unreliable.

#### **5.2.3.3.2. Counter-Factives Used in Biological Sciences**

As table 5.5 shows, the theses writers in ‘Biological Sciences’ did not mention any of these items at all. This phenomenon of non-occurrence may, therefore, be associated with the tradition of the scientific discipline which is continued by the writers. Since none of the writers in all the three subjects: Biotechnology, Botany, and Zoology disapprove of previous researches, hence, never tried to employ ‘Counter-Factive’ verbs. Hyland’s statement that only writers of ‘Humanities’/‘Social Sciences’ preferred ‘Counter-Factive’ examples, tends to prove that the writers of ‘Biological Sciences’ are in line with the norms of international academic community.

#### **5.2.3.3.3. Counter-Factives Used in Social Science**

Table 5.5 portrays the trend of using ‘Counter-Factives’ by the writers in ‘Social Sciences’. The verbs used by the writers are: ‘Criticize’, ‘Challenged’, ‘Does not agree’, ‘Disapproved’, ‘Strongly criticized’, ‘Failed to find’, etc. The verbs mentioned signify the kind of tone, the writers in ‘Social Sciences’ maintain in forwarding their thoughts. Hence, these writers find it safe to use ‘Counter-Factives’ as an effective tool to contradict the views of the previous researchers and create a niche for their own studies. By the virtue of these findings, we can interpret the phenomenon in case of using discipline specific citation patterns by the writers, as a matter of continuing tradition. Hence, the writers in a particular discipline, even in a non-native context, have proved to align themselves with their own discourse community through practicing the norms and technique evolved in their respective context.

### **5.3. Summary of the Chapter**

Citation plays a vital role in establishing inter textual relationship between a writer and other resources. It may also be used for textual comparison in order to validate the writer’s own argument or thesis. The discrepancies in citations found were according to discipline (Hyland, 1999) and according to genre (Thompson & Tribble, 2001). The diversity of citations makes the process of writing more complex and equally difficult for the Non-English writers.

The corpora of this study consisted of doctoral theses of ‘English Studies’, ‘Social Sciences’ and ‘Biological Sciences’ with three sub disciplines in each. In this study the overall inclination of the writers was towards ‘Non-Integral’ citations– name of the author within brackets, as keeping the argument more prominent than the author of the study, particularly, in ‘Biological Sciences’ and ‘Social Sciences’, conforming to the convention established by the authors modeled

for the study. In a sense, they termed the argument or the statement more important as compared to authors. Furthermore, the writers in 'English Studies' preferred a very small number of 'Non-Integral' citations. They considered the author more important than the argument. Thus, it appears that these practices reflect the writers' discursive attitude, based on their social and genre specific conventions.

To compare different variants of 'Non-Integrals', Source as a pattern, attributing the sources of the cited propositions to cited authors, was predominantly present. These findings confirm previous studies on citation functions employed by non-native 'English students' (Jalilifar & Dabbi, 2012; Loan, 2016), and this citation function is claimed to be sufficient in displaying the Non-English students' knowledge and their familiarity with the literature (Petrić, 2007). Origin, 'Identification' and 'Reference' were identified in these LR chapters with relatively small percentages are conforming to the studies conducted on 'Non-English' writers. Hence, these sans-voice statements show the writers working in a non-native context, having more concern for grammatical perfection of the contents or rhetoric than the functional value of the arguments as far as the form of citation is concerned.

In contrast to these, the writers as a whole had relatively lower tendency to use 'Integral' citations and it is perceived that the choice between 'Integral' and 'Non-Integral' citation is symptomatic of various factors including citation convention, genre, and discipline of the study (Charles 2006). Hence, in this study the writers of 'English studies' maintained their usual convention of preferring 'Integral' citation pattern. Therefore, the findings confirmed the notion held by the community as Hyland (2000) found that soft disciplines have a tendency to employ Integral citations while hard disciplines display a preference for 'Non-Integral' ones in order to downplay the role of the author. This preference for 'Integral' citation does not seem to be only

related to the citation conventions, but to the functions of citations as well, in which the writers prefer to emphasize the author in order to support their claims. At the structural level, this pattern has got three different variants: ‘Verb-Control’ by placing the citation in subject position; ‘Naming’ by mentioning it as part of the sentence without controlling the verb, just to emphasize the researcher rather than the information; and the third variant of this pattern is ‘Non-citation’ which is similar in structure to ‘Verb-Control’ except the year of publication.

It was also observed that the citation in a position of controlling verb made a significant proportion of ‘Integral’ citations which are further categorized in ‘Factives’, ‘Non-Factives’, and ‘Counter-Factives’. The ‘Factives’ used indicate that through these verbs the writers not only report the kind of activity but also the stance of the authors being cited. In other words, the writers, while employing Factive verbs, actually acknowledge the stance of the authors as well the conclusions being derived. Moreover, the verbs employed are those which are used as usual by all the writers across the disciplines. Hence, the variety and choice of the reporting verbs by the writers across the disciplines tend to base on the discursive practices, rhetorical needs, the expected audience or readers. It was also found that the verbs indicating the writers belief in the factual status of a report (Factives) exceeded by those withholding judgments (Non-Factives) in all disciplines. The figures also show that there is considerable variation in citation practices among different disciplines, with ‘Biological Sciences’ being the only discipline that prefers the ‘Non-Factives’ form over ‘Factives’; greater emphasis being placed on neutral and test oriented verb items. The greater use of ‘Non-Factives’, particularly, in ‘Biological sciences’ tends to conform to the conventions of science disciplines which signify that Natural Sciences made use of research sources and impersonal scientific vocabulary rather than notional and opinionated kind of verbs (Charles, 2006).

Within these findings the writers sometimes do not endorse the author's results or conclusions by adopting a 'Counter-Factive' stance, portraying the authors' judgment as false or incorrect. To be precise, the writers in 'English Studies' and 'Social Sciences', both, mentioned some of the instances in order to refute prior studies and establish a niche. Contrary to these, none of the writers in 'Biological Sciences' attempted 'Counter-Factives' which confirmed the conclusion derived by Hyland (1999a) who states that only 'Humanities' and 'Social Sciences' rely on 'Counter-Factive' examples, voicing the information as unreliable. Thus, this very notion led to 0% occurrences of 'Counter-Factives' in 'Biological sciences', again a matter of disciplinary convention.

Lastly, writers across the discipline used the other two patterns, like 'Naming' and 'Non-citation' patterns of Integral citations but lesser in number than 'Verb-Control'. 'Naming' was found to refer to a person, a particular method, illustration or definition, and to the works of certain researchers. It was observed that writers used "according to" structure, out of convenience rather than its thematic significance. Similarly, the writers used 'Non-citations' for the obvious reasons of relying upon secondary sources or where they invoked to the thinking associated with some philosopher in general. Furthermore, its uses cannot be specified to a subject or discipline for the equal use by the writers across the disciplines. To sum up, the writers here in Pakistan have proved to align themselves with their respective communities, positioning their attitude and voicing their stance according the studies evaluated as well the disciplinary conventions.



## CHAPTER 6: MAJOR FINDINGS AND CONCLUSIONS

This chapter has been arranged in a sequence that corresponds to the objectives of the study, such as to find out writers' preferences for citation patterns, in terms of frequency in intra discipline and inter-disciplines. The correlation between the theme and structure of various citation patterns has been given the next. Next in sequence are strategies of the writers while qualifying Integral citations through reporting verbs and other modifiers. Linguistic functions of different citation patterns have also been highlighted for the novice writers particularly in a non-native context. The strategies mentioned would in a way suggest various patterns for enhancing the quality of academic writing having explicit authorial voice in the thesis. Thus the findings will suggest rhetorical appeal to the readers confirming not only the native English norms but also the non-English local norms in displaying some of the categories of citations.

### 6.1 Intra-discipline Citation Frequencies

To begin with the findings of intra discipline citations, 'Source' and 'Verb-Control' were found to be the most preferred patterns of citations not only by the writers in 'Linguistics' but also the writers of the subjects of 'Natural Sciences' as well as of 'Social Sciences' and 'Humanities'. The rest of the categories of both 'Integral' and 'Non-Integral' types have not been given equal attention as compared to 'Source' and 'Verb-Control'.

The findings regarding linguistics indicated that 'Source' (276), as 'Non-Integral' citation, was found only next to the most preferred 'Verb-Control' (376) pattern of citation. 'Identification' was found to be one of the least attended patterns of citations as far as the scholars of 'Linguistics'

are concerned. All the theses selected have been observed using this type only 30 times in total. Hence, this was the second lowest type of citation patterns after 'Origin' as the least preferred citation pattern. 'Reference' as pattern was found to be the third lowest from the bottom after 'Origin' and 'Identification' as types of citation patterns. Similarly, 'Non-citations' were found up to 109 times out of total 1000 occurrences of different patterns used by the writers in 'Linguistics'.

Besides these, the writers in linguistics preferred to use 'Naming' (149) and 'Non-citation' (109) as Integral citation patterns. They constitute less than 15% each in all the ten theses. 'Verb-Control' (376) as another type of 'Integral' citations is the most frequently attended pattern in all the ten theses of linguistics. 'Factives' (142) as a sub-type of 'Verb-Control' was the next most attended one after 'Non-Factives' (228) while 'Counter-Factive' was found to be the least preferred citation pattern among the types of both 'Integral' and 'Non-Integral' citation patterns.

'ELT' writers were also found more inclined towards 'Source' type of citation patterns. It was found that 'Source' (368) was the most preferred type against 'Verb-Control' (336). The other 'Non-Integrals' like, 'Identification', 'Origin', and 'Reference' were found to be the least attended patterns of citations as far as the choices of the scholars of 'ELT' are concerned. All the theses writers had more focus on the traditionally used 'Source' and 'Verb-Control' citations.

In 'Integrals', 'Non-citations' had 46 occurrences as compared to 'Naming' (174) with considerable number of occurrences. 'Verb-Control' citations with three further sub categories were next to 'Source' as the most frequently attended patterns out of which occurrences of 'Factives' (141) were fewer than the occurrences of 'Non-Factives' (195) while 'Counter-Factives' were found to be the least preferred citation pattern out of not only 'Verb-Control' but also among the categories in both 'Integral' and 'Non-Integral' citation patterns.

Similarly, going through the theses of literature, 'Source' (306) as a pattern was found next in occurrences to the category of 'Non-Citation' (352), being used the most number of times among all the patterns. The other patterns like 'Identification' (22), 'Reference' (27), and 'Origin' (0) occurred the least in literature out of 1000 occurrences in total. Thus, 'Identification' is second from the bottom after 'Origin' having zero percent preference. While comparing 'Origin' (0) to other citation patterns, it just happened to fall in the bottom both in 'Literature' against 'Linguistics' (7) and 'ELT' (11) out of 1000 total occurrences.

The writers' preferences for 'Non-citation' (352) in literature were the most unprecedented among the three sub-disciplines of 'English Studies'. Its total occurrences in all the ten theses of this genre exceeded even more than the usually preferred patterns like 'Source' (306) and 'Verb-Control' (181). The occurrences of 'Naming' patterns go up to 112 and stand fourth as compared to other citation patterns used in the theses of literature. Hence, to compare this pattern vertically with the occurrences in theses of 'ELT' and Linguistics, the writers of 'Literature' stood third in terms of using this pattern. Lastly, 'Verb-Control' (181) was found as one of the most frequently attended citation patterns. As a result, this pattern stood 3<sup>rd</sup> in terms of strength after 'Source' as second and 'Non-citation' as 1<sup>st</sup> or the most frequently attended pattern in all the ten theses of 'Literature'. Now to compare this with other subjects, like 'ELT' (336) and 'Linguistics' (376), the use of this pattern in Literature stands third again. Similarly, 'Factives' (36), 'Non-Factives' (141), and 'Counter-Factives' (4) maintained the same proportion of instances as occurred in 'Linguistics' and 'ELT'.

The findings regarding inter subject and intra discipline comparison indicated that 'ELT' had got the maximum frequencies of 'Source' (368) out of 950 in total against 'Linguistics' (276), and 'Literature' (306). It was also found that this pattern had had the maximum frequencies, i.e.

950 out of 3000 total occurrences of citations in 'English Studies'. Likewise, it was found that 'Identification' as pattern got maximum frequencies in 'ELT' (32) out of 84 in total, against 'Linguistics' 30 and Literature with 22. Thus, the total occurrences of this pattern were the 2<sup>nd</sup> lowest and only higher than 'Origin' (18 out of 3000 in total). It was observed that 'Reference' (113) stood third from the bottom among the various patterns of citations. The sampled theses of 'ELT', 'Linguistics' and 'Literature' were found with 18 occurrences of 'Origin' altogether; hence, it is evident that this pattern was the least preferred one with 18 out of 3000 total occurrences of citations in 'English Studies'.

As for the 'Integrals' in 'English Studies', it was found that 'Non-citations' (507) occurred more frequently in literature and stood third from the top among the various patterns of citations out of 3000 occurrences in 'English Studies'. Similarly, 'Naming' (435) was found fourth in terms of occurrences with 'ELT' (174) having the maximum against 'Linguistics' 149, and 'Literature' with 112 occurrences out of total. It is more significant to mention that 'Verb-Control' as pattern had got 893 out of total 3000 occurrences and the maximum of these are in 'Linguistics' having 376 against 'ELT' (336) and 'Literature' (181). Hence, total occurrences of this pattern were next to the 'Source' out of 3000 in total. Besides these, 'Non-Factives' (564) as a variant of 'Verb-Control' was found to have the maximum occurrences out of 893 in total. Hence, comparatively speaking, 'Linguistics' had got the maximum frequencies of this sub type as a variant of 'Verb-Control'. 'Linguistics' (228), as compared to 'ELT' (195) and 'Literature' (141), had got the maximum frequencies of this pattern as a variant of 'Verb-Control'. Similarly, 'Factives' (319) was found next in occurrences to 'Non-Factives'. It is significant to know that Counter-Factives with ten occurrences in 'English Studies' was found to be the least preferred citation pattern with the maximum in 'Linguistics' (6).

Generally speaking, a clear tilt of the writers in 'English Studies' was found towards Integral form of citations. It is obvious from the findings that total instances of 'Integral citations' used in 'English Studies' are 1835 compared to 'Non-Integral's 1165 out of 3000 citations. It was found that the total use of 'Integral citations' were as much as up to 61.17 % against 38.83% use of 'Non-Integral' citations.

As for 'Biotechnology', 'Source' is the most preferred one among all categories. Collectively, the writers of 'Biotechnology' used this type up to 598 times compared to 173 times use of 'Verb-Control', the next highly used pattern. Next to these, 'Biotechnology' has been observed using 'Identification' up to 162 times in total. Contrary to these, it was found that 'Reference' (4) as a pattern is at the bottom in terms of occurrences. Similarly, the findings also suggest that the total occurrences of 'Origin' are 22 only in all the ten writers selected. In comparison to the subjects in 'English Studies', the frequencies of this pattern are the highest in this subject.

As far as the 'Integrals' are concerned, occurrences of 'Non-citation' (11) and 'Naming' (58) when compared to the frequencies of 'English Studies' are used the least. It was also found that 'Verb-Control' with 173 out of 1000 occurrences was one of the more frequently attended patterns in 'Biotechnology'. But if this pattern is compared to the same in 'English Studies', 'Biotechnology' has got the least occurrences of this pattern. It was also found that 'Non-Factive' kinds of 'Verb-Control' (156) were preferred more than 'Factives' (17) and 'Counter-Factives' (0). As far as counter-factives are concerned, it was observed that none of the writers preferred using this pattern. Thus, the contribution of 'Counter-Factives' to the overall use of 'Verb-Control' is zero. It is the least preferred citation pattern not only as a variant of Verb-Control but also among other types of both Integral and Non-Integral citation patterns.

The data suggested that the writers in Botany seem more inclined towards 'Source' (598) as the most preferred one out of all the patterns and it is followed by 'Verb-Control' (250). In addition to these, the total occurrences of 'Identification' (86) tend to be the next to 'Source' in 'Non-Integrals' while the other two categories such as 'Reference' and 'Origin' were not found at all. Thus, the results obtained suggested that 'Identification' is the third most preferred type of citation pattern after 'Verb-Control' (250) and 'Source' (598) out of 1000 occurrences in 'Botany'.

It was also significant to find that the writers in this subject have unanimously avoided the pattern of 'Non- citation' except for an incidental occurrence found in TW9. It was also found that the writers' preference for 'Naming' type as compared to other types of citation patterns went up to 65 out of 1000 occurrences in all the theses of 'Botany'. As compared to other subjects, this pattern has been preferred less than the same in 'English Studies', but more in 'Biotechnology'. As per tradition, 'Verb-Control' (250) was found next to 'Source' as the most frequently attended pattern in all the ten theses of 'Botany'. It was also found that 'Non-Factive' verbs (212) were preferred more than 'Factives' (38) and 'Counter-Factives' (0) by the writers.

The writers of 'Zoology' preferred 'Source' (565) the most in terms of occurrences. It was the third highly preferred pattern of citation after 'Botany' (598) and 'Biotechnology' (570). It was also suggested by the data that 'Identification' occurred as one of the least attended patterns of citations having 77 occurrences against 'Biotechnology' (162) and 'Botany' (86). It was found that 'Reference' (11) stood third from the bottom. 'Origin' was at the second (3) and 'Non-Citation' (1) at the bottom.

In 'Integrals', 'Non-Citation' proves to be used the least in number of frequencies, while at par with 'Botany' as well as 'Zoology'. It was also found that the occurrences of 'Naming' (22)

pattern stood the fourth lowest from the bottom, as compared to other types of citation patterns, used in the selected theses of this subject. Now to compare this pattern vertically with the theses of 'Biotechnology' (58) and 'Botany' (65), the writers of 'Zoology' stood third in terms of using this pattern. More important are the total occurrences of 'Verb-Control' (321) which occurred just next to 'Source' as the most frequently attended pattern in 'Zoology'. Now to compare this with other subjects, like 'Biotechnology' (173) and 'Botany' (250), the use of this pattern in 'Zoology' is the highest. Added to this, it was found that the total occurrences of 'Non-Factives' were 306 as compared to 'Factives' (15) and 'Counter-Factives' (0).

Inter subject analysis of 'Biological Sciences' suggest that 'Botany' had got the highest frequencies of 'Source' (565/1733) against 'Biotechnology' (570) and 'Zoology' (565). It was also found that this pattern had got the maximum frequencies, i.e. 1733 out of 3000 total occurrences of citations in 'Biological Sciences'. Besides this pattern, 'Identification' (325) as a pattern had occurred with the maximum frequencies in 'Biotechnology' (162) against 'Botany' (86) and 'Zoology' (77). It was observed that 'Zoology' (11) had got the maximum number of 'Reference' occurrences among the subjects of 'Biological Sciences' (15). It occurred to be the third lowest from the bottom among the various patterns of citations in 'Biological Sciences'. The theses suggested that all the three subjects had 25 occurrences of 'Origin'. It means that it is a less preferred pattern in 'Biological Sciences'.

The analysis of 'Integral' citation suggests that 'Non-citation' (13 out of 3000) happened to be the least occurred pattern in 'Biological Sciences'. It was also found that 'Botany' (65 out of 145) stood first in terms of occurrences of 'Naming' citations as compared to 'Biotechnology' (58) and 'Zoology' (22). It was also found that this pattern had got 145 out of 3000 total occurrences of citations in 'Biological Sciences'. Hence, this pattern stood 4th among the different citation

practices in this discipline. Furthermore, it was found that 'Verb-Control' (744) has got its maximum occurrences in 'Zoology' (321) against 'Botany' (250) and 'Biotechnology' (173). Hence, total occurrences of this pattern are next to the Source as pattern out of 3000 in total. Further analysis of 'Verb-Control' suggests that 'Factives' (70) contributed less as a variant out of total 3000 in 'Biotechnology' (17), 'Botany' (38), and 'Zoology' (15). Contrary to this, the occurrences of 'Non-Factives' (674 out of 744) contributed largely to the 'Verb-Control'. It was also suggested that 'Zoology' (306), as compared to 'Biotechnology' (156) and 'Botany' (212), had got the maximum frequencies of this pattern. As per usual the total contribution of 'Counter-Factives' to the overall number of 'Verb-Control' is zero.

It was found that the writers in 'Biological Sciences' were more inclined towards 'Non-Integral' form of citations. It was also found that 'Zoology' (344) made the maximum use of 'Integral' citations compared to 'Biotechnology' (242), 'Botany' (316). Contrary to these, 'Biotechnology' (758) had the maximum use of 'Non-Integral' citations as against 'Botany' (684) and 'Zoology' (656). The results indicate that the total use of 'Integral' citations was 30.06 % against 69.93% use of 'Non-Integrals'. Therefore, it was noticed that the writers of 'Biological Sciences' tend to de-emphasize the role of the researcher as agent against argument made or the scientific procedure carried out.

The analyses of 'Social Sciences' suggested the inter subject and intra subject differences in citations. The data obtained for 'Education' suggested that the 'Source' (494) proved to be the highly preferred one among all categories. The other 'Non-Integrals' like, 'Identification' (24), 'Origin' (3), and 'Reference' (11) were found to be the least attended patterns of citations as far as the choices of the scholars of 'Education' are concerned. All the writers in the subject focused 'Source' and 'Verb-Control' citations.



In 'Integrals', 'Non-citations' (39) were also found with the minimum number of occurrences as compared to 'Naming' (136) with obviously noticeable number of instances. 'Verb-Control' pattern (293) with three sub categories was next to 'Source' as the most frequently attended pattern. The first variant, 'Factives' (141) had more occurrences than 'Non-Factives' (195). 'Counter-factive (1) was found to be the least preferred citation pattern out of not only 'Verb-Control' but also among the categories in both 'Integral' and 'Non-Integral' citation patterns.

The data suggested that writers in 'Political Science' seem more inclined towards 'Source' (716). 'Verb-Control' (130) stands next. As compared to other subjects in the 'Social Sciences', 'Political Science' had got the highest number of this pattern. The theses of 'Political Science' have only two instances of 'Identification'. Thus, it is one of the least preferred patterns. Similarly, 'Reference' (15) and 'Origin' (2) are the other least used citation patterns. In comparison to other subjects of 'Social Sciences', in terms of total occurrences these patterns were again the least preferred ones.

As far as the 'Integrals' are concerned, 'Non-citation' (61) and 'Naming' (74) occurrences are considerable in number as compared to the use of 'Verb-Control' (130). It was also found that 'Factives' (76) were preferred more than 'Non-Factives' (52) and 'Counter-Factives' (0). It was observed that none of the writers used 'Counter-Factives' and its contribution in terms of occurrences to the overall use of 'Verb-Control' is zero. It is the least preferred citation pattern not only as a variant of 'Verb-Control' but also among other types of both 'Integral' and 'Non-Integral' citation patterns.

The theses writers in 'Psychology' preferred 'Source' (413) the most in terms of occurrences among all the patterns. 'Psychology' was the third in ranking for the 'Source' as the

highly preferred pattern of citation after 'Political Science' (716) and 'Education' (494). It was also suggested by the data that 'Identification' (65) occurred more in 'Psychology' as against 'Education' (24) and 'Political Science' (2). It was found that 'Reference' (11) as a pattern stood third from the bottom with 'Non-Citation' (29) and 'Origin' (20) at the bottom.

In 'Integrals', 'Non-Citations' (29) were found to be the lowest in number of frequencies. It was also noticed that the occurrences of 'Naming' (183) pattern stood third in terms of occurrences as compared to other types of citation patterns. More important are the total occurrences of 'Verb-Control' (246) which occurred just next to 'Source' as the most frequently attended pattern in 'Psychology'. Added to this, it was found that the total occurrences of 'Factives' (149) were comparatively more in number than 'Non-Factives' (94) and 'Counter-Factives' (3).

The findings regarding inter subject and intra discipline comparison suggested that that 'Political Science' had got the maximum frequencies of 'Source' (716 out of 1623) against those in 'Education' (494), and 'Psychology' (413). Similarly, it was found that 'Identification' (65 out of 91) as a pattern had had the maximum frequencies in 'Psychology' as compared to those in 'Education' (24) and 'Political Science' (2). Hence, the total occurrences of this pattern were more in number than 'Reference' (70) and 'Origin' (25) out of 3000 in total. The selected theses of 'Education', 'Political Science' and 'Psychology' had 25 occurrences of 'Origin' altogether; thus, it suggested that this pattern happened to be the least preferred citation pattern in 'Social Sciences'.

Besides these, the 'Integrals' suggested that 'Non-citations' (129) occurring in considerable number, more in 'Political Science' (61) as compared to those occurred in 'Education' (39) as well as in 'Psychology' (29). Similarly, 'Naming' (393) was found third in

terms of occurrences with those occurring in ‘Psychology’ (183) being the maximum, against ‘Education’ (136), and ‘Political Science’ (74). It is more significant to mention that ‘Verb-Control’ as pattern had got 669 occurrences and the maximum of these were in ‘Education’ (293) as compared to those occurring in ‘Psychology’ (246) as well as in ‘Political Science’ (130). Hence, the total occurrences of this pattern were next to ‘Source’ (1623) out of 3000 in total. Added to these, ‘Factives’ (362), as a variant of ‘Verb-Control’, had the maximum occurrences out of 669 in total. Thus, comparatively, ‘Psychology’ (149) had had the maximum instances of this variant of ‘Verb-Control’ as compared to ‘Education’ (137) and ‘Political Science’ (76). Similarly, ‘Non-Factives’ (301)) was found next in occurrences to ‘Factives’. Lastly, ‘Counter-Factive’ (6) was found to be the least preferred citation pattern and variant of ‘Verb-Control’.

At a broader level, the writers in ‘Social Sciences’ were found more inclined towards ‘Non-Integral’ form of citations. It is obvious from the findings that the total instances of ‘Integral’ citations are 1191 as compared to 1809 instances of ‘Non-Integrals’ used in ‘Social Sciences’. As a result, the total use of ‘Integral’ citations was 39.7% against ‘Non-Integral’ (60.3%).

## **6.2. Inter-disciplines Citation Frequencies**

‘Source’, as a distinct pattern had the maximum occurrences in ‘Social Sciences’ (1623) and ‘Biological Sciences’ (1733) except in ‘English Studies’ (950). The total occurrences of ‘Source’ (4306 out of 9000) are 47.84 % of the total patterns used in all the three disciplines. Out of these, ‘Biological Sciences’ got the highest number of frequencies of this pattern. Next to this, it was found that ‘Identification’ (500) as a citation pattern happened to be the less preferred one among various categories of citations. Nevertheless, it has the maximum frequencies in ‘Bio-sciences’ (325 out of 3000) compared to ‘English Studies’ (84) and ‘Social Sciences’ (91). In

percentile, it tends to be 5.5 % of the total citation patterns processed. Besides these, the 'Reference' (198) as a pattern was found to be one of the least preferred ones in 'English Studies' (113), 'Social Sciences' (70), and 'Bio-Sciences' (15). It tends to be 2.2 % of the total instances used in all the theses selected. Similarly, the 'Origin' (68 out of 9000), as a citation pattern was also found with the least number of occurrences which are only 0.75 % of the total citations used.

The categories of 'Integrals', such as 'Non-Citations' (654) were observed with the maximum number of occurrences in 'English Studies' (507) which is 7.75 % of the total citations spread across the theses of 'English Studies', 'Social Sciences' and 'Biological Sciences'. Next in 'Integrals' is 'Naming' (972 out of 9000) and it was noticed that this pattern is 10.8 % of the total occurrences of different citations used in the literature review chapters of the selected theses. Lastly, 'Verb-Control' (2306) was found the next most preferred pattern among the various types of citation patterns with the maximum frequencies in 'English Studies' (893 out of 2306). Hence, it is 25.62 % of the total occurrences of citations found in all the three disciplines. Its variants, like 'Factives' (751 out of 2306) were not used considerably and they tend to be 32.57 % of the total occurrences of 'Verb-Control'. It is next to 'Non-Factive' (1539) which is 66.73 % of the total occurrences of 'Verb-Control'. Finally, to mention that the overall occurrences of 'Counter-Factives' were 16 only, with the maximum in 'English Studies' (10) as compared to 'Social Sciences' (6) and 'Biological Sciences' with zero occurrence of this pattern. Thus, it is 0.69 % of the total occurrences of 'Verb-Control'.

It is significant to mention that the writers in all the selected disciplines were found more inclined towards 'Non-Integral' form of citations. As all the three disciplines like, 'English Studies', 'Social Sciences', and 'Biological Sciences' have used 'Non-Integral' citations (5072) as much as up to 56.36 % against 'Integral' citations (3928) being 43.64 % of the total. It was also

noticed that all the writers have preferred ‘Non-Integral’ citations more than ‘Integral’ citations except the writers of ‘English Studies’ who preferred ‘Integral’ citations the most.

### **6.3. Theses Writers’ Stance**

Besides the quantity of the choices made, it is more important to know how much these choices are in line with the norms of respective disciplines. Thus, it was noticed that the writers’ overall aptitude towards Non-Integral citations, which signify that they want to highlight the argument more than the author of the study, particularly, in ‘Biological Sciences’ and ‘Social Sciences’. It was also found that the writers of ‘Biological Sciences’ and ‘Social Sciences’ followed the set convention established by the predecessors of these discipline for valuing only the argument or the statement not the person, whoever he might have been. On the other side, it was also observed that writers in ‘English Studies’ preferred to use lesser number of ‘Non-Integral’ citations who considered the author more important than the argument in order to augment their point of view.

This is also significant to mention that the writers of ‘Social Sciences’ preferred ‘Source’ type of citation for the continuation of tradition except the writers in ‘Education’ who made less use of ‘Source’ and tended to align themselves with the writers of ‘English Studies’. It may be due to their relatively closer association to the subjects of ‘English Studies’, like ‘ELT’ and ‘Linguistics’. Similarly, it was suggested by the findings that almost all the writers, in the study conducted, have followed a uniform trend of giving off and on preference to the pattern of ‘Identification’. It was also found that the writers’ lack of interest in the patterns like ‘Identification’, ‘Reference’, and ‘Origin’ was mostly due to their working in a non-native context

where they go for the grammatical perfection of the contents or the rhetoric rather than the functional value of the arguments as far as the form of citation is concerned.

Since the study was restricted to the ‘Literature Review’ sections; thus, writers preferred to denote the concept and proposition to an author (Source) rather than to introduce the originator of that concept (Origin). Thompson (2005), in a study of theses, identified citations in different rhetorical sections, where writers were more concerned with ‘Origin’ citation in the methodology sections.

The writers across the disciplines had a relatively lower tendency of using Integral citations in which the name of the researcher appears as a sentence element with an explicit grammatical role. Hence, in this study the writers of ‘English studies’ maintained their usual convention of preferring Integral citation pattern. This preference for ‘Integral’ citation did not seem to associate to the citation conventions, but to the functions of citations in theses in which the writers preferred to emphasize authors. It was found that almost all the varieties of Integral citations like ‘Verb-Control’, ‘Naming’, and ‘Non-citations’ were used in due proportion by the writers. It was also observed that out of all these variants, the citation in the position of controlling the verb made a significant proportion of ‘Integral’ citation.

Similarly, ‘Naming’ pattern was found to refer to a person, to a particular method, illustration, definition, and to the work or findings of particular researchers. In this connection, it was observed that writers used “according to” structure very often and it seemed that the writers used this structure purely out of convenience rather than its thematic value or function. Other structures bearing ‘Naming’ citation patterns were: “findings of...”, “statement of...”, illustrated by...”, and the others.

Furthermore, it was found that the reasons behind using ‘Non-citations’ could be the use of a secondary source where the writer does not usually remember the date while the use of citation is necessitated by the argument. Sometimes they may avoid the use of appropriate citation when there were some instances where they invoked to the thinking associated with them in general, rather than with reference to a specific work or set of works. This is also significant to mention that Non-citation has been used by the writers across the disciplines. This was also observed that the use of ‘Non-citation’ cannot be specified to a subject or discipline, as being a common rhetorical feature of the theses written in Pakistan. As a result, ‘Non-citations’ as part of the rhetorical practices were found with almost the same factors behind their use, as are usually considered by the academic circles around the world.

Next were the findings regarding ‘Verb-Control’ where it was found that the selection of tense in case of ‘Verb-Control’ seemed to convey different thoughts regarding the argument being made? Hence, present simple was used regarding certain established scientific principle facts. Thus, past indefinite, and present perfect tense, could be used with difference of significance. Another fact, found about the use of ‘Verb-Control’ is the change of voice, i.e. passivization, where the author is placed in the object position and given a secondary status, while focusing more on the argument, which was meant to be used for the sake of variety rather than for any other functional value. Apart from these, another variant of ‘Verb-Control’ was found regarding the use of linking verbs or copular verbs which were obviously used to tell about a state of being rather than putting forth the stance of the author mentioned.

The use of reporting verbs is central to the pattern of ‘Verb-Control’. The variety and number of reporting verbs corresponded to the nature and essence of the discipline or specifically the subject. Out of all the three disciplines, ‘English Studies’ have got relatively lesser number of

reporting verbs which were common to the writers of all the three disciplines. It is perhaps, the writers in 'English Studies' reacted to the issues purely as a human phenomenon or day to day matter without involving any sentiments or other scientific procedural terms. Hence, other disciplines, like 'Biological Sciences' and 'Social Sciences' have distinguished evidently using subject specific kind of 'Factive' verbs. The verbs used as 'Factives' by the writers of 'English Studies' were the one used as usual by all the writers across the disciplines. These were not in any case specific in terms of the discipline or sub-discipline. The most commonly used verb choices of the writers in 'English Studies' were: 'Suggested', 'Define', 'Presented', 'Emphasize', 'Point out', 'Support', 'Preferred', 'Identified', 'Argue', 'Developed', 'Concluded', 'Considered', 'Explored', 'Stated', 'Held', 'Explained', 'Accentuated for', 'Postulated', 'Stressed', 'Elucidated', 'Theorize', 'Coined', 'Attested', 'Hypothesized', 'Recommended', 'Established', 'Addressed', etc.

The difference noticed between the disciplines of 'English Studies' and 'Biological Sciences' was the use of some extra variety of 'Factives' used by the writers in 'Biological Sciences', such as: 'Indicate', 'Illustrated', 'Subjected', 'Proved', 'Agree', 'Confirmed', 'Re-confirmed', and 'Distinguished'. These terms can be easily judged as signifying tests, experiments or illustrations of scientific procedures and processes which obviously imply the context of their use. The 'Factives' used exclusively by the writers in 'Social Sciences' were: 'envisage', 'insisted', 'termed', 'admitted', 'strongly claimed', 'advanced', 'articulated', and 'contented'. Thus, these imply a different context as signified by the force or emphasis of vocabulary chosen to use. Hence, as per context, the rhetoric of the writers of 'Social Sciences' seemed more emphatic in their tone as against those in 'Biological Sciences' and 'English Studies'. An added finding was the use of adverbial phrases like 'strongly' made further a testimony to the argument made.



The findings further suggested that the ‘Non-Factives’ used by the writers in ‘English Studies’ were: ‘Conducted’, ‘Found’, ‘Conducted’, ‘Studied’, ‘Cross-examined’, ‘operationalized’, ‘Contrasted’, ‘Divided’, ‘Investigated’, ‘Evaluated’, ‘Used’, ‘Carried out’, ‘Believe’, ‘Propose’, ‘Discussed’, ‘Claimed’, ‘Explored’, and the verb, ‘Stated’. It was also found that the choices regarding ‘Non-Factives’ of these kinds were not that much extended as those of the writers in ‘Biological Sciences’ while it seemed to be at par with those used in ‘Social Sciences’. It is significant to know that less than half of the ‘Non-Factives’ were those which were common in all the three disciplines while more than half of verb items were those which may not, as a whole, be aligned specifically to ‘Biological Sciences’, as a purely scientific discipline; at least half of them as well were those which can be used generally by the writers across the disciplines. These verbs are: ‘Evaluated’, ‘Used’, ‘Believe’, ‘Propose’, ‘Enlisted’, ‘Described’, ‘Observed’, ‘Claim’, ‘Explore’, ‘Stated’, ‘Discovered’, ‘Made’, ‘Compare’, and ‘Revealed’.

In addition to these, it was also observed that the writers of ‘Biological Sciences’ also used a number of context specific lexical items which obviously imply the genre specific activities within the text. These ‘Non-Factive’ verb items were: ‘Evaluated’, ‘Recorded’, ‘Screened’, ‘Recognized’, ‘Investigated’, ‘Observed’, ‘Estimated’, ‘Adopted’, ‘Modified’, ‘Experimented’, ‘Evolved’, ‘Examined’, ‘Devised’, ‘Demonstrated’, ‘Verified’, ‘Collected’, ‘Assessed’, ‘Measured’, ‘Detected’, ‘Transformed’, ‘Cloned’, and ‘Isolated’, etc.

Writers in ‘Social Sciences’ chose the same ‘Non-Factives’ as were used by the writers in ‘English Studies’. Apart from these, writers added a few more verb items which may also be taken as part of the discourse used in ‘Social Sciences’. These items are: ‘quote’, ‘encompass’, ‘limits’, ‘enlarged’, and ‘contributed’. In short, the writers, in theses of ‘Social Sciences,’ retained enough choices of ‘Non-Factives’ meeting the functional requirements of the discourse in texts.

It was found that writers used ‘Counter-Factives’, the third variant of ‘Verb-Control’ pattern of citations, rarely in order to refute the prior studies and establish a niche. The ‘Counter-Factives’ used by the writers in ‘English Studies’ were: ‘criticize’, ‘challenged’, ‘refuted’, ‘condemn’, and ‘ignored’. The theses’ writers in ‘Biological Sciences’ in order to keep aligned with the tradition of the scientific discipline did not attempt to go for any of these ‘Counter-Factives’. Hence, none of the writers in all the three subjects, like ‘Biotechnology’, ‘Botany, and ‘Zoology’ challenge or criticize the findings of the previous studies. The verb used by the writers were: ‘Criticize’, ‘Challenged’, ‘Does not agree’, ‘Disapproved’, ‘Strongly criticized’, ‘Failed to find’, with an obvious tone of the writers in ‘Social Sciences’, were meant purely, to contradict or challenge the previous studies. To conclude these findings also suggested that the writers in a particular discipline, even in a non-native context, have proved to align themselves with their own discourse community through practicing the norms and technique evolved in their respective contexts.

## **Conclusions**

The genre of academic writing has been a point of interest for researchers and academics around the world for the last two decades, in order to meet the challenge of producing worth knowing works. This challenge tends to get more obstructive when it comes to the writers in a non-native context. This is now an issue which needs to be seen as to how the researches do manage to compete or meet the criteria of the journals published in English, particularly in countries where research norms and language are strictly observed. Such a worth competing and quality based writing is a multidimensional endeavor and one of such attempts is to put research into a larger context. In research, this method refers to citations which means, “The attribution of propositional content to other sources” (Hyland, 1999, p. 341). It enables writers to situate their

research work in the broader network of knowledge. Thus, these rhetorical practices make the writers' work more convincingly (White, 2004) and appropriately to identify a research space. On the contrary, these failures on the part of non-English students lead to charges of plagiarism, on account of repeating the ideas of others without proper acknowledgment; is misrepresenting the stance of the cited author (Bitchener, 2017). Eventually, the appropriate use of citation makes an academic writing more authentic, rich in content, more acceptable and guarded against plagiarism.

Citation being an Integral part of academic discourse plays a key role in the studies conducted and the dissertations produced. It was, therefore, felt to take citations into account in order to know how writers refer to the previous researchers and their work using different citation patterns. The answer to this question was found after thorough analysis of the theses' literature review sections, based on Thompson and Tribble (2001) and Thompson and Ye's (1991) frameworks and with careful investigation of the context of each citation shown in the concordance lines. The instances of these patterns, found, were basically integrated or 'Integral' and non-integrated or 'Non-Integral' citation. Accordingly, Integrals occurred in three sub categories such as 'Naming', 'Non-citation', and 'Verb-Control' patterns of citations. Naming citation refers to a noun phrase or part of a noun phrase (Thompson & Tribble, 2001) where the author does not receive the agency role in the sentence. Likewise, 'Verb-Control' citation acts as an agent that controls a verb, in active or passive voice sentences. In this case, the writer tends to justify or to augment his own argument (Hyland, 1999). Another similar form of Integral citations is called 'Non-Citation'. This kind of citation is used where the writer refers to another writer, but the name is given without reference to the year in which the work was produced.

Based on Thompson and Ye's (1991) taxonomy, reporting verbs used by writers were found grouped into three sub-categories such as 'Factives', 'Non-Factives', 'Counter-Factives'.

Factive verbs signify endorsing or acknowledging the viewpoint of the author cited. ‘Non-Factives’, the second category, are reporting verbs where the writers give no clear signal of his/her attitude towards the cited author's statement or opinion. Contrary to these, the writers while using ‘Verb-Controlling’ citations sometimes choose to portray the author as presenting false information or an incorrect opinion, means challenge or refute author and his work.

Contrary to these, there are ‘Non-Integrals’ which do not integrate the name of author with the sentence, comprised of four sub-categories such as ‘Source’, ‘Identification’, ‘Reference’, and ‘Origin’. First, ‘Source’ as ‘Non-Integral’ citation attributes a proposition or a statement to another author’s text. It indicates that from where the idea or information has been taken. Second, ‘Identification’ refers to a pattern identifying the author of the study referred to. Such type of citation pays more attention to the works produced than the researcher/author. Third, ‘Reference’ is another pattern aimed at providing support to the proposition or substantiates the argument in favour of the claim. Furthermore, this pattern of reference serves as a handy device to refer to detailed procedure, illustrations or proof of discussions which are too lengthy to be repeated. Fourth, ‘Origin’ is a form of ‘Non-Integral’ citations which identifies the originator of a concept, theory, model, technique, or product. To conclude, ‘Non-Integral’ citation in all its four categories does not make part of the sentence for keeping the information prominent and not to focus the author.

The findings of the research conducted have shown variation in citation patterns across disciplines, for multiple reasons. Thus the hypotheses, made, were confirmed showing different patterns of referring to the previous authors’ studies as well as resources conforming to the trends followed in various disciplines. It duly endorses Loan’s (2016) claim about the respective trend upon the writers of various disciplines.

The second question of the study was to ascertain how frequently a writer in a particular discipline used various citation patterns, keeping in view the norms of the respective subject and major disciplines. The answer to this question was determined as shown in the findings in detail that the writers in 'Biological' and 'Social Sciences' used 'Non-Integral' citations very frequently. 'Non-Integral' patterns were found to be 56.36% of the total occurrences in the corpus constructed for the study. Similarly, writers' preferences for individual categories tend to show that 'Source' is the most frequently used type of citation. 'Verb-Controlling' citation was found as the next most preferred form of Integral citations. The remaining forms of both 'Integral' and 'Non-Integral' citations were found to be preferred less frequently due to certain rhetorical reasons. Lastly, the three variants of 'Verb-Control' show the 'Non-Factive' form is the most dominant form of reporting verbs used. Hence, the figures obtained confirmed that the writers, across the disciplines, were more inclined to use 'Non-Integral' citations, which indicates the tendency to make the information more prominent than the author cited.

Two similar studies (Jalilifar, 2012; Jalilifar & Dabbi, 2012) on citations by Iranian writers in the introduction chapters of RAs and M.A. theses indicate that different audiences (discipline and context), and different purposes of writing lead to different citation behaviors. Furthermore, Soler-Monreal and Gil-Salom (2012), in another study on citations in the LR chapters of PhD dissertations written by English native speakers and Spanish native counterparts, report that citation behaviors reflect cultural differences. They further elaborated that English writers, in particular, are more assertive than their counterparts, while the Spanish tend to avoid personal confrontation and mitigate the strength of their arguments through their use of Non-Integral citations as well as through passive and impersonal structures (cited in Loan, 2016). As far as the purpose is concerned, Swales (1990) argues that Integral or 'Non-Integral' citations are used to

show writers' emphasis on cited authors or reported messages respectively. Hyland (2000) also finds that soft disciplines have a tendency to employ Integral citations which place the author in the subject position while hard disciplines display a preference for 'Non-Integrals' in order to downplay the role of the author.

Therefore, it is more obvious that writers of Social Sciences and 'Biological Sciences' tend to de-emphasize the role of the researchers as agent against argument made or the scientific procedure carried out. The choice regarding 'Integrals' are governed by the decisions as to how much prominence is to be given to the people involved (Thompson, 2000). He also mentions that it is conventional in scientific writing to de-emphasize the role of the researchers, as the human factor does not maintain any bearing upon process carried out. Hence, to sum up, the figures obtained across the disciplines indicate that the argument is considered more important than the author of the study, particularly, in 'Biological Sciences' and 'Social Sciences'. The writers in both 'Biological Sciences' and 'Social Sciences' carried on the set convention of these disciplines for making only the argument or the statement more significant rather than the author. On the contrary, the writers in English studies preferred to use fewer numbers of 'Non-Integral' patterns of citation and they seemed thinking the author more important than the argument with an objective to validate their point of view.

The percentage of 'Source' (4306 out of 9000) as a distinct pattern was 47.84 of the total patterns used in all the three disciplines. Out of these, 'Biological Sciences' (1733) got the highest number of frequencies of this pattern. These findings confirm the previous studies on citation functions in theses' literature reviews written by non-native English students (Jalilifar & Dabbi, 2012; Petrić, 2007; Loan, 2016), and this citation function is claimed to be sufficient in displaying students' knowledge and their familiarity with the literature. Overuse of this pattern corresponds

to over simplicity of the pattern which may attract a writer, and secondly the literature sections where writers tend to establish research territory.

Next pattern is 'Identification' (500) which happened to be 5.55% of total citation patterns and is considered to be one of the less preferred among various categories of citations. It was also observed that this pattern had achieved the maximum frequencies in 'Bio-sciences' (325), against 'English Studies' (84) and 'Social Sciences' (91). These findings are in sharp contrast to the results found in Shoostari and Jalilifar (2010) who observed that international writers had greater tendency of using 'Source', 'Identification', and 'Reference' patterns. Hence, although there is unanimity among the writers in the non-English context for using lesser number of these patterns; nevertheless, they do not follow the conventions of native English writers.

The occurrences of 'Reference' (2.2%) and 'Origin' (0.75%) were observed the least in all the three disciplines: 'English Studies', 'Social Sciences' and 'Bio-Sciences'. This writer-reader engagement, as a characteristic of native type of writing, appears to be missing in the non-native writers including the researcher doing work in Pakistan. Moreover, results of the study by Jalilifar (2010) also confirm this kind of rhetorical practice. The results indicate that 'Origin' with zero frequency got the least attention. Furthermore, international as well as local writers had lesser tendency of using 'Origin' (Shoostari & Jalilifar, 2010). Thus, these three categories, i.e. 'Identification', 'Reference', and 'Origin' were found with less number of occurrences which refer to the non-native practices of the writers who prefer grammatical perfection rather than thematic significance of the statements.

Another point to underline is that the three categories of Integral citations, like 'Non-citation', 'Naming' and 'Verb-Control', have got considerable occurrences out of all the citations

used in the corpora. Non-citation has been used by writers across the disciplines, thus, its use could not be specified to a subject or discipline, as it is being a common rhetorical feature of the theses written in Pakistan. The category of ‘Non-Citation’ got the maximum number of occurrences in ‘English studies’ (507) while the total occurrences (649) are 7.75 % of the total citation processed. It is said that the non-native researchers consider this pattern as improper and contrary to the research norms (Shoostari & Jalilifar, 2010). Shoostari and Jalilifar also observed that international writers had a higher tendency of using ‘Non-citation’ than the non-English writers. Despite the linguistic behavior of non-native writers as depicted above, writers in the current study, particularly in the genre of literature, seemed to have more inclination towards ‘Non-citation’ which means that they do conform to the writing conventions of international writers instead of non-English writers.

Likewise, ‘Naming’ was found to refer to a person, to a particular method, illustration, definition, and to the work or findings of particular researchers. ‘Naming’ citations denote to emphasize the authors instead of their works. This pattern (972) was noticed to be 10.8 % of the total occurrences of different citations used. Similarly, ‘Naming’ as citation pattern was used the most in ‘English studies’ (435) against those in ‘Biological Sciences’ (145) and ‘Social Sciences’ (393). Its utmost contribution indicates that non-English, Pakistani writers, highlight the names of authors more than their achievements, contrary to the Western tendency to credit the works instead of who the researcher may be (Loan, 2016). It may, therefore, be assumed keeping in view the common practices of non-native writers that they use ‘Naming’ in order to stress the agents of research rather than acknowledge their works. In this connection, it is a valid illustration that the writers used “according to” structure, purely out of convenience rather than its thematic value or



function. As a result, it is very much clear to assume that non-English culture seems to be more people and convenience oriented rather than stance or performance oriented.

The stance of the writer is often judged through ‘Verb-Control’ (2306) which is one of the frequently preferred categories and it contributes 25.62 % to the total occurrences of citation patterns. It happened to be the second largest type after Source being 47.84 %, as the most cited form of citation used in LR chapters of theses in Pakistan. Another prominent point regarding this is the overuse of ‘Verb-Control’ by the writers in ‘English studies’ (883) as compared to Social Sciences (669) and ‘Biological sciences’ (744). This is, therefore, assumed that writers in different disciplines follow different rhetorical strategies and have different preferences. Charles (2006) in a study of ‘Social Sciences’ in comparison to ‘Natural Sciences’ theses confirmed this point. It was noticed that reporting clauses were considerably more frequent in Social Sciences than in Natural Sciences. The current study shows that Verb-Control has been preferred in all the three genres but instead of ‘Social Sciences’, the writers of ‘English studies’ have preferred this pattern the more. However, writers of ‘Social Sciences’ (669) are lagging behind in this regard as compared to ‘Biological sciences’ (744). Thus, the use of different verbs denotes to different colorings of stance, the writers tend to signify.

The stance of writers is usually perceived in terms of the verbs chosen and used. Thompson and Ye’s (1991) framework is helpful in dividing verbs into ‘Factives’, ‘Non-Factives’, and ‘Counter-Factives’. In this connection, it was noticed that ‘Factives’ (751) were used less in number than ‘Non-Factives’ (1539). Comparatively speaking, writers of ‘Social Sciences’ (362) got the maximum frequencies against ‘English studies’ (319), and ‘Biological Sciences’ (70). As compared to these, ‘Non-Factives’ were also preferred variously in terms of different disciplines. For example, ‘Biological sciences’ (674) proved to be the highest in terms of ‘Non-Factives’ as

compared to ‘English studies’ (564) and ‘Social Sciences’ (301). The greater use of ‘Non-Factives’, particularly, in Biological sciences tends to conform to the conventions of science disciplines which entails that Natural Sciences make use of more research functions and impersonal scientific vocabulary than notional and opinionated kind of verbs (Charles, 2006). Same is the case with ‘Counter-Factives’ which was registered as the least preferred variant of ‘Verb-Control’. Again it refers to disciplinary conventions. This very notion led to 0% occurrences of ‘Counter-Factives’ in ‘Biological sciences’.

The third question of the research was to investigate the interface between theme and structure of various citation patterns. The choice of different patterns may also be attributed to different factors associated to the context and partially to the nature as well as function of the part genre of the theses. Thus, it may also be suggested that as per the nature of the rhetorical practices of different sections of theses, writers go for different lexical and structural choices (Thompson, 2005). Since, the study here was restricted to the Literature Review sections only; hence, the writers preferred to invoke to the cited concept and proposition of an author (Source) rather than to introduce the originator of that concept (Origin). The writers are likely to be more concerned with ‘Origin’ citation in the methodology sections, says Thompson (2005), in a study of theses.

It may also be noticed that writers in ‘Education’ by not using ‘Source’ pattern extensively preferred to align themselves with the writers of ‘English studies’, which may also be hypothesized that the deviation on the part of ‘Education’ could be due to its closer association to the subjects of ‘English Studies’, like ‘ELT’ and ‘Linguistics’. It was also noticed that almost all the writers in the corpus constructed followed a uniform behaviour of giving off and on preference to the patterns of ‘Identification’, ‘Reference’ and ‘Origin’. Thus, the writers’ lack of interest in the patterns like ‘Identification’, ‘Reference’, and ‘Origin’, was perhaps due to their working in a non-native

context where they opted for grammatical perfection rather than the functional value of the arguments as far as the form of citation is concerned.

The use of reporting verbs tends to be a significant feature of the ‘Verb-Control’ citations. The writers, in different disciplines, made a context specific choice in terms of using different variants of ‘Verb-Control’. For example, ‘English studies’ have got relatively less number of reporting verbs as per the limited linguistic requirement of the discipline in general. Hence, other disciplines, like ‘Biological sciences’ and ‘Social Sciences’ have distinguished evidently using subject specific kind of ‘Factives’, ‘Non-Factives’ and ‘Counter-Factive’ verb items. The verbs used by the writers of ‘English studies’ were those which are usually used by all the writers across disciplines. Hence, these verbs were not in any case specific to the discipline or sub-discipline, rather common to all and specific to none. The difference noticed between the disciplines of ‘English studies’ and ‘Biological sciences’ was the use of some extra variety of verb items used by the writers of ‘Social Sciences’ in general and of ‘Biological sciences’ in particular. These terms can be easily judged as signifying tests, experiments or illustrations of scientific procedures and processes which may obviously be referred to the context of its use. Similarly, the terms employed by the writers in Social Sciences implied a different context as signified by the force or emphasis of the vocabulary chosen to use. As a result, as per the context, the rhetoric of the writers of Social Sciences seemed more emphatic in their tone as against those in ‘Biological sciences’ and ‘English studies’. Moreover, the use of adverbial phrases like “strongly” further augmented the argument made.

The writers’ choices to use ‘Counter-Factives’ is another significant feature of the study of reporting verbs. It was observed that writers, across disciplines, used ‘Counter-Factives’, as a variant of ‘Verb-Control’ patterns, in order to refute the prior studies and establish a niche. The

theses observed had only few instances with an obvious tone of the writers in ‘Social Sciences’, were meant purely, to contradict the previous studies as well as to create a niche. The theses’ writers in ‘Biological sciences’ avoided completely exploiting any of the verbs like ‘Counter-Factives’ in order to follow the tradition of the scientific disciplines. Hence, none of the writers in all the three subjects: ‘Biotechnology’, ‘Botany’, and ‘Zoology’ chose to challenge or criticize the findings of the previous studies.

The last research question was to find how different reporting verbs and adverbs modify the author’s voice. The study found a number of features regarding authorial voice after going through the common rhetorical and linguistic features used in PhD theses. These employed patterns also reflected social and cultural norms related to the writers' context and aim of writing.

Hence, the current study was aimed to explore the PhD theses written in Pakistani context and confirmed the status of citation practices in Pakistan. The study investigated these practices in terms of authorial voice in the citation patterns and found their similarities/differences across the disciplines. It is worth mentioning that despite the linguistic behavior of non-native writers as depicted above, writers in the current study, particularly in the genre of literature, seemed to have more inclination to conform to the writing conventions of L1 writers instead of non-English writers. This alignment was particularly observed in the category of ‘Non-Citation’, ‘Naming’, and ‘Verb-Control’ patterns in the integral forms along with the ‘Source’, category in non-integral forms. The deviation from the usual norms in terms of following a uniform behaviour of giving off and on preference to the patterns of ‘Identification’, ‘Reference’ and ‘Origin’ is termed as conforming the practices in L2 context. Thus, the writers’ lack of interest in the patterns like ‘Identification’, ‘Reference’, and ‘Origin’, was perhaps due to their working in a non-native context where they opted for the grammatical perfection rather than the functional value of the

arguments. So it is much obvious to conclude that the writers in Pakistan, even in a non-native context, have proved aligning themselves with their own discourse communities irrespective of the matter as having English as their L2.

The study thus makes a number of suggestions for enhancing the quality of literature review section of PhD theses, particularly in Pakistani academic discourse. Accurate use of citation is considered as one important way to enhance the quality of a study and make one's argument clear as well as effective. Novice writers are suggested to be made aware of these techniques to make them skilled in identifying the authors' voice or intended meaning through a wide range of citation functions and different forms. This inter-disciplinary comparison would definitely go a long way in making the writers know more about these rhetorical practices and explore new ways for further studies. This study, therefore, concludes that theses' writer need to have thorough engagement with previous studies using multiple types of patterns for achieving the rhetorical effects of the argument developed.

## **Recommendations**

Since, effective use of citation requires further studies and academic writing skills, therefore, in view of the findings of the present research, emerging writers, especially the non-English writers, may also be informed how to use citation efficiently, and strategically to be more persuasive. The study conducted may further lead to a number of suggestions and recommendations to carry forward inspiration and knowledge. Thus, they may help in enhancing epistemology and methodology of academic discourse. The corpus based techniques is a useful addition which may further enhance the analyses processes by using a number of frameworks. The findings of this study, to a certain extent, can provide a general picture of how Pakistani writers

cite in literature review chapters. Following are some of the hypothesized studies which may contribute knowledgeable contents to the field of academic discourse.

More importantly, future researchers should focus on inter-section analysis in order to know the section specific trends in terms of citation density as well as patterns. As it was discussed, different sections have their peculiar linguistic as well as lexical demands to develop an argument. Thus such studies are expected to provide not only a sound understanding of English for academic purposes but also provide a list of verbs used for reporting findings, ideas, theories and conclusions.

Future researches should be directed at exploring the use of reporting verbs, in terms of tense and voice, among various disciplines. Verb-Control is one of the most preferred patterns of citations as the writers' selection of any of these seems to convey different thoughts regarding the argument being developed. Present simple is used as statements regarding certain established scientific principles or facts while past indefinite and present perfect tense could be used for different purposes by writers. In the same way, passive constructions where the author is placed in the object position while focusing more on the argument are meant to be used for the sake of formality as well as emphasis. Thus, such studies will help the novice writers to achieve advanced academic skills.

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## Appendix A

### Concordance Instances of Various Citation Patterns

Figure A1. Source Citation Pattern

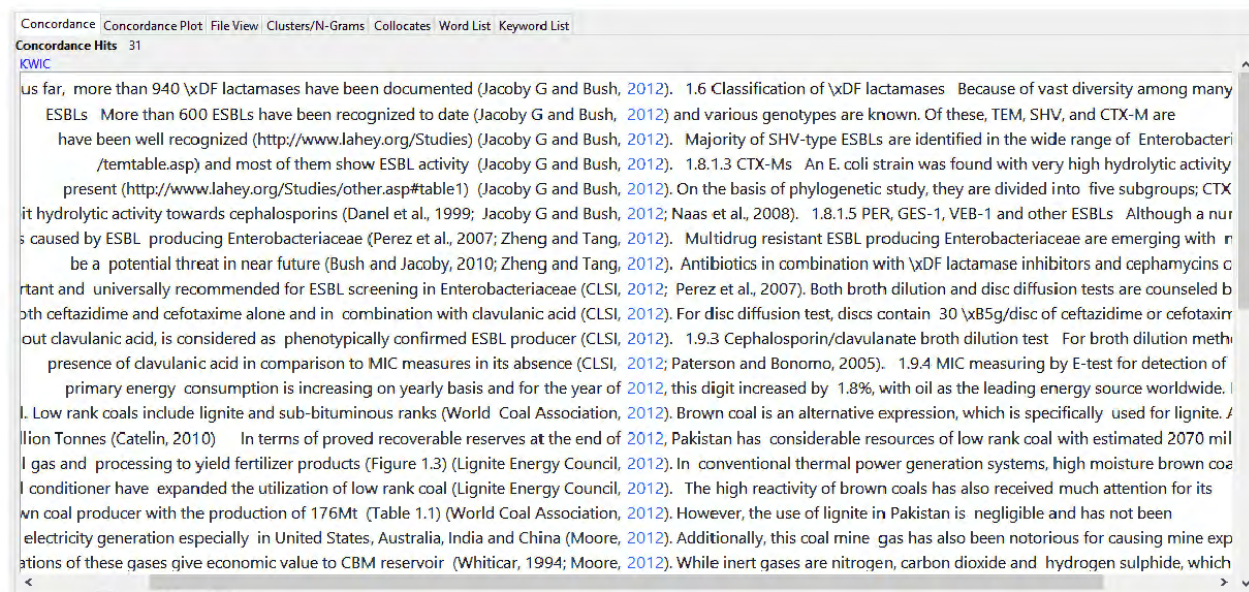


Figure A2. Source Citation Pattern

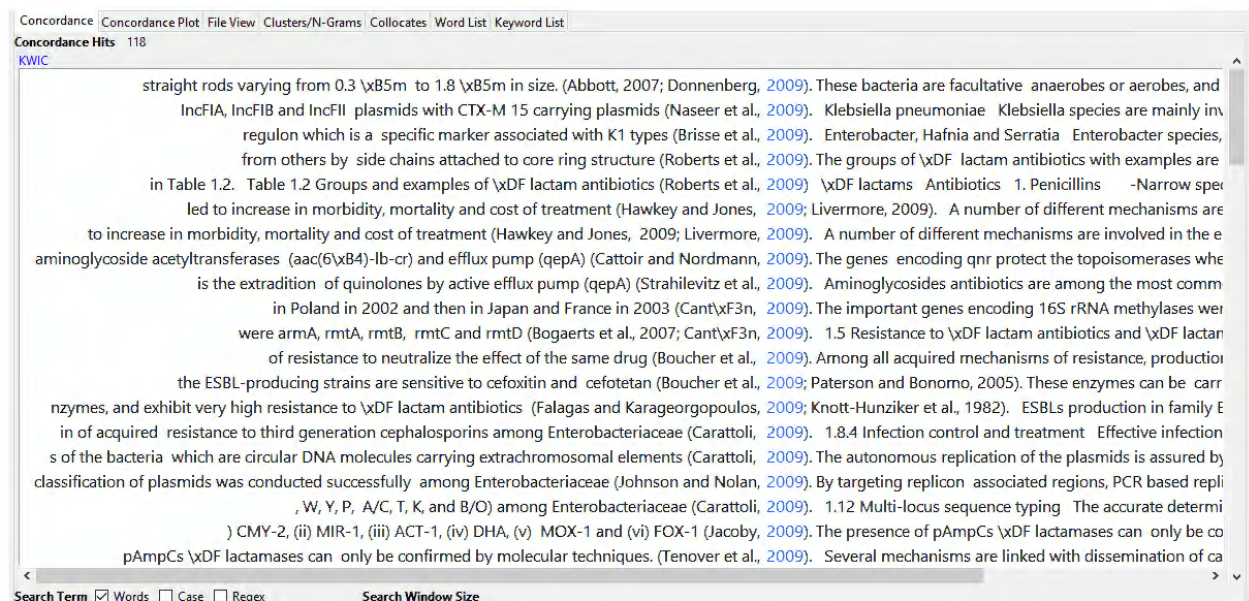




Figure A3. Source Citation Pattern

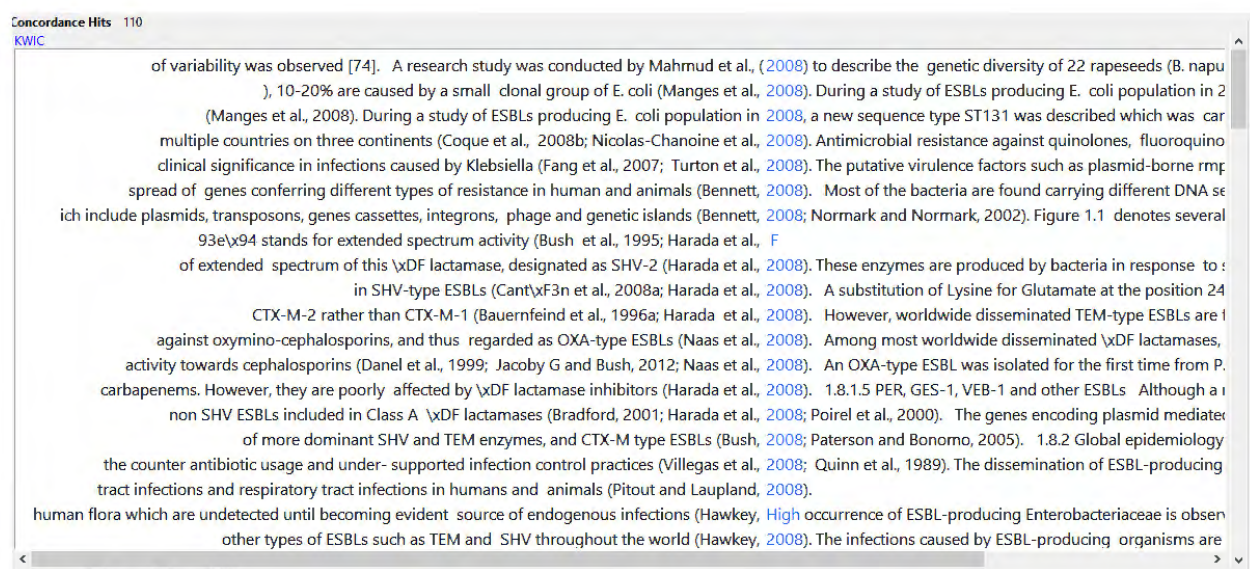


Figure A4. Source Citation Pattern

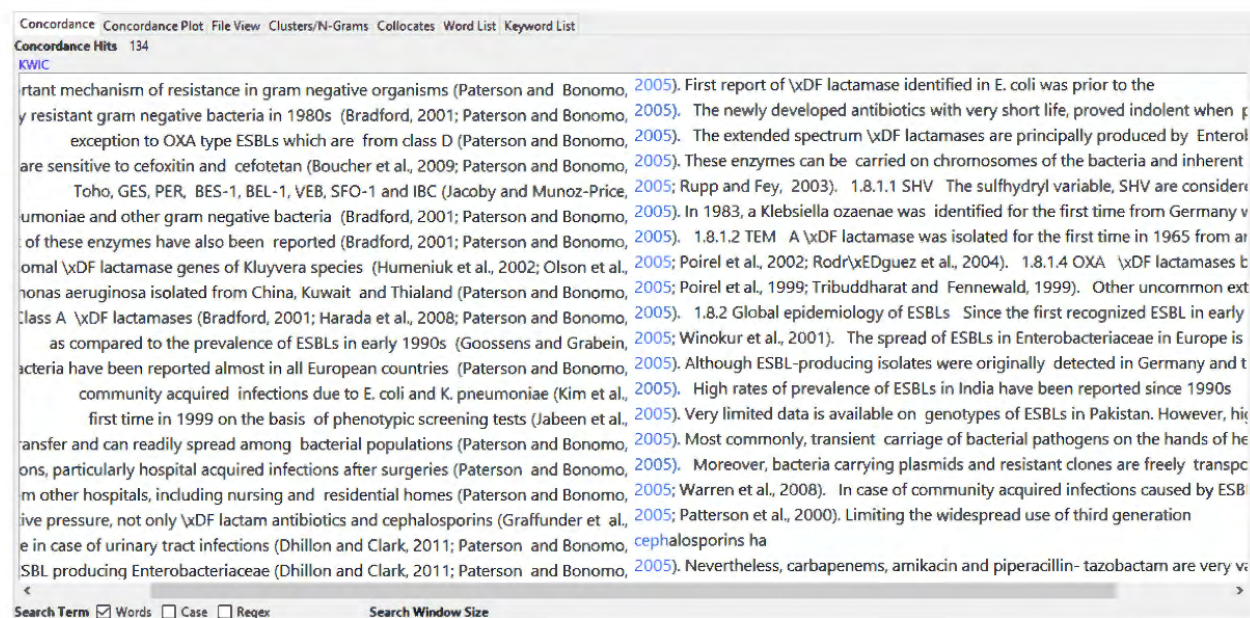


Figure A5. Source Citation Pattern

Concordance Hits 83	
Hit	KWIC
64	many factors such as leadership and school climate (Tschannen-Moran & Hoy, 2007). Some of the most frequently observ
65	lassen & Chiu, 2010; Lee, Dedrick, & Smith, 1991; Smylie, 1988; Pajares, 1996; Wolters & Daugherty, 2007), supervision and assistance of colleag
66	number of factors such as principal leadership and school conditions (Tschannen-Moran & Hoy, 2007). Based on the teacher efficacy resear
67	efficacy and school level. One such study was conducted by Wolters and Daugherty (2007). The school conditions include school
68	self efficacy. In another study carried out by Tschannen-Moran and Woolfolk Hoy (2007). They reported that elementary schoo
69	level was markedly vivid for primary and elementary level school teachers (Wolters, & Daugherty, 2007) to find the effects of mastery experie
70	beliefs remain stable for the experienced teachers. Other attempts (Tschannen-Moran and Hoy, 2007). Similar results were obtained in a sti
71	higher than novice teachers. This difference was explained by Tschannen-Moran and Hoy (2007; Chan, 2008) were made to find the el
72	mation, devise thinking methods, apply scientific laws, and developing positive attitudes (Harlen, 2007) on the basis of efficacy sources. Verb
73	activities in the teaching-learning process of the subject of science (Randler & Hulde, 2007; Skamp, 2002). Martin (2006) states tl
74	by using more complex instruments and materials for the higher graders (Randler & Hulde, 2007; Hart, Mulhall, Berry, Loughran, & Gun
75	, a better retention rate has been observed in student centered experiments (Randler & Hulde, 2007). 2.1.1 Need and importance of hand:
76	cknowledged the importance of motivation for sustaining students' learning. Abell and Lederman (2007). These findings call for the need of se
77	atory style (Pintrich & Blumenfeld, 1985; Garcia, 1995; Garcia & Pintrich, 1995; Abell & Lederman, 2007) define motivation as a state that is in
78	effect of human actions on the world (Organization for Economic Cooperation and Development, 2007). Based on constructivist learning and
79	of making all the students of the world literate in science (Feinstein, 2011; Roberts, 2007). A number of research studies attest
80	of pupils in doing activities on their own (Freeman et al., 2002; Randler & Hulde, 2007). While attempting to probe into the i
81	ramme with traditional textbook lessons (Paris, Yambor, and Packard, 1998), and Randler and Hulde (2007). Some other studies have consistentl
82	-on activities infrequently i.e. once a month or never.. 2007) found when matching hands-on scie
83	Randler and Hulde (2007) conducted their study on 123 student

Figure A6. Identification Citation Pattern

69	level was markedly vivid for primary and elementary level school teachers (Wolters, & Daugherty, 2007) to find the effects of mastery experie
70	beliefs remain stable for the experienced teachers. Other attempts (Tschannen-Moran and Hoy, 2007). Similar results were obtained in a sti
71	higher than novice teachers. This difference was explained by Tschannen-Moran and Hoy (2007; Chan, 2008) were made to find the el

Figure A7. Identification Citation Pattern

Concordance Hits 42	
Hit	KWIC
1	m. Studies have been conducted to explore different dimensions of beliefs e.g. how beliefs gain shape, the change process and the impact
2	dies have suggested that corrective feedback would work for acquisition (e.g., Ellis, Sheen, Murakami, & Takashima, 2008; Sheen, 2007). S

Figure A8. Identification

berts, 2001). Second, they argue that error correction in L2 writing, in fact, works for language acquisition. They claim that clear and consistent corre Edu1.bt  
se characteristics defined as emotional intelligence in (well-liked) popular works (Particularly, Cooper & Sawaf, 1997; Goleman, 1995a). By means o edu6.bt



Figure A9. Identification

Hits 6  
IC

issue there are two schools of thought, the purists and the [pragmatists](#). The purists (Prator 1968, Quirk 1990) argue that only the native speakers c  
look towards the native speakers for norms and rules. The [pragmatists](#) school (Jenkins 2000; Kachru 1986;  
consider the natives as the only heir to the language. The [Seidlhofer](#) 2003) consider all those who use Engli  
nd models concerning language. (Foley, 1988, p.XIV). The [pragmatists](#) argue for the \x91pluricentric centers\x92 of reference for norms and stanc  
consider the natives as the only heir to the language. The [pragmatists](#) offer two justifications for the claim namely the numerical majority of the n  
nd models concerning language. (Foley, 1988, p.XIV). The [pragmatists](#) argue for the \x91pluricentric centers\x92 of reference for norms and stanc

Figure A10. Identification Citation Pattern

ts 3

. The pragmatists school (Jenkins 2000; Kachru 1986; [Seidlhofer](#) 2003) consider all those who use English as the owners of the language and c  
[Seidlhofer](#) 2003) and the nativisation argument. (Achebe 1965, Kachru 1986, Widdowso  
n natives (Crystal 1985, Jenkins 2000, Phillipson 1992, [Seidlhofer](#) 2003) and the nativisation argument. (Achebe 1965, Kachru 1986, Widdowso  
n natives (Crystal 1985, Jenkins 2000, Phillipson 1992,

Figure A11. Reference Citation Pattern

re, considers bilingualism as simply the alternate use of two or more languages ([See](#) Section No. 2.2). It is opined that this Revised English Compulsory Course,  
who can adequately function in two languages in both oral and written forms ([see](#) also Weinreich 1968:1). Mackey (1967:555) suggests that there are four que  
understands but also speaks and writes in two or more languages (Li Wei 2000:6) ([see](#) sections 1.9 in chapter 1 for definitions of bilingualism for the present study,  
situation is triggering further collapse in the existing bilingual education system ([see](#) sections 1.3 & 1.10 in chapter 1 for details) Having given a discussion on the  
the learning of other aspects of language such as reading, writing, or listening ([see](#) chapter seven). The researcher has reviewed bilingualism and bilingual educ  
classroom organization and interaction practices to enhance learning outcomes ([see](#) Grabe 1995). Kachru (1982:209) very clearly defines that \x93one fundamer  
them despite the fact that the students were trainee teachers and professionals ([see](#) Ellis, 1985; Larsen-Freeman & Long, 1991). However, Heath\x92s (1983) cla  
the context of Urdu and English, as both languages are different in nature. ([see](#) chapter 4 for further details). As far as students talk in the classroom  
is novel or the speaker does not have full information about other participants ([See](#) chapter four for the analysis of teachers\x92 code-switching) In the

Search Term ☒ Words ☐ Case ☐ Regex Search Window Size  
See  Advanced 100

Figure A12. Reference Citation Pattern

Concordance Plot File View Clusters/N-Grams Collocates Word List Keyword List  
ance Hits 40  
KWIC

access to specialist help should be available for all patients. However, waiting times to [see](#) specialists mean that patients need to b  
of treatments in Pakistan. A research was conducted in Mayo Hospital Lahore Pakistan to [see](#) the Patterns of bone joint involvement i  
conducted at Department of Dermatology, Dayanand Medical College and Hospital, Ludhiana, India to [see](#) the efficacy of two drugs, methotrexate .  
of these co-morbid conditions, better quality of care can be further assured. To [see](#) the frequency and magnitude of anxiety  
believe that WAIS-R Vocabulary subtest is an excellent measure of the verbal ability ([see](#) Newmark, 1985 p. 45). The ability to de  
elligence Test, two indices were identified to be calculated: [see](#) the percentages of subjects who gave c  
1. Index of item difficulty: To [see](#) if the test discriminates between high a  
of subjects who gave correct answer to the item. 2. Index of item discrimination: To [see](#) the percentages of subjects who gave c  
e subscale of Intelligence Test, three indices were calculated: 1. Index of item difficulty: To [see](#) if the test discriminates between high a  
of subjects who gave correct answer to the item. 2. Index of item discrimination: To [see](#) Table 1). The items belonging to Anal



Figure A13. Reference Citation Pattern

e subscale of Intelligence Test, three indices were calculated: 1. Index of item difficulty: To [see](#) if the test discriminates between high a of subjects who gave correct answer to the item. 2. Index of item discrimination: To [see](#) Table 1). The items belonging to Analogy difficulty level while 18 items (72%) fall within the range of .41 and above of discrimination power ( [see](#) Table 1). Information Test items display difficulty level while 26 items (56%) fall within the range of .40 and above of discrimination power ([see](#) Table 1). The subscale Comprehension difficulty level while 20 items (68%) fall within the range of .40 and above of discrimination power ([see](#) Table 1). The discrimination power of item difficulty level while 19 items (63%) fall within the range of .40 and above of discrimination power ([see](#) Table 1). The analysis of results mentions difficulty level while 10 items (66%) fall within the range of .40 and above of discrimination power ([see](#) tables 13-14). It is important to note that the reliability index reveals that the test is a reliable instrument for measuring general intelligence ([see](#) Table 16). These results support the study of college marks and scores of IIT and its sub-tests are statistically significant ( $p < .001$ ) ([Denny and Campbell \(1972\)](#)), that correlates males while Arithmetic and Information Test may favor the experiences of males than females ([see](#) Table 23). The differences in the intelligence, understanding of Analogy, Comprehension and Similarity as compared to Urdu medium students ([see](#) table 24). The result of Table 26 shows anxiety is very dangerous. Considering his Id-ego-superego scheme of human behavior, we [see](#) that anxiety is the result of a disagreement

Figure A14. Reference Citation Pattern

e subscale of Intelligence Test, three indices were calculated: 1. Index of item difficulty: To [see](#) if the test discriminates between high a of subjects who gave correct answer to the item. 2. Index of item discrimination: To [see](#) Table 1). The items belonging to Analogy difficulty level while 18 items (72%) fall within the range of .41 and above of discrimination power ( [see](#) Table 1). Information Test items display difficulty level while 26 items (56%) fall within the range of .40 and above of discrimination power ([see](#) Table 1). The subscale Comprehension difficulty level while 20 items (68%) fall within the range of .40 and above of discrimination power ([see](#) Table 1). The discrimination power of item difficulty level while 19 items (63%) fall within the range of .40 and above of discrimination power ([see](#) Table 1). The analysis of results mentions difficulty level while 10 items (66%) fall within the range of .40 and above of discrimination power ([see](#) tables 13-14). It is important to note that the reliability index reveals that the test is a reliable instrument for measuring general intelligence ([see](#) Table 16). These results support the study of college marks and scores of IIT and its sub-tests are statistically significant ( $p < .001$ ) ([Denny and Campbell \(1972\)](#)), that correlates males while Arithmetic and Information Test may favor the experiences of males than females ([see](#) Table 23). The differences in the intelligence, understanding of Analogy, Comprehension and Similarity as compared to Urdu medium students ([see](#) table 24). The result of Table 26 shows anxiety is very dangerous. Considering his Id-ego-superego scheme of human behavior, we [see](#) that anxiety is the result of a disagreement

Figure A15. Reference Citation Pattern

rdance Hits 40  
KWIC

their values. People feel that they are highly accepted in the society if they [see](#) the behaviors of others etc. moreover, a to reflect on the situation while standing at the back, allows the person to [see](#) that new baby is the center of attention baby comes home, it is natural that the elder baby will feel hurt to [see](#) the new baby, the parents must give special to which the life of the child gets disturbed. When any relatives visit to [see](#) Barkley, 1998; Hinshaw, 1994, for review learning problems, academic underachievement, and low self-esteem and depressive symptoms as well ([see](#) review by Nottelman & Jensen, 1995). Frequently than single disorders and has worse developmental consequences than single-form disorders ([see](#) Moffitt, 2003 for a review). One of the number of studies showing important differences between children in the two developmental trajectories ([see](#) Barkley, 1998, for a review). In fact, ODC 20 to 56% of children and 44 to 50% of adolescents with ADHD fulfill diagnostic criteria for CD ([see](#) also Lynam, 1998), and (g) Those with the early psychopathic traits, such as callousness and lack of empathy or emotion toward others ([see](#) Johnston & Mash, 2001). Stormshak, B. etiological role in the emergence of comorbid disruptive behaviour disorders among youth with ADHD ([see](#) Frick & White, 2008 for a review). The d

Figure A16. Reference Citation Pattern

etiologi- cal role in the emergence of comorbid disruptive behaviour disorders among youth with ADHD (see Frick & White, 2008 for a review). The d- hreatening and emotionally distressing stimuli and a preference for novel and dangerous activities (see Frick, 1998; Frick et al., 2000; Frick & Elli- nduct problems may designate an important subgroup of conduct problem children. Previous research (see Barkley, 1998; Hinshaw, 1994, for review ggressive, and they are socially less competent as their counterparts without behavioural problems (see review by Nottelman & Jensen, 1995). L- blem. Comorbidity is pervasive and it has worse developmental outcomes than single-form disorders (see the impact of females' education on levels, are more likely to divorce than well-educated couples. Dawood and Farooqi (2000), to see page143 for the details of APIM). The ri- another important effort to check the Actor Partner Interdependence Model (APIM) on current data (see Appendix F) texts including very old Ara- in general is Urdu. These Madressahs still teach many of the Dars-e-Nizami (see figure 2).

ing memory; central executive, phonological loop, visuospatial sketch pad and an episodic buffer (Central executive Central executive Visuo- many ways unique, we can understand another's personality only by trying to see the world through that person's eyes beneficial effects on psychological well-being. Piedmont (1999) argued that it may be better to see spirituality as a sixth factor of personali-

Figure A17. Reference Citation Pattern

theory securely attached individuals have healthier marital relationships (e.g., Bartholomew & Horowitz, 1991; Kirkpatrick & Davis, 1994; Simpson, including studies of learning and memory capabilities of nonhuman animals (e.g., Hull, 1943; Tolman, 1932), operant-behaviorist conceptualizations of e studies identified that female performed better on short term memory (e.g., Van der Elst, Van Boxtel, Van Breukelen, & Jolles, 2008). Studies have wo most influential theorists in this field are Bandura (1997) and Mischel (e.g., 1999). Bandura's studies of modeling (e.g., Bandura & Walter, 1963) ndura (1997) and Mischel (e.g., 1999). Bandura's studies of modeling (e.g., Bandura & Walter, 1963) showed how social learning processes could- nitive approach is also concerned with issues of coherence of personality, e.g. how the individual differences in beliefs, emotions, motivations, and b- sal relationships between them. The idiographic approach to personality (e.g., Lamiell, 1981) considers that all aspects of personality are fundamen- edge (primarily in the arts: Rolfhus & Ackerman, 1996). Austin and Deary (e.g., Austin, Deary, Whiteman, Fowkes, Pederson, Rabbitt, Bent, Melnnes, 2006) ere is a negative relationship between conscientiousness and fluid ability (e.g., Arteche, 2008; Chamorro-Premuzic & Chamorro-Premuzic, 2008). Furnham- 7 studies have identified significant relationship of personality and cognition (e.g. Ackerman & Heggestad, 1997; Lieberman, 2000). Mostly findings of s- on have investigated the link between processing speed and Extraversion (e.g., Ackerman & Heggestad, 1997; Baker & Bichsel, 2006; Humphreys & F- at high levels of Extraversion are linked with quicker speed-of-processing (e.g., Ackerman & Heggestad, 1997; Baker & Bichsel, 2006). However, few- 2 e role of personality or gender on cognition, intelligence, and/or memory (e.g. Ackerman & Heggestad, 1997; Baker & Bichsel, 2006; Burns & Nettell- 1 to basic performance-based cognition in varying degrees and directions (e.g., Lynn & Irwing, 2008; Meinz & Salthouse, 1998; Schmitt, Realo, & Allik-

Figure A18. Origin Citation Pattern

8 within the person. Here, concepts more or less are clearly related to learning theory are used: learning, communal learning, community relevant learning, taki- 9 individual social behaviors. Seen in this way, the main contribution of socialization theory would be to describe and analyze the system of contextual influences on i- 10 rms and practices identified with a particular job in an organization. The general theory of organizational socialization asserts that the participants who pass thro- 11 of norms and attitudes set by the socializing agents or the significant others. Theory of adult socialization thus specifies the socializing agents or the significan- 12 structural functionalism (Malinowski, 1923; Radcliffe-Brown, 1952), social action theory (Parsons, 1949; Weber, 1947), behaviorism (Skinner, 1953), systems theori- 13 tion theory (Parsons, 1949; Weber, 1947), behaviorism (Skinner, 1953), systems theory (Bertalanffy, 1956), integrative theory (Merton, 1968), as cited by Zeichne- 14 47), behaviorism (Skinner, 1953), systems theory (Bertalanffy, 1956), integrative theory (Merton, 1968), as cited by Zeichner and Gore (1990). However, the impo- 15 88) describes her concern of holding such a balanced position about the critical theory from the perspective of teacher socialization as, we need to keep in- 16 lanations of prior influences on beginning teacher socialization: i) Evolutionary theory ii) Psychoanalytical explanation iii) Apprenticeship of observation SI-

Figure A19. Origin Citation Pattern

oped and operationalized as his Emotional Quotient Inventory (EQi). A factor analysis of his EQi scale (Bar-On, 1997, pp. 98-108) attracted 13 factors related to edu6.txt  
 1988) describes her concern of holding such a balanced position about the critical theory from the perspective of teacher socialization as, we need to keep in-  
 16 lanations of prior influences on beginning teacher socialization: i) Evolutionary theory ii) Psychoanalytical explanation iii) Apprenticeship of observation SI-



Figure A20. Origin Citation Pattern

approach. PART-II SECOND SEMESTER Three One-Act plays by Marriot (Farooqi, 1994) and a novel The Old Man And The Sea by Earnest Hemingway (Published in 1952). Theories of reading called Automaticity Theory (LaBerge and Samuels, 1974; Samuels, 1994) and Verbal Efficiency Theory (Perfetti, 1985, 1988). Both theories are based on the idea of automaticity. The approach in L2 setting to improve accuracy and fluency of learners. Anderson (1994) considered that RR is one of the many methods, suggested to develop reading skills. Even preschoolers can show signs of deductive reasoning (Hawkins, 1994). Moreover, Piaget's emphasis on the notion that cognitive development occurs on tasks within their zones of proximal development (Hamilton & Ghatala, 1994, p. 277). 2.4.3 The Zone of Proximal Development Based on the discussion of

Figure A21. Naming Citation Pattern

Concordance Concordance Plot File View Clusters/N-Grams Collocates Word List Keyword List

Concordance Hits 199

Hit	KWIC
1	ar that traditionally foreign language education deals with the context of culture. According to Kelly (1969), a cultural component has been included in foreign lan
2	cept of Culture The word culture has been defined differently by different people. According to Duranti (1997), culture is such a complex notion that it may be neit
3	for the following discussion, it would be appropriate to quote a definition which, according to those who have formulated it, covers most of the major territo
4	tures understand same events, speech acts and physical phenomena differently, according to their own mental representation. What, then, is it that designates a
5	learn about, share and participate in the development of culture (Duranti 1997). According to Berger & Luckmann (1985), ordinary conversation is the main med
6	only in the world of communal activity as generally taken as granted. Rather, according to him, they are exceptionally at the mercy of the specific language wh
7	a certain extent as this point is often ignored and has considerable importance. According to Street (1993) a dynamic association is found between the state of a
8	language and its cultural models change with the passage of time and fluctuate according to the circumstances. With the intention of becoming efficient students
9	a term i.e. the intertextual context, conveying the mixture of all contexts. According to these researchers culture is the basic idea in all the types of
10	the case is in Pakistan), recording any such observation becomes a tricky task. According to Cook (1996) in any such situation the environment or culture of the
11	the view that the teachers' role is to be an educational sociologist. According to Kane's (1991) remarkable Taxonomy of Cultural Studies
12	language, as functional and communicative proficiency methodologies arrived. According to Kramsch and McConnell-Ginet, (1992) schoolbook came out to be :
13	a must now for all business graduates to know English for Business Purposes. According to Hutchinson & Waters (1987:19), ESP came into being after the
14	is usually altered according to the specific usage. They (Hutchinson and Waters) go beyond this pair
15	Impact of Contextualized Text on Writing Skills of English Language According to Dolch (1942), Children must spell if they are to write. When we
16	ng. Many educators have charged this technology of being negative for writing. According to Shidie (1965), writing skills are needed everywhere. In his
17	iate spelling. Writing is one of the most important ways of communication. According to Quattrini (1985) writing is the best way of showing our feelings bei
18	share our ideas and for this, best way is to communicate through writing. According to Dr. Gerard The objective of communication is not the transmis
19	only get messages but it develops one's own writing skills too. According to Graddy "In complex environments, learners generally cannot retrie
20	contexts like applying mathematical knowledge to problems related to physics. According to Pienaar (2001), critical reading and understanding at Higher Educa

Search Term ☒ Words ☐ Case ☐ Regex Search Window Size

Figure A22. Naming Citation Pattern

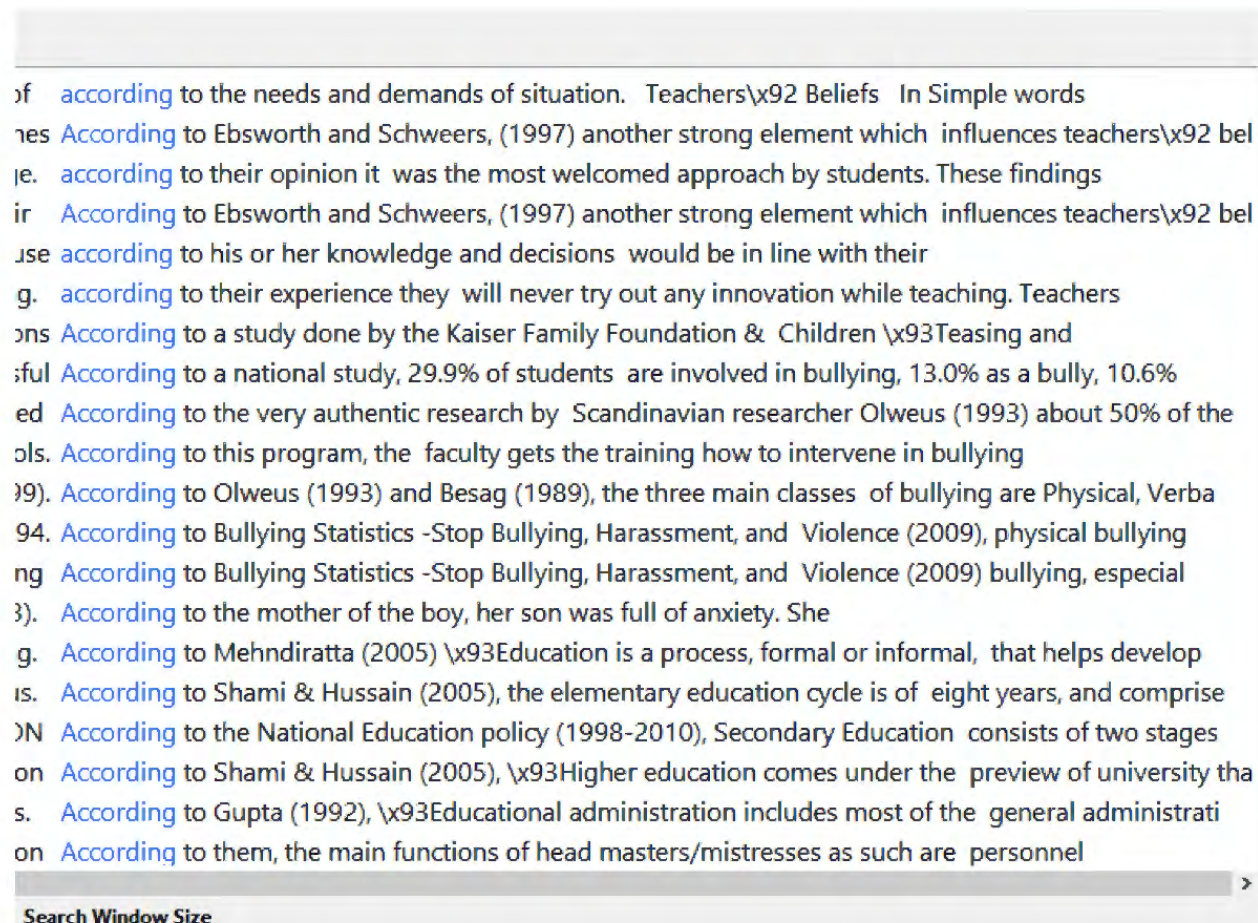


Figure A23. Verb-Control Citation Pattern

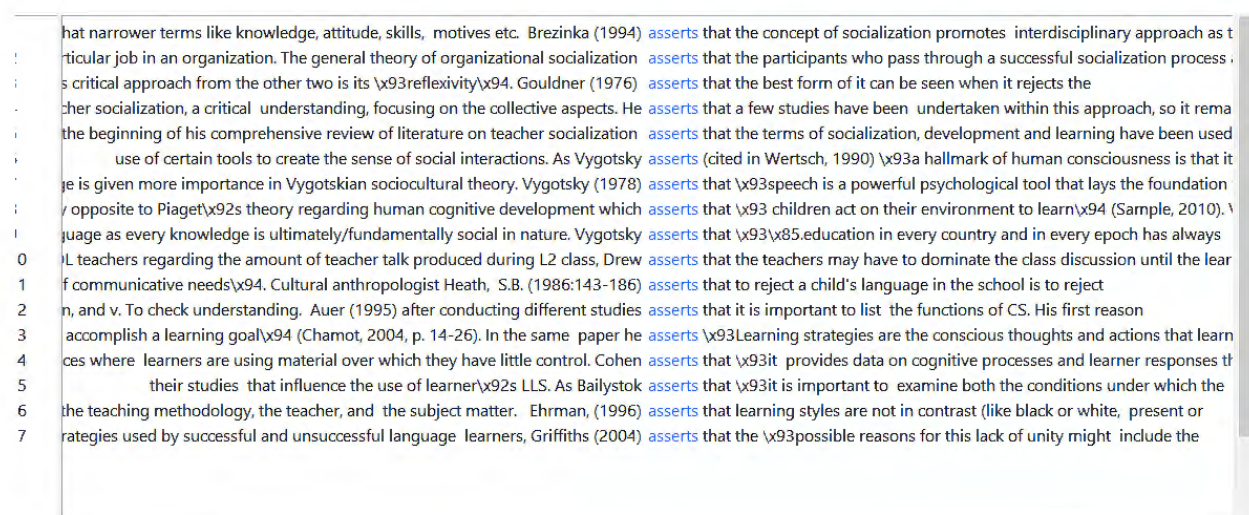




Figure A24. Verb-Control Citation Pattern

Concordance Hits 11  
KWIC

ulfurization of oil fractions has been reported by many scientists. Rhee et al. (1998) [worked](#) on desulfurization of MDUF (middle distillate unit feed) and LGO (light gas oil). Analysis can help out in determining these factors as Zhang et al. (2008) have [worked](#) on specific kinetic and laboratory models, which can predict the volume of transfer of an organic molecule in plant or it may be loosely attached and [worked](#) as co-factor. The presence of elements and their quantitative composition is related to zinc, iron contents and other macronutrients in fruiting body. Naeem et al. (2010) [worked](#) on the effects of shape, weight and size (allometry) on the elemental composition. It might help protect the area from spread on contaminant metals. Aisien et al. (2010) [worked](#) on *Eichhornia crassipes* to check its capability of removing heavy metals from water. It reduces their toxic and poisonous effects in animals and human. Hajiboland (2005) [worked](#) on *Triticum aestivum*, *Medicago sativa* and *Phaseolus vulgaris* to see uptake of heavy metals. *Senega* (Polygalaceae), and *Gymnema sylvestre* (Asclepiadaceae). Kim et al. (2006) [worked](#) on *Chrysanthemum coronarium*, *Dioscorea batatas*, *Morus alba* and *Citrus limon*. They observed significantly in the exposed workers compared to the control group. Yuk et al. (2002) [worked](#) on *Carthamus tinctorius* for its anti-bone resorption properties in ovariectomized rats and in range of 0.6 to 267 mg/gm for aqueous extract. Ayoola et al. (2008) [worked](#) on *Carica papaya*, *Magnifera indica*, *Psidium guajava* and *Vernonia amygdalifolia*. *Escherichia coli*, *Salmonella typhimurium* and *Enterococcus* sp. Parekh & Chanda (2007) [worked](#) on the antibacterial activities of some selected medicinal plants. They observed that *Tussilago farfara* was found most active against bacteria. Mahesh et al. (2008) [worked](#) on the antibacterial effects of roots and leaf extracts of *Acacia nilotica*, *Sida*

Figure A25. Verb-Control Citation Pattern

Concordance Hits 40  
KWIC

analysis of proteins of semi purified HPS virus using polyclonal antibodies. So, they suggested that immunogenicity of these proteins may be evaluated. Species like pigeons and quails (Naeem and Akram, 1995, Karunamoorthy and Manickam, 1998). It was suggested that in field conditions different lines of broilers are evaluated. It was suggested that Hubbard x Hubbard broiler lines were relatively evaluated. It was suggested that Fowl adenovirus-4 strains can be distinguished on the basis of nucleotide sequence of short fiber gene. Harrach et al., (2011) suggested new classification for adenoviruses after placing the T (Fig. 1.6). It was found that both fibers have different receptors so it was suggested that both fibers are required, one for virus attachment and the other for entry. It was suggested that 100K protein acts as scaffold protein for Hexon because evidences suggested that 100K protein acts as scaffold protein for Hexon because evidences suggested its role in folding, self assembly and nuclear import of Hexon. It was suggested that by maintaining good husbandry practices like disinfection, vaccination and isolation of infected birds, outbreaks of HPS are mostly post-vaccination in broilers. It was suggested that the virus should be propagated on specific pathogen free (SPF) eggs and cell cultures to produce killed and live attenuated vaccines. They also suggested that the unhealthy liver homogenate vaccine should be used. It was suggested that recombinant DNA technology has advantages over conventional methods. It was suggested that modern practices of recombinant DNA technology have been used. It was suggested that concept of subunit vaccines may be useful to develop vaccines against HPS. It was suggested that ssDNA genome replicated by a rolling circle mechanism. It was suggested to compartmentalize Na<sup>+</sup> in vacuole (Rodríguez-Gómez et al., 2004). It was suggested that melanin biosynthesis is primarily regulated by tyrosinase. It was suggested by Farabee, although previously revealed in mice, that melanin biosynthesis is primarily regulated by tyrosinase. It was suggested that depending upon the present findings, the secure

Figure A26. Factices

Concordance Hits	18
KWIC	
<p>genetic diversity in the entire rapeseed germplasm by using molecular information illustrated by simple sequence repeats (SSR) loci [84]. Plant material was selected in very different Dsz phenotypes (Kayser et al., 2002; Kilbane, 2006). This was clearly illustrated by examining the desulfurization activity of Mycobacterium phlei GTIS10 major viruses of Pakistan and various regions of the world. Shah and Khalid, (1999) illustrated that these viruses were widespread in most chili growing areas and reduce viruses, and are genetically divergent from DNA-R (Horser et al., 2001). It was illustrated that Rep protein of DNA-R was also competent of trans-replicating the movement (Soto, 2001). Stanley and Latham, (1992) and Legg and Fauquet, (2004) illustrated that C4 ORF of curtovirus is a pathogenicity determinant and induced a stow and Old World such as tomato, pepper and cucurbits, respectively. Jones, (2003) illustrated that viruses have a large number of variable strains. Fauquet et al. (2008) illustrated that viruses have a large number of variable strains. Fauquet et al. (2008) illustrated that a number of geminiviruses belong to the genus begomovirus. Some Old World (Polston and Anderson, 1997). Rojas et al. (2001) and Navot et al. (1991) illustrated that all viral genes of a single DNA A component was compulsory for 1 (Bull et al., 2004; Zhou et al., 2003; Briddon et al., 2003; Figure. 1.5.B). It was illustrated that C1 ORF is involved in viral symptom induction, viral movement, host the cleaved DNA at 5' end (Laufs et al., 1995b), but Hoogstraten et al. (1996) illustrated that mutation of the tyrosine in Rep of BGYMV prevented the viral DNA tyrosine in Rep of BGYMV prevented the viral DNA replication. Choudhury et al. (2006) illustrated that Mungbean yellow mosaic India virus (MYMIV) encoded Rep protein formation of heterochromatin (Carrington and Ambros, 2003). Bernstein et al. (2001) illustrated that dicer produced small interfering RNAs (siRNAs) and microRNA (miRNA) of plants that acts at the nucleic acid level (Voinnet, 2005). Blevins et al. (2006) illustrated that siRNAs derived from both type of RNA and DNA viruses, have been transgenic model plants i.e. Nicotiana benthamiana and Nicotiana tabacum. It was illustrated that they involve in viral pathogenicity. Wang et al. (2005) demonstrated ) is a suppressor protein and also elicitor of hypersensitive response (HR). It was illustrated that mutated AV2, lacking the 58 amino acids from N-terminal did not induce al., 2007; Saeed et al., 2007; Cui et al., 2004; Zhou et al., 2003). Cui et al. (2005) illustrated the suppressor activity of \xDFC1 of Tomato yellow leaf curl China virus ( localization and activity of the vacuolar proton pumps and Na<sup>+</sup>/H<sup>+</sup> antiporter is illustrated in Figure 1.2. (Schallreuter et al. 2008). 1.9.6 Melanin Synthesis Pathway Raper (1928) initially Figure 1.2 Diagrammatic location and function of Vacuolar Na<sup>+</sup> illustrated the melanin synthesis pathway, and the identification of several indole int</p>	

Figure A27. Factices

Concordance Hits	15
KWIC	
<p>ave to discover rules from given examples while in explicit teaching rules are explained before examples. Explicit and implicit methods are used for different competence they will obviously use explicit method of teaching grammar. It was explained by Doughty (2003) that in explicit method, only rules are taught. In significance part in 2nd language learning and acquisition. Teacher taught and explained grammatical structures also help learners to practice grammar in m. In fact, they are usually viewed as experts by students. Some studies have explained that the outcome of the learning process could be powerfully influential assessment. Such discrepancies between belief and practice have been explained by the fact that contextual factors can become influential tools in teaching existing rules for making decisions\x94 (p.287). vi) Analytic style Daft (2003) explained that, \x93some managers have an analytical style and they like to communicate with students, parents and administrators\x94 (p.18). Pelgrum, &amp; Law (2003) have explained following potential characteristics of ICT in teaching and learning process decision-making in the learning process. Similarly, role of students have been explained as given below; 1. Students will be more active in learning 2. Students, integration of ICT, connectivity and diversity of learning results. The study explained range of innovations from conventional to developing and concluding synchrony and helps communication of soundly moods\x92 (p.116). This was explained by Goleman in the connection of teacher- learner relationship. It was for adjustment to a remarkable diversity of ecological demands. As will be explained in greater detail, the cortex facilitates for secondary processing of communication between the right and left hemispheres, a phenomenon firstly explained by Freud in 1915. To sum up, if emotional data (e.g. the secondary practices and decisions. 2.13 Collegiality Gurr, Drysdale &amp; Mulford (2006) explained that collegiality was held dear by all successful school principals for instructional leadership is to provide teachers with tranquility. Elmore (2000) explained that school leaders were hired and retained largely on the basis of efficacy score was significantly higher than novice teachers. This difference was explained by Tschannen-Moran and Hoy (2007) on the basis of efficacy source</p>	



Figure A28. Factives

Concordance Hits 30	
KWIC	
are subdivided into emotional self-actualization, and independence. Bar-On ability to handle such feelings. In the effective way, definitions which were (2006) the emotional literacy is based on a concept of emotional intelligence is in school organization could produce the envisaged outcomes. The paper responsibilities. 2.3 The Interventional Role of Principals According to a report and responding to the larger societal context.	presented to the children in order to ask them what sort of expression the presented the following justification for his use of the term Emotional Intellig presented by Salovey and Mayer (1990) remind about these capabilities. They presented by researchers of Yale University, which concentrates on how to p presented by Branch et al. at American Economic Association Conference (20 presented by Pont, Nusche & Moorman at the meeting of Organization for Ec presented by Boyd et al. at the meeting of Calder Working Paper (25) in Wasl presented by Cotton in Portland (2000:6) revealed that the interventional role presented by Thapa et al. at the meeting of National Association of School Ps presented at the meeting of Consortium on Chicago School Research (2001:1 presented by Beteille, Kalorgridges & Loeb at the meeting of Calder Working presented by Mitgang (2008:1) reported how to strengthen educational leade presented at the meeting of International Congress for School Effectiveness a presented by Babaliki, Lazaridou & Lordanides, at Cyprus, principals needed t presented by Sargent (2004:3) documented the way data could be used gradu presented by Auguste, Echart & Franchetti (2008:144-145) at the meeting of presented. For instance, this level question demands the learners to plan, con presented (Sullivan & Wircenski, 2001). The use of successful questioning st presented in that work were very easy to perform and economically viable. TI presented in theoretical and complex form. The act of observing and manipu

Figure A29. Non- Factives

Concordance Hits 98	
KWIC	
fundamental changes. The students must be made aware that neither science is It is better achievement of students' learning outcomes. Various studies and environmental factors was statistically significant. Some recent researches students' affective domain of learning. Bryan, Glynn, & Kittleson (2011) to promote female students' learning motivation towards science. The study note female students' learning motivation towards science. Tuan et al (2005) s-on science activities on students' science achievement score have been of hands-on science in each curriculum. Sometimes, surveys have also been x92 science achievement scores (Sturm & Bogner, 2008). A small scale study activities which more focused on processes. First International Science Study The International Association for the Evaluation of Educational Achievement classes or not. In twelve of the fifteen countries where the survey was Weiss 1999). The National Education Longitudinal Study of 1988 (NELS: 88), between the teacher reports and both sub scores. Korwin and Jones (1990) g strategies for any concept for better understanding. Young and Lee (2005) -on activities infrequently i.e. once a month or never.. Randler and Hulde (2007) h teacher centered approaches. Similar results were reported from the study mpact on students' achievement in science. Ates & Eryilmaz (2011) also	conducted to determine the comparative effectiveness of this innovation. conducted in only one manner nor it is a set of facts. Science concepts conducted on learning motivation reveal a variety of motivational factors like conducted to explore the learning environment variable suggested that this v conducted a study in a suburban public high school located in the southeast l conducted three types of science activities which contained nine hands-on ac conducted a study with both qualitative and quantitative methods in collectin conducted from the last few decades. Those studies were based on the follow conducted to determine the quantity of hands-on science experienced in the c conducted by Baxter, Shavelson, Goldman and Pine (1992). found that 5th gr conducted by The International Association for the Evaluation of Educational conducted a survey on 10 and 14 year aged students and students who comp conducted, x93yesx94 response was often reported that indicated stronger conducted a survey on science. The sample of the study comprised 11,000 stu conducted a study on 50 grade 8 students and found a significant difference l conducted their research on 399 students of grade 5. The study evidenced th conducted their study on 123 students of grade 5 and grade and found that t conducted by Odem et al. (2007) on a sample of 611 grade 7 and grade 8 stu conducted a study on effect of hands-on activities and minds-on activities on

Figure A30. Non-Factives

Concordance Hits 105	KWIC
<p>es of 1980 and 2000 was done by two researchers Norris and Ortega (2000) as Hinkel and Fotos (2002) and Richards, Gallo and Renandya (2001) also an easy task. It is a confused and cluttered construct which is always 92 beliefs and practices is an evergreen and much studied topic. Spada and Messey (1992) problems affect decision making process (Crookes &amp; Arakaki, 1999). They also study was conducted on first year teachers in Hong Kong and it was of their study were university teachers in USA and Puerto Rico and they dents and their teachers. Contradictions between teachers and students were Malta explored the affect of teachers's beliefs on their teaching. Gap was Puerto Rican and USA teachers. Difference between the opinions of groups was ng" (Burgess &amp; Etherington, 2002, p. 450). Contrary to earlier findings it was from his or her previous experience. In line with notions Breen et al. (2001) because research on students's preferences about corrective feedback has kashima, 2008; Bitchener, 2008; Sheen, 2007). For instance, Bitchener (2008) States in grades 6 are bullied by the children of grade 10 (Ibid). This study to bullying others "once a week" or more (frequent bullying). It has been unprecedented manner. Later on his father came, went to the bedroom and ven as per the qualification and status of the teacher. Jatoi &amp; Hussain (2010) ding parents of children, are also included in this committee. Saleem (2003)</p>	<p>found that explicit grammar teaching is more effective than implicit grammar found that knowledge of grammar facilitates learners to communicate effecti found covertly. The elements that Schulz (2001) finds necessary in this respect found that the knowledge teachers acquire through their professional develop found that if teachers working hours were longer than usual they would make found that they were unable to apply the basic rules of communicative teaching found difference in the beliefs hold by teachers from both backgrounds. The found. Mostly teacher favored that grammar should be taught covertly while found in their beliefs and practices. Teachers disliked explicit teaching grammar found. Former group was in favor of explicit teaching. Different factors like student found that teachers favor contextualized practice instead of isolated sentence found the roots of teachers's beliefs in their professional training, experience found that they feel frustrated when their expectations are not fulfilled and that found that accuracy improvement occurred two months after provision of corrective found that 10.6% of students reported bullying others "sometimes" (moderate found that majority of the students from grade 6 to 8 are bullied. This ratio is found him hanged there. He was declared dead by the Worthing hospital. Although found that many times due to the shortage of teachers in the school, the found that, Schools can not exist in isolation, because their function is to found unable to apply the management techniques in decision-making. Aya</p>



Figure A31. Non-Factives

by two researchers Norris and Ortega (2000) found that explicit grammar teaching is more effective and Richards, Gallo and Renandya (2001) also found that knowledge of grammar facilitates learning. Confused and cluttered construct which is always found covertly. The elements that Schulz (2001) found in beliefs and practices is an evergreen and much found that the knowledge teachers acquire through the studied topic. Spada and Messey (1992) found that if teachers working hours were longer the learning process (Crookes & Arakaki, 1999). They also found that they were unable to apply the basic rules on first year teachers in Hong Kong and it was found difference in the beliefs hold by teachers from university teachers in USA and Puerto Rico and they found. Mostly teacher favored that grammar should be added in additions between teachers and students were found in their beliefs and practices. Teachers dislike teachers' beliefs on their teaching. Gap was found. Former group was in favor of explicit teaching. Difference between the opinions of groups was found that teachers favor contextualized practice (2002, p. 450). Contrary to earlier findings it was found the roots of teachers' beliefs in their professional experience. In line with notions Breen et al. (2001) found that they feel frustrated when their expectations are not met. 92 preferences about corrective feedback has found that accuracy improvement occurred two months later (Sheen, 2007). For instance, Bitchener (2008) found that 10.6% of students reported bullying occurred by the children of grade 10 (Ibid). This study found that majority of the students from grade 6 to grade 10 were bullied "one week" or more (frequent bullying). It has been found him hanged there. He was declared dead because on his father came, went to the bedroom and found that many times due to the shortage of teaching materials. Status of the teacher. Jatoti & Hussain (2010) found that, "Schools can not exist in isolation, they are always included in this committee. Saleem (2003) found unable to apply the management techniques in the classroom."

Figure A32. Non-Factives

learning process in secondary schools in Ekiti state, and also investigated whether head teachers' involvement in administrative tasks (Stephen, 2006, p.177). Richards (2005) investigated the importance and significance of the change in medium of instruction that has been investigated to have any relationship with teachers' self-efficacy beliefs of teachers in a Malaysian state were investigated by How, 2008. These teachers were motivated to learn science. Shihusa & Keraro (2009) investigated the effect of using advance level



Figure A33. Non-Factives

ctices should be questioned, examined, **evaluated**, and placed under the searching light of critic  
he performance of the students is to be **evaluated** for their promotion from the lower grade to  
ualuate alternatives. The alternatives are **evaluated**; consider the available resources, times and  
lem. The risks and advantages are to be **evaluated** by analyzing the alternatives, so that aftereff  
associated set of abilities which can be **evaluated** and distinguished from personal and societal  
d Goleman, Boyatis, and McKee (2002) **evaluated** numerous instances by which people showir  
tput by the group. Chadha (2001) has **evaluated** the EQ of Indian Prime Ministers. Singh (200  
t they might be learned, instructed and **evaluated**. Furthermore, Goleman asserts that emotiona  
a potential of school principals could be **evaluated**. He further indicated that the potential of sch

Figure A34. Non-Factives

comprise the region of north-eastern NWFP. It encompasses Haripur, Abbottabad, Mansehra, Bettag in this constituency. The constituency of NA-1 encompasses the industrial town of Peshawar city, n e in determining voting behaviour, NA-2 also encompasses some lowermiddle, middle, and upper transformed into nationalism at any stage. He encompasses the objective attributes of ethnic group stan. While discussing the Zia regime he also encompasses factors responsible for the emergence ic traditions in the state. Malik in Jafri (2002) encompasses the rise of Sindhi nationalism. He discu a the heterogeneous societies like Pakistan he encompasses that if the demand for provincial autor es. Adeney (2004) in Schneckener and Wolff encompasses the federalism as a mechanism for the pic of politics and ethnicity in Pakistan, which encompasses its theoretical and operational aspects. ir demands as a separate ethnic nationality. It encompasses that the MQM has been an active polit lly constructed. In this connection Max Weber encompasses that people attain their ethnic identity the power structure. Moreover, John Breuilly encompasses the political aspect of nationalism that xogeneous state. In this connection, Nordlinger encompasses the conflict resolution mechanism in d ith her neighbouring countries. Fifth Chapter encompasses the Global Implications of Iran's Nu pheral region. Unequal development encompasses international or intra- national econorr rderdevelopment in the Khyber Pakhtunkhwa encompasses not only low per capita income, backw

Figure A35. Counter Fatives

Ellis (2002) **does not agree** with this opinion and says inductive approach is more advant

Figure A36. Counter Fatives

likely than men to report impairment in **failed** to show a significant relationship between gender  
 es adjusting for main confounding factors **failed** to gain attention in the transpersonal psychology  
 ation of spirituality and transcendence but **failed** to find any curvilinear personality\96ability relat  
 vary with ability level. Austin et al. (2002)

Figure	A37.	Counter	Factiv
--------	------	---------	--------

nt process and oblige the UNSC Resolutions. Iran **does not agree** with such demands and considers that such  
 ined in culture. Akbar S. Ahmed (1976), however, **does not agree** with them. According to him, the ideal leade

Figure A38. Counter Fatives

Concordance Hits 2

KWIC

brain cells he/she is ever going to have, but research has recently **challenged** this. New cell growth in the hippocampus of  
 ground, IQ, and school conditions\94 (p. 570). This interpretation has been **challenged** by Guskey and Passaro (1994) who reported



## Appendix B.

### Concordance Instances in Linguistics

Figure B1.

Concordance Hits 7		
Hit	KWIC	File
1	society\x92: the Church, the Schools, the trade unions, etc. (Althusser, 1971, in Buci-Glucksmann, 1980, p. 64). In order to perpetuate hegemony, it	Ling1.1
2	tered, challenged by pressures\x85 (Williams 1977). Louis Althusser (1971), the French structuralist, in his theory of ideology, focused more on ot	Ling1.1
3	/ bear repetition that apparatuses are the social institutions. Althusser (1971) identifies two types of apparatuses: the Repressive State Apparatus (R	Ling1.1
4	atuses. The people who are regarded as \x91objects\x92 in Althusser\x92s theory of ideology do not challenge these practices and thus act or play	Ling1.1
5	n the context of the new paradigms. Foucault (1960), unlike Althusser who was materialist and focused on ideological knowledge / practices constr	Ling1.1
6	shared by people within each social class. However, the way Althusser (1969) and Tollefson (1991) use the term \x91ideology\x92 is not much differ	Ling1.1
7	philosophers and linguists ( Gramsci 1971; Bourdieu 1990; Althusser 1971; Barthes 1957; and Williams 1973, 1977) that ideologies are not particu	Ling1.1

Figure B2.

Concordance Hits 9		
Hit	KWIC	File
1	e dominant class (but not in the interests of the subordinate classes)\x92 (Edgar & Sedgwick, 2004, p. 190). The dominant class controls \x91the mc	Ling1.1
2	characterizes ideology as \x91distorted ideas\x92 about the social world (Edgar & Sedgwick, 2004). Hence, ideology in Marxism is a distorted form	Ling1.1
3	y, ideology does not have a strong link with class and domination (cited in Edgar & Sedgwick 2004). Though, he acknowledges the link that Marxism	Ling1.1
4	cy, dependent upon the social circumstances within which it is produced (Edgar & Sedgwick, 2004, p. 191). Gramsci (1891-1937), the leader of the	Ling1.1
5	what people think, but rather about how they act \x96 lived relations\x92 (Edgar & Sedgwick 2004, p. 191). In this view, ideology then is not a \x91fa	Ling1.1
6	aspects of aesthetic reflection upon the nature of modernity\x92 (cited in Edgar & Sedgwick 2004, p. 294). Harvey\x92s The Condition of Postmode	Ling1.1
7	ersity of sources in search of greater flexibility of production\x92 (cited in Edgar & Sedgwick 2004: 294). Particularly, for our purpose, Lyotard ([197	Ling1.1
8	have transformed our notion of what constitutes knowledge\x92 (cited in Edgar & Sedgwick, 2004, p. 296). Hence, it proposes an epistemological vi	Ling1.1
9	ing the development cycle of nativised varieties of English is proposed by Edgar Schneider (2003). He agrees with Mufwene (2001) in arguing that \	Ling2.1

Figure B3.

Concordance Hits 11		
Hit	KWIC	File
1	naturalize the existing phenomena including thought and behaviour. For Fairclough, \x91ideologies are embedded in features of discourse which a	Ling1.1
2	n for granted\x92 and thus go unnoticed and unchallenged. According to Fairclough, \x91commonsense\x92 is an important characteristic of disc	Ling1.1
3	of discourse. It helps sustain the relations of power without any resistance Fairclough, 2001). In short, we can say that ideologies and discourses are	Ling1.1
4	37 or challenge (Fairclough and Wodak, 1997, p. 258). In other words, the connotative and	Ling1.1
5	help produce and reproduce unequal power relations\x92 in the society (Fairclough\x92s framework (2003) more useful than others. Unlike many	Ling1.1
6	at case where focus is on messages in long stretches of texts, I have found Fairclough uses it in its most usual or narrow sense to mean verbal langu	Ling1.1
7	refer to \x91language use\x92, \x91parole\x92, or \x91performance\x92, Fairclough, 2003, p. 2). As social scientists do not concentrate much upon l	Ling1.1
8	that social analysis and research always has to take account of language (Fairclough tries to go beyond these divisions by proposing such a model	Ling1.1
9	upon linguistic features of texts and linguists upon social effects of texts, Fairclough\x92s (2003) analytical framework addresses a number of socia	Ling1.1
10	ork that can be useful for both the analyses of social and linguistic fields. Fairclough, Van Dijk and Ruth Wodak are not much interested in the anal	Ling1.1
11	48 Fairclough\x92s (2003) CDA that I draw upon and apply to my own resear	Ling1.1

added in discourses. However, as the key theorists of CDA such as Norman  
xtbooks. Along with this, I talked about the analytical frameworks such as

Figure B4.

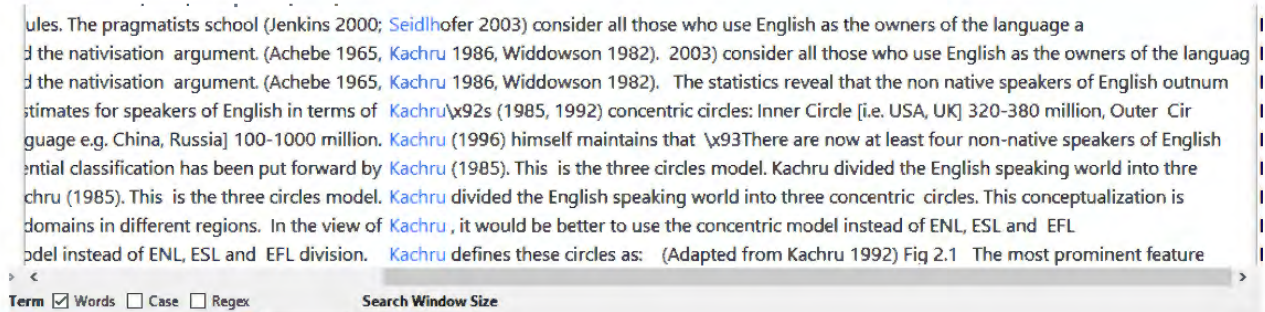


Figure B5.

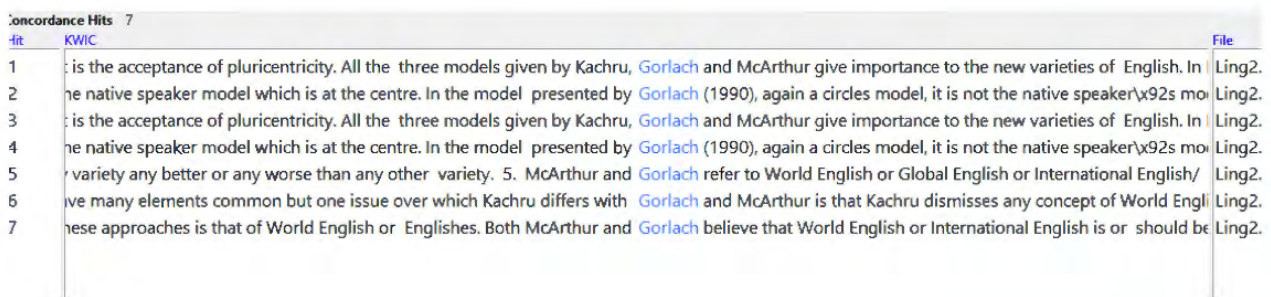


Figure B6.

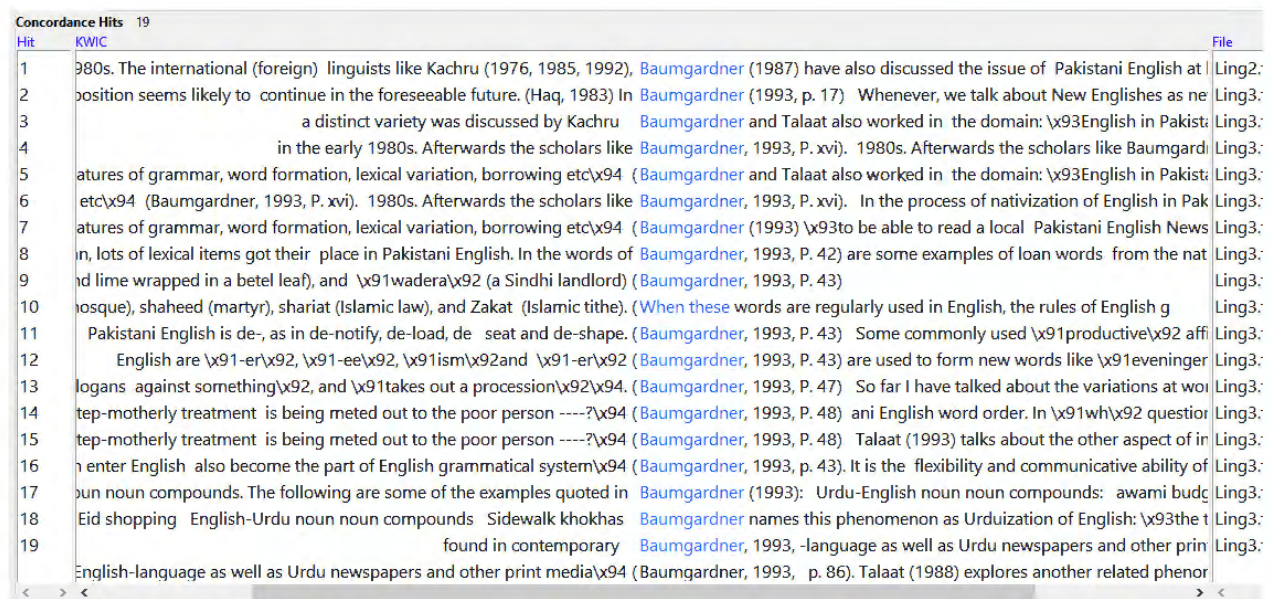




Figure B7.

Concordance Hits 7		File
Hit	KWIC	
1	imated that Persian and Arabic constitute 13 % of the Urdu vocabulary (cf. <a href="#">Ahmad</a> 1973). Urdu poetry and literary prose are greatly indebted to the f	Ling4.b
2	scuss various corpora prepared by different individuals and institutions. <a href="#">Ahmad</a> (1973)\x92 Urdu ALfaaz Shumaari (Urdu Word Count) was a pion	Ling4.b
3	of the Urdu speakers living in the sub-continent are concerned (cf. Iqbal & <a href="#">Ahmad</a> 2010). The major problrm with the the existing print dictionaries i	Ling4.b
4	e Roman script does not adequately represent Urdu letters in many cases. <a href="#">Ahmad</a> (2008) elaborates how the Roman script fails to represent the Urdu	Ling4.b
5	of Pakistan as it will offend many people. It is almost impossible to say * <a href="#">Ahmad</a> and Salma are friends. As far as the access structure of dictionar	Ling4.b
6	ubstitute encyclopedic information in case of cultural items in dictionaries ( <a href="#">Ahmad</a> & Iqbal 2010). For example, the translation equivalents of the Urd	Ling4.b
7	nored area of study. Only recently, a study has been conducted by Aslam, <a href="#">Ahmad</a> and Sajid (2011), which they conducted on the orthographic featu	Ling9.b

Figure B8.

rdance Hits 44		File
Hit	KWIC	
1	ech Act Theory John. R Searle an American philosopher and a student of <a href="#">Austin</a> (1962, pp. 150-163) further classified illocutionary acts into five cat	Ling6
2	John. R Searle an American philosopher and a student of Austin extended <a href="#">Austin</a> extended Austin\x92s work and pointed out its shortcomings by pr	Ling6
3	used the term illocutionary act as opposed to the term speech act used by <a href="#">Austin</a> \x92s work and pointed out its shortcomings by presenting a new t	Ling6
4	appropriate context with certain intentions. 2.1.2.1. Searle\x92s criticism of <a href="#">Austin</a> (1962). Searle (1969, p.16) termed speech act as a basic or minima	Ling6
5	n other. This differentiation contradicts with the distinction pointed out by <a href="#">Austin</a> \x92s theory Searle (1968, pp. 406-424) differentiated between loc	Ling6
6	n contradicts with the distinction pointed out by Austin (1962). <a href="#">Austin</a> (1962).	Ling6
7	Searle (1969, pp. 9-11) termed <a href="#">Searle</a> (1969, pp. 9-11) termed Austin (1962) taxonomy of illocutionary ac	Ling6
8	issives, Expositives and Behabitives) as faulty on the following grounds: i. <a href="#">Austin</a> (1962) taxonomy of illocutionary acts (Verdictives, Exercitives, Cor	Ling6
9	in the form of a statement or an order ii. All the verbs listed by <a href="#">Austin</a> (1962) classified illocutionary verbs instead of classifying illocution	Ling6
10	ded\x92 does not mark a speech act. iii. The most important weakness of <a href="#">Austin</a> (1962) are not illocutionary verbs. For example if someone says \x!	Ling6
11	e exercitives have been partly defined in terms of exercise of authority. iv. <a href="#">Austin</a> (1962) taxonomy is the lack of consistent principles in the construc	Ling6
12	allenge cannot be placed with thank and apologize. vi. The verbs given by <a href="#">Austin</a> \x92s categories of illocutionary acts overlap with one another and s	Ling6
13	t action. <a href="#">Austin</a> (1962) do not satisfy the given definitions. 2.1.2.2. Identification o	Ling6
14	79, pp. 1-8) gave another notion of identifying a speech act as opposed to <a href="#">Austin</a> (1962) in his later classification of felicity conditions. He proposed	Ling6
15	ether he wants to marry her. v. The adverb \x91hereby\x92: According to <a href="#">Austin</a> (1975) adverb hereby marks the verb as performative. It can be use	Ling6
16	ns such as obeying and acknowledgement. This classification is based on <a href="#">Austin</a> \x92s distinction between illocutionary and perlocutionary acts as v	Ling6
17	tionary and perlocutionary acts as well as the felicity conditions given by <a href="#">Austin</a> . These conditions categorize the speech acts in a different ways tha	Ling6
18	one for the benefit of the speaker. Leech (1983, p.174) contradicted with <a href="#">Austin</a> and Searle on the matters of the illocutionary verb and the perform	Ling6
19	two theories in order to explain illocutionary verb fallacy. First, he termed Austin and Searle\x92s theory as an orthodox speech act theory and the s	Ling6
20	cutions and perlocutions within the speeches using speech act theories of Austin (1962) and Searle (1969). They found 60% assertive, 35% directive	Ling6

## Appendix C

### Concordance Instances in ELT

Figure C1.

Concordance Hits 13	
Hit	KWIC
1	een you and you could have been me, given different circumstances (Kramsch 1997: 04). However, most of us do not perceive culture in this way
2	s good and bad, morally acceptable and unacceptable, beautiful and ugly (Kramsch 1997). This situation represents quite a challenge for anyone who
3	ety and richness of foreign culture cannot be simulated in the classroom (Kramsch, 1993) and (Baumgratz-Gangl, 1991). Some other researchers have
4	enefits for learners of language and culture (Mitchell, 1988; Damen, 1987; Kramsch, 1993). They think that within a classroom the learners feel them
5	much attention in previous researches as such targets are more intangible. Kramsch (1991a) mentioned that it is easier said than done to quantify sor
6	and behavior. An empirical study, at a small-scale, was carried out by Kramsch (1993) engaging 12 instructors, having three different language: s
7	s and ethics existing amongst locals within the same nationalized culture. Kramsch concludes that conformity has not been achieved yet even by a si
8	nk and discussion while trying to comprehend an additional culture, what Kramsch describes as an essential reality check against stereotypical vis
9	s, in the textbooks and other resources being used in language learning. Kramsch and McConnell-Ginet (1992) reveal that in the past, course books
10	onal and communicative proficiency methodologies arrived. According to Kramsch and McConnell-Ginet, (1992) schoolbook came out to be simply
11	the way the cultural details are offered, conceptualized and authenticated Kramsch (1987) carried out a study by comparing eight first-year German
12	books extensively used in the United States of America. On the one hand, Kramsch established that the authors made a grave attempt to instruct cu
13	of meaning, and a focus on the interactional process itself and on fluency. Kramsch (1985). Flanders (1970) bluntly termed the prevalent lecturing st

Figure C2.

Concordance Hits 24		File
Hit	KWIC	
1	the fact that no operational definition of beliefs has been given by Elaine Horwitz, who is the pioneer in the research undertaken on beliefs regarding	ELT5.1
2	neer in the research undertaken on beliefs regarding learning a language (Horwitz, 1985, 1987, 1988). Preconceptions (1985), preconceived ideas (1	ELT5.1
3	considers learning to be a restricted ability endowed to the selected ones. Horwitz (1987) regards cultural backgrounds as a contributory factor tow	ELT5.1
4	learners' ability in the classroom is influenced by learners' beliefs (Horwitz, 1988) so a dire need to attend to learners' beliefs has been p	ELT5.1
5	the research on language learning beliefs opened after the pioneer work by Horwitz (1985, 1987, 1988). The main conclusion of her study in 1985 was	ELT5.1
6	Communication Strategies' and 'Beliefs about Motivation' (Horwitz, 1988). There are three versions of BALLI: the original 34-item ve	ELT5.1
7	original 34-item version used with American foreign language students (Horwitz, 1988), a 34-item version in which simple English was used for ES	ELT5.1
8	38), a 34-item version in which simple English was used for ESL students (Horwitz, 1987), and a 27-item teachers' version, to find out teachers'	ELT5.1
9	1987), and a 27-item teachers' version, to find out teachers' beliefs (Horwitz, 1985). Informing teachers about the beliefs of students was a fu	ELT5.1
10	35). Informing teachers about the beliefs of students was a further aim of Horwitz study. Horwitz believed that a possible clash of expectation might	ELT5.1
11	teachers about the beliefs of students was a further aim of Horwitz study. Horwitz believed that a possible clash of expectation might result if there	ELT5.1
12	frustration, dissatisfaction and lack of confidence in students for learning (Horwitz, 1987, 1988).	ELT5.1
13	and lack of confidence in students for learning (Horwitz, 1987, 1988). After the work of Horwitz, there have been many studies investigating the	ELT5.1
14	After the work of Horwitz, there have been many studies investigating the beliefs of learners:	ELT5.1
15	also the topic of many studies. For instance, beliefs and anxiety (e.g. Horwitz, Horwitz, and Cope, 1986; Horwitz and Young, 1991; Oh, 1996; Tr	ELT5.1
16	the topic of many studies. For instance, beliefs and anxiety (e.g. Horwitz, Horwitz, and Cope, 1986; Horwitz and Young, 1991; Oh, 1996; Truitt, 1995	ELT5.1
17	es. For instance, beliefs and anxiety (e.g. Horwitz, Horwitz, and Cope, 1986; Horwitz and Young, 1991; Oh, 1996; Truitt, 1995; Young, 1991), learner st	ELT5.1
18	readiness for autonomy (Cotterall, 1995, 1999) were explored. In 1999, Horwitz presented a review of eight studies to identify similarities and diff	ELT5.1
19	group's distinct beliefs regarding learning a different target language. Horwitz (1988) in another study used BALLI to compare beliefs of three gr	ELT5.1
20	Horwitz (p. 291). In a study, Kim-Yoon (2000) used an adapted version of	ELT5.1



Figure C3.

Concordance Hits 10			File
Hit	KWIC		
1	strategy planning, strategy training, ETR method, and SQ3R propagated by Carrell, Pharis, Liberto, Caverly, and Orlando respectively may be impleme	ELT6:	
2	ach reading practice is fruitful along with error correction and feedback. Carrell (1989, p.121) held that better reader is better strategy planner bec	ELT6:	
3	prehension, adjusts reading rates and tries to achieve required objectives. Carrell, Pharis & Liberto (1989, p.647) explained that strategy training alo	ELT6:	
4	ie things are also included in research tools of present research in hand. Carrell (1985, p.729) emphasized, \x93In order to develop learners\x92 re	ELT6:	
5	ve method to redress various problems of learners at the graduate level. Carrell and Eisterhold (1983, p.553) discussed the utility of schema theory	ELT6:	
6	sly on the graphic form. It is emphasized that schema theory discussed by Carrell and Eisterhood is applicable in the said situation for learners of En	ELT6:	
7	is why good reader does better use of the text than poor reader. Carrell (1984, p.441) explained that specific logical patterns of organizatio	ELT6:	
8	prehension, the text should reflect the background knowledge of reader. Carrell and Eisterhold (1987, p.556) differentiated between schema and b.	ELT6:	
9	ader is at a loss. The ideas propagated by Goodman, Grabe, Smith, Parker, Carrell, and Eisterhold, and Stanovich in favour of Top-down Process are	ELT6:	
10	tyles are related to foreign language achievement of vocabulary learning (Carrell, Prince, & Astika, 1996), listening (Jeein Kim, 1998), and overall EFL	ELT9:	

Figure C4.

Concordance Hits 11			File
Hit	KWIC		
1	ised to either lecture method or grammar translation method. Jiang and Grabe (2007, pp.11-13) mentioned some examples of GO framed to matc	ELT6:	
2	earners need to have awareness and exposure in their learning process. Grabe (2004, p.48) remarked, \x93Research on the effects of word recogni	ELT6:	
3	d curriculum that combined both content and comprehension instruction. Grabe (2004, p.54) cited ten effective combined-strategies instruction for	ELT6:	
4	should be active, interesting, participating, repetitive and time-oriented. Grabe (1997, p.2) argued, \x93Since narrative texts are often used for low-	ELT6:	
5	rrative texts to improve comprehension\x85\x94 The research findings of Grabe in the context of teaching texts/materials, teaching method and inst	ELT6:	
6	op rate of reading, and comprehension of learners at the graduate level. Grabe (1991) emphasized that RR might be equally effective for L2 reader	ELT6:	
7	ability to anticipate what has not yet been heard is vital in listening. Grabe (1991, p.377) described that a competent reader reads by \x93Pred	ELT6:	
8	slow and poor reader is at a loss. The ideas propagated by Goodman, Grabe, Smith, Parker, Carrell, and Eisterhold, and Stanovich in favour of Tc	ELT6:	
9	er levels, Nunan (1991, p.67). Interactive aspect of reading is described by Grabe (1991, p.383) as, \x93The general interaction which takes place betw	ELT6:	
10	nisinterpret the message of the text. It is considered that both Nunan, and Grabe support Interactive- Compensatory Process because it amalgamate	ELT6:	
11	ng of other aspects of language such as reading, writing, or listening (see Grabe 1995). Kachru (1982:209) very clearly defines that \x93one fundam	ELT8:	

Figure C5.

Concordance Hits 14			File
Hit	KWIC		
1	them, it is a means for people to think and to learn together (Gibbons, 2002, p. 14). 2.1 Introduction A learner\x92s development and le	ELT7:	
2	the zone of proximal development enhances learning ability of the learners (Gibbons, 2002). Vygotsky\x92s insightful analysis of human development	ELT7:	
3	ment has readily been accepted during the last three decades. For instance, Gibbons (2002) writes in \x93Scaffolding Language-Scaffolding Learning\	ELT7:	
4	se of second language learners, to learn new ways of using language\x94 (Gibbons, 2002, p. 8) What can be inferred from the above discussion is th	ELT7:	
5	hich according to them led the learners towards better language learning (Gibbons, 2002). Scaffolding, fundamentally is a \x93process of \x91setting	ELT7:	
6	istance\x94 in supporting the learners to carry out tasks successfully\x94 (Gibbons, 2002, p. 10). Stuyf (2002) presents a comprehensive study of wh	ELT7:	
7	-contained\x94 and that the learning occurs \x93within an individual\x94 (Gibbons, 2002, p. 7). For Vygotsky a learner\x92s mind is neither a Tabula	ELT7:	
8	d the learners \x93collaboratively do more than they can individually\x94 (Gibbons, 2002, p. 18). For example, an extract from Gibbons report of a sr	ELT7:	
9	y can individually\x94 (Gibbons, 2002, p. 18). For example, an extract from Gibbons report of a small group presentation of their science experiment i	ELT7:	
10	g is gradually refined towards more explicit and written like language\x94 (Gibbons, 2002, p. 20). Thus, collective scaffolding renders second language	ELT7:	
11	xt and used meaningfully for a particular purpose\x94 (McGroarty cited in Gibbons, 2002, p. 17). 2.5.1 Features of Scaffolding But the above mention	ELT7:	
12	exemplify of what the learners are supposed to do perform (Walqui, 2006; Gibbons, 2002). As \x93such examples may serve not only to set performa	ELT7:	
13	ng proves to be an effective teaching strategy (Lawson, 2002 ; Stuyf, 2002; Gibbons, 2002). But while implementing scaffolding one must be aware th	ELT7:	
14	imilarly, the studies by other researchers such as Donato, Lee & Jacobs and Gibbons, Lantolf and Ziglari assert that L2 learners can be assisted effectiv	ELT7:	



Figure C6.

3	inreich (1953) who discusses multiple reasons for lexical innovation in L1. Auer (1995), following Romaine, defines that CS as a robust discourse	ELT8.1
4	the explicit definition of code-switching is found in Vogt (1954/1954: 368 in Auer 1998:118): code-switching in itself is perhaps not a linguistic phenom	ELT8.1
5	on (1961), where it is used in the sense of recoding (1961:250 in Auer). In all the above definitions code-switching is considered as the abil	ELT8.1
6	1982, and 1983) markedness theory of language choice and the second is Auer's (1984a, b, 1988, 1991) sequential analysis of language alternat	ELT8.1
7	specific about how these two levels are interrelated to one another 2.8.3 Auer: Sequential Analysis of Language Choice A more recent developmen	ELT8.1
8	nal perspective is the sequential analysis of code-switching carried out by Auer (Auer, 1984, 1988 in Li Wei 1994:17). The original impetus of Auer's	ELT8.1
9	erspective is the sequential analysis of code-switching carried out by Auer (Auer, 1984, 1988 in Li Wei 1994:17). The original impetus of Auer's w	ELT8.1
10	out by Auer (Auer, 1984, 1988 in Li Wei 1994:17). The original impetus of Auer's work comes from dissatisfaction with Gumperz's classificati	ELT8.1
11	with Gumperz's classification of discourse functions of code-switching. Auer (1991: 326-33) defines that instead of trying to characterize spe	ELT8.1
12	guistic choices according to a pre-established set of functional categories, Auer proposes that code-switching is most fruitfully analysed as a context	ELT8.1
13	y for the interpretation of their linguistic and non-linguistic activities (Auer, 1990: 80). Gumperz (1982) calls these cues contextualization cc	ELT8.1
14	the cues contextualization conventions (or contextualization cues). Auer (1988:104) argues that the interpretation of function(s) or meaning(s)	ELT8.1
15	the other. However, this distinction is not always clear cut, as recognized by Auer himself. To study code-switching as a contextualization cue requires	ELT8.1
16	academic roles that code-switching engaged in that meticulous atmosphere. Auer (1995) compiled a list of types of functions of code-switching as use	ELT8.1
17	cedures and directions iv. For clarification, and v. To check understanding. Auer (1995) after conducting different studies asserts that it is important to	ELT8.1
18	discussed to recognize their role in the Diploma TEFL classroom. However, Auer (1990, in Martin-Jones, 1995) acknowledged that it is impossible to	ELT8.1

Figure C7.

approach, Flyman-Mattsson & Burenhult (1999) carried out a preliminary study of code-switching in French-as-	ELT8.1
languages. Flyman-Mattson and Burenhult (1999:25) suggest that teachers switch code whether in teacher-l	ELT8.1
g Function Flyman-Mattsson and Burenhult (1999:10) define this kind of code-switching by dividing it in	ELT8.1
: functions. Flyman-Mattsson & Burenhult (1999) also define the affective functions of code-switching in the dom	ELT8.1
Topic Shift Flyman-Mattsson and Burenhult (1999:13) identifies that code-switching at topic shift is relatively	ELT8.1
languages. Flyman-Mattsson and Burenhult (1999) give two reasons in this regard: the message is so	ELT8.1
cial nations. Flyman-Mattsson and Burenhult (1999:7) claim that there are some differences in the reasons	ELT8.1
vital issue Flyman-Mattsson and Burenhult (1999:7) define that linguistic insecurity in classroom interaction is	ELT8.1
erstanding Flyman-Mattsson and Burenhult (1999) explain that the main reason for the teachers' code-	ELT8.1
g Function Flyman-Mattsson and Burenhult (1999:11) define that the repetition in the first language can	ELT8.1
-switching Flyman-Mattsson and Burenhult (1999:11) define that socializing functions are closely related to aff	ELT8.1

Figure C8.

1	93Cognitive Academic Language Proficiency (CALP) (Cummins, 1996) or Academic Language Proficiency (Krashen & Brown, 2007). C	ELT2.1
2	that is decontextualized and situation-independent (Cummins & Swain; Cloran qtd in 34 Walqui, 2006). This obstacle can be resolved by	ELT7.1
3	lingual children were somehow cognitively disadvantaged. Cummins (1993, in Orr- Easthouse 2003) explains that older theories presumed that	ELT8.1
4	cognitive room for the other, so it shrinks. Moreover, Cummins (1989 & 1993) provided a different explanation for bilingualism and cognitive	ELT8.1
5	her language can benefit from the cognitive advancement. Cummins' Common Underlying Proficiency Model (CUP) was explored by Baker (200	ELT8.1
6	tive functioning. To explain success in bilingual education, Cummins (1984:88) puts forward the following arguments. The first is the Threshold Leve	ELT8.1
7	are some of the beneficial aspects of becoming bilingual. Cummins' second hypothesis suggests that there is a close relationship between prc	ELT8.1
8	content matter through the medium of different language. Cummins suggested and quoted by Macswan (1999) that the level of languages proficien	ELT8.1
9	ers or cognitive advantages over their monolingual peers (Cummins, 1984; Lambert & Anisfield, 1969; Lambert & Tucker, 1972; Peal & Lambert, 19	ELT8.1
10	hers. iv. Close interaction with others lasting 3 or 4 years. Cummins (1984), in a review of the literature for support of metalinguistic awareness am	ELT8.1
11	being bilingual versus a weak advantage to being bilingual. Cummins says that it is generally agreed that proficient children, who are balanced in	ELT8.1
12	students in the nation's schools (Skutnabb-Kangas & Cummins, 1988; Wolfe, 1992; Wong-Fillmore, 1991). According to Wolfe (1992: 139),	ELT8.1
13	ent theory and research by others (Bloome & Bailey, 1992; Cummins, 1996; D'Andrade & Strauss, 1992; Halliday & Hasan, 1989; Holland & Quinn, 1	ELT8.1
14	educational researchers (Ringbom, 1962; Hansegard, 1968; Cummins, 1981a; Toukomaa and Skutnabb-Kangas, 1977; Skutnabb-Kangas, 1981; Dunn	ELT8.1



## Appendix D.

### Concordance Instances in Literature

Figure D1.

Concordance Hits 10		
Hit	KWIC	File
1	for the reader where personal likes and dislikes are suspended forthwith. Beer (1977) quotes Southey who in his review records the ill-reception of f	Lit1
2	f horrors and terrors-- more longed for, more valued, more endeared. J. B. Beer uses the concept of \x93Cabbala/Shechinah\x94 to relate the whole e	Lit1
3	when complete love and harmony exist between a man and woman (155). Beer further explains the Rime in the context of the ancient Egyptian myth	Lit1
4	g the activity of dreaming (21). A careful inference that can be made from Beer\x92s observations is the \x93 deep well\x94 ( 59) concept of Lowes in	Lit1
5	loss of his spiritual numinosity in a one-sided ego-consciousness. J. B. Beer equates this loss with the diminishing Shechinah which nearly touche	Lit1
6	d (the consummated Self) reaches to the utmost elation. At the same time Beer\x92s whole argument can also be summarized in the contexts of the	Lit1
7	d him regardless of appearance, \x93worth-fullness\x94 or worthlessness (Beer 73). Abram\x92s reference to Hegel\x92s \x93ultimate crisis of consc	Lit1
8	restore the rare vision of perfect harmony of the inner and outer worlds (Beer 231). The Mariner must tell and re-tell his story to relieve each time	Lit1
9	ow reared in the background of their negative exclusivity. Referring to J. B. Beer\x92s interpretation of the sun/heat symbolism in terms of divinity fel	Lit1
10	dition (London: Penguin, 1995), p. 418. 20 Coleridge\x92s Variety, ed. John Beer with an Introduction by L. C. Knights (Macmillan, London, 1974), p. xi	Lit1

Figure D2.

Hit	KWIC	File
1	er; and lastly , that the imagery is somewhat too laboriously accumulated (Brett and Jones 277). But Lamb\x92s letter to Wordsworth is one of praise	Lit1
2	as to \x93bury all individuality or memory of what he was\x94 (Brett & Jones 277).4 Coleridge\x92s introduction of certain changes in the	Lit1
3	s and emotions under the circumstances to which every reader can relate (Brett & Jones 277). In other words, Lamb appreciates Coleridge\x92s poet	Lit1
4	n his story, Wordsworth describes him as a \x93person without character (Brett and Jones 277).\x94 It is his \x93ghoulish appearance (Eilenberg 40)	Lit1
5	as overwhelm and bury all individuality or memory of what he was\x97 (Brett & Jones 277). 5 Leah Richards-Fisher puts the argument in these wo	Lit1
6	that he himself can make the transition in their company (89). 56 See R.L Brett, Reason & Imagination: A study of Form & Meaning in Four Poems, (	Lit1
7	to this edition and are incorporated in the text of this study as Brett with relevant page no(s). 57 For details see Man and His Symbols, 60	Lit1

Figure D3.

state to provide a patronage for cultural promotion. In the same article, Faiz says, \x93These problems (major cultural problems) can be effectively	Lit
, p. 36). Commenting on the nature of much publicized universal culture, Faiz (1949) in \x93Towards a Planetary Culture\x94, conceptualises a plan	Lit
lonial writers follow bourgeois literary pattern of behaviour and thought. Faiz (n.d) in \x93Decolonising Literature\x94 suggests the ways and mean	Lit
and cultural identity. To decolonize the literature of the colonized nations, Faiz evaluates the two extreme positions: 1) the total rejection of the forei	Lit
erary form he considers most suitable to his genius and subject. However, Faiz suggests the moderate policy of \x84gradualism.. The policy of gradu	Lit
semantic base of our languages and to expand the number of the readers. Faiz emphasises that Asian and African literature should be taught at univ	Lit
and Africa to certify a writer as international by providing him readership. Faiz exhorts upon the Afro-Asian writers to play vital role in decolonizing	Lit
Afro-Asian writers to play vital role in decolonizing their literature. 2.3.4.2 Faiz\x92s Vision of Literature and the Artist Faiz does not believe in	Lit
izing their literature. 2.3.4.2 Faiz\x92s Vision of Literature and the Artist Faiz does not believe in the cathartic role of art. He affirms that poetry	Lit
being as a purposive art. In an interview with Muzaffar Iqbal (1981) in \x93 Faiz ka Taraqi Pasand Tehreek par Izhar-e-Khayal\x94 (Faiz.s Conversation	Lit
qbal (1981) in \x93Faiz ka Taraqi Pasand Tehreek par Izhar-e-Khayal\x94 (Faiz.s Conversation on Progressive Movement), Faiz says that in the age o	Lit
k par Izhar-e-Khayal\x94 (Faiz.s Conversation on Progressive Movement), Faiz says that in the age of ignorance when man was superstitious and	Lit
ch has been ignored in the textbook histories of the forces of dominance. Faiz affirms that in this struggle to uphold truth poets are not alone, they	Lit
uphold truth poets are not alone, they enjoy the support of the masses. Faiz rejects the myth of the superiority of western literary tradition. A litera	Lit
o, the literary tradition of a particular region cannot claim for universality. Faiz considers it a tragedy of the people and the writers of the subcontinent	Lit
and has no relevance with our culture and social circumstances. However, Faiz expresses optimism about the future of purposive view of art in Pakis	Lit
new dimensions to our writers. Faiz (n.d.) clearly defines the duties and commitments of the writers of to	Lit
In \x93Writers, Where do you Stand\x94, Faiz says that a serious writer must openly denounce injustices of past and	Lit
or a just social order. Focusing on the socio-political scenario of Pakistan, Faiz believes that serious writers should remind the readers of the sufferin	Lit

Figure D4.

state to provide a patronage for cultural promotion. In the same article, (p. 36). Commenting on the nature of much publicized universal culture, colonial writers follow bourgeois literary pattern of behaviour and thought and cultural identity. To decolonize the literature of the colonized nations, every form he considers most suitable to his genius and subject. However, semantic base of our languages and to expand the number of the readers. and Africa to certify a writer as international by providing him readership. Afro-Asian writers to play vital role in decolonizing their literature. 2.3.4.2	Faiz says, 'These problems (major cultural problems) can be effectively (1949) in 'Towards a Planetary Culture', conceptualises a plan (n.d) in 'Decolonising Literature' suggests the ways and means. Faiz evaluates the two extreme positions: 1) the total rejection of the foreign suggests the moderate policy of 'gradualism'. The policy of gradualism emphasises that Asian and African literature should be taught at universities. Faiz exhorts upon the Afro-Asian writers to play vital role in decolonizing their literature. Faiz's Vision of Literature and the Artist Faiz does not believe in the cathartic role of art. He affirms that poetry is a purposive art. In an interview with Muzaffar Iqbal (1981) in 'Faiz ka Taraqi Pasand Tehreek par Izhar-e-Khayal' (Faiz's Conversation on Progressive Movement), Faiz says that in the age of ignorance when man was superstitious and believed	Lit
uphold truth poets are not alone, they enjoy the support of the masses. So, the literary tradition of a particular region cannot claim for universality. and has no relevance with our culture and social circumstances. However, new dimensions to our writers. In 'Writers, Where do you Stand' (1949), Faiz says that a serious writer must openly denounce injustices of past and present. Focusing on the socio-political scenario of Pakistan, Faiz believes that serious writers should remind the readers of the suffering	Faiz affirms that in this struggle to uphold truth poets are not alone, they reject the myth of the superiority of western literary tradition. A literary tragedy of the people and the writers of the subcontinent expresses optimism about the future of purposive view of art in Pakistan. Faiz (n.d.) clearly defines the duties and commitments of the writers of today.	Lit

Figure D5.

Concordance Hits 5		
Hit	KWIC	File
1	ive abounds with suggestive erotic imagery evoking sensual responses. Robinson (1980) in 'Hardy and Darwin' discusses Darwin's 'treasure	Lit
2	Roger Robinson does not undermine the other two factors 'environment and	Lit
3	individuals particularly those with 'over evolved sensitivity' (139). Robinson (1997) studies the works of prominent American playwrights like	Lit
4	war, success, and personal freedom. The Other American Drama by Marc Robinson [80] explaining the grim past that shaped O'Neill's vision	Lit
5	with O'Neill, the ocean is a vast incubatory of metaphor. Robinson Crusoe attracted attention and readership. There developed a new reading public was getting ready. Defoe's	Lit

Figure D6.

Concordance Hits 3		
Hit	KWIC	File
1	ce to Darwin and his scientific theories is perceptible in his works. Penny Boumelha (1982) in Thomas Hardy and Women: Sexual Ideology and Nar	Lit1.1
2	of sexual ideology and points out certain contradictions inherent in them. Boumelha takes into account the modes of narration in which female char	Lit1.1
3	ow their points of similarities and dissimilarities from Hardy's women. Boumelha believes that the actual dilemma of Hardy's females is not t	Lit1.1

Figure D7.

Concordance Hits 3		
Hit	KWIC	File
1	al ideals and ideological pressures' (140) with the exception of Jude. Langland (1984) in 'Society and Self in George Eliot, Thomas Hardy and	Lit1
2	Elizabeth Langland elucidates that the persistent tussle between the natural and acc	Lit1
3	le to confront the social norms by remaining within their limitations (82). Langland's analysis of Tess of the D'Urbervilles reflects the constructiv	Lit1



Figure D8.

Concordance Hits 3			
Hit	KWIC		File
1	life of sensation which is invaded by the dominant male attitudes. Ann L. Ardis (1990) in Erotomania takes into account reviews pertinent to		Lit
2	is novels; particularly, Tess of the D'Urbervilles and Jude the Obscure. Ardis argues in favour of New Woman Fiction unlike Mrs. Oliphant who fi		Lit
3	deal with sexuality has been the sole purpose of the author. Furthermore, Ardis criticizes Zola, under whose influence this sort of literature flourishe		Lit

## Appendix E

### Concordance Instances in Biotechnology

Figure E1.

	Bush-Jacoby- Preferred substrates	Inhibited by	Represer	Bio.Tech
A \x{DF} lactamase classification schemes (Drawz and Bonomo, 2010)	Ambler Class	Bush et al., 1995; Harada et al., 2008). These enzymes are p	Bio.Tech	
from functional group 2b and \x{93e}\x{94} stands for extended spectrum activity (Bush et al., 1995; Livermore, 1995). The ESB		from functional group 2b and \x{93e}\x{94} stands for extended spectrum activity (Bush et al., 1995; Livermore, 1995). The ESB	Bio.Tech	
ack the ability to hydrolyze extended spectrum cephalosporins to any significant extent (Bush, 2012) and various genotypes are known. Of these, TE		ack the ability to hydrolyze extended spectrum cephalosporins to any significant extent (Bush, 2012) and various genotypes are known. Of these, TE	Bio.Tech	
of ESBs. More than 600 ESBs have been recognized to date (Jacoby G and Bush, 2012). Majority of SHV-type ESBs are identified in tl		of ESBs. More than 600 ESBs have been recognized to date (Jacoby G and Bush, 2012). Majority of SHV-type ESBs are identified in tl	Bio.Tech	
ESBs have been well recognized (http://www.lahey.org/Studies) (Jacoby G and Bush, 2012). 1.8.1.3 CTX-Ms. An E. coli strain was found wi		ESBs have been well recognized (http://www.lahey.org/Studies) (Jacoby G and Bush, 2012). 1.8.1.3 CTX-Ms. An E. coli strain was found wi	Bio.Tech	
/Studies/temtable.asp) and most of them show ESB activity (Jacoby G and Bush, 2012). On the basis of phylogenetic study, they are div		/Studies/temtable.asp) and most of them show ESB activity (Jacoby G and Bush, 2012). On the basis of phylogenetic study, they are div	Bio.Tech	
at present (http://www.lahey.org/Studies/other.asp#table1) (Jacoby G and Bush-Jacoby-Medeiros scheme, show very high hydrolytic a		at present (http://www.lahey.org/Studies/other.asp#table1) (Jacoby G and Bush-Jacoby-Medeiros scheme, show very high hydrolytic a	Bio.Tech	
lactamases belonging to Ambler class D and placed in functional group 2d of Bush et al., 1995). Most of the OXA-type \x{DF} lactamases de		lactamases belonging to Ambler class D and placed in functional group 2d of Bush et al., 1995). Most of the OXA-type \x{DF} lactamases de	Bio.Tech	
. Moreover, they are not inhibited by \x{DF} lactamase inhibitors to a great extent (Bush, 2012; Naas et al., 2008). 1.8.1.5 PER, GES-1, VEB-1 an		. Moreover, they are not inhibited by \x{DF} lactamase inhibitors to a great extent (Bush, 2012; Naas et al., 2008). 1.8.1.5 PER, GES-1, VEB-1 an	Bio.Tech	
also exhibit hydrolytic activity towards cephalosporins (Danel et al., 1999; Jacoby G and Bush, 2008; Quinn et al., 1989). The dissemination of ESB-		also exhibit hydrolytic activity towards cephalosporins (Danel et al., 1999; Jacoby G and Bush, 2008; Quinn et al., 1989). The dissemination of ESB-	Bio.Tech	
recognition of more dominant SHV and TEM enzymes, and CTX-M type ESBs (Bush and Jacoby, 2010; Zheng and Tang, 2012). Antibiotics		recognition of more dominant SHV and TEM enzymes, and CTX-M type ESBs (Bush and Jacoby, 2010; Zheng and Tang, 2012). Antibiotics	Bio.Tech	
towards carbapenems and amikacins which could be a potential threat in near future (Bush and Jacoby, 2010; Mammari et al., 2010). AmpC \x{DF}		towards carbapenems and amikacins which could be a potential threat in near future (Bush and Jacoby, 2010; Mammari et al., 2010). AmpC \x{DF}	Bio.Tech	
sociation with outer membrane proteins can result in resistance towards carbapenems (Bush, 2007). Laboratory detection of carbapenemases and l		sociation with outer membrane proteins can result in resistance towards carbapenems (Bush, 2007). Laboratory detection of carbapenemases and l	Bio.Tech	

Figure E2.

KWIC	File
and their variants emerged conferring resistance to these new compounds (Bradford, 2001). Thus far, more than 940 \x{DF} lactamases have been doc	Bio.Te
ted worldwide and found in other members of Enterobacteriaceae family (Bradford, 2001). Of the numerous \x{DF} lactamases described, extended sp	Bio.Te
us infections caused by highly resistant gram negative bacteria in 1980s (Bradford, 2001; Paterson and Bonomo, 2005). The newly developed anti	Bio.Te
only detected in Klebsiella pneumoniae and other gram negative bacteria (Bradford, 2001; Paterson and Bonomo, 2005). In 1983, a Klebsiella ozaena	Bio.Te
Bradford, 2001; Paterson and Bonomo, 2005). 1.8.1.2 TEM. A \x{DF} lactam	Bio.Te
aeruginosa and the outbreak of these enzymes have also been reported (Bradford, 2001). Over 200 TEM-type \x{DF} lactamase have been document	Bio.Te
nes are also described in non-Enterobacteriaceae gram negative bacteria (Bradford, 2001; Harada et al., 2008; Paterson and Bonomo, 2005). 1.8.2 G	Bio.Te
of non TEM and non SHV ESBs included in Class A \x{DF} lactamases (Bradford, 1999). 1.10 Pulse field gel electrophoresis. From early 1990s, F	Bio.Te

Figure E3.

KWIC	File
2b and \x{93e}\x{94} stands for extended spectrum activity (Bush et al., 1995; Harada et al., 2008). These enzymes are produced by bacteria in response	Bio.Te
ability of extended spectrum of this \x{DF} lactamase, designated as SHV-2 (Harada et al., 2008). A substitution of Lysine for Glutamate at the positio	Bio.Te
way as observed in SHV-type ESBs (Cant\x{F3}n et al., 2008a; Harada et al., 2008). However, worldwide disseminated TEM-type ESBs a	Bio.Te
closely related to CTX-M-2 rather than CTX-M-1 (Bauernfeind et al., 1996a; Harada et al., 2008). Among most worldwide disseminated \x{DF} lactama	Bio.Te
apenems. However, they are poorly affected by \x{DF} lactamase inhibitors (Harada et al., 2008; Poirel et al., 2000). The genes encoding plasmid medi	Bio.Te
and non SHV ESBs included in Class A \x{DF} lactamases (Bradford, 2001; Harada et al., 2008; Paterson and Bonomo, 2005). 1.8.2 Global epidemiol	Bio.Te
s: conferring resistance to extended spectrum cephalosporins Harada et al., 2008; Naas et al., 2008; Paterson and Bonomo, 2005). 1.9.1	Bio.Te
and inhibition by clavulanic acid (Harada et al. 2001). The exact role of MATP is not yet known, but Medaka	Bio.Te





, high proportion of variability was observed [74]. A research study was conducted by Mahmud [et al.](#), (2008) to describe the genetic diversity of *Enterobacteriaceae* are etiological agents whose natural habitat is human intestinal tract (Holt [et al.](#), 1994; Ryan and Drew, 2010). *Enterobacteriaceae* bacteria are facultative anaerobes or aerobes, and motile species have peritrichous flagella (Holt [et al.](#), 1994; Ryan and Drew, 2010). The members of this species show active metabolism at 25-30 °C (Brooks and Carroll, 2010b; Holt [et al.](#), 1994). They are catalase and urea hydrolysis while they are catalase and methyl red positive (Holt [et al.](#), 1994). The cell wall, cell membrane and internal organelles (UPEC), wound infections, bacteremia and meningitis (meningitis-associated *E. coli*, MNEC) (Kaper [et al.](#), 1994; MacFaddin, 1980). Optimal growth temperature is 37 °C (Kaper [et al.](#), 1994; MacFaddin, 1980). *yjaA* (K-12 encoding hypothetical protein) and *TSPE4.C2* (non-coding region) (Clermont [et al.](#), 2004). Phylogenetically, *E. coli* strains are classified into 7 pathotypes. *E. coli* is prevalent predominantly in normal human intestinal flora as facultative members (Selander [et al.](#), 2000). On the basis of amplicons, strains are classified into 7 pathotypes and genetic traits that make them distinct from commensal pathogens (Picard [et al.](#), 1987). Pathogenic *E. coli* have virulence factors (e.g., *IbeA*, also called *Ibe10*) and siderophores (e.g., the aerobactin system) (Huang [et al.](#), 1999). The known virulence factors of *E. coli* include *Ibe10* and siderophores (e.g., the aerobactin system) (Huang [et al.](#), 1995; Johnson, 1991; Russo [et al.](#), 1995; Johnson, 1991; Russo [et al.](#), 1995). They are very important for the prevention of extraintestinal infections caused by *E. coli* (Langermann [et al.](#), 1998). The epidemiological studies reveal that *E. coli* infections (UTIs), 10-20% are caused by a small clonal group of *E. coli* (Manges [et al.](#), 1997). Among all urinary tract infections, *E. coli* is the most common pathogen. Of these clones had been reported in multiple countries on three continents (Coque [et al.](#), 2008). During a study of ESBLs produced by *E. coli*, it was reported in multiple countries on three continents (Coque [et al.](#), 2008b; Nicolas-Chanoine [et al.](#), 2008b; Nicolas-Chanoine [et al.](#), 2008). They have been described among CTX-M producing ST131 *E. coli* in most studies (Rogers [et al.](#), 2008). Antimicrobial resistance against

Figure E7.

conserved A position of 16S rRNA of 30S ribosomal subunit of bacteria (Bogaerts [et al.](#), 2007; Yan [et al.](#), 2004). The acquisition of 16S rRNA of 30S ribosomal subunit of bacteria (Bogaerts [et al.](#), 2007; Yan [et al.](#), 2004). The acquisition of resistance to aminoglycosides by plasmid mediated 16S rRNA methylases is a newly emerged mechanism (Bogaerts [et al.](#), 2007; Yan [et al.](#), 2004). The acquisition of resistance to genes encoding 16S rRNA methylases were *armA*, *rmtA*, *rmtB*, *rmtC* and *rmtD* (Bogaerts [et al.](#), 2007; Cant<sup>o</sup>, 2009). 1.5 Resistance in the very beginning after the discovery of penicillin (Abraham and Chain, 1940; Kong [et al.](#), 2010). Production of enzymes, *β*-lactamase and efficient mechanisms to counteract these compounds by hydrolyzing *β*-lactam ring (Babic [et al.](#), 2010). The first identified *β*-lactamase through 4 is based on biochemical and functional characteristics of the enzymes (Ambler, 1980; Bush [et al.](#), 2006). The first identified *β*-lactamase VHS-, PER-, SHV- and TEM-derived *β*-lactamases which act against penicillin (Couture [et al.](#), 1995). 1.6.1 Molecular grouping Ambler class A enzymes give resistance to imipenem and meropenem which can be inactivated by EDTA (Kong [et al.](#), 1992). Ambler class B enzymes include *β*-lactamase. This class includes extended spectrum *β*-lactamases, oxacillinases, and ampicillinases (Kong [et al.](#), 2010). Ambler group C enzymes are *β*-lactamase whilst they are not well inhibited by almost all *β*-lactam inhibitors (Bush [et al.](#), 2010). 1.6.2 Functional grouping of *β*-lactamase multiple mechanisms of resistance to neutralize the effect of the same drug (Boucher [et al.](#), 1995). The classification schemes of *β*-lactamase patient named Temoneira in Greece, hence labeled as TEM (Datta and Kontomichalou, 1965; Medeiros [et al.](#), 2009). Among all acquired mechanisms of resistance, *β*-lactamase is the most common. *β*-lactamase is capable of neutralizing extended spectrum cephalosporins and penicillins (Kolar [et al.](#), 1985). Within a few years of isolation of *β*-lactamase functional group 2b and *β*-lactamase 94 stands for extended spectrum activity (Bush [et al.](#), 2010).

Figure E8.







cordance Hits	12	File
KWIC		
enzymes activities are also decreased at low temperature (Oquist et al., 1987). 2.2.9 Gene expression Seasonal changes alter the patterns of gene	Bot.Sci1.	
d, 1997). Extrapolating from previous surveys of fungal diversity (Agerer, 1987; Hawksworth et al., 1995), roughly 90 % of the species of fungi	Bot.Sci2.	
en to form ectomycorrhizal association with boletes (Newman & Reddell, 1987; Lee et al., 1997; Beatriz et al., 2006; Sarwar et al., 2011). In forests	Bot.Sci2.	
gal systematists, chemists, ecologists, and mycorrhizal biologists (Agerer, 1987; Hawksworth et al., 1995; Arpin & K\FChner, 1977; Besl & Bresinsky, 1997; Both, 1993; Gill & Steglich, 1987; Moser, 1983; Singer, 1986; Smith & Thiers, 1971; Watling, 1970). H	Bot.Sci2.	
in & K\FChner, 1977; Besl & Bresinsky, 1997; Both, 1993; Gill & Steglich, 1987; Moser, 1983; Singer, 1986; Smith & Thiers, 1971; Watling, 1970). H	Bot.Sci2.	
of DNA-based PCR and taxon specific primers (Mullis & Faloona, 1987) has made the detection and study of fungi increasingly feasible. The	Bot.Sci2.	
ermination (Picman and Picman 1984; Kohli et al. 1985; Kumari and Kohli, 1987). In places where rainfall is irregular, the mechanism of dormancy pr	Bot.Sci5.	
called Indian Childhood Cirrhosis (ICC) in children (Tanner and Mattocks, 1987) It is not necessary that the allergic reactions caused by P.	Bot.Sci5.	
competitive than <i>Setaria viridis</i> (green foxtail). Likewise, Martin and Field (1987), conducted a competition experiment between wild oat ( <i>Avena fatua</i>	Bot.Sci5.	
+ and other salts in their above ground tissue (Gorham et al., 1987; Glenn et al., 1999). Some of the halophytes are ion accumulators and	Bot.Sci7.	
the xylem stream at specific sites, and 3) succulence (Boursier et al., 1987; Huang and Steveninck, 1989; Yadav et al., 2011). The adaptive mech	Bot.Sci7.	
<i>T. turgidum</i> and doubling F1 hybrid with colchicine. Gill and Raupp, (1987) crossed <i>T. tauschii</i> directly with hexaploid wheat and the F1 hybrid (	Bot.Sci8.	

Figure F3.

cordance Hits	12	File
KWIC		
enzymes activities are also decreased at low temperature (Oquist et al., 1987). 2.2.9 Gene expression Seasonal changes alter the patterns of gene	Bot.Sci1.	
d, 1997). Extrapolating from previous surveys of fungal diversity (Agerer, 1987; Hawksworth et al., 1995), roughly 90 % of the species of fungi	Bot.Sci2.	
en to form ectomycorrhizal association with boletes (Newman & Reddell, 1987; Lee et al., 1997; Beatriz et al., 2006; Sarwar et al., 2011). In forests	Bot.Sci2.	
gal systematists, chemists, ecologists, and mycorrhizal biologists (Agerer, 1987; Hawksworth et al., 1995; Arpin & K\FChner, 1977; Besl & Bresinsky, 1997; Both, 1993; Gill & Steglich, 1987; Moser, 1983; Singer, 1986; Smith & Thiers, 1971; Watling, 1970). H	Bot.Sci2.	
in & K\FChner, 1977; Besl & Bresinsky, 1997; Both, 1993; Gill & Steglich, 1987; Moser, 1983; Singer, 1986; Smith & Thiers, 1971; Watling, 1970). H	Bot.Sci2.	
of DNA-based PCR and taxon specific primers (Mullis & Faloona, 1987) has made the detection and study of fungi increasingly feasible. The	Bot.Sci2.	
ermination (Picman and Picman 1984; Kohli et al. 1985; Kumari and Kohli, 1987). In places where rainfall is irregular, the mechanism of dormancy pr	Bot.Sci5.	
called Indian Childhood Cirrhosis (ICC) in children (Tanner and Mattocks, 1987) It is not necessary that the allergic reactions caused by P.	Bot.Sci5.	
competitive than <i>Setaria viridis</i> (green foxtail). Likewise, Martin and Field (1987), conducted a competition experiment between wild oat ( <i>Avena fatua</i>	Bot.Sci5.	
+ and other salts in their above ground tissue (Gorham et al., 1987; Glenn et al., 1999). Some of the halophytes are ion accumulators and	Bot.Sci7.	
the xylem stream at specific sites, and 3) succulence (Boursier et al., 1987; Huang and Steveninck, 1989; Yadav et al., 2011). The adaptive mech	Bot.Sci7.	
<i>T. turgidum</i> and doubling F1 hybrid with colchicine. Gill and Raupp, (1987) crossed <i>T. tauschii</i> directly with hexaploid wheat and the F1 hybrid (	Bot.Sci8.	

Figure F4.

cordance Hits	12	File
KWIC		
cies belonging to 18 different families were studied (Ahmad and Hussain, 2008). In national park Margilla hills, 50 species belonging to 27 different	Bot.Sci1	
studied that are used in different gastrointestinal diseases (Jan et al., 2008). In Chiltan National Park, Hazariogangi, Baluchistan, 124 plant speci	Bot.Sci1	
avin and thiamine were active phytochemicals (Poornima and Ravishnkar, 2008). Cassia species have greater therapeutic value in different diseases	Bot.Sci1	
6). Various other medicinal plants such as <i>Azela africana</i> (Akinpelu et al., 2008), <i>Senna alata</i> (Sule et al., 2010), <i>Garcinia kola</i> (Heckel) (Adegboye et	Bot.Sci1	
08), <i>Senna alata</i> (Sule et al., 2010), <i>Garcinia kola</i> (Heckel) (Adegboye et al., 2008) contains tannins as active compounds. c. Saponins Saponins are a	Bot.Sci1	
are <i>S. potatorium</i> (Mallikharjuna et al., 2007), <i>A. africana</i> (Akinpelu et al., 2008), <i>I. tinctoria</i> (Renukadevi and Sultana, 2011), <i>Citrullus colocynthis</i> (N	Bot.Sci1	
ant properties than ethanolic extract (Koskal et al., 2010). Borchardt et al. (2008) found that some important medicinal plant species such as <i>Rumex</i>	Bot.Sci1	
annum etc. are more important (Sidhu et al., 2007). Jan et al. (2008) reported that from Kaghan valley, KPK Pakistan, out of 43 medicina	Bot.Sci1	
, inflammation of mucous membrane of gastro-intestinal tracts (Jan et al., 2008). <i>A. africana</i> is also used to treat diarrhea and gastrointestinal diseas	Bot.Sci1	
also used to treat diarrhea and gastrointestinal diseases (Akinpelu et al., 2008). <i>Calophyllum brasiliense</i> , <i>Lonchocarpus oaxacensis</i> and <i>L. guatema</i>	Bot.Sci1	
al., 2012). Several other plants such as onion and ginger (Krishnaswamy, 2008), basil (Prakash and Gupta, 2005), green tea (Jankun et al., 1997) are	Bot.Sci1	
tex mognoliae officinalis showed high antimicrobial activities (Chan et al., 2008). Iranian medicinal plants such as <i>Quercus branti</i> , <i>Punica granatum</i> , (	Bot.Sci1	
ide annually. According to IPCC (2007), CO2 has increased to 385 ppm in 2008 while it was 280 ppm in 1780s while it is likely to	Bot.Sci1	
reased by changing precipitation patterns and temperature (Grosso et al., 2008). Leaf photosynthesis and nitrogen accumulation decreased due to i	Bot.Sci1	
and disturbed plant water relation in maize seedlings (Farooq et al., 2008). In rice seedlings wilting occurred at low temperature (Yoshida et al	Bot.Sci1	
sful environment by reducing oxidative stress (Verbruggen and Hermans, 2008). Free proline accumulation is common among all plant species unc	Bot.Sci1	
and flavonoids play a role in stress conditions (Wahid and Tariq, 2008). These are involved in thermotolerance such as in water melon (Riv	Bot.Sci1	
t. Their levels virtually increased under stress condition (Wahid and Tariq, 2008). Isoprenoids are another class of secondary metabolite synthesiz	Bot.Sci1	
which then declined in summer and rainy season (Sen and Mukherji, 2008). Heat stress affects photosynthesis by reduction in CO2 assimilation	Bot.Sci1	
ted by rainy season, temperature and glasshouse conditions (Abera et al., 2008). In myrtle races rooting percentage in cutting of different races of	Bot.Sci1	

Figure F5.



ordance Hits	177	
KWIC		File
<p>records were high, 33 species and 30 species respectively. Kwiatkowski (2008) presented the list of vascular plants from Kaczawskie and Plateau, F bohemicum were the new record for the area. Santos et al. (2008) listed 43 families, 130 genera, and 225 species along with species r the remaining families had 3 or less than 3 species. Parveen et al. (2008) recorded 79 plants species, 66 genera under 32 families from Dure (%), and cryptophytes (2.3%). The herbaceous/woody ratio was 1.4. Mood (2008) recorded that phanerophytes comprised 11.45%, chamaephytes 20 ylls (13.00%), leptophylls (8.96%) and megaphylls (4.03%). Parveen et al. (2008) reported high percentage of chaemophytes from Dureji game resei wild crop species and the endangered useful plants (Cotton, 1996). Mood (2008) reported 160 species belonging to 128 genera and 37 families from medicinal plants, 47.8% pastoral, 8.3% poisonous and 4% with industrial (2008) described ethnoecological aspects of 474 taxa belonging to 64 fam 25 uses. Ozturk et al. (2008) collected information from traditional healers on the use of 45 mec uses tools for which these plants are used. Hussain et al. (2008) carried out phytosociological sampling, structure, age and growth r Ghats, should be conserved on a priority basis. Wahab et al. (2008) analysed the plant distribution in site because both species had resistance for grazing. Arshad et al. (32) Cholistan desert. They reported the association icum indicated better organic matter and low salinities. Malik &amp; Hussain (2008) conducted a study to work out the relationship between remote ser nt indicated correspondence with their spectral signatures. Parveen et al. (2008) documented the floristic and phytosociology in the threatened habi nostachya, Saccharum spontaneum found in 4 habitats. Qureshi &amp; Bhatti (2008) concluded that species composition in the different habitat of Nara over major area is characterized by xerophytic adaptation. Wazir et al. (2008) identified 5 vegetation types viz: crassulescent steppes, chamaephy -1 among the mutants derived from the parent C-44. Daur et al. (2008) studied the variability of grain yield and shoot dry weight in and leaflets showing no need of mineral supplementation. Farooq et al. (2008) determined the contents of lead, copper, chromium, zinc and cadmi kg-1) as compared to other parts of each vegetable. Hussain &amp; Durrani (2008) analyzed the mineral composition of some forage grasses e advancing phenological growth stages in most plants. Rehman &amp; Iqbal (41 and shrubs at</p>		

Figure F6.

ordance Hits	177		File
KWIC			
<p>and leaflets showing no need of mineral supplementation. Farooq et al. (2008) determined the contents of lead, copper, chromium, zinc and cadmi kg-1) as compared to other parts of each vegetable. Hussain &amp; Durrani (2008) analyzed the mineral composition of some forage grasses e advancing phenological growth stages in most plants. Rehman &amp; Iqbal (41 and shrubs at Bot.Sci4.</p> <p>leaves of both E. sativa and C. oxyacantha. Taiga et al. (2008) reported the accumulation of Fe, Pb, Cu, Cr and Zn in Bot.Sci4.</p> <p>54.16\xB12.06% and 7.24\xB10.30 MJ/kg DM, respectively. Hameed et al. (2008) carried out the proximate chemical analyses of dry vegetables in Ni Bot.Sci4.</p> <p>of cattle removal or high-density, short-duration. Osuga et al. (2008) reported the highest ash contents, proteins, crude fibers, fats &amp; oils Bot.Sci4.</p> <p>different area of Pakistan is summarized as follows. Sultan et al. (2008) Bot.Sci4.</p> <p>and lowest for Cymbopogon schoenanthus (19.33\xB11.84%). Rahim et al. (49 evaluated the feeding value of five browse foliages (Acacia brevispica, Bot.Sci4.</p> <p>and vine species were identified from 141 sampling quadrats. Heenan et al. (2008) determined palatability of locally available free rangeland grasses in Bot.Sci4.</p> <p>, spontaneous occurrence, garden discard and intentional release. (2008) determined the palatability of marginal land grasses of Trans-Hima Bot.Sci4.</p> <p>52 Naughton-Treves et al. (2008) reported new records of Naturalized and Casual plants for the flora Bot.Sci4.</p> <p>poverty, and unsustainable land use in developing countries. Winter et al. (2008) viewed that parks are effective at protecting deforestation. Initiative Bot.Sci4.</p> <p>level of European-wide harmonization. De Lange et al. (2009) used the (2008) evaluated a common approach to forest biodiversity. The results sh Bot.Sci5.</p>			

Figure F7.

ordance Hits	126		
KWIC			File
been started from the discovery of quinine, cocaine, codeine etc. (Butler, 2004). In Europe, herbal medicines are very popular. Their sale of herbal			Bot.Sci1
against predation by insects, microorganisms and herbivores (Hartmann, 2004). According to an estimate there are 2619 different phytochemicals i			Bot.Sci1
osides, flavonoids, saponins, terpenes and other polysaccharides (Okwu, 2004). These phytochemicals are taken as fresh plant products such as fruit			Bot.Sci1
scavenge these ROS and reduce the risk of tumor formation (Okwu, 2004). They are also beneficial for heart diseases due to their antioxidant			Bot.Sci1
al., 2005). Herbs and spices are important sources of antioxidants (Okwu, 2004). Chinese medicinal plants (Cinnamomun cassia, Areca catechu var. i			Bot.Sci1
oxidant properties and were effective against different diseases (Atawodi, 2004; Ivanova et al., 2005). Plants are rich sources of antioxidants. Labisia			Bot.Sci1
important in anti-inflammatory and analgesic properties (Hajhashemi et al., 2004). Some studies of medicinal plants in treatment of different diseases			Bot.Sci1
ch as lipases, proteases etc., and improve digestion (Platel and Srinivasan, 2004). Ispagula (Plantago ovata) is an important plant used for different (			Bot.Sci1
, which show anticancer properties due to having antioxidants (Cai et al., 2004). Many anticancer drugs such as taxol, vincristine, vinblastine, topot			Bot.Sci1
growth was reduced that reduced the plant survival (Ashraf and Hafeez, 2004). Plant biomass was reduced due to a decrease in leaf area			Bot.Sci1
under high temperature as reported in wheat kernels (Plaut et al., 2004). Some cellular and biochemical changes occur in plants due to low			Bot.Sci1
all stages of life cycle under water stress (Quan et al., 2004). Soluble sugars maintain water balance in plants cells. Sugars are p			Bot.Sci1
also reported to induce the stress responsive genes (Price et al., 2004). 2.2.4 Plant hormones Plant hormones are important in plant com			Bot.Sci1
level and protected the plant from oxidative damage (Jiang and Zhang, 2004). Ethylene is a gaseous hormone, produced under different stress α			Bot.Sci1
involved in thermotolerance such as in water melon (Rivero et al., 2004). Anthocyanins, a subclass of phenolics, are produced in plants in str			Bot.Sci1
secondary metabolite synthesized via mevolonic acid pathway (Funk et al., 2004). Its production also reduces oxidative stress and protects the photo			Bot.Sci1
its water and osmotic potential was reduced immediately (Grover et al., 2004). High temperature changes the cell water relation by changing the l			Bot.Sci1
es stomatal conductance and net photosynthesis rate (Ashraf and Hafeez, 2004; Wahid et al., 2007). High temperature caused leaf dehydration that			Bot.Sci1
. Thylakoid membranes are highly sensitive to heat stress (Wise et al., 2004). In photosynthesis the photosystem (PS)-II and water splitting are n			Bot.Sci1
of electron flow from PSII towards PSI (De Ronde et al., 2004). It also effect on Mn stabilizing proteins (32 kDa) in PSII and			Bot.Sci1

Figure F8.

ordance Hits	91		
KWIC			File
utiferae, Asclepiadaceae, solanacaeae, and Araliaceae (Schippmann et al., 2002). These are taken as poultices, tinctures, powder form, decoctions or			Bot.Sci1
ies for Rs. 14.733 million, which increased to 122 million (Shinwari et al., 2002). 2.1.1 Medicinal plants and phytochemicals Plants synthesize many			Bot.Sci1
ndle formation during mitotic division of cells (Gali-Muhtasib and Bakkar, 2002). ROS promote tumor growth in living bodies, while plants with antic			Bot.Sci1
serum and reduce the risk of heart diseases (Banerjee and Maulik, 2002). Several other medicinal plants including Ginko (Mahady, 2001), Co			Bot.Sci1
loss of growth and yield (Mark and Davidho, 1991; Pastori and Foyer, 2002). High temperature alters different attributes of plant such as scorch			Bot.Sci1
acids ratio leading to membrane rupture and leakage (Savchanko et al., 2002). Severe heat stress inactivates chloroplast and mitochondrial enzym			Bot.Sci1
brane proteins and increased the unsaturated fatty acids (Savchenko et al., 2002). It also disrupts water, ions and organic solute movement across pl			Bot.Sci1
erent molecules of membranes and increased its fluidity (Savchenko et al., 2002). Injury to plasma membranes due to high temperature was much le			Bot.Sci1
membranes from stress injury (Makela et al., 1999; Sakamoto and Murata, 2002). For Instance, in sugarcane it was accumulated under heat stress (W			Bot.Sci1
nes biosynthesis, regulation and homeostasis are changed (Maestri et al., 2002). Indole Acetic acid (IAA) is very important phytohormone synthesize			Bot.Sci1
regulation such as temperature stress, salinity and drought (Hose et al., 2002). It signals guard cells and cause stomatal closure that protect the			Bot.Sci1
biochemical processes that are important to plant survival (Maestri et al., 2002). Under high temperature, it is used in thermotolerance by induction			Bot.Sci1
ion of ethylene is different in different plants (Arshad and Frankenberger, 2002). For instance, in rosemary plant its production was different at predi			Bot.Sci1
and at maximum solar radiation in summer (Munne-Bosch et al., 2002). In pepper (Piper nigrum), ACC (1-aminocyclopropane- 1-carboxylic			Bot.Sci1
he other hormones that induce thermotolerance in tomato (Mazorra et al., 2002). 23			Bot.Sci1
nt as they denature metabolic enzymes and destroy nucleic acids (Mittler, 2.2.5 Antioxidants levels and activities Harsh environments cause oxidativ			Bot.Sci1
engers such as Ca <sup>2+</sup> in signal transduction pathways (Gabriela and Foyer, 2002). They cause peroxidation of lipids and denature other important bio			Bot.Sci1
reticulum are the major sites of ROS production (Sairam and Srivastava, 2002). Chloroplasts, mitochondria and endoplasmic reticulum are the maj			Bot.Sci1
messengers such as Ca <sup>2+</sup> in signal transduction 24 2002). All abiotic stresses cause injury to plants that are associated with			Bot.Sci1
pathway (Gabriela and Foyer, 2002). Antioxidant enzyme activities are also reduced under high tempera			Bot.Sci1



## Appendix G.

### Concordance Instances in Zoology

Figure G1.

cordance Hits	zB	File
KWIC		
<p>, effect of single metals on fish have been evaluated (Naz et al., 2008 ; Javed et al., 2008 ; Rauf et al., 2009 ; Abdel-Bakiet al., 2011 ; Godwin et al., 2011 ; Godwin et al., 2011 ; Azmat et al., 2012 ; Yaqub and Javed, 2012 ; Javed, 2012). However, the toxicity of contaminants in the natural aquatic environment has been evaluated using acute methods (Kai Sun et al., 1995; Kazlauskienė et al., 1999; Abdullah and Javed, 2006; Javed and Abdullah, 2006). However, in nature many species have a direct impact of metals (Jezierska and Witeska, 1995; Jezierska and Slominska, 1997; Abdullah and Javed, 2006). Fish Growth under Chronic Stress of Metals Fish growth is affected by chronic exposure to metals and other contaminants (Kane et al., 2005; Javed and Saeed, 2010). The larvae of rainbow trout (<i>Oncorhynchus mykiss</i>) are more sensitive to higher concentrations of metals (Kalay and Erdem, 1995; Hayat, 2009; Javed and Saeed, 2010). Azmat and Javed (2011) studied the bioaccumulation of chromium in gills, muscles, and liver of rainbow trout in their natural freshwaters that ultimately affected the fish fauna (Javed, 2012a). Therefore, these freshwater environments have become more polluted due to the discharge of various metals and their mixtures (Vosyliene et al., 2003; Javed et al., 2008). Svecovicus and Kazlauskienė (2011) evaluated the sub-lethal toxicity of copper inhibited the growth of fish, <i>Catla catla</i> (Parveen and Javed, 2010) which is one of the most common adverse effects of metals on fish. The 90-day fish were significantly least sensitive to all metals. Yaqub and Javed (2012) reported sensitivity of three species (<i>Labeo rohita</i>, <i>Cirrhina macleoti</i>) to accumulate copper, zinc, manganese and iron as compared to muscles. Javed (2012b) reported elevated levels of copper, cadmium, cobalt, nickel and arsenic also caused significant impact on fish growth (Reimer et al., 2002). Javed (2005) reported growth responses of major carps under sub-lethal concentrations of Cu+Cd+Zn+Ni+Co mixture (Javed, 2012a). Accumulation of metals in fish body organs indicate the adverse effect of physiological and environmental factors (Chidambaram, 1992). Javed and Saeed (2010) reported higher accumulation of iron in the liver of rainbow trout.</p>		

Figure G2.

cordance Hits	5	File
KWIC		
<p>ed by using acute methods (Kai Sun et al., 1995; Kazlauskienė et al., 1999; Abdullah and Javed, 2006; Javed and Abdullah, 2006). However, in nature many species have a direct impact of metals (Jezierska and Witeska, 1995; Jezierska and Slominska, 1997; Abdullah and Javed, 2006). Fish Growth under Chronic Stress of Metals Fish growth is affected by chronic exposure to metals and other contaminants (Kane et al., 2005; Javed and Saeed, 2010). The larvae of rainbow trout (<i>Oncorhynchus mykiss</i>) are more sensitive to higher concentrations of metals (Kalay and Erdem, 1995; Hayat, 2009; Javed and Saeed, 2010). Azmat and Javed (2011) studied the bioaccumulation of chromium in gills, muscles, and liver of rainbow trout in their natural freshwaters that ultimately affected the fish fauna (Javed, 2012a). Therefore, these freshwater environments have become more polluted due to the discharge of various metals and their mixtures (Vosyliene et al., 2003; Javed et al., 2008). Svecovicus and Kazlauskienė (2011) evaluated the sub-lethal toxicity of copper inhibited the growth of fish, <i>Catla catla</i> (Parveen and Javed, 2010) which is one of the most common adverse effects of metals on fish. The 90-day fish were significantly least sensitive to all metals. Yaqub and Javed (2012) reported sensitivity of three species (<i>Labeo rohita</i>, <i>Cirrhina macleoti</i>) to accumulate copper, zinc, manganese and iron as compared to muscles. Javed (2012b) reported elevated levels of copper, cadmium, cobalt, nickel and arsenic also caused significant impact on fish growth (Reimer et al., 2002). Javed (2005) reported growth responses of major carps under sub-lethal concentrations of Cu+Cd+Zn+Ni+Co mixture (Javed, 2012a). Accumulation of metals in fish body organs indicate the adverse effect of physiological and environmental factors (Chidambaram, 1992). Javed and Saeed (2010) reported higher accumulation of iron in the liver of rainbow trout.</p>		

Figure G3.

cordance Hits	136	File
KWIC		
<p>ated sewage and industrial effluents into the natural water bodies (Jabeen et al., 2012). Heavy metals in these waters are found in low concentrations and enter into the food chain and ultimately consumed by the human (Agbozu et al., 2007). In the majority of eco-toxicological studies, effect of single metals on fish have been evaluated (Naz et al., 2008 ; Javed et al., 2008 ; Rauf et al., 2009 ; Abdel-Bakiet al., 2011 ; Godwin et al., 2011 ; Godwin et al., 2011 ; Azmat et al., 2012 ; Yaqub and Javed, 2012 ; Javed, 2012). However, the toxicity of contaminants in the natural aquatic environment has been evaluated using acute methods (Kai Sun et al., 1995; Kazlauskienė et al., 1999; Abdullah and Javed, 2006; Javed and Abdullah, 2006). However, in nature many species have a direct impact of metals (Jezierska and Witeska, 1995; Jezierska and Slominska, 1997; Abdullah and Javed, 2006). Fish Growth under Chronic Stress of Metals Fish growth is affected by chronic exposure to metals and other contaminants (Kane et al., 2005; Javed and Saeed, 2010). The larvae of rainbow trout (<i>Oncorhynchus mykiss</i>) are more sensitive to higher concentrations of metals (Kalay and Erdem, 1995; Hayat, 2009; Javed and Saeed, 2010). Azmat and Javed (2011) studied the bioaccumulation of chromium in gills, muscles, and liver of rainbow trout in their natural freshwaters that ultimately affected the fish fauna (Javed, 2012a). Therefore, these freshwater environments have become more polluted due to the discharge of various metals and their mixtures (Vosyliene et al., 2003; Javed et al., 2008). Svecovicus and Kazlauskienė (2011) evaluated the sub-lethal toxicity of copper inhibited the growth of fish, <i>Catla catla</i> (Parveen and Javed, 2010) which is one of the most common adverse effects of metals on fish. The 90-day fish were significantly least sensitive to all metals. Yaqub and Javed (2012) reported sensitivity of three species (<i>Labeo rohita</i>, <i>Cirrhina macleoti</i>) to accumulate copper, zinc, manganese and iron as compared to muscles. Javed (2012b) reported elevated levels of copper, cadmium, cobalt, nickel and arsenic also caused significant impact on fish growth (Reimer et al., 2002). Javed (2005) reported growth responses of major carps under sub-lethal concentrations of Cu+Cd+Zn+Ni+Co mixture (Javed, 2012a). Accumulation of metals in fish body organs indicate the adverse effect of physiological and environmental factors (Chidambaram, 1992). Javed and Saeed (2010) reported higher accumulation of iron in the liver of rainbow trout.</p>		





Figure G6.

KWIC	File
of eradication program through developing proper treatment strategies (Boulard et al., 1996; O'Brien, 1998). This scheme is widely used to mo	Zool.Sc
etection of cattle grubs through ELISA has gained worldwide acceptance (Boulard, 1985; Martinez-Moreno et al., 1992; Otranto et al., 2001). 2.2.2	Zool.Sc
, the serodiagnosis has been widely used in many countries of the world (Boulard et al., 1996; Webster et al., 1997; Argente et al., 1996).	Zool.Sc
in the sera of infected animals and diagnose the cattle grub infestation (19 2.2.3 Serological Techni	Zool.Sc
s were commonly applied towards the larvae, but also against the adults (Boulard, 1985; Webster et al., 1997; Otranto et al., 2001). The major drawt	Zool.Sc
Boulard et al., 2008). Abdul-hak (1973) reported the seasonal occurrence	

Figure G7.

KWIC	File
reased seroprevalence in Korea, France, French Guiana and New Zealand (Choi et al., 1997; Baril et al., 1999; Carme et al., 2002; Lake et al., 2002). Rc	Zool.Sci6
ther studies conducted in Korea, France, French Guiana and New Zealand (Choi et al., 1997; Baril et al., 1999; Carme et al., 2002; Lake et al., 2002). Re	Zool.Sci6
ium compared to control in rainbow trout ( <i>Oncorhynchus mykiss</i> ). While, Choi et al. (2002) associated earlier reduction in PUFA with pollutant induc	Zool.Sci1

Figure G8.

KWIC	File
al., 2000; Coelho et al., 2003). A study from Chile by Claudia et al. (4.2.2 Worldwide Prevalence of Toxoplasmosis in Humans Different stuc	Zool.Sci6.1
indicating the alarming lack of efficacy of drugs (Da Cruz et al., 2010) found 39 percent seroprevalence in pregnant women in Valvadia P	Zool.Sci6.1
cy for all tested anthelmintics against GINs of sheep (Sheferaw and Asha, 2010). The prevalence of AR on 27 sheep farms was investigated using th	Zool.Sci8.1
against nematodes of sheep followed by LEV and ABZ (Tanveer et al., 2010). Comparative anthelmintic efficacy of doramectin, albendazole and	Zool.Sci8.1
anthelmintic drugs, followed by the imidazothiazoles and ML (Kumsa et al., 2010). The efficacy of 7 brands of ABZ against GINs in naturally infected s	Zool.Sci8.1
and <i>T. circumcincta</i> exhibited resistance to LEV and OXF (Saeed et al., 2010). Anthelmintic utilization and efficacy of commonly used anthelmini	Zool.Sci8.1
ian marine stage or Agenian European Land Mammal Age; Antoine et al., 2010). A questionnaire survey was conducted to determine the worm cor	Zool.Sci8.1
elcomme et al., 2001; Metais et al., 2009; Orliac et al., 2009; Antoine et al., 2010). In the Bugti Hills, the upper member of the Chitarwata Formation is	Zool.Sci9.1
higher concentrations of minerals and heavy metals than water (Ali et al., 2010). Large mammals are scarce, but they occur in various localities (Raz	Zool.Sci9.1
ish species, <i>Cirrhinus mrigala</i> , <i>Catla catla</i> and <i>Labeo rohita</i> (Hussain et al., 2010). Concentrations of heavy metals vary in water and sediment depen	Zool.Sci10
enopharyngodon idella, it was gills > liver > kidney > muscle (Malik et al., 2010, 2011). Various authors have reported detrimental effects of heavy r	Zool.Sci10
accumulation in fish also depends upon their trophic level. Yousafzai et al. (2010). Yousafzai and Shakoori (2008) reported the order of metal accumu	Zool.Sci10
season. The spatial and temporal 2010 suggested that omnivorous fish ( <i>Labeo dyocheilus</i> ) may bioaccumu	Zool.Sci10
variation were studied by Ahmad et al. (2010) who reported that Pb, Cd, Ni, Cu and Cr varied seasonally with	Zool.Sci10
s through self-regulating signal transduction mechanisms (Safahieh et al., 2010). Firat and Kargm (2010) studied the serum biochemistry of Nile tila	Zool.Sci10
signal transduction mechanisms (Safahieh et al., 2010). Firat and Kargm (2010) studied the serum biochemistry of Nile tilapia ( <i>Oreochromis nilotic</i>	Zool.Sci10
fish ( <i>Labeo rohita</i> ) than in farmed cultured freshwater fish (Sharma et al., 2010). Nutritionists suggested the ratio of .6/.3 should be 5 for daily diet;	Zool.Sci10
the flash of pollutants exposed fish. As for example, Konar et al. (2010) documented significant decrease in PUFA after exposure of cadmiu	Zool.Sci10
1976; Sakata, 1990) and vary with life stage, diet and environment (Nayak, 2010; Tapia-Paniagua et al., 2010; Dhanasiri et al., 2011). Apart from sym	Zool.Sci10
with life stage, diet and environment (Nayak, 2010; Tapia-Paniagua et al., 2010; Dhanasiri et al., 2011). Apart from symbiotic microorganisms, refer	Zool.Sci10

&gt; &lt;

Term ☒ Words ☐ Case ☐ Regexp

Search Window Size

&gt; &lt;







Figure H4.

Primary Schools, (pp.31-34). 2.2.3 Higher Education According to Shami & Hussain (2005), Higher education comes under the preview of universities such as purpose, and task, its situational milieu or its process (Shami & Hussain, 2005). The administration would be the same, irrespective of education, organizing, directing and controlling the resources for optimal utilization, (Hussain, 2011). Therefore, head masters/mistresses play complex management roles with the responsibility of making the optimum use of these resources. Hussain, (2011) stated that, A head masters/mistresses is responsible for the periods are given as per the qualification and status of the teacher. Jatoi & Hussain (2010) found that many times due to the shortage of teachers in the department when it is required. 2.7.2 Curriculum Management According to Hussain, (2011), Curriculum management is a preparation of curriculum for the teaching-learning process can take place. Keeping in view of the literature (Hussain 2011.; Mohanty, 1990; Shami & Bashir, 2007), it can be concluded that finding good alternatives and selecting the best course of action. Shami & Hussain (2005) stated some common barriers to make good decisions with the results of audit observations. vii) Preparing expenditure statements. Shami & Hussain (2005) conducted a study on Professional requirements of teachers. The questions, to reply, to warn someone, to invite, to apologize and to regret (Hussain, 2005). 2.8 ORIGIN OF PAKHTUN PEOPLE The most familiar words are

Figure H5.

cordance Hits 5	File
KWIC	
the concerned community uses their language in different domains of life (Tarhan, 2003). 8. According to Professor Mujib of Jamia Millia (Delhi) that the result they memorize their lessons without understanding like a machine (Tarhan, 2003). 28. Students would become more proficient if all of their subjects were taught in their mother tongue of instruction because it makes learning (to read, write and speak) easier (Tarhan, 2003). 2.13 BRITISH COUNCIL IN FAVOR OF MOTHER TONGUE INSTRUCTION IN SCHOOLS. Researches in different fields and latest development in modern technology (Tarhan, 2003). 2.16 RECOMMENDATIONS OF BRITISH COUNCIL FOR THE USE OF ENGLISH IN SCHOOLS. However English was also the medium of instruction in many schools (Tarhan, 2003). 29. United Kingdom English was the main language of instruction in schools.	

Figure H6.

cordance Hits	File
KWIC	
covers- a range that continues to grow and diversify (p.22). According to Sharma (2005), the most important role of ICT in education is its usage in providing opportunities for teacher educators to achieve the objectives of education (Sharma, 2005). Therefore, integration of ICT in education has changed the nature of skills that are required for different professions. (Sharma, 2009). In the age of digital literacy, advantages of ICT are directly related to the use of information and technological tools which are very useful for lifelong learning (Sharma, 2005). ICT-supported instructions provide the best opportunities for teacher education motivate trainees to learn modern techniques in instruction (Sharma R. C., 2010). Integration of ICT in education not only provides an environment for the expertise which support teachers and students to obtain new knowledge (Sharma, 2005). According to Loveless, Burton, & Turvey (2006) ICT in education has changed teaching models, teaching methodology and linking theories and practice (Sharma, 2005). According to State, Kern, Starosta, & Mukherjee (2011) ICT in education has changed ICT in teaching so that their ICT skills could be improved. According to Sharma (2009), integration of ICT in teaching methodology enables teachers to apply different teaching methodologies (Collins, 2001). The argument of Sharma (2009) proposed that capacity building of teachers regarding use of ICT in education has been changed due to integration of ICT in teaching methodology (Sharma, 2009). In the traditional role, the teacher was directing, but after integration of ICT in education, school leaders should acquire managerial leadership skills and knowledge. Sharma (2011:1) viewed that the success of principals largely depends on the use of ICT in education and chances for training in managerial practices during service. Sharma (2011:1) stated that effective educational institutions owe their success to ICT.	

Figure H7.

cordance Hits 8	File
KWIC	
students (Pulist, 2010). Explaining relationship between ICT and education Chandra (2004) pointed out that in the world of technology, ICT is considered as a very important benefit of integration of ICT in education is availability of information. Chandra (2004) recognized that The intense involvement of ICT in the education system (Pelgrum, 2001). 2.6. Planning for ICTs Integration into Classroom Chandra (2004) summarized that use of information and communication technology in education will develop research and function if there were no geographical boundaries. (Chandra, 2005, p.22). Education reforms are occurring throughout the world. The use of dissemination of content knowledge and effective learning strategies (Chandra, 2004). Beauchamp (2006) elaborates his position that teacher education is playing a very important role in professional development (Chandra, 2004). Professional development is a very important phase of a teacher's career. Overwhelming activities and do not fulfill the requirement of modern needs (Chandra, 2004). Changing scenario of teacher education and integration of ICT in education has created a need for skilled teacher educators for professional development of trainee teachers. Chandra (2004) supporting the idea of Pelgrum suggested that teacher education should be a continuous process.	





## Appendix I

### Concordance Instances in Political Science

Figure I1.

Concordance Hits 306		File
	KWIC	
29	2010). Terrorism is inherently motivated by political objectives (Abrahms, 2008). The MMA made a successful election campaign by leading the anti-	Pol science
30	to politics. Terrorism is always motivated by political objectives (Abrahms, 2008). Human beings are not machines, so when they came they not only	Pol science
31	enon, has largely been inspired by the Taliban rule in Afghanistan (Rashid, 2008). Descent into chaos. New York: Viking Penguin. Siddique, Q. (2011).	Pol science
32	obvious reasons advanced by various scholars, including Ahmed Rashid, (2008). A who's who of the insurgency in Pakistan's North-	Pol science
33	in a jirgah in the semi-tribal area of Darra Adamkhel, on March 2, 2008 (Khattak, 2008). Other forms of violence may or may not involve political motives (S	Pol science
34	gah in the semi-tribal area of Darra Adamkhel, on March 2, 2008 (Khattak, 2008). Even the religiously or ideologically motivated terrorists want to bri	Pol science
35	re and context in Surma dueling. Ethnology, 38 (3), 227-242. Abrahms, M. (2008). By and large, the leadership of the Taliban in the Pakhtun region is	Pol science
36	m http://www.spaces.brad.ac.uk:8080/display/ssspsru/Home. Khattak, D. (2008) and Imtiaz Gul, (2009), is the financial benefit that affiliation with gr	Pol science
37	ly Times. Retrieved from http://www.dailytimes.com.pk/default.asp?page=2008 (Khattak, 2008). In another act of inhuman behavior, the Taliban pub	Pol science

Figure I2.

Concordance Hits 306		File
	KWIC	
5	Children and women, what would you expect in return? (2004 cited in Laiti,	Pol sci
5	iv) to avoid being itself a target of the war on terror (Tellis, 2008). This lack of knowledge of the indigenous culture and language pro	Pol sci
7	over to the United States of America by the Pakistani security forces (Tellis, 2008, p. 7). The military's resort to indiscriminate force only helps the	Pol sci
3	urgency in the country became a major force to be reckoned with (Rashid, 2008) Pakistan supports the US in the war on terror by giving the US	Pol sci
3	disruption that has undermined its counter-terrorism effectiveness (Tellis, 2008). At the time of joining the war on terror in 2001 Pakistan was not	Pol sci
3	bal areas of Pakistan and joined the Tehrik-e-Taliban Pakistan (TTP) (Tellis, 2008; Gul, 2009). This can largely be attributed to three factors: firstly, the	Pol sci
1	lifaz-e-Shariat-e- Muhammadi (TNSM) in Bajur (Zaidi, 2009). Moreover, in 2008). The Pakistani military's indifference to the needs of the civilians	Pol sci
2	situations, the use of kinetic force always brings misery to many (Hussain, 2008). As explained in the third chapter, the ferocity in the activities of the	Pol sci
3	disruption that has undermined its counter-terrorism effectiveness (Tellis, 2008 and 2009 a number of agreements were signed with Sufi Muhamma	Pol sci
4	rassa in the Pakhtun region nourished when they were in camps (Hussain, 2008). Its use even brings more disaster where there is disregard for cultu	Pol sci
5	a person to restore the honor of the affected family or tribe (Hussain, 2008). Indiscriminate shelling and firing by the security forces, collateral d	Pol sci
5	mediate retribution or reconciliation, for example, through a jirgah (Hussain, 2008). Salfist ideology and the concept of global jihad penetrated the Pak	Pol sci
7	east 57 civilians were killed at Shindand in Western Afghanistan (Hussain, 2008). The loss of life is considered as the biggest violation of honor, even	Pol sci

Figure I3.

Concordance Hits 424		File
	KWIC	
1	ism and other forms of violence is delicate, and often even blurred (Guelke, 2010 from http://www.jstor.org/stable/424830 Accessed: 07/12/2009 04:	Pol scien
2	he connection in terms of modeling, imitation, and reinforcement (Guelke, 2010). Combining research on cultural theory and international relations. I	Pol scien
3	the readers and assume that they know what is being explained (Schinkel, 2010). Objective of the former was to clear the Muslim land of foreign pov	Pol scien
4	what is actually a political process, receives much more attention (Schinkel, 2010). In ? Generic term to refer to the leader of prayer at the mosque 67	Pol scien
5	usive language and the threat of violence also contain violence (Schinkel, 2010). Islam as ideology of tradition and change: The 'new jihad' ir	Pol scien
5	indicates how carelessly the word is applied to different situations (Guelke, 2010). In that jihad Osama bin Laden and other mujahideen were heavily s	Pol scien
7	nt word in Anglo-French somewhere around fourteenth century (Schinkel, 2010). At the same time it wants a regime change in the Middle East	Pol scien
3	is the violent overthrow of the existing political system is justified (Guelke, 2010). In the graveyard of empires. New York: W.W. Norton. Mir, A. (2009)	Pol scien
3	, therefore, the use of force by its agents is accepted as legal (Guelke, 2010). Terrorism is inherently motivated by political objectives (Abrahms,	Pol scien
3	not only in the objectives of terrorism but also in its definition (Schinkel, 2010). On the other hand the often differing and competing definitions of	Pol scien
1	over the last few decades than in terrorism in the same period (Guelke, 2010). Further, the fact that more civilians have been killed in political viol	Pol scien
2	than the west have not been included in the victims of terrorism (Guelke, 2010). More importantly, it is not the question only of distinguishing terro	Pol scien

Figure I4.

	over the last few decades than in terrorism in the same period (Guelke, 2010). Further, the fact that more civilians have been killed in political violence than the west have not been included in the victims of terrorism (Guelke, 2010). More importantly, it is not the question only of distinguishing terrorism that makes it a political process instead of a singular event (Guelke, 2010). Although, these theories explain a general violent disposition, not things may in turn influence the state to take the desired action (Schinkel, 2010). Both 161 violence and terrorism suffer from this problem. Furthermore, why these are not included in the general category of terrorism (Guelke, 2010). Then there are some other difficulties peculiar to each. For example, process that is always a part of a larger political process (Schinkel, 2010). Another difficulty in explaining violence is that because of culture rather than people ignore to think about the terrorists' cause (Schinkel, 2010). However, the lack of agreement on a common definition in case of violence is intrinsically tied up with the concept of honor (Schinkel, 2010). Violence is defined by Spierenburg as 'all forms of intentional killing' (2010). This study prefers the latter definition over the former. Pakhtun culture continued in Europe even until the late nineteenth century (Schinkel, 2010). Since the development of the modern nation state and the criminal law of Europe but especially Holland, Italy, France, and Germany (Schinkel, 2010). As a result there has been no agreement on a common definition of violence. There are some elements which are common to most if not all definitions of violence.	Pol science Pol science Pol science Pol science Pol science Pol science Pol science Pol science Pol science Pol science Pol science Pol science
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Figure I5.

	KWIC	File
0	ed to obey the British orders they were denied from their salaries. (Dawn, 2006). Language and politics in Pakistan. Karachi: Oxford. . Ethnic conflict	Pol science &
1	aloch Haq Talwar believed to have full control over their territory (Nation, 2006) are agreed that nationalism is a political principle in which state per	Pol science &
2	69 General Yahya seized power and withdrew one unit plan (Asia Report, 2006), language and politics in Pakistan Karachi: Oxford University Press.	Pol science &
3	religious group Mutahidda Majlis e Amal (MMA) in 2002 elections (Swami, 2006) criticized the role of CCI as an ineffective body because it follows th	Pol science &
4	histan is an effort to marginalize the Baloch in their own territory (Bansal, 2006). Nation state by accident. New Delhi: Lordson Publishers Pvt Ltd. C	Pol science &
5	brigades, and paramilitary forces were used in the operation (Asia Report, 2006). Nations and Nationalism, (second edition). Oxford: Black	Pol science &
6	at jets, gunship helicopters and artillery to pound militant camps (Swami, 2006). language and politics in Pakistan (4th edition). Karachi: Oxford Univ	Pol science &
7	.4). The current spate of violence reached at its peak when on 26 August 2006). Race and ethnicity: Culture, identity and representation. New York:	Pol science &
8	establish 'the writ of the government' by using all means (Dawn, 2006). The Role of the CCI, Daily Dawn, 3 September The Harper dictiona	Pol science &
9	tors Leading Towards Politics of Ethnicity in Baloch Ethnie. From 1948 till 2006. n.2). J. H. Elfenhein, a very renowned student of Balochi language h	Pol science &

Figure I6.

	KWIC	File
	sons was mostly popular among the lower classes of the population (Vail, 2006). This is because the concept of male honor symbolized by the physical	Pol science &
	ultimate aim of taking revenge. For example, there was a drone attack in 2006 on a madrassa in the Chengai area of Bajaur Agency, killing 80 persons	Pol science &
	Review of Research, 30, 83-142. Ember, C. R., Ember, M. & Peregrine, P. N. (2006). Anthropology. London: Pierson Education, Inc. Ferracuti, F. (1982). A	Pol science &
	n Pakistan's tribal areas. New Delhi: Penguin Books India. Hoffman, B. (2006). Inside terrorism. New York: Columbia University Press. Horgan, J. (1	Pol science &
	es of East African age group systems (pp. 95-131). London: Oxford. Vail, J. (2006). Medieval and renaissance dagger combat. USA: Paladin Press. Wals	Pol science &
	world/2009/apr/02/taliban-pakistan-justice-womenflogging. Wienberg, L. (2006). Global terrorism: A beginner's guide. England: Oxford Universit	Pol science &
	and the moralists' view of the war as it should be (Coates, 2006). However, the war on terror should not be taken to mean as an	Pol science &
	even calling it a war, in the first place, is misleading (Jackson & Towle, 2006; Fierke, 2005). A more delicate issue is involved in the analyses of the	Pol science &
	mption behind the war on terror is flawed (Fierke, 2005; Jackson & Towle, 2006). In response to the 9/11 terrorist attacks the United States of America	Pol science &
	ms rather than eradicating the root causes of terrorism (Jackson & Towle, 2006). Killing a certain number of terrorists does not guarantee a success i	Pol science &
	it is possible to win over the latter against the former (Jackson & Towle, 2006). As it has been mentioned in the first chapter, militants can not succe	Pol science &



Figure I7.

even calling it a war, in the first place, is misleading (Jackson & Towle, 2006; Fierke, 2005). A more delicate issue is involved in the analyses of the assumption behind the war on terror is flawed (Fierke, 2005; Jackson & Towle, 2006). In response to the 9/11 terrorist attacks the United States of America has opted for military strikes rather than eradicating the root causes of terrorism (Jackson & Towle, 2006). Killing a certain number of terrorists does not guarantee a successful outcome; it is possible to win over the latter against the former (Jackson & Towle, 2006). As it has been mentioned in the first chapter, militants can not successfully be eradicated; they have created a new crop of dedicated terrorists (Jackson & Towle, 2006, p.134)? More than a decade after embarking Operation Enduring Freedom, the United States of America in Afghanistan (Jackson & Towle, 2006). Although, the US was able to kill Osama bin Laden on May 2, 2011, the logic behind the prolonged occupation of Afghanistan (Jackson & Towle, 2006). The US response to this state of affairs is the deployment of more troops, the poverty and lack of economic development in Afghanistan (Jackson & Towle, 2006). Second, the coalition forces led by the US have shown disregard to the human rights in North Waziristan a similar peace deal was signed with Baitullah Mahsud in 2006 (Zaidi, 2009). The purpose of this deal was to secure army convoys and to end the terrorism campaign and strengthened the militants' cause. For example in 2006 when a US drone strike hit a madrassa in the Chengai area of FATA. Islamabad: Pakistan Institute for Peace Studies. Coates, A. (2006). Culture, the enemy and the moral restraint of war. In Richard, S. & T. (2006). Countering militancy in FATA. Islamabad: Author. Jackson, R. J. & Philip T. (2006). Temptations of power: The United States in global politics after 9/11. In: Social and Cultural Transformation in a Muslim Nation. N.Y: Routledge, 2006, pp. 81-82. The Ranking of Major Cities from 1951 to 1998 is given in

Figure I8.

ance Hits	235	File
KWIC		
nor is closely related to women and land in the Pakhtun society (Banerjee, 2000), therefore, honor, as in other societies, is responsible for much of the		Pol science t
have not been able to pass them further afield (cited in Banerjee, 2000, p. 24). On the other hand, Toynbee continued, 'roundabouts are		Pol science t
routes radiate to all quarters of the compass again' (cited in Banerjee, 2000, p. 24). Certainly, the Pakhtun region best fit in the latter category, as		Pol science t
ling those of, the Persians, Greeks, Kushans, Huns, and Mughals (Banerjee, 2000). Thus Pakhtunwali emerged, transformed and was perfected in the f		Pol science t
ey treated the area as geographical marginality, as identified by Banerjee, (2000). Their main imperial concern in the frontier region was how to		Pol science t
tion were favored by giving them special rights in land holding (Banerjee, 2000). The British, however, completely altered the system by giving legal		Pol science t
lan would often fight each other for their own respective Khans (Banerjee, 2000). Another important factor which changed the traditional mechanism		Pol science t
sible for the increasing levels of violence in the Pakhtun society (Banerjee, 2000). Be it the role of the central state, the influence of the out		Pol science t
nd 191 social system and impose Shariah throughout the country (Rashid, 2000). Initially a small number of Pakhtun nationalists joined the Taliban, t		Pol science t





Figure J4.

dance Hits	File
KWIC	
ight to the surface that what are the underlying mechanisms in this regard Bandura (1977) suggeste that adolescent s tend to opt for those vocationa	Psyc2.t
ose vocational option for which they feel themselves more efficacious. Bandura(1977, 1986) defines Self-efficacy as the belief in one's capability t	Psyc2.t
al support by others and also verbal encouragement provided by others. Bandura (1977) also suggested that it is one of major role of counselor to	Psyc2.t
opment enables them to make career choices and perform in this regard (Bandura, Barbaranelli, Vittorio Caprara, & Pastorelli, 2001). Hence, it is CD	Psyc2.t
them to make career choices and perform in this regard (Bandura, 1999; Bandura (1977) are proposed as the main mediating elements of behavior	Psyc2.t
ackett (1994); Mitchell & Krumboltz, (1984). Self Bandura and his colleagues worked on role of self-efficacy expectations in	Psyc2.t
efficacy expectations originally presented by Bandura, Adams, & Beyer, 1977), this concept was further elaborated to c	Psyc2.t
expectations will increase avoidance ----- approach of a behavior. Although Bandura (1989) emphasizes that self efficacy determines this fact that eith	Psyc2.t
lf-efficacy expectations in origin and treatment of clinical syndromes (e.g., Bandura (1997), Gralinski & Kopp, (1993) and Mischel (1974) have been f	Psyc6.t
l learning theory by Bendura\x92s (1977, 1986). Social learning theory of Bandura and his colleagues conducted experiments that show that we can	Psyc10
ity deals with issues of right and wrong. Social learning theorists such as Bandura, Ross, & Ross, 1963). According to Bandura (1986), observationa	Psyc10
rovided for displaying it (Tolman & Honzik, 1930). Bandura (1986), observational learning takes place in four steps: (a) payin	Psyc10

Figure J5.

ive abilities i.e. fluid intelligence and crystallized intelligence. According to Cattell (1941, 1971. The items were specific to Pakistani culture. Cattell ('	Psyc3.t
general information, use of language (vocabulary) and a wide Cattell (1971, 1987) has identified two major cognitive abilities i.e. fluid in	Psyc3.t
variety of acquired skills (Horn & Cattell, fluid intelligence (Gf) consists of nonverbal, relatively culture-free,	Psyc3.t
the distinctive traits which make all the people a separate entity. Raymond Cattell, 1967). Personality factors like motivation coupled with educationa	Psyc3.t
). Theories of intelligence have gone through various phases (Binet, 1916; cattell (1965) share in common the following beliefs. ? Traits are the basic	Psyc5.t
s based on spearman\x92s \x93g\x94 factor (McNemar,1942). Raymond Cattell, 1987: Guilford, 1961; Spearman, 1927; Terman, 1916; Wechsler, 1'	Psyc10
a problem. To understand mathematics, Visual-spatial reasoning is used (Cattell, another theorist of psychometric approach proposed that human i	Psyc10
boyle, 2005; Beier & Ackerman, 2005; Kane, Hambrick, & Conway, 2005). Cattell, 1971). Fluid intelligence also known as Gf, refers to the reasoning	Psyc10
Unlike Cattell, Jurden (1995) split intelligence into verbal and non-verbal intellige	Psyc10
ychodynamic and trait approaches to personality structure can be seen as Cattell (1973) labeled one of his primary factors (C) Ego Strength and ano	Psyc10
that are known for having a trait perspective are Eysenck\x92s PEN model, Cattell\x92s 16 Personality Factors, and Costa and McCrae\x92s Big Five r	Psyc10
nd it was given the name of Psychoticism (as cited in Feist & Fiest, 2006). Cattell\x92s 16 Personality Factors. Like Eysenck, Raymond Cattell also use	Psyc10
& Fiest, 2006). Cattell\x92s 16 Personality Factors. Like Eysenck, Raymond Cattell also used factor-analysis method. For decades, Cattell has been am	Psyc10
Eysenck, Raymond Cattell also used factor-analysis method. For decades, Cattell has been among the most prolific of test developers, devoted to th	Psyc10
re assessable by means of personality questionnaire. In his early research, Cattell (1946) isolated 16 personality factors, which he composed into a te	Psyc10
ity factors, which he composed into a test called the 16PF (Allen, 1994). In Cattell theory, among the many possible distinctions between traits, the ir	Psyc10
2 of fluid intelligence in learning that establishes more crystallized skills (Cattell, 1971). Matthews and Oddy (1993) presented factor analyses of tra	Psyc10

Figure J6.

rdance Hits	17	File
KWIC		
s are published each year on the nature and measurement of intelligence, <a href="#">Gregory (1996)</a> .		Psyc3:
ctors to his theory such as Arithmetic, Mechanical and Linguistic abilities ( <a href="#">Following literature review is likely to help in developing better understand</a>		Psyc3:
fic factors can be are measured by tests developed for specific occasions ( <a href="#">Gregory, 1996, 2004; Gross, 2005; Riaz, 2008</a> ). Burt and Vernon's Hier		Psyc3:
ng group factors and not limiting intelligence with a single general factor ( <a href="#">Gregory, 1996, 2004; Gross 2005; Riaz, 2008</a> ).		Psyc3:
the number of basic abilities are much smaller than assumed by Guilford ( <a href="#">Thurston's Primary Mental Abilities</a> Thurstone		Psyc3:
ns and draw out correlations, which are used in managing different tasks ( <a href="#">Gregory, 1996, 2004; Gross 2005; Riaz, 2008</a> ). Guilford's Structure of		Psyc3:
ffectively with its challenges. Another important approach mentioned by <a href="#">Gregory, 1996, 2004; Gross, 2005; Riaz, 2008</a> ). Vernon's Hierarchical		Psyc3:
ult questions require an understanding of social and cultural conventions ( <a href="#">Gregory, 2004; Riaz, 2008</a> ). Importance of Verbal Factor in Testing A stu		Psyc3:
irectly, these questions assess the assimilation of the concept of likeness ( <a href="#">Gregory (1996)</a> , to understand a construct like intelligence is to study its p		Psyc3:
representation of different subgroups in the population proportionately ( <a href="#">Gregory, 1996</a> ). Items that will be included in the test are such that an aver		Psyc3:
interpretation, analysis or synthesis to arrive at the answer keyed correct ( <a href="#">Gregory, 1996</a> ). The examinee must also possess the ability to judge wher		Psyc3:
by most of the low scorers on a particular test, ( <a href="#">Anastasi &amp; Urbina, 2012; Gregory, 2004; Riaz, 2008</a> ). Norms Development Percentile norms were		Psyc3:
em difficulty level rests on the user keeping in view specific testing goals ( <a href="#">Gregory, 2004; Riaz, 2008</a> ).		Psyc3:
by most of the low scorers on a particular test ( <a href="#">Anastasi &amp; Urbina, 2012; First test draft</a> It was decided to construct items having informat		Psyc3:
0 to .70) were retained, since they are neither very easy nor very difficult ( <a href="#">Gregory, 2004; Riaz 2008</a> ). For item analyses of the Intelligence Test, two		Psyc3:
s experts of the field ( <a href="#">Ebel, 1965; Anastasi, 1980; Anastasi &amp; Urbina 2012; Gregory, 1996</a> ). Item discrimination level (d) An effective test item is one		Psyc3:
d by various experts ( <a href="#">Ebel, 1965; Anastasi, 1980; Anastasi &amp; Urbina 2012; Gregory, 1996, 2004; Riaz, 2008</a> ). It has also been suggested if the difficul		Psyc3:

Figure J7.

rdance Hits	4	File
KWIC		
sexual coercion is the less frequent type in many organizational settings ( <a href="#">Anila, 1998; Fitzgerald, Gelfand &amp; Drasgow, 1995</a> ). There are many risk fa		psyc4.tx
(2009) found no relationship between age and exposure to harassment. <a href="#">Anila (1998)</a> stated that less educated women reported more experiences i		psyc4.tx
1994) reported that highly educated women experience more harassment. <a href="#">Anila (1998)</a> further found that the women working at lower job status rej		psyc4.tx
h all women had experiences of sexual harassment at one time or other. <a href="#">Anila (1998)</a> studied women's experiences of sexual harassment at the wo		psyc4.tx

Figure J8.

rdance Hits	9	File
KWIC		
arooqi, 2011a; Niedl, 1996; Vartia, 1996; and Zapf, Knorz & Kulla, 1996). <a href="#">Dansky and Kilpatrick (1997); Kilpatrick, Dansky and Saunder (1994) Gutek</a>		psyc4
<a href="#">Dansky and Saunder (1994) Gutek and Koss (1993); Jorgenson and Wahl</a>		psyc4
<a href="#">I, 1996; Vartia, 1996; and Zapf, Knorz &amp; Kulla, 1996). Dansky and Kilpatrick (1997) argue that the female victims of sexual harass</a>		psyc4
<a href="#">Dansky and Kilpatrick (1997); Kilpatrick, Dansky and Kilpatrick (1997) reported that victims of sexual harassment f</a>		psyc4
fusion, denial, isolation, uncontrolled crying, shame and embarrassment. <a href="#">Dansky and Kilpatrick (1997); Golmb, Munson, Hulin, Bergman and Drasg</a>		psyc4
(2002) found that victims of workplace bullying might suffer from PTSD. <a href="#">Dansky and Kilpatrick (1997) conducted a survey of 3020 women, which</a>		psyc4
develop PTSD in the target person ( <a href="#">Brewin, Andrews &amp; Valentine, 2000</a> ).		