A Comparative Analysis of Reporting Verbs in Research Papers authored by Pakistani and Native Writers

Introduction

The investigations in the domain of academic discourse have gained significant attention during the last ten years. It has embraced various fields, including rhetorical structures, metadicourse features evidentiality, modality and citations. Academic discourse entails certain norms, methods as well as styles according to various genres. Plethora of textual patterns has been utilized by the writers to structure their academic discourse. Reporting of previous research is considered as a realization of authors’ awareness for their readers (Hyland, 1999). Hyland (1999) postulates that the insertion of the claims in the framework of references not only offers an accumulative and undeviating catenation but also represents that these assertions are riposte to the prior assertions. Reporting of previous literature has been considered as an integral component of the educational and scholarly research work. The most genuine research articles incorporate and epitomize constructs, beliefs, models, findings and approaches from other resources as well as scholarly research works (Hyland, 1999). In this regard, Swales (1990) posits that links to prior researches facilitate the authors to establish their territory and also help them to create a niche from the credence of collective knowledge. In English, an extensive variety of reporting structures has been documented by literature such as direct quotations, paraphrases, integral and non-integral citations.

This is indubitably arduous task for ESL learners to deal with rhetorical devices like verbs, particularly used for reporting.

The proper selection of reporting verbs is considered as a crucial feature for developing the credibility and veracity of the research (Manan & Noor, 2014).

Bloch (2010) states that foreign language learners face difficulties in the appropriate selection of reporting verbs according to the grammatical structure of the sentences and most significantly for conveying their viewpoint about their claims. The same perspective has been explicated by Manan and Noor (2014). This problem is not only concerned with insufficient vocabulary but also an indicative of serious matter of how to

Abstract:
Decorous exploitation of reporting verbs is a fundamental component of academic writing. It facilitates in constructing authors’ assertions as well as situating those assertions with the previously published literature in the field (Bloch, 2010). This study has been carried out to examine the phenomena of reporting verbs in the research articles of Education and English written by Pakistani and native speakers of English. A corpus-based approach has been adopted in this study. The corpus of the study comprises of 152 research articles, authored by native and Pakistani researchers in the fields of Education and English. The findings of the study exhibited dissimilarities in the ways the authors accredit the other sources in their work and demonstrate the reported statements in Pakistani and native corpora. This study will assist the research scholars to enhance their awareness regarding an appropriate selection of reporting verbs in their academic writings.

Key Words:
Citation, Reporting Verb, Corpus, Research Articles

DOI: 10.31703/glr.2020(V-I).07
URL: http://dx.doi.org/10.31703/glr.2020(V-I).07


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properly exploit reporting verbs for accrediting other resources in academic discourse. The substantial cultural disparity has also been noticed by Bloch and Chi (1995) in the ways how authors from various backgrounds employ previous references in their scholarly work.

A number of investigations, regarding integral citations, have been conducted to explore the role and oratorical effects of reporting verbs. Earlier research studies focused on the use and disciplinary variation of reporting verbs in different genres in international contexts. However, in our Pakistani setting, it is still a vacant field of research. That’s why; the present research explores variation in exploitation of reporting verbs in research work of education and English reported by Pakistani and native speakers of English.

Research Questions

- What is the frequency of using reporting verbs in the research articles of English and Education authored by native and Pakistani writers?
- Is there any difference in the most recurrently employed categories of reporting verbs in the research papers of Education and English authored by native and Pakistani writers?

Literature Review

The current research analyses the use of verbs for reporting and accrediting the information from other resources in research papers authored by Pakistani and indigenous speakers of English. Reporting verbs have been defined as the verbs which are utilized to communicate expressions of others (Bergler, 1992). In the field of genre and citation practices, Swales’ (1990) exploration are ground breaking; he identifies two types of citations: integral citations which incorporate the name of researchers in the sentence whereas non-integral includes parenthetical citations. Hyland (1999) maintains that integral and non-integral citations as well as utilization of reporting verbs are major sources for attributing the work of others. Nguyen and Pramoolsook (2016) suggest that more emphasis should be placed on authorship claims through integral citations because they entail the specific reference/name of the author in comparison to non-integral citations. Appropriate exploitation of reporting verbs affects the citation practices; besides this, it also strengthens the worth of claims reported to persuade the audience. Hyland (2005) states that reporting verbs can be defined as linguistic devices which help the authors to demonstrate their stance and to build a liaison with the audience. Fairclough (1992) considers reporting patterns as a significant feature of intertextuality.

As discussed earlier, reporting verbs performs a crucial role in academic discourse. Yeganeh and Boghayeri (2015) assert that the occurrence of citation verbs in academic discourse represents the scholarly endeavors of the authors to admit this fact that their thoughts are not detached from their respective fields. Benson et al. (2007) postulates that the authors utilize reporting verbs not only to accredit the earlier researches but also to acknowledge the thoughts of researchers by adopting their perspectives. This fact opens a new window for investigation and not merely a replication of the work which has been previously explored. Bloch (2010) maintains that the writers must appraise the value of their very own assertions and also the references of others’ assertions. He further ascertains that the selection of citation verbs needs a high level of accuracy in order to determine the reliability of both the author as well as the assertions so that the author’s stance may be accepted by the readers. According to Wu (2014), the diversity in employing reporting verbs entails that their use in various contexts of academic discourse may perform a variety of communicative functions. This belief represents that verbs exploited for the purpose of reporting can be considered as meta-linguistic devices which are deployed to reinforce the claims of the writers as well as to persuade the audience that these assertions are rational and significant (Wu, 2014).

An interesting investigation of reporting verbs of academic research articles has been conducted by Thompson & Ye (1991). They illustrate that citation verbs can be employed by the authors to express their assertions as well to reveal their stance regarding claims of other researchers (Thompson & Ye, 1991). They developed a taxonomy of reporting verbs based on three groups according to the functions they execute: first
is the textual group which describes verb as a mandatory component for an example state or write, whereas next is the cognitive group which denotes mental processes in the discourse like think, assume etc., and the last group research verbs which represents the procedures or activities related to research such as demonstrate or find. However, their research was only restricted to the introductory segments of research papers, which overlooks the ways of reporting in the fields of social sciences and humanities. Another, taxonomy was presented by Thomas and Hawes (1994) with an explicit elucidation of choices accessible for authors in the field of medical research papers. In their taxonomy, citation verbs have been classified into three groups, namely discourse acts, experimental acts and cognitive acts. The first group is used to denote activities associated with writing or speech, whereas the experimental group is employed to indicate procedures of prior research. The third category is used to represent mental activities. This taxonomy facilitates in investigating the functions of various reporting verbs. However, it does not divulge appraisal potential.

A perspicacious representation of reporting verbs has been offered by Hyland (2002), which not only incorporates the writer’s academic pursuit, but also the reporting of the author’s decisive considerations. He explored the citation practices of research articles of pure and applied sciences. He divides the citation verbs in various categories according to their use in the data.

Table 1. Taxonomy of verbs reporting (Hyland, 2002)

<table>
<thead>
<tr>
<th>Reporting Verbs</th>
<th>Categories</th>
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<tbody>
<tr>
<td>Research Verbs</td>
<td>Procedural Findings</td>
</tr>
<tr>
<td>Cognitive Verbs</td>
<td>Positive</td>
</tr>
<tr>
<td>Discourse Verbs</td>
<td>Tentative Critical</td>
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<tr>
<td></td>
<td>Neutral</td>
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<tr>
<td></td>
<td>Doubt</td>
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<td></td>
<td>Assurance</td>
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<td></td>
<td>Counters</td>
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</table>

A host of studies has been carried out in the field of reporting verbs to examine the disciplinary variation in the genre of research articles and theses. Pickard (1995) explored the usefulness of citations in the research work of applied linguistics. She employed a classification of citation practices proposed by Swales (1990). Results exposed incompetence of the students concerning apropos deployment of citations. Adil and Garretson (2006) compared the interdisciplinary disparity in utilizing reporting verbs in the corpus of various fields including sociology, philosophy, psychology, civil engineering, operational engineering, physics, nursing, economics and linguistics. They claim that reporting verbs have been employed distinctively in every field and it is difficult to figure out systematic patterns across all these disciplines. The study concluded that the authors were already conscious about the rhetorical practices and conventions of their relevant disciplines. David (2017) conducted a study to examine the effect of context on choice of citation verbs in the medical research papers. The corpus of his study consisted of thirteen randomly selected research papers. The findings of the study demonstrated that the writers of medical research papers are also required to understand rhetorical features in order to convince the readers.

A host of studies particularly, focused on examining the several semantic categories of verbs employed for citations. One such study is conducted by Charles (2006) to reconnoiter the functions of reporting expressions for construction of self-persona in the dissertations of social sciences and material sciences. A predominant number of reporting expressions recurrently appeared in both the disciplines. The findings of her research revealed that both academic fields deployed a significant number of argue verbs. Agbaglo (2017) explored the use of verbs for reporting With a specific focus on semantic categories in the academic papers of English reported by Ghanaian lecturers. Hyland’s (2002) classification was employed as a reference framework to examine the various semantic categories of verbs. The corpus consisted of 16,811 number of word tokens from the literature review section of research articles. The findings of the study illustrated that all semantic groups of citation verbs were employed by the authors in different proportions. However, the study also
revealed that discourse verbs were commonly employed category in the corpus as compared to research as well as cognitive acts. Another study was conducted by Amrullah et al. (2017) to explore the oratorical features of citation verbs in the research papers written by students of graduate level. This study also concentrated on the types of verbs, including cognitive verbs, discourse verbs and research verbs. The data of the study was comprised of eighteen research articles reported by graduate scholars in the discipline of applied linguistics. Hyland’s (2002) framework along with document analysis was employed for the preliminary classification of citation verbs of cognition, research and discourse. The study concluded that the most recurrently used category was discourse verbs in comparison with other categories. The findings further revealed that the most commonly employed research verbs were identity, show and find. Kwon et al. (2018) also investigated the practices of citation verbs in the academic discourse of first year students of second language writing programme in the context of North America. The corpus was comprised of the assignment of second language learners. This study also examined the various semantic categories of reporting verbs along with their use and function. The outcomes of the study exposed that ESL learners employed the similar practices which were preferred by the higher-level undergraduate authors to acknowledge the work of other sources. Another such research was conducted by Manan and Noor (2014) to appraise the categories of verbs employed for citing other resources. The frequencies, impact and use of reporting verbs of masters’ dissertations have been determined by following Hyland’s (2000) classification. The results of their study exposed that research verbs have been more recurrently employed by the scholars in comparison to discourse or cognitive verbs. A current study was carried out by Uba (2020) to examine the semantic classification of verbs, used for citations in the research fields of medicine, applied linguistics, accounting and engineering. A general corpus along with a sub corpus was compiled for the purpose of analysis at two levels. The categories of reporting verbs were identified and a list was generated for analyzing the rhetorical features of the scholarly contributions. The results revealed that authors from the fields of accounting and applied linguistics employed a greater frequency of citation verbs in comparison with the writers of medical and engineering. The findings of his study also uncovered certain similarities and differences among all these disciplines.

A few researches have already been conducted in the field to analyze the dissimilarities in employing reporting verb in different academic genres of various geographical settings like China, Philippine and Vietnam. The prevalence of integral reporting patterns of research dissertations, written by native and Chinese authors has also been analyzed by Zhang (2008). The findings of the research showed a predominance of expressions used for citations in the corpus of English (native) authors. Kim (2012) evaluated practices of citations in the research papers of educational psychology by employing Swales’ (1990) classification. The corpus of the study contained 40 introductory sections of research papers written by English and Chinese authors. The outcomes of his research illustrated a high occurrence of reporting verbs in the academic papers, reported by English authors as compared to their Chinese counterparts. He (2012) further suggested that awareness of citation practices can develop the academic writing of non-native writers. Jafarigohar and Mohammadkhani (2015) carried out a comparative study to analyze the role of verbs used for citations in the articles of applied linguists reported by indigenous and ESL learners of English. The corpus of this study included 64 research papers. The findings of the study revealed substantial differences regarding the utilization of reporting verbs between the corpora of native and non-native writers. Nguyen et al. (2016) explored the verbs used for citations in of dissertations of M.A TESOL. The corpus of the study contained 24 literature review sections from the research theses of Vietnamese students. Hyland’s (2002) classification was utilized to analyze the data. The study also focused on overuse or misuse of reporting verbs. The findings demonstrated that Vietnamese students used these verbs randomly without considering their rhetorical features. In a recent study, the literature review sections of research dissertations were analyzed by Santos (2018) to explore the use of citation verbs in Philippine context. The corpus of The study was comprised of literature review sections of research theses from the field of political sciences. The results of the study exposed that reporting verbs are an important facet of academic discourse for establishing a liaison with the earlier researches carried out in the
field. The above discussion presents an exhaustive overview of the researches conducted in this field, however, it is a rarely an explored area in our context.

**Methodology**

The present study has applied corpus-based approach. According to *Lindquist (2009)* corpus refers to a compilation of text, which is collected by employing some digital resources and utilized by linguists to recoup linguistic expressions for dictionary compilation or research investigations.

**Corpus Development**


<table>
<thead>
<tr>
<th>Table 2. Word Tokens in the Corpus of Education and English Disciplines</th>
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<tbody>
<tr>
<td>Native Corpus</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>English</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

A mixed method approach has been adopted in this study for the purpose of data analysis. *Francis, G., Hunston’s., and Manning, E’s (1996)* taxonomy of verbs as adapted by *Charles (2006)* has been followed to analyze the citation verbs in Pakistani and native corpora.

<table>
<thead>
<tr>
<th>Table 3. Classification of Reporting Verbs</th>
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<tbody>
<tr>
<td>Group of verbs</td>
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<tr>
<td>----------------</td>
</tr>
<tr>
<td>Argue group</td>
</tr>
<tr>
<td>Think group</td>
</tr>
<tr>
<td>Show group</td>
</tr>
<tr>
<td>Find group</td>
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</tbody>
</table>

According to Hunston and *Francis (2000)*, this classification facilitates in identification of the most recurrent reporting expressions employed in citations and also offers an exhaustive input regarding their structures. These categories of Verbs are not fixed. A verb may be found in multiple groups. The instances require to be analyzed in their context in order to establish the type of verbs. This classification of verbs has been adopted...
by various researchers for investigating the frequencies and role of reporting verbs (Charles, 2006; Yang, 2013; Yeganeh and Boghayeri, 2015). Lists of these categories of reporting verbs have been developed by following Thompson and Ye (1991), Hyland (2002) and Charles (2006). Expressions of reporting verbs have been searched quantitatively by using antconc 3.5.8 (2019) software developed by Laurence Anthony. After that, an exhaustive analysis of all instances of reporting verbs used in the corpus of native and Pakistani research articles has been conducted to determine their types. All these instances have also been examined by an independent rater holding a background in the discipline of linguistics. A high inter-rater reliability of 90% has been found. The disputed cases were sorted out. In order to compare the data, raw frequencies of three categories of reporting verbs have been normalized per 1000 words due to variation in length of the research articles.

Findings and Discussion

This section presents the detailed picture of the findings of the study along with their discussion. Table 4 illustrates normalized frequencies of total number of reporting verbs employed in the corpora.

**Table 4. Normalized Frequencies of Reporting Verbs (per 1000 words)**

<table>
<thead>
<tr>
<th>Corpus</th>
<th>Normalized Frequencies of Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Native corpus</td>
<td>0.624</td>
</tr>
<tr>
<td>Pakistani corpus</td>
<td>0.920</td>
</tr>
</tbody>
</table>

A substantial difference in employing reporting verbs has been found in corpora of native and Pakistani research articles.

As demonstrated in the table given above, the frequency of employing reporting verbs in the corpus of native speakers to report the citation verb is 0.624, whereas the density of exploiting reporting verbs in Pakistani corpus is 0.920. Pakistani authors employed a high frequency of reporting verbs to refer the scholarly works of prior researches in their work with regard to the overall number of reporting verbs. The results of the present study are in consonance with the study conducted by Yilmazi and Ermtuk (2017), which disclosed that Turkish authors (nonnative) also employed a higher frequency of reporting verbs than their native counterparts. These findings also correspond to Hyland’s (2008) assertion that non-natives incline to maintain more certitude towards their claims in using verbs for reporting. As far as the division of various categories of reporting verbs is concerned, the findings disclose that a premier number of verbs employed by native as well as Pakistani authors belongs to the category of argue verbs in
comparison with other groups of reporting verbs. Argue verb is a major verb group in the corpora of native as well as Pakistani writers. The findings of this study are in agreement with Charles’ (2006) study in which argue group also occurred as a major category of verbs. The corpus of native authors exhibits a predilection towards argue verbs, however, the differences are not very significant with a percentage of 55.5 and 50.70 in native corpus and Pakistani corpus respectively.

![Figure 2: Frequently employed argue verbs in Pakistani corpus](image)

The above figure depicts the most frequent argue verbs employed by Pakistani authors. The most preferred argue verb in Pakistani corpus is suggest followed by argue and say.

![Figure 3: Frequently employed argue verbs in native corpus](image)

As demonstrated in the figure 3, argue is the most commonly used ‘argue verb’ in the corpus of native of speakers with 43 instances. Similarities in the selection of argue verbs have been found in both corpora, but with a difference in rank order. However, the native authors also favoured a few other argue verbs like postulate and acknowledge. It is worth-mentioning that argue verbs can be taken as equivalent to discourse verbs proposed by Hyland (2002). In his study, argue verbs have been more commonly used in the discipline of the social sciences. Hyland (2002) asserts that higher use of argue verbs portrays the discursive traits of social sciences and humanities which entail precise explanation, presumptions and reasoning as established attributes of knowledge. The argue verbs are associated with communication; they predominantly portray the referenced text. It can be said that corpus of native speakers involves More text related activities than Pakistani corpus. The secondly preferred category adopted by Pakistani authors and Their counterparts belongs to the ‘find verbs’. Find verbs indicate activities related to research. The frequency of find Verbs is greater in the corpus of Pakistani authors. The most commonly utilized find verbs in the Pakistani corpus are find, conduct,
identify, and notice. However, the most frequent find verbs in the native corpus are find, examine, study etc. Besides this, the comparison of Pakistani and native corpora, exhibits that Pakistani authors have a propensity towards the use of find verbs with 31.33% in comparison to native authors. The higher use of find verbs reflects the importance of experimentation and innovation in the Pakistani corpus of research articles.

As it is demonstrated in the figure 1, the percentage of ‘think verbs’ employed in native corpus is 10.5 % whereas9.47 % in Pakistani corpus. Think verbs represent the referred work with regard to cognitive process. Almost similar think verbs have been employed in the corpora of native as well Pakistani researchers. Most frequently occurring think verbs are believe, assume and hold. No substantial difference has been established regarding the various categories of think verbs in Pakistani as well as native corpora.

A limited range of ‘show verbs’ has been employed in corpus written by native authors with 7% whereas 8.5% in the corpus written by Pakistani authors. The most commonly employed show verbs in the corpus of native speakers are indicate, imply and reveal. However, most frequently employed show verbs by Pakistani authors are show, denote and reveal. Charles (2006) also found a limited repertoire of show verbs in her corpora of research dissertations. She claims that these aspects are not related with the creation of knowledge that’s why their frequency is low. However, the exploitation of show verbs allows the academic writers to acknowledge the achievements of the cited researchers/authors to only offer a personal recognition (Charles, 2006).

**Conclusion**

It is concluded that all the categories of citation verbs have been exploited in native and Pakistani corpora. It is also evident from the findings that a considerable use of these verbs has been found in Pakistani corpus than native corpus. The most commonly utilized reporting verbs have also been found almost similar in the research papers of both disciplines written by the Pakistani and native authors in argue group of verbs. The group of argue verbs is predominant in the corpora of Pakistani and native writers. It can be said that both Pakistani and native speakers followed similar verb patterns in accrediting the work of other authors in their research.

The results of the current study have a few implications for pedagogical purposes. It is recommended that the knowledge of various categories of citation verbs should be imparted to the students instead of concentrating on various courses of research methods. Topics regarding reporting expressions may be included in the course of academic writing, so that researchers may realize the significance, role and functions of reporting expressions. In addition to this, corpus methodologies and concordance software can also be applied for teaching reporting verbs to ESL learners in classrooms. ESL learners may be asked to work out on various categories of reporting verbs employed in different contexts and sections of research articles from the output of concordance.

The current study is only limited to the genre of research articles and does not deal with other educational genres like reports, essays and research theses. Disciplinary differences have also not been considered in this study. This study has not taken into account the differences of integral as well non-integral citations. This study can be taken as a reference for upcoming researches in the field.
References


