A corpus based study of Specificity of Academic Verbs in Introduction sections of PhD Dissertations in English Studies in Pakistan.
Naveed-Ur-Rehman Khattak* and Wasima Shehzad**

Abstract

Academic English has its own register in terms of its diction, structure and layout. This register is mandatory for writing dissertations, yet, academic English also entails specificity of written language that is strictly social, cultural and research bound. The current study aims to describe the specificity of academic verbs used in the introduction sections of PhD dissertations in the field of English studies in Pakistan. By highlighting the use of academic verbs via frequencies and collocations, the study has described the patterns of verbs and their usage for writing introduction section in PhD dissertations. Thus, the study focuses the specificity of academic verbs with the aim to facilitate scholars and researchers in understanding the patterns of verbs and their functions in academic writing.

Keywords: Specificity, Academic English, Patterns of Verbs, Categories of Verbs, Functions of Verbs.

Introduction

In the field of English for academic purposes the term ‘specificity’ refers to the use of language by scholars and researchers for facilitating specialized ‘discourse competencies’ required to be acceptable as members of a particular ‘discourse community’¹. For Hyland, it is the use of language based on certain conventions recognizable to the other members of the community that develops ‘co-construction of coherence’ to facilitate writer-reader coordination in the text². It signifies the use of language in a structured and patterned scheme by the writers, scholars and researchers in a particular academic community, thus varies from discipline to discipline and community to community. For Halliday and Martin:

“It is not possible to ‘do’ science, ‘do’ economics or ‘do’ mathematics with only ordinary language and one must ‘do’ discipline-specific work with academic and discipline-specific language”³.

* Naveed-Ur-Rehman Khattak, Ph.D Scholar, Department of Humanities, Air University, Islamabad, Email: naveed.khattak@awkum.edu.pk
** Dr. Wasima Shehzad, Department of Humanities, Air University, Islamabad
The specificity of language used in the dissertation writings varies from discipline to discipline because in every discipline the encoding of research depends upon the context and discipline specific recognizable and familiar linguistic codes. In a dissertation to develop written academic discourse, language involves specific linguistic choices that assist in giving identity to a discipline through the specificity of language use. The objective of the study is to identify the patterns of verbs and describe their functions in the introduction sections of PhD dissertations in the field of English studies in Pakistan. As noted in the sixth edition of the Publication Manual of the American Psychological Association, “verbs are vigorous, direct communicators”. To objectively communicate in academic writing, a scholar is required to determine meanings using appropriate verbs. Thus, by analyzing the specificity of academic verbs, this research can provide a holistic understanding of verb patterns and their usage in the introduction sections of dissertations to scholars, researchers and academicians in inculcating academic verbs in their discipline-specific language.

**Literature Review**

In the paradigms of English for Academic Purposes (EAP), one of the dominant areas of research, developed in the last decade, is on linguistic variation across different disciplines as illustrated in the research of Hyland, Flottum, and Hyland & Bondi. Research conducted to identify the variation of academic language across different disciplines extensively focus on English for special purposes for instance Adamson, Dudley-Evans, Hutchinson & Waters, Master & Brinton, and Strevens and academic discourse and literacy by Belcher & Braine, Bizzell, Elbow, Flowerdew, Kutz, Spack, and Zamet & Spack. Although the term ‘specificity’ was introduced, in the era of 1960s especially in the research conducted by Karttunen. Ken Hyland explored ‘specificity’ by examining different academic genres to highlight the familiar conventions of academic writing that are used in different disciplines. He uses the term ‘specificity’ to symbolize ‘discipline-specific language’:

“Specificity refers to a particular scheme of communication i.e. oral or written, used by the members of a particular social group. It indicates that different groups use language to conduct their business, define their boundaries, and manage their interactions in particular ways.”

Swales illustrated specificity by assigning a framework with which meanings can be socially constructed by analyzing genre in terms of the community. Hyland explored differences in the use of reporting verbs in literature review sections by exemplifying wide range of frequently occurring verbs across different disciplines. Similarly, Hyland and Tse,
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identified the variation in the use of vocabulary in terms of frequencies, collocations and meanings in different fields. Gimenez identified specificity by examining students writing in the fields of midwifery and nursing. Kuo and Hyland explored the excessive use of ‘self-mentioning’ and identified the authors’ claim in ‘expressing their convictions, emphasizing their contribution to the field, and seeking recognition for their work’. Whereas, Hinkel illustrated cultural specificity through the research of the contrastive analysis of ‘rhetorical preferences’ and exemplified the influence of students’ native language ‘in organizing ideas and structuring arguments in English at university level’.

Coxhead and Nation illustrated the specificity of academic vocabulary by identifying frequently used lexical items in a wide range of academic texts and genres. Philip explored specificity by identifying conventional phraseological units like idioms, metaphors, similes, proverbs, sayings, bound collocations, binomials and clichés. Whereas, Hunston and Francis identified patterns of frequently occurring phraseology specifically using prepositions, clauses and word classes like prepositional phrases and adverbial groups. Meyer identified commonalities among most of the verbs used in academic discourse and described academic verbs, their categories and functions and illustrated the importance of verbs ‘as basic and central core of academia’ in integrating the research and writing process. Onwuegbuzie identified the specificity of choice of verbs in the writing process and examined frequently occurring verbs in different research articles. Current research has described specificity by identifying the patterns of the frequently occurring verbs and illustrated the functions of these verbs in writing introduction section of dissertation in the field of English studies in Pakistan.

Data Collection and Analysis

In this research a total of 100 PhD dissertations in the field of English studies including 36 theses in English literature, 31 in English linguistics and 33 in English Language Teaching were collected from different universities in Pakistan. After the collection of PhD dissertations, separate corpus of the introduction sections of PhD dissertations in the field of English literature, linguistics and English Language Teaching (ELT) were developed. The collocation and frequencies of the main verbs used in the introduction sections of PhD dissertation were analyzed via the software Antconc (version: 3.4.1.0) by adopting the framework, ‘A Typology of Verbs for Scholarly Writing’ proposed by Frels, Onwuegbuzie and Slate. According to this framework, verbs in
academic writing are divided into following categories as per their functions.

Table 1: Functions and Types of Verbs

<table>
<thead>
<tr>
<th>FUNCTIONS OF VERBS</th>
<th>TYPES OF VERBS</th>
<th>EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Representing Statements</td>
<td>Explicit verbs</td>
<td>Indicated, mentioned, stated, declared, pronounced, remarked, noted, commented, documented, affirmed, asserted, reported, discussed, addressed, summed, acquiesced, conceded, suspected, predicted, defined, indicated, ascertained, bracketed, outlined, advised, cautioned, admonished, delineated, operationalized, excoriated, specified, described.</td>
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<td>Implicit verbs</td>
<td>assumed, speculated, explained, argued, associated, reinforced, suggested, interpreted, implied, considered etc.</td>
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<td>Inclusive verbs</td>
<td>Included, characterized, contained, comprised, consisted of, categorized, labeled, involved etc.</td>
</tr>
<tr>
<td>Representing Cognition</td>
<td>Comparison verbs</td>
<td>Compared, contrasted, discriminated, distinguished, differentiated, triangulated, represented, agreed, acquiesced, varied, attenuated, reduced etc.</td>
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<td></td>
<td>Verification verbs</td>
<td>Triangulated, confirmed, verified, established, corroborated, attested, designated, required, endorsed, validated, supported, substantiated, acknowledged etc.</td>
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<td></td>
<td>Interpretation verbs</td>
<td>Inferred, realized, concluded, learned, ascertained, investigated, realized, distinguished, interpreted, determined, deduced, surmised, represented, factored, grouped, clustered, subdivided, contended, unraveled, estimated etc.</td>
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<td>Cognition process verbs</td>
<td>Thought, believed, noticed, identified, recognized, discerned, scrutinized, realized, reasoned, enlightened, opined etc.</td>
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<td>Reference verbs</td>
<td>Consulted, summarized, expected, attested, decided, synthesized, represented, necessitate etc.</td>
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<td>Perception verbs</td>
<td>Conceived, felt, alluded, engendered, perceived, alluded etc.</td>
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<td>Proposition verbs</td>
<td>Speculated, hypothesized, established, posed, instituted, maintained, formalized, reviewed, surmised, conjectured, posited, put forward, associated, nominated, postulated, construed, proposed, provided, initiated, guided, theorized, gleaned, derived, debunked, framed, demanded, highlighted etc.</td>
</tr>
<tr>
<td>Representing Knowledge</td>
<td>Evidence based / Data Driven verbs</td>
<td>Noted, observed, found, documented, experienced, embarked, encountered, revealed, detected, tested, discovered, traced, observed, documented, experienced, uncovered, extracted, demonstrated, showed, emerged, surfaced, appeared etc.</td>
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<tr>
<td></td>
<td>Procedural verbs</td>
<td>Reviewed, consulted, scrutinized, adapted, analyzed, examined, performed, conducted, undertook, consented, originated, composed, produced, conceptualized, evaluated, contrived, investigated, obtained, connected, applied, built, sought, examined etc.</td>
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<tr>
<td></td>
<td>Visual verbs</td>
<td>Exhibited, displayed, illustrated, graphed, presented, mapped, depicted, represented, elucidated etc.</td>
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<td>Direct object verbs</td>
<td>Sampled, provided, gathered, collected, composed, randomized, chose, selected, elected, developed, contrived, modeled, provided, procured, preferred, extend, used, utilized, employed, expanded etc.</td>
</tr>
</tbody>
</table>
Creation verbs  Crafted, originated, developed, generated, synthesized, engendered, stimulated, instituted, constituted, theorized, established, maintained, devised, invented, expanded etc.

Results & Discussion

Verbs Representing Statements
In the corpora of introduction sections of PhD dissertations, the category of verbs representing statements occurred with the overall frequency of 792 times in English literature, 948 times in ELT and 828 times in English Linguistics. In this category explicit verbs that includes verbs given in above table, occurred with the frequency of 417 times in the corpus of English Literature, 444 times in ELT and 434 times in English Linguistics. These verbs have been used in the corpus with the meanings to represent or report some type of statements and their meanings pertained to the explicit, evident or overt representation of illustrating statements. Implicit verbs as verbs given in the above table, occurred with the frequency of 217 times in the corpus of English Literature, 266 times in ELT and 169 times in English Linguistics. These verbs have been used in the corpus with the meanings to implicit, implied or contained representation of statements. Whereas, inclusive verbs that include verbs given in the above table, occurred with the frequency of 152 times in the corpus of English literature, 238 times in ELT and 225 times in English Linguistics. These verbs perform the functions of inclusively representing statements by comprehensively encompassing different concepts and aspects. The comparative analysis of the above types of verbs in this category shows that explicit verbs occurred with highest frequency that exemplifies the primary significance of these verbs as scholars need to be clear and overt in representing statements. Whereas, there is no significant difference in the frequency of implicit and inclusive verbs that manifest that statements can be represented either implicitly or inclusively depending upon the nature of research.

Verbs Representing Cognition
In the corpora of introduction sections of PhD dissertations, the category of verbs representing cognition occurred with the frequency of 942 times in the corpus of English Literature, 1812 times in ELT and 962 times in English Linguistics. It includes comparison verbs as exemplified in the above table, occurred with the frequency of 159 times in the corpus of English literature, 129 times in ELT and 92 times in English linguistics. These verbs perform the functions of comparing, contrasting or linking two or more elements or statements to facilitate cognition in the research. Verification verbs that includes verbs given in the above table, occurred in the corpus of English literature with the frequency of 67 times, 134
times in ELT and 135 times in English linguistics. These verbs are used to perform the functions of authenticating, confirming, verifying or validating certain components i.e. different types of belief or thought etc., to facilitate the understanding or cognition process in the introduction sections of PhD dissertations. Interpretation verbs, given in the above table, occurred in the corpus of English literature with the frequency of 112 times, 914 times in ELT and 196 times in English linguistics. These verbs perform the functions of interpreting and evaluating the form of inferences made in the encoding of research in the introduction sections of PhD dissertations. Cognition process verbs that includes verbs given in the above table, occurred with the frequency of 265 times in the corpus of English literature, 160 times in ELT and 158 times in English linguistics. These verbs are used by scholars in order to refer to some type of cognition or thought aligned with the encoding of research, thus directly refers to the thinking patterns in the research in the introduction section of PhD dissertations.

Reference verbs as exemplified in the above table, occurred with the frequency of 21 times in the corpus of English literature, 47 times in ELT and 27 times in English linguistics. These verbs perform the functions of referring to other works or statements in order to systematically develop cognition in the introduction section. Perception verbs that includes verbs given in the above table, occurred with the frequency of 60 times in the corpus of English literature, 95 times in ELT and 46 times in English linguistics. These verbs have been used to represent perception or observation of the scholar or other scholars about the target research thus perform the function of illustrating the ideas and concepts conveyed by different scholars. The last type of verbs in this category is proposition verbs, given in the above table, occurred with the frequency of 265 times in the corpus of English literature, 333 times in ELT and 308 times in English linguistics. These verbs are used with the functions to propose or suggest certain components of research i.e. different arguments, concepts or theories etc. in the introductory sections of PhD dissertations. The comparative analysis of different types of verbs used in this category exemplifies that proposition verbs occurred with the highest frequency, interpretation verbs with second higher frequency, cognition process verbs with third higher frequency, Comparison verbs with fourth, verification verbs with fifth, Perception verbs with sixth; whereas, reference verbs occurred with the least frequency as compared to all the types of verbs used in this category. The comparison exemplifies that in representing cognition in the introduction sections of PhD dissertations, primary significance is given to proposition, interpretation, cognition process and comparison verbs. Whereas, the occurrence of verification,
perception and reference verbs also illustrate the secondary functions of these verbs in representing cognition.

**Verbs Representing Knowledge**

In the corpora of the introduction section of PhD dissertations, the category of verbs representing knowledge occurred with the frequency of 1029 in the corpus of English literature, 1858 in ELT and 1192 times in English linguistics. It includes evidence based/data driven verbs that includes verbs given in the above table, occurred with the frequency of 465 times in the corpus of English literature, 547 times in ELT and 266 times in English linguistics. These verbs are used to represent evidence or exemplify some type of data in illustrating certain research components in view of developing knowledge in the introduction sections of PhD dissertations. Procedural verbs as exemplified in the above table, occurred with the frequency of 152 times in the corpus of English literature, 237 times in ELT and 206 times in English linguistics. These verbs are utilized to perform procedural functions in representing knowledge in the introductory sections of PhD dissertations. Visual verbs, given in the above table, occurred with the frequency of 43 times in the corpus of English literature, 26 times in ELT and 56 times in English linguistics. These verbs are used to illustrate some visual components in the introduction sections of PhD dissertations.

Direct object verbs that includes verbs given in the above table, occurred with the frequency of 271 times in the corpus of English literature, 852 times in ELT and 582 times in English linguistics. These verbs are used to exemplify certain objects in the introduction sections to develop cohesion in the representation and understanding of knowledge. The last type of verb in this category is creation verbs, exemplified in the above table, occurred with the frequency of 97 times in English literature, 196 times in ELT and 82 times in English linguistics. These verbs fulfill the functions of creating and developing certain arrays of new knowledge as encoded in the introductory section of PhD dissertations. The comparative analysis of the different types of verbs used in this category exemplifies that direct object verbs occurred with the highest frequency, evidence based / data driven verbs occurred with second higher frequency, procedural verbs with third, creation verbs with fourth; whereas, visual verbs occurred with the least frequency. From the comparison of different types of verbs used in this category, it can be inferred that in representing knowledge direct object and evidence based/data driven verbs are of primary significance; whereas, procedural, visual and creation verbs are of secondary significance.
The above table 2 presents the comparative analysis of the categories and types of verbs used in the introduction sections of the selected PhD dissertations in the field of English Literature, English Language Teaching and English Linguistics. In the introduction sections of PhD dissertations, the category of verbs representing knowledge occurred with the highest frequency as compared to the other two categories of verbs. The comparative analysis of the different types of verbs used in this category exemplifies that direct object verbs occurred with the highest frequency, evidence based / data driven verbs occurred with second higher frequency, procedural verbs with third higher frequency, creation verbs with fourth higher frequency; whereas, visual verbs occurred with the least frequency. From the comparison of different types of verbs used in this category, it can be inferred that in representing knowledge direct object and evidence based/data driven verbs are of primary significance; whereas, procedural, visual and creation verbs are of secondary significance.

The category of verbs representing cognition occurred with second higher frequency in the introduction sections of PhD dissertations. The comparative analysis of different types of verbs used in this category exemplifies that proposition verbs occurred with the highest frequency, interpretation verbs with second higher frequency,
cognition process verbs occurred with third higher frequency, Comparison verbs with fourth, verification verbs with fifth, Perception verbs with sixth; whereas, reference verbs occurred with the least frequency as compared to all the types of verbs used in this category. The comparison exemplifies that in representing cognition in the introduction sections of PhD dissertations, primary significance is given to proposition, interpretation, cognition process and comparison verbs. Whereas, the occurrence of verification, perception and reference verbs also illustrate the secondary functions of these verbs in representing cognition.

The category of verbs representing statements occurred in third position as compared to the categories of verbs representing statements or cognition. It exemplifies that in the introduction sections, verbs representing statements are also of secondary significance. Statements in the introductory sections mainly appear in the encoding of objectives, research questions and rationale of research etc. In representing statements, explicit verbs occurred with highest frequency that exemplifies the primary significance of these verbs as scholars need to be clear and overt in representing statements. Whereas, there is no significant difference in the frequency of implicit and inclusive verbs that manifest that statements can be represented either implicitly or inclusively depending upon the nature of research.

Conclusion
By comparing all the categories of verbs, it can be observed that the category of verbs representing knowledge occurred with the highest frequency, verbs representing cognition occurred with second whereas, verbs representing statements occurred with the least frequency. The comparative analysis of the categories of verbs exemplifies that in the introduction sections of PhD dissertations in the field of English studies the primary emphasis is on the representation of knowledge aligned with the representation of cognition. Thus, specifically verbs representing knowledge and cognition need to be used in preference in the introductory section of a thesis. Whereas, to communicate the representation of knowledge and cognition, verbs representing statements are also to be used though with less frequency as compared to the other two categories of verbs.

Though English for Academic Purposes (EAP) in Pakistan is mostly at the theoretical level yet, there is a dire need for research to facilitate the descriptive and applied components of it as per actual practice in different fields. Writing introduction in dissertation is a very important section that directly link and disseminate the research conducted and clarify the different components like objectives, context
and significance etc., of the research. It is therefore, pertinent for writers to recognize the appropriate use of verbs to bring clarity in writing introduction. By describing the patterns of the categories and types of verbs, the study has illustrated the common patterns of the use of verbs, that can provide a practice model for writers to understand the use of academic verbs and their functions in developing academic literacy in writing introduction sections of dissertations in the field of English studies in Pakistan.
Notes and References

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