The Rhetorical Functions of Citations in the Discussion Sections of Two Articles in *Journal of English for Academic Purposes*

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**Abstract**

This study aims to examine the transitivity system of rhetorical functions in the Discussion section of two articles in the *Journal of English for Academic Purposes* by investigating the type of processes used in the rhetorical functions and how each type of process is represented in the English lexicogrammatical system. The data for this qualitative study were collected through genre analysis on two articles on citation practices from the *Journal of English for Academic Purposes*. The study found that comparison with sources and attribution were the most prominent rhetorical function within the Discussion section and that in comparison with sources, verbal processes were the most dominant type of processes, followed by relational, material, and mental processes, while in attribution, relational processes were the most used type of process, with material, verbal, and mental processes following behind. The findings of the study also showed that both comparison with sources and attribution were equally important in the Discussion section.

**Keywords**: rhetorical functions, citations, transitivity system, discussion

**INTRODUCTION**

It is now largely accepted that academic writing is a social activity in which academic writers negotiate with their audience to gain community acceptance for their findings. Texts are never created in isolation (Bazerman, 2004). This is particularly evident in academic texts. Referring to other texts, mainly through citations, which is regarded as a social process of knowledge construction, as a matter of course, is unavoidable in academic writing. Accordingly, Hyland (2004) claims that “explicit reference to prior literature is a substantial indication of a text’s dependence on contextual knowledge and thus a vital piece in the collaborative construction of new knowledge between writers and readers” (p. 21). For this reason, overt references are significant and considered as imminent traits of research articles.

Citation can be considered a central issue in writing acceptable research from various angles. Swales (2014) describes citation as a way for an author to introduce and discuss the contributions of other researchers and scholars by discussing previous literature for the author to establish a relationship in any particular discipline; it customarily refers to the act of giving credit to the author of any document which has been cited in any written work. Writing academic texts such as journal papers or theses requires an author to acknowledge other researchers' work through proper use of citations. Hence, the citation is regarded as the most definite and obvious indication that a text is academic (Swales, 2014). Swales (2014) further asserts that through citing, an author
can discuss the contributions of other researchers as such knowledge displays previous literature which, in return, allows the researchers to establish membership of any disciplinary community.

The importance of citations as a rhetorical device in academic discourse comes from their potential not only to acknowledge selected previous research but also to evaluate the work of others, to support the writers’ arguments, and promote their work and knowledge claims, i.e. Citation is central to academic persuasion (Bennet, 2015). This is reflected in Badenhorst’s (2017) research on the intertextuality nature of citations in graduate student writing, which found that citations, among others, were used to convince and build persuasion to suit to their argument. No matter the discipline is, Karatsolis (2016) claims that citation is a very complex communicative process in that citations are used in multiple ways, and with numerous functions. That is why the practice of citing should be given more attention in research.

As a central feature in research writing, the citation has received increasing attention in the academic community. Apart from contributions from disciplines like information of science and sociology of science (see White, 2004), applied linguists have also delved into various aspects of citation, such as integral vs. non-integral citations (Charles, 2006), self-citation (Hyland, 2001; Harwood, 2005), and functions of citations (Harwood, 2009; Mansourizadeh & Ahmad, 2011; Samraj, 2013; Hu & Wang, 2014; Fazel & Shi, 2015), thus foregrounding the significance of citation practices in the international academic community.

In recent years, the patterns of citation use have been explored in written academic discourse (e.g. Harwood, 2009; Hewings et al., 2010; Shooshtari & Jalilifar, 2010; Hyland & Jiang, 2015; Badenhorst, 2017). Harwood (2009) carried out an interview-based study on citation functions employed by computer scientists and sociologists, resulting in a total of eleven functions based on the participants’ words. While the sociologists used citations more to engage the reader, the computer scientists employed them more to signpost. Following Harwood (2009), Mansourizadeh and Ahmad (2011) conducted a case study on citation practices in research articles written by non-native experts and papers written by novice writers from the same discipline and with the same language background. The analysis revealed that non-integral citations were the most dominant type used by the writers and that citations were employed less by novice writers compared to the expert writers.

In a more precise genre-based study, different aspects of the rhetorical functions of citations have been steadily researched in the field of applied linguistics, for instance, the comparison of citation functions in various disciplines (Harwood, 2009), different groups of writers, such as native speaker student writers vs. non-native speaker student writers in Borg (2000); non-native speaker high-rated thesis writers vs. non-native speaker low-rated thesis writers in Petrić (2007); non-native speaker expert writers vs. non-native speaker novice writers (Mansourizadeh and Ahmad, 2011; Kafes, 2017); between the corresponding sections in research articles and degree theses (Samraj, 2013); between two different departments at a university (Ramoroka, 2014); and within a group of Indonesian authors (Arsyad and Adila, 2017).

Additionally, as the use of citations is an essential feature of academic writing for academic writers to achieve different purposes, how each citation is shaped to convey the writer’s meaning is equally important. This is where the transitivity analysis comes in. Among various frameworks related to citation practices, the transitivity analysis of citations has not been looked into. In addition to the fact that understanding how the writer presents their reality in the form of citations, transitivity analysis is necessary concerning how the function is shaped by the form, and the opposite also applies. Thus, to bridge this gap, transitivity analysis of the rhetorical functions of citations is researched in this study, with the following research question: 1) What is the transitivity of rhetorical functions in the Discussion section of two articles in the Journal of English for Academic Purposes? that is further elaborated into two sub-questions: a) What type of processes are used in the rhetorical functions? and b) How is each type of process represented in the English lexicogrammatical system? These questions were answered by conducting genre analysis on two selected articles from the Journal of English for Academic Purposes.

This study is expected to offer important insights into the transitivity system of the rhetorical functions of citations. The result of this study can serve as a reference for future researchers delving into the transitivity system and the rhetorical functions of citations. Additionally, the insights gained from this study will hopefully be of assistance to both lecturers and students of the English Language Education Program Study in understanding the rhetorical functions and transitivity system of citations.
RESEARCH METHOD

This research used qualitative study, particularly genre analysis and transitivity analysis, to examine the rhetorical functions and transitivity system of citations in the Discussion sections of two articles taken from the *Journal of English for Academic Purposes: Citation behaviors of graduate students in grant proposal writing* (Ismaeil and Ling, 2015) and *Citation practices among non-native expert and novice scientific writers* written by Kobra Mansourizadeh & Ummul K. Ahmad (2011). The Discussion section was selected because some have considered it to move from specific to general, a mirror reflection of introduction sections, but such cycles have been found to occur repeatedly, moving each research question to its implications (Yang & Allison, 2003).

<table>
<thead>
<tr>
<th>Article</th>
<th>No. of Sentences</th>
<th>No. of Clauses</th>
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</thead>
<tbody>
<tr>
<td>Article 1</td>
<td>15</td>
<td>47</td>
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<tr>
<td>Article 2</td>
<td>16</td>
<td>31</td>
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<th>Article 1</th>
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Table 1: Data obtained for the study

Halliday (2013)’s transitivity analysis and Petrić’s (2007) functional typology of citations were employed. Petrić’s (2007) system was built on Thompson and Tribble’s (2001) mixed classification to suggest a functional typology of integral and non-integral citations which comprises of nine categories: *attribution*, *exemplification*, *further reference*, *statement of use*, *application*, *evaluation*, *establishing links between sources*, *comparison of one's findings or interpretation with other sources*, and *other*. On the other hand, Halliday’s (2013) transitivity analysis was used to explain how each citation in the articles was shaped. Each citation was analyzed in the transitivity system with the following formula: "Who (or what) did what to whom (or what) where, when, how and why" (Halliday & Matthiessen, 2014). "Who and what" represent participant; "did what" represents process; and "where, when how, and why" represent circumstance.

The data were analyzed by classifying the sentences and clauses into the rhetorical functions and processes used in Microsoft Excel, with color codes to represent the Process (red), Participant (green), and Circumstance (blue).

RESULTS AND DISCUSSION

A. Rhetorical Functions of Citations in the Discussion Sections of Two RAs

In the present study, a total of 31 citation instances consisting of 78 clauses were identified. It was revealed that in comparison with sources, verbal processes were the most commonly used type of process, with relational, material, and mental processes following behind. As for the attribution function, relational processes were the most prominent type of process in this function, followed by material, verbal, and mental processes. Additionally, in one instance of establishing a link between sources, it was found that relational process, particularly identifying one, was used in the function.

<table>
<thead>
<tr>
<th>Function</th>
<th>Frequency</th>
<th>Percentage</th>
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<tr>
<td></td>
<td>Article 1</td>
<td>Article 2</td>
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<tr>
<td>Comparison with sources</td>
<td>8</td>
<td>7</td>
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<tr>
<td>Attribution</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Establishing links between sources</td>
<td>1</td>
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</tbody>
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Table 2: Rhetorical functions of citations in the discussion section of two articles

The percentages of different rhetorical functions of citations in the RAs showed that within the Discussion section, the most common function of citations in the two RAs were comparison with sources (48.38%) and attribution (48.38%), followed by establishing links between sources (6.67%). Yet, it is necessary to point out that the writers of Article 1 leaned towards using comparison with sources more, while the writers of Article 2 relied more on the default citation function, that is attribution. Regardless of that, these findings showed that both comparisons with sources and attribution were equally important in the Discussion section.
The comparison with sources function was used mainly to draw attention to the similarities of the findings with previous research, or in a few instances, the dissimilarities. The prominence of comparison with sources showed that the article writers acknowledged the contribution of other authors more than merely attributing information to other authors in the field. Another most used citation function in the Discussion section was attribution, which was used to show knowledge of relevant views, theories, methods, and findings, without indicating a relationship between previous research and the author's work and without passing explicit evaluative judgment. Since these unmarked functions of citations are not integrated directly into the writer's argument, they are considered rhetorically simple in addition to being the default citation function, while non-attributional citations were viewed as rhetorically complex as they involved an analytical approach and transformation of knowledge associated with establishing connections between various sources, evaluating previous research and relating it to the writer's findings and claims (Petrić, 2007). Additionally, the present study found only one instance of establishing links between sources to show focus or findings. This result was expected as according to Mansourizadeh & Ahmad’s (2011) study, this particular citation function was mainly employed in the Introduction section.

These results supported Mansourizadeh & Ahmad’s (2011) and Petrić’s (2007) study that attribution, comparison with sources, and establishing links between sources were the rhetorical functions present in the Discussion section. It is necessary to note, however, that the distribution of comparison with sources in Article 1 was different from that of Mansourizadeh & Ahmad's (2011) and Petrić’s (2007) study, which found that the comparison with sources was used the most, instead of attribution. As what has been previously stated, this cemented the notion that both attribution and comparison with sources were the most frequently utilized functions in the Discussion section, showing that the article writers rely on previous research's findings to support their own findings, and that attributing information or idea to other authors in order to show knowledge of the particular field were equally important in the Discussion section of both articles.

B. Lexicogrammatical System of Comparison with Sources

In the present study, comparison with sources was found to be the most used function in the Discussion section, along with attribution, with a total of 15 instances of citation which comprised of 45 clauses. In the Result and Discussion section, writers were required to present and justify their findings concerning existing knowledge in the field and argue them persuasively, therefore, it is no surprise that comparison with sources was revealed to be the most frequently employed function because it was the most suitable citation function for this purpose.

The study found 17 instances of verbal processes in the comparison with sources function. Verbal processes are symbolic relationships constructed in human consciousness and enacted in the form of language representing saying and meaning. The present study discovered that verbal processes were realized in the form of verbs to claim, to establish, to support, to project, to contextualize, to impress, suggest, mentioning, and is claimed.

While it is often claimed that it is of crucial importance for writers to establish their voice and authority in their writing (Abasi et al., 2006; Thompson, 2005b) and project themselves as authors (Ivanic, 1998) (2.9.1)

(…) to establish their voice and authority in their writing (Abasi et al., 2006; Thompson, 2005b) (2.9.3)

As shown by the samples, they were used to describe the previous studies. For instance, the circumstance of Location that accompanies the process to establish in (2.9.3) was identified to be utilized in the form of in their writing, which explicitly referred to previous studies (see 2.9.1).

Concerning relational processes, 7 instances of relational identifying and 7 instances of relational attributive processes in comparison with sources were discovered.

Our data illustrate that participating students, like established scholars or faculty members, used citations in grant proposals to claim knowledge, to claim importance, to establish a territory, and to claim competence (e.g. Connor & Mauranen, 1999), as well as to support the point they were making (Feng, 2011). (1.1.1)
Relational identifying processes were found to use verbs such as *illustrate, seemed to rely upon, was found, is, suggests, supports,* and *has shown.* Taking into account that the elaboration of significant findings was an obvious aspect in the Discussion sections, this result had been expected. They were revealed to be used to compare the processes in the act of citing, for instance, in (1.1.1), relational identifying was utilized in the form of the verb *illustrate* to compare the purposes in a citation, which was said to be *to claim knowledge, to claim importance, to establish a territory, and to claim competence,* as well as *to support the point they were making.*

Such performing through citation is in common with the performance of participants in Harwood and Petric (2012). (1.8.1)

Additionally, relational attributive processes establish a relation of class membership between two Participants by signaling to the reader that an entity (a Participant called Carrier) has “some class ascribed or attributed to it” (Halliday, 2004). The present study identified that the attributive processes in the Discussion section used the verbs *is, corroborates,* and *has been shown to occur* to compare the writers’ findings and other researchers’ works. For example, in (1.8.1), the writers’ findings, recognized by *such performing through citation,* are compared with Harwood and Petric’s (2012) findings.

As for material processes, the study found 13 samples of material processes in comparison with sources. It was discovered that they were applied with the verbs *use, emulate, writing, performing, deploy, documented, received, have not been given, employed,* and *to attribute* in which all of them were closely related to how citations were used.

(…) student grant writers deploy citations to project a scholarly identity and to impress the grant reviewers. (1.14.2)

In (1.14.2), the material process was realized by the verb *deploy,* which referred to the following word: *citation,* with the overall sentence pointing to the reason why student grant writers used citations, according to the study’s findings.

These comments remind us of previous reports of how graduate students emulate other writers in writing for publication (e.g., Flowerdew & Li, 2007). (1.7.1)

Moving onto the mental process, only one mental process was found in the form of the verb *remind* in (1.7.1), which was utilized to compare the writers’ findings (these comments) and Flowerdew & Li’s (2007) previous reports, particularly on *how graduate students emulate other writers in writing for publication.* In (1.7.1), the inanimate Senser was *these comments* that tied with the animate Senser *us,* and the Phenomenon in which the Senser we felt was that of previous reports of how graduate students emulate other writers in writing for publication (e.g., Flowerdew & Li, 2007).

C. Lexicogrammatical System of Attribution

Attribution is a basic citation function that is used to describe the existing knowledge of the field and awareness of the literature. This citation function is said to be "rhetorically the simplest" citation function (Petric, 2007) and one which does not demand advanced rhetorical skills compared to some other functions. In the present study, attribution was revealed to be the most used function in the Discussion section alongside with the comparison with sources, with a total of 15 instances of citation which comprised of 30 clauses.

12 relational attributive and 4 relational identifying processes were identified. In attribution, relational attributive processes were found with the processes ‘be’, ‘reach’, ‘put’, ‘keep’, ‘achieve’, and ‘serve’ which were represented by the verbs *might be, is, reached, to put, to keep, achieved, serves, said to be,* and *are.* Relational attributive processes were used to describe the object of the research, in this case citation, and to attribute ideas and information to other writers.

In experimental articles, ‘evidence’ serves as an important tool for establishing new claims (Bazerman, 1988) which are only available through citation. (2.11.1)
The findings highlight that learning to write a grant proposal, much like learning other genres of academic writing, is a process of “becoming”, “identity” formation, and “socialization” (e.g., Duff, 2010). (1.11.1)

Relational identifying processes, too, were revealed to be used in attribution to define the general findings of the study. The findings that were highlighted in (1.11.1) was the Value that was that learning to write a grant proposal, much like learning other genres of academic writing, is a process of “becoming”, “identity” formation, and “socialization”.

Concerning material processes, the study discovered 7 samples of material processes in the attribution function. Material processes were used in the function with the verbs use, learning, to write, interacting, to promote, and can enhance, all of which referred to the use of citations. In all of the samples, use, learning to write a grant proposal, to write a grant proposal, interacting and learning, learning other genres of academic writing, promoting, and can enhance all referred to the act of “doing”.

This citation function rhetorically helps the writers to promote the credibility and acceptability of their results, as confirmation between more sources can enhance factual status (Latour & Woolgar, 1979). (2.15.1)

As for verbal processes, 6 instances of verbal processes were found in attribution which took the form of verbs illustrates, to demonstrate, to make, demand, need to be presented, and explains. They were closely interlinked with other writers’ saying. In (1.10.4), the verbal process was made explicit by the circumstance of angle as Hyland (2012) put it, with the verb put it indicating that one was saying something, which in turn was realized by the verb to make.

and as Hyland (2012) put it, to make an academic identity claim. (1.10.4)

Moving onto the mental process, similar to comparison with sources, the study found only one sample of mental process in attribution. The process of grapple was used to describe the general issues and challenges faced by the participant which was the novice and emerging scholars, thus the use of the mental process. The circumstance that accompanied the process of the grapple was also explicitly stated, with the issues and challenges affecting their “authorial self” (Ivanic, 1998), which might be unsubstantiated and in the process of being transformed, and thus fragile.

Understandably, novice and emerging scholars grapple with the issues and challenges affecting their “authorial self” (Ivanic, 1998), which might be unsubstantiated and in the process of being transformed, and thus fragile. (3.9.1)

D. Lexicogrammatical System of Establishing Links between Sources

Only one sample of evidence of the relational identifying process in establishing links between sources was identified.

Self-citation, a common practice in expert academic writing (Hyland, 2003), has been observed in previous studies (e.g., Feng, 2011; Myers, 1990) where grant writers mentioned their previous work. (1.6)

As shown by the sample, the process of relational identifying was identified with the verb has been observed to establish a link between other studies, particularly Feng’s (2011) and Myers’s (1990) studies, with similar findings that self-citation was a common practice in the field of expert academic writing (Hyland, 2003). The sample also showed that Token was the primary participant, who served as an identity in which the establishment of links between sources drew upon, which was assigned to self-citation, a common practice in expert academic writing (Hyland, 2003). The circumstance of Location, in the sample above, acted as "the other studies" in the citation function of establishing links between sources, which was realized by the verb has been observed to establish a link between the writers’ previous studies to show focus or findings.
CONCLUSION AND RECOMMENDATION

The main purpose of the present study was to analyze the rhetorical functions of citations and the transitivity system of citations in the Discussion section of two articles on citation practice taken from the Journal of English for Academic Purposes. Despite the scope, it was found that attribution, comparison with sources, and establishing links between sources were the rhetorical functions used in the Discussion section of the articles, among other functions, supporting previous studies on rhetorical functions by Mansourizadeh & Ahmad’s (2011) and Petrić’s (2007), although the distribution of each function varies, in that Article 1 writers considerably leaned more towards comparison with sources, rather than attribution, which was more prominent in Article 2. Given how attribution was the most rhetorically simple citation function as it was not integrated directly into the writer's argument, this result had been expected. Note that comparison with sources was revealed to be the function that was similarly employed the most as to allow the writers of the article to interpret the findings of their study concerning the existing framework of knowledge, showing that both attribution and comparison with sources were equally important in the Discussions section of both articles.

In addition to rhetorical functions, transitivity analysis was performed to understand how the citations were shaped in the articles. In light of the genre analysis, each rhetorical function possessed their own communicative purposes, which could serve to help understand the ways of communicating in a discourse community. Various types of processes were used to communicate with readers. As there were not enough samples of establishing links between sources to conclude from in the present study, only the transitivity system of comparison with sources and attribution were inferred.

In comparison with sources, verbal processes were the most prominent type of process, followed by relational, material, and mental processes. Verbal processes were used when the writers described previous studies concerning their work. This could be linked to the writers’ authoritativeness, which was significant in strengthening their argument under discussion. Relational processes served to explain how the findings were associated with other relevant findings, while also retreating from interpersonal utterances. Additionally, material processes were involved with clauses of "doing". It is acknowledged that this process was expected to be written in terms of a detailed description of the statistical devices used to support the generalizable findings. By doing so, this process represented object-oriented processes and lacked interpersonal clauses, like mental processes, which considerably had lower frequencies.

On the other hand, relational processes were the most frequent type of process encountered in the attribution function, followed by material, verbal, and mental processes. The writers seemed to depend on relational processes more in this function to underline the accuracy of information. Material processes were used in this particular function to report the findings of the study on how the participants used the citations. The low frequencies of mental and verbal processes supported the tonal style of objectivity throughout the function.

In any case, the findings of this research have confirmed the relation between the use of rhetorical functions and transitivity analysis to understand how citations are shaped in texts. Transitivity analysis in the present study revealed how the communicative purpose of each function could be realized by different process types. The findings, therefore, suggested that rhetorical functions of citations and transitivity of citations should receive more attention in the field of written academic discourse. It is recommended that future studies on the transitivity of citations should be carried out to explore the similarities and differences in the field of written academic discourse. Further, analyzing individual journals would offer insights to comprehend the communicative effects on discursive variations.

REFERENCES


