

# Types of Citations Found in Research Article Introductions Across Disciplines: Hard and Soft Sciences

Zin Win Mar  
Banmaw University  
zinwinmar708@gmail.com.

## Abstract

*The research aimed to study the different types of citations found in the research article introductions across disciplines. The objectives were to find out the main types of citation and classify them into the sub-types of citation found in the introductions across disciplines, and to make a comparative study of these types of citations between the research article introductions written by hard and soft discipline writers. Using Thompson and Tribble [1], the citations found in 20 research article introductions across the disciplines were investigated. The results revealed that the frequency of integral citations was greater than that of non-integral citations and non-citation was mostly used and reference was the least use. Besides, the non-integral citation by hard writers was more frequently used than that by soft writers. It is suggested that further studies on citation practices used in different subsections of a research article on disciplinary variations could be done.*

**Keywords** — citation, research article introductions, hard and soft discipline writers

## 1. Introduction

Academic writers use citation for various reasons and it is a crucial item in academic writing [2]. The authors, according to some reasons in Weinstock's [3] study, cite to give credit for related work, provide background reading, and identify not only methodology, equipment, etc. but also original publications in which an idea or concept was discussed (p.19). In addition, the loss of citing the original authors' works properly cannot avoid plagiarism [4]. The present research, therefore, attempts to study the different types of citations found in the research article introductions across two disciplines: hard and soft sciences. A research article consists of four sections: Introduction, Method, Results, and Discussion [5]. Citations can mostly be found in the introduction section of the research article [6]. According to Swale as cited by Adila [5], citation is the main place where authors evaluate or review what has been investigated or discovered by other researchers in previous related studies. Therefore, only the citations in the introduction sections of the research articles were chosen as materials in order to carry out this study. From different perspectives, many studies have focused on citations in different genres of academic writing: assignments [7], Masters' theses [2], [8] [9], [10], doctoral theses [11], [12], [13], [14] and research articles [9], [15], [16]. However, there have been few

studies on citation practices in research article introductions on disciplinary variations in particular [16], [17]. The research may possibly seem to fill in the gap, investigating citation types only in the introduction sections across disciplines.

The aim here is to study the different types of citations found in the research article introductions across disciplines. The objectives were to find out the main types of citation and classify them into the sub-types of citation found in the introductions across disciplines, and to make a comparative study of these types of citations between the research article introductions written by hard and soft discipline writers.

## 2. Theoretical Background

### 2.1. Citation

Citation is one of the most important features of writing, which is natural, and citation practices are considered as an essential element of academic writing [15].

White [18] regarded citation as a complex communicative purpose with syntactic, semantic, and pragmatic variables (p. 112).

As stated by Arsyad et al. [16], reviewing and citing literature are essential elements determining the quality of academic texts such as research articles (RAs) (p. 30).

### 2.2. Types of Citation

Swales [5] has classified citation into Non-integral and Integral Citations. He also states that citation which appears outside the sentence is non-integral and it has no grammatical role within a sentence. The citation at the beginning of the paragraph is integral and it takes grammatical function in a sentence [1]. They extend Swale's binomial classification of citation in terms of functions. All examples shown below are taken from [1]. Non-integral Citation can be divided into four sub-categories: Source, Identification, Reference, and Origin [1].

Source: It's function is to attribute a proposition to another author.

e.g. Citation is central ... because it can provide justification for arguments (Gilbert, 1976)

The citation provides evidence for a proposition which can remain unchallenged if the writer is in agreement with it, or can be countered by the ensuring argument. This type of citation is called source because it indicates where the idea comes from.

Identification: The second type of non-integral citation identifies an agent within the sentence it refers

to.e.g. A simulation model has therefore been developed to incorporate all the important features in the population dynamics (Potts, 1980)

In this example above, the information within the parentheses states the author of the study referred to.

Reference: This type of citation is usually signaled by the inclusion of the directive "see".

e.g. DFID has changed its policy recently with regard to ELT (see DFID, 1998).

Reference is often similar to a source citation in that it can provide support for the proposition made, but it also functions as a shorthand device: This type is particularly common in reference to procedures or to detailed proof of arguments which are considered too lengthy to be repeated.

Origin: Source citations attribute a proposition to a source in origin. Origin citations indicate the originator of a concept or a product – in this case, the creator of the Wordsmith Tools programme.

e.g. The software package used was Wordsmith Tools (Scott, 1996).

According to Thompson and Tribble [1], Integral Citations can also be sub-categorized into Verb-controlling, Naming, and Non-citation.

Verb-controlling: It is the type of citation which acts as the agent that controls a verb, in active or passive voice. e.g. Davis and Olson (1985) defines a management information system more precisely as...

Naming: The citation is a noun phrase or a part of a noun phrase. This distinction here is primarily grammatical but the form also implies a reification, such as when the noun phrase signifies a text, rather than a human agent. e.g. Typical price elasticity of demand for poultry products in Canada, Germany and the UK are shown in Harling and Thompson (1983).

Another example of reification is when the naming citation identifies a particular equation, method, formulation, or similar construct with individual researchers.e.g. In this paper, the management information system (MIS) definition of Davis and Olson (1985) has been used.

An alternative type of naming citation is similar to a verb-controlling citation in that it reports work done by particular researchers.

e.g. Work by Samuel and East (1990) demonstrated that variety and seed rate had considerable effects on yield and quality aspects.

Non-citation: There is a reference to another writer but the name is given without a year reference. It is most commonly used when the reference has been supplied earlier in the text and the writer does not want to repeat it. e.g. The "classical" form of the disease, described by Marek, causes significantly mortality losses.

### 3. Method

A total of 20 research articles across two different disciplines were chosen from University of Mandalay Research Journal (UMRJ), Vol. 10, No. 1, 2, 3 and 4 published in the year 2019 first. In this research, 10

research articles (RAs) in the field of hard science which includes Chemistry (Chem) and Zoology (Zool) and the other 10 in soft science which includes Philosophy (Phil) and Psychology (Psy) were, then, selected. Thompson in the year 2005 finds that writers used more citations in the Introduction to explore a gap for their study [2]. Therefore, citations found in each introduction section of these research articles were analyzed and categorized, following the classification scheme of Thompson and Tribble [1]. Table 1 below describes the materials used for this study.

**Table 1. The materials used for this study**

UMRJ	Discipline	RAs	Page
Vol.10, No. 3 (P. 1-40)	Hard (Chem)	5	40
Vol.10, No. 4 (P. 149-207 )	Hard (Zool)	5	59
Vol. 10, No.1 (P. 353-394)	Soft (Phil)	5	42
Vol. 10, No.2 (P. 1-35)	Soft (Psy)	5	35
<b>Total</b>		<b>20</b>	<b>176</b>

### 4. Results

The present research confirmed the results based on the classification scheme of Thompson and Tribble [1].

**Table 2. The frequency and percentage of the two main types of citations**

Citation	Occurrence	Percentage
Non-integral	66	39%
Integral	104	61%
<b>Total</b>	<b>170</b>	<b>100%</b>

Table 2 above shows the frequency and percentage of the two main types of citations: non- integral and integral citations found in 20 research article introductions across two disciplines. The results revealed that a total of 170 cases in 20 article introductions were recorded in this study. Besides, non-integral citations used in the introductions are 66 cases which represent 39% while 104 cases of integral citations, which represent 61% of all the cases. Integral citation was more frequently repeated than non-integral citation in the research article introductions. So, it is clearly seen that the writers used the integral type of citation which has grammatical role within a sentence.

**Table 3. The frequency and percentage of the seven sub-types of citations**

Citation	Occurrence	Percentage
Source	53	31%
Identification	6	4%
Reference	2	1%
Origin	5	3%
Verb-controlling	30	18%
Naming	19	11%
Non-citation	55	32%
<b>Total</b>	<b>170</b>	<b>100%</b>

Table 3 describes the sub-types of citations found in the research article introductions across disciplines. A total of 170 cases in 20 introductions were found in this study. In the scheme of classification by Thompson and Tribble [1], non-integral citation is categorized into four sub-types: source, identification, reference, and origin whereas integral citation is further divided into three sub-types: verb-controlling, naming, and non-citation. Non-citation (32%), the sub-type of integral citation, was mostly found among all sub-types of citation. This sub-type was slightly higher than the integral source (31%) which was followed by identification (4%) and origin (3%) and reference (1%). So, reference citation (1%) was scarcely found. Besides, both verb-controlling (18%) and naming (11%) were used in the introductions. It is learnt that both hard and soft discipline writers used all sub-types in introduction sections. In this research, the writers mostly used integral non-citation because they did not want to use the repeated reference supplied earlier in the text. Moreover, both soft and hard writers rarely used non-integral reference as a shorthand device. The results described that the writers hardly cited the detailed proof of too lengthy arguments to be repeated in their research article introductions.

**Table 4. The frequency and percentage of citations written by hard and soft discipline writers**

Citation	Hard	Soft
Non-integral	54 (32%)	12 (7%)
Integral	12 (7%)	92 (54%)
<b>Total</b>	<b>66 (39%)</b>	<b>104 (61%)</b>

Table 4 shows that soft discipline writers used 104 cases representing 61% though the hard discipline writers used 66 cases which represent 39%. So, the soft discipline writers used more citations than the hard discipline writers. From this study, the percentage of non-integral citations by hard discipline writers was 32% and that by soft discipline writers was 7%. Besides, integral citation written by the soft discipline writers was found at 92 (54%) and that used by the hard discipline writers at 12 (7%). The results, therefore, showed that the hard discipline writers used more non-integral citations than soft discipline writers while the soft discipline writers used more integral citations than hard discipline writers. A total number of citations that the soft discipline writers used was 104 cases (61%). The hard discipline writers used 66 cases representing 39%. It is, therefore, learnt that the writers in soft discipline used more citations (non-integral and integral) than those in hard discipline.

The obtained results do agree with Thompson [12] who confirms that soft discipline writers prefer integral citation over non-integral citation. In contrast, the present research does not agree with the study of Bahadorfar and Gholami [2] because they find that soft discipline writers used more non-integral citations than hard discipline writers. In general, the present study concerns with the previous paper on citation in research article introduction [17] as she discusses that the use of non-integral citation is far more dominant than that of

integral citation in her paper. It can be seen that the results can vary because the number of citations depends on the purposes of the writers' works.

## 5. Conclusion

Based on Thompson and Tribble [1], the present research attempted to study the different types of citations found in the research article introductions across hard and soft disciplines. 170 citations were found in 20 research article introductions and they were analyzed and classified into the different types of citation. Moreover, the types of citations by the hard discipline writers were compared to those by the soft discipline writers. The results revealed that the use of integral citations (61%) was greater than that of non-integral citations (39%) and the non-citations (32%) were mostly used and reference (1%) was the least frequent sub-type found in the research article introductions. Moreover, the non-integral citation (32%) by hard discipline writers was more frequently used than that (7%) by soft discipline writers whereas the integral citation (54%) by soft discipline writers were more frequently occurred than that (7%) by hard discipline writers in the study. It is thus suggested that further researches on citation practices used in different subsections of a research article on disciplinary variations could be carried out.

## Acknowledgements

I would like to say my gratitude to Dr May Phy Oo, Rector of the University of Computer Studies (Banmaw) to submit the research. I also wish to thank my mother for her support and encouragement throughout my study.

## References

- [1] C. Tribble, and P. Thompson, "Looking at citations: Using copra in English for academic purposes", *Language Learning & Technology*, 2001; 5(3), 91-105.
- [2] J. Gholami, and R. Bahadorfar, "Types and functions of citations in Master's theses across disciplines and languages", *Discourse and Interaction*, The Trade Center of Masaryk University Brno, Czech Republic, 2017, pp. 27-45.
- [3] M. Weinstock, "Citation indexes", *Encyclopedia of Library & Information Science*, Boca Raton, FL: CRC Press, New York, 1971; pp. 16-40.
- [4] Groom, N., Attribution and averral revisited: three perspectives on manifest intertextuality in academic writing. In Thompson, P. (Ed.), *Patterns and Perspectives: Insights for EAP Writing Practice*. Reading, UK: CALS, The University of Reading; 2000.
- [5] Swales, JM. *Genre Analysis: English in Academic and Research Setting*. Cambridge University Press, 1990.
- [6] Swales, JM. *Patterns of engagement: dialogistic features and L2 postgraduate writing*: Cambridge University Press, 2004.
- [7] Borg, E. Citation practices in academic writing. In Thompson, P. (Ed.), *Patterns and Perspectives: Insights*

- into EAP Writing Practice (pp. 27-45). Reading, UK: CALS, The University of Reading. 2000.
- [8] A. Jalilifar, and R. Dabbi, "Citation in applied linguistics: analysis of introduction sections of Iranian Master's Theses. 2012". Available from <http://www.linguistik-online.net> > jalilifar
- [9] B. Samraj, "Form and function of citations in discussion sections of Master's theses and research articles", *Journal of English for Academic Purposes*, Elsevier BV, UK , 2013, pp. 299-310.
- [10] I. Pramoolsook, and T.T.N. Loan, "Citations in literature review chapters of TESOL Master's Theses by Vietnamese Postgraduates", *GEMA Online Journal of Language Studies*, Universiti Kebangsaan, Malaysia, 2016, pp. 17-32.
- [11] R.Y. Dong, "Learning how to use citations for knowledge transformation: non-native doctoral student's dissertation", *Research in the Teaching of English*, National Council of Teachers of English, United States, 1996, p.p. 428-457.
- [12] Thompson, P. Citation practices in PhD theses. In L. Burnard, & T. McEnery (Eds.), *Rethinking Language Pedagogy from a Corpus Perspective*. Frankfurt: Peter Lang. 2000.
- [13] P. Thompson, "Points of focus and position: intertextual reference in PhD Theses", *English for Academic Purposes*, Elsevier, UK ,2005, pp. 307-323.
- [14] C. Soler-Monreal, and L. Gil-Salom, "A cross-language study on citation practice in Ph.D. theses", *International Journal of English Studies*, Universidad de Murcia, Spain, 2011, pp. 53-75.
- [15] K. Hyland, "Academic attribution: citation and the construction of disciplinary knowledge", *Applied Linguistics*, Oxford University Press, UK, 1999, pp. 341-367.
- [16] D. Susyla, M. Ziam, and S. Arsyad, "Review and citation style in research article introductions: a comparative study between national and international English-medium journals in medical sciences", *Discourse and Interaction*, The Trade Center of Masaryk University Brno, Czech Republic, 2018, pp. 28-51.
- [17] Adila, D., The rhetorical style of Indonesian authors' citation in English research article introductions. Paper presented at the Fourth International Seminar of English Language and Teaching [ISLET-4], 2016.
- [18] White, H.D., *Citation analysis and discourse revisited*. Applied Linguistics, Oxford University Press, UK, 2004, pp. 89-116