Citation Quality Analysis in Iranian and International High-rank Journals

Maryam Barghamadi*
Flinders University, Australia
Masood Siyyari
Science and Research Branch of Islamic Azad University (SRBIAU), Iran

Abstract
In the academic context, a citation is a fundamental aspect of academic writing that helps authors to providing strong argumentation, evaluate and express their attitude towards previous studies. This study aims to investigate the types and functions of citation in the research articles. To this end, a corpus of 60 research articles from 3 high- rank Nursing and Midwifery and Applied Linguistics journals that were written by Iranian scholars (in local journals) and international writers were selected, and their citation patterns were analysed based on Thompson and Tribble's frameworks (2001). Then, the Chi-square and Fisher's exact tests were run to investigate the similarities and differences in the citation patterns in the selected journals from a statistical point of view. Although the corpus-based analysis revealed that the Iranian journal articles had a higher density of citations than international journal articles, the international scholars utilised all citation patterns. The results of this study could be used effectively by EAP teachers, students, and novice scholars to improve the understanding of theoretical and practical dimensions of citation patterns in the fields of medical and humanities sciences.

Keywords: Academic Writing, Citation Analysis, Corpus-based

Introduction

English as an academic lingua franca or a 'language of scientific communication' (Lorés-Sanz, 2016) has become the first language in academic contexts and research articles (RAs). The majority of scholars are non-native so, English is used as an Additional Language (EAL) for publications (Cargill & Burgess, 2017), and being familiar with academic structure could be a fundamental part of this communication. Scholars in any field should be aware of the type and style of language widely used in their community as the primary criterion for accepting or rejecting research papers.

One aspect of academic discourse is the use of citations to helps authors to provide strong argumentation that is "a key social practice in academia" (Friedman, 2019, p.23). References to previous research enable authors to develop their authority by demonstrating that they are qualified members of the community, to visualise their research within a disciplinary context (Luzon, 2018, p.174), "establish a niche for themselves within their special discourse community" (Jalilifar & Dabbi, 2012, p.91), indicate allegiance to a specific group, and the creation of a reliable writing ethos (Hyland, 1999, p.342). Therefore, it is assumed that citation plays a vital role in knowledge construction, and effective citation requires specialised academic writing skills; that is, novice writers would require to learn how to use various citation forms and functions to write persuasively.

Swales (1986, 1990) initially categorised the citation types *into integral* and *non-integral*. Integral citations accompany the name of the cited writer is syntactically part of the sentence and plays a grammatical role. In the non-integral citation, the author's name appears outside the sentence structure, separated from the text, and placed within brackets. Table 1 summarises the previous studies (e.g., Pickard, 1995; Hyland, 1999, 2002; Yeh, 2009; Shi, 2010; Luzon, 2018; Duke, 2020) conducted on the citation types in texts by a particular group of writers.

Table 1
Summary of the Previous Studies on the Citation Types

Author	Subjects	Measures	Results
Pickard (1995)	Citation preferences of expert writers	Citation preferences Grammatical forms	Integral citation is preferred.
Hyland (1999)	Citation preferences of writers in different disciplines	Integral and non-integral citation	Non-integral citation is more used in hard disciplines.
Hyland (2002)	Citation preferences of writers in 8 different disciplines	Integral and non-integral citation	Integral citation is more used in soft disciplines.
Yeh (2009)	Citation preferences of TESOL Taiwanese students	Integral and non-integral citation	Integral citation is more common amongst these non-native students.
Shi (2010)	Citation preferences of students	Integral and non-integral citation	Students use direct quoting when they are unable to understand or paraphrase the previous studies.
Luzon (2018)	The use of reporting verbs in RAs by Spanish and Anglophone writers	Investigated citation form by considering on reporting verbs	Spanish scholars utilised a higher percentage of discourse act RVs
Duke (2020)	Citation practice in the South African ER and ALS journals	Citation language form patterns	The high rate of non-integral citations in both context.

It seems likely that authors in different fields of study have varieties of preferences and follow different rhetorical conventions. This assumption was tested by Hyland (1999, 2002). He investigated 80 papers from both hard and soft disciplines, and he found that non-integral citations were more used in hard disciplines to highlight the study and place less emphasis on the researchers. On the other hand, integral citations were used by authors in soft disciplines to show their position and make evaluations. In a recent study, Duke (2020) investigated 34 RAs in Educational Research (ER) and Applied Linguistics and Language Studies (ALS) as soft sciences disciplines in the South African journals. The researcher notes that the high rate of non-integral citations in both contexts could demonstrate a shift "towards increasingly scientific and quantitative orientations" in both disciplines (Duke, 2020, p.51). Therefore, it could be challenging to reach a common conclusion that authors in different fields follow their colleagues to use the same patterns and types of citation.

Considering contextual functions of citations and to complete the work of Swales (1986,1990), Thompson and Tribble (2001, p.95-96) divided non-integral citations into four categories (*Source, Identification, Reference, Origin*) and integral citations into three categories (*Verb Controlling, Naming, Non-citation*) (see Method section).

Table 2
Summary of the Previous Studies on the Functions of Citation

Author	Subjects	Measures	Results
Thompson & Tribble (2001)	Comparing sub-types of integral and non-integral citations	Citations in agricultural botany and agricultural economics	Unlike agricultural economists, agricultural botanists mainly used source and identification.
Petric (2007)	Intentions of writers of low-graded and high-graded M.A. thesis	Nine new rhetorical functions	Writers of high-rated theses used direct quotes much more than low-rated thesis writers.
Harwood (2009)	Interdisciplinary variations in citations	Citation functions used by computer scientists and sociologists	There are interdisciplinary variations in the usage of citations
Mansourizadeh & Ahmad (2011)	Comparing citations by non-native experts and novice writers from the same discipline	Six different citation functions used in chemical engineering papers	Expert writers made greater use of non-integral citations to support and justify their claims.
Dontcheva-Navratilova (2015)	The function of citations in Research Articles	RAs in English by Anglophone scholars and by Czech linguists	Non-Anglophone scholars background influences their citation practices

The previous studies into citation by different writers, such as expert vs. novice writers and native vs. non-native, investigated the rhetorical functions of citations. (e.g. Thomson & Tribble, 2001; Petric, 2007; Harwood,

2009; Mansourzadeh & Ahmad, 2011; Dontcheva-Navratilova, 2015). These studies are summarised in Table 2. For instance, Thompson and Tribble investigated the type and functions of citations in agricultural botany and agricultural economics. The researchers found that agricultural botanists used more non-integral citations, mainly source and identification functions, while agricultural economists preferred integral-naming citations. The results of Harwood's (2009) interview-based study of citation functions revealed that there were interdisciplinary variations in citation usage by computer scientists and sociologists. Mansourizadeh and Ahmad (2011) analysed the types and functions of citations in fourteen research papers written by non-native experts and novice writers from chemical engineering in Malaysia. According to their results, novice writers used citations in isolation. On the other hand, expert authors relied more heavily on non-integral citations to strategically support and validate their arguments. Two potential explanations for these variations could depend on the disciplines and expertise knowledge of authors.

Furthermore, investigation on citation patterns has indicated differences between cross-disciplinary and cross-linguistic variations of citation features (e.g. Okamura, 2008; Mur-Duenas, 2009; Rowley & Carter-Thomas, 2014; Hu & Wang, 2014). Table 3 shows a summary of the previous studies.

Table 3
Summary of the Previous Studies on Cross-disciplinary and Cross-linguistics of Citation

Author	Subjects	Measures	Results
Okamura (2008)	Cross-disciplinary on Citation forms	RAs in biology, chemistry, and physics written in English by Japanese and Anglophone scholars	Anglophone scholars used more variety of citation forms
Mur-Duenas (2009)	Cross-linguistics study on the citation.	Business management RAs written in English and Spanish.	Differences in type and the functions of citations
Rowley & Carter-Thomas (2014)	Cross-disciplinary, Cross linguistics	Uncorrected paper written in English by expert French and Anglophone scholars, and articles written in French.	Anglophone writers used a higher number of "reporting-that" clauses.
Hu & Wang (2014)	Cross-disciplinary, Cross-linguistics study of citation patterns in RAs	Chinese and English-medium journals of applied linguistics and medicine.	Differences in the type of citation-based on dialogic engagement

More specifically, Okamura (2008) analysed 30 RAs in biology, chemistry, and physics written in English by Anglophone and Japanese scholars, and the results indicated that Japanese writers used integral citation forms. In contrast, there was a range of ways to choose citation forms in the Anglophone context. When looking at the results of previous research on the pattern of citation between L1 and L2 scholars (e.g., Okamura, 2008; Rowley-Jolivet & Carter, 2014; Dontcheva-Navratilova, 2016; Luzon, 2018), they could demonstrate that these differences could be rooted in the writers' first language. Thus, their L1 background of scholars influences their citations.

If there are contrasts in the referencing process between high and low-rank articles, the citation strategies in high-quality papers may suggest an effective strategy in using citations. Petric (2007) states that citation patterns used by scholars should be the model for student writing. Therefore, a better understanding of the citation forms used in high-rank journals could enable program designers and lecturers to develop effective English language courses for improving the writing skills of higher education students. This research intends to achieve through conducting citation analysis on high-quality Iranian (IR) and International (HI) journals in Applied Linguistics (AL) and Nursing and Midwifery (NM) article written in English.

Methodology
Corpus
This cross-disciplinary research emphasised humanities and medical sciences as "soft and hard discipline" (Hyland, 1999; Moed, 2005). Since humanities and medical sciences consist of many disciplines, Applied Linguistics from humanities and Nursing and Midwifery from medical journals were selected. To this end, 60 articles from high-quality journals by Iranian (IR) as EAL scholars and high-rank international journals (HI) with different linguacultural backgrounds that written in English in the field of Applied Linguistics (AL) and Nursing and Midwifery (NM) between 2015 and 2019 were analysed.

The SCImago journal rank, known as a global reference list for scientific journals, and obtained via the SJR (Scimago Journal & Country Rank) website, was chosen to select high-rank international journals. By this journal rank list, the top-rank journals of each field were selected based on their five-year impact factor. Then, the author downloaded the target articles based on the access and permission given by the journal websites to Iranian universities. Table 4 illustrates the name and the ranking of the selected international journals base on SJR 2018.

The bibliometric analysis of the NM journals showed a tendency to publish first in the *Journal of Advanced Nursing* and then in the *International Journal of Nursing* (Gimanez-Espert & Prado-Gasco, 2019). As for the AL journals, this goes on the *Journal of Second Language Writing,* which has had a steady growth in its number of articles and its impact factor over the recent years (Arik, 2017). All the three selected journals of language and linguistic were among the top ten journals of this field (Egbert, 2007).

Table 4
Selected International Journals

Applied Linguistics (AL)		Nursing and Midwifery (NM)	
Journal of Second Language Writing (Elsevier)	IF 3.32 H 60 SJR 3.07	International Journal of Nursing Studies (Elsevier)	IF 5.022 H 91 SJR 1.56
Applied linguistics (Oxford)	IF 4.5 H 76 SJR 2.99	Journal of Advanced Nursing (Wiley Online Library)	IF 2.37 H 131 SJR 1.01
Journal of Memory and Language (Elsevier)	IF 5.14 H 125 SJR 1.89	Midwifery (Elsevier)	IF 2.43 H 58 SJR 1

The Iranian journals for these two categories were selected randomly from the Q1 tier based on the Islamic World Science Citation (ISC) journals rank. Table 5 presents the list of the selected Iranian journals.

Table 5
Selected Iranian Journals

Applied Linguistics (AL)	Nursing and Midwifery (NM)
Apply Research on the English Language	Iranian Journal of Nursing and Midwifery
Iranian Journal of Applied Linguistics	Nursing practice Today
The Journal of Teaching Language Skills	International Journal of Community Based Nursing and Midwifery

A small corpus between 100,000 and 500,000 words may be effective for studying specific research questions (Kennedy, 1998; Ghadessy, Henry & Roseberry, 2001; Flowerdew, 2013). Flowerdew (2013) states two advantages for small size corpora. The first benefit is that small corpora are relatively easy to create. In addition to this, small corpora can be processed with readily available software packages such as AntConc and Wordsmith Tools or alternatively with web-based tools. Having said that, one danger, if a corpus is too small, is that of not having enough examples (Sinclair, 2001, cited in Flowerdew, 2013). In this research, a small size corpus was created using the selected international and Iranian journals. As mentioned by previous studies (e.g., Thompson, 2005; Bahadorfar & Gholami, 2017), a few citations have been found in the Method section. Thus, this section of articles and statistic section of results were ignored in this research. To create the final corpus, front matter and back matter (Fløttum, Dahl & Kinn, 2006; Hyland, 1999) of selected articles were deleted to obtain a corpus of approximately 178,500 words.

In this study, the framework proposed by Thompson and Tribble (2001) was used for analysing the types and the functions of citations employed in the corpus (see Thompson & Tribble for more details). This framework has been extensively utilised for analysing the citation types and functions employed in various text types in different disciplines (Farnia, Bagheri & Saeedi, 2018; Kafes, 2017; Bahadorfar & Gholami, 2017; Nguyen & Pramoolsook, 2016; Kamyabi, Ghonsooly & Mahdavi, 2014; Karimi & Asadnia, 2014; Jalilifar & Dabbi, 2012). Also, this framework was modified and combined to study the citation functions used in M.A. theses in Gender studies by Petrić (2007) and for analysing RAs in Chemical Engineering by Mansourizadeh and Ahmad (2011).

The definition of the framework was elicited from Thompson and Tribble (2001, p.95-96) and examples provided from the corpus. Based on the framework, the first type of integral citation is *Verb Controlling* that a verb occurs in the cited sentence. In both active and passive forms, the citation function is an agent to control the verb (Example1). *Naming* was defined as a noun phrase or a portion of a noun phrase that manages the citation (Example 2). 'According to' is a common phrase in this type of citation. *Non-Citation* refers to the author's name without reference year because the year has been provided earlier in the text (Example 3).

The first type of non-integral citation is the *Source*, which shows where the concept or knowledge came from. The knowledge is found in a proposition rather than a single noun phrase in this case (Example 4). *Identification* can identify the agent in the sentence that refers to (Example 5). *Reference* serves as a cue to look up more details in other studies. The terms "see" and "cf" are identifiers in the text for this form of non-integral

citation practice (Example 6). *Origin* is connected to citing the initiator of a method, theory, and approach (Example 7).

1. *Canale and Swain (1980)* **consider** *circumlocution as an element of strategic competence, which together with grammatical competence, sociolinguistic competence, and discourse competence* (ALIR).

2. *Data were analysed according to Salazar's (2006) categorisation of circumlocution, namely description, function, superordination, location, and combination. (ALIR)*

3. *Driscoll and Carliner stated that there are four main interpretations associated with blended learning…. (NMHI)*

4. *Emerging evidence demonstrates nurse-led chronic disease management to be feasible and highly acceptable to consumers (Halcomb et al., 2015, Halcomb et al., 2015, Mahomed et al., 2012, Stephen et al., 2018, Stephen et al., 2018).* (NMHI)

5. *Some studies showed that physical symptoms are the possible reason for the psychological disorder (8, 9). (NMIR)*

6. *In SFL testing and assessment, diagnostic assessment is usually characterised as focusing on evaluating learners' strengths and weaknesses (see Davies et al.1999; Alderson 2005). (ALHI)*

7. *These statistical models, recently developed by psychometricians (Leighton and Gierl 2007; Hueber 2010), would certainly appear to have useful applications in the analysis of data derived from diagnostic tests.* (ALHI)

Procedure

All selected articles were converted from PDF format to DOC format using free online software (https://www.pdfonline.com/pdf-to-word-converter). After removing the extra parts, word counts were obtained for each article using MS Word. Using the Plain Text online tool, all the texts were converted from DOC to TXT. Afterwards, these text files were loaded into AntConc for searching and analysing the citations. To this end, Regular Expression (Regex) in AntConc concordance software was employed to find the place of citations within the texts.

The citation forms and functions were categorised using Thompson and Tribble's framework and a thorough examination of the context of each citation shown in the concordance lines. The following procedure was used to count the number of valid citations:

➢ It was recorded as one citation if a cited statement was referred to a single source (see example 8) (Hyland, 2000).
➢ It was counted as a single citation when two or more different sources were cited for one statement (as in example 9) (Mansourizadeh & Ahmad, 2011).
➢ Multiple citations were counted when a single sentence included multiple sources cited for various statements, as seen in example 10 (Hu & Wang, 2014).

The following examples from the corpus show the method used to count citations:

8. *According to Hyland (2005a), these non-propositional features of texts are equally as essential as the propositional content in constructing a cohesive, coherent, and compelling argument.* (ALHI)

9. *…… heel stick still constitutes the method of choice in most neonatal units and represents the most common painful event among all procedures performed on newborns (Carbajal et al., 2008; Cruz et al., 2016).* (NMHI)

10. *The dominant account in the literature for RC attachment preferences has been based upon Recency (Gibson, Pearlmutter, Canseco-Gonzalez, & Hickok, 1996), Late Closure principle (Frazier & Fodor, 1978), or Right Association (Kimball,1973), which assume that all human languages are processed in the same way.* (ALIR)

In this study, the focus was put only on the references to the work of other writers, and the discussion of self-citation was excluded. The chi-square test was run to measure the correlation between two nominal variables nationality (Iranian and International articles) and discipline (AL, NM). The chi-square is a non-parametric test, and therefore, it has fewer assumptions than parametric tests (Larson-Hall, 2010); however, some basic assumptions must be met to make the results valid. These assumptions include:
    1. Independence of observations
    2. Nominal data
    3. The expected frequencies should be greater than 5.
One easy way to break down a significant chi-square test is to use data that we already have to check the standardised residual (Field, 2009). To do so, first, the chi-square was run. If the chi-square result is significant, then the crosstab is checked to see how the significant chi-square shows itself in the frequencies of cells. If the chi-square is not significant, standard residuals are also checked to see whether any of the cells have any extreme frequency (i.e. very low or very high frequency compared to neighbouring cells).

In this research, in some parts, the frequencies were lower than 5. One solution for coping with the issue is to run Fisher's exact test instead of the chi-square test (Howell, 2002, p.129). Absolute frequency would have been a useful measure if the length of articles had been the same in terms of their word counts. However, when this condition does not exist, it is recommended to normalise the data by converting the raw frequencies to 10000 words. Thus, the normalised frequencies were calculated in the quantitative analysis in this study. Besides, the proportions were utilised to develop comparative graphs in this study.

Results
The study aimed to investigate the citation type and functions in the selected articles. Table 6 presents the total and the normalised (per 10000 words) number of citations in the corpus. However, the density of total citations in the international journals was less than the Iranian journals as shown in the table; the result of the chi-square shown that there was not any statistically significant difference between them in this regard ($x^2(1) = .90$, p > .05).

Table 6
Total of Citation across the Corpus

Discipline	Total Frequency	Per 10000 Words	*Words in the Corpus*
ALIR	847	147	57,500
ALHI	804	122.6	65,586
NMIR	385	182.5	21,099
NMHI	534	155.9	34,246

In order to have a manageable analysis of this corpus, the introduction and literature as one section and discussion and conclusion as another were analysed because in some articles, these parts were combined.

Citation in Introduction and Literature Review Sections
To analyse the citation types and functions, Thompson and Tribble's framework was utilised in this study. Based on this classification, integral citation practice includes three subcategories: *verb controlling, naming*, and *non-citation* strategy, and non-integral citation consist of four subcategories: *Source, Identification, Reference, Origin*. Figure 1 shows the proportions of citations in high-rank Iranian (IR) and international (HI) journals for Applied linguistics and Nursing and Midwifery. Chi-square results and frequency (per 10,000 words) for citation in these sections were summarised in Table 7**.**

Figure 1
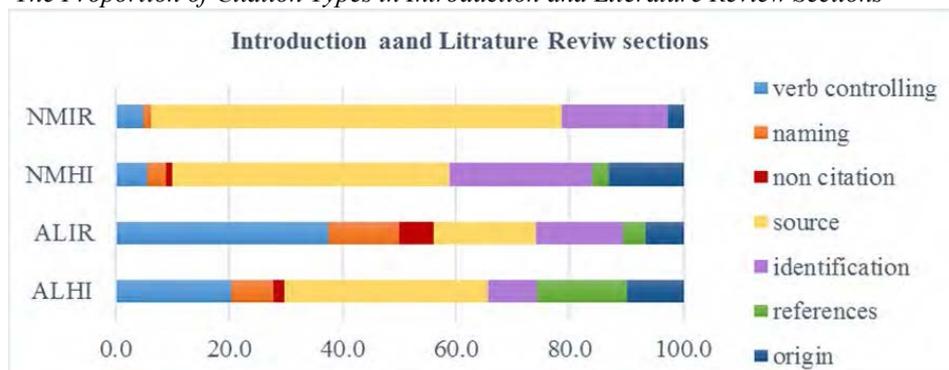*The Proportion of Citation Types in Introduction and Literature Review Sections*

Table 7
Chi-square Results and Frequency (per 10,000 words) for Citation in Introduction and Literature Review

Citation type	ALIR		ALHI		NMIR		NMHI		Statistics			
	F	%	F	%	F	%	F	%	Chi	Fisher	df	sig
Integral	108.9	56.1	46.8	29.8	16	6.4	22.4	9.9	10.28	-	1	.001
Verb Controlling	72.9	37.6	32.1	20.5	12.6	5	12.7	5.6	3.52	-	1	0.61
Naming	23.8	12.3	11.6	7.4	3.4	1.4	7.5	3.3	-	.035	1	-
Non-citation	12	6.2	3	1.9	0	0	2.2	1	-	0.74	-	-
Non-Integral	85	43.9	110.3	70.2	235.5	93.6	203	90.1	5.58	-	1	.018
Source	34.8	18	56.3	35.8	181.8	72.3	110.5	49	15.8	-	1	.000
Identification	29.6	15.3	13.6	8.6	46.9	18.6	56.7	25.2	6.54	-	1	.011
References	7.5	3.9	24.9	15.9	0	0	6	2.6	-	.31	-	-
Origin	13	6.7	15.5	9.9	6.9	2.7	29.9	13.2	5.16	-	1	.023

As shown in this table, this difference was statistically significant (x^2(1)=10.28, p < .05) in using integral citation in the corpus. The normalise frequency shows that the authors in ALIR articles utilised more integral citation (n=108.9, 56.1%) compared to high-rank international articles (n= 46.8, 29.8%) in their introduction and literature sections. In contrast, the Iranian scholars in NM articles (n= 16, 6.4 %) used less integral citations than international articles of this field (n=22.4, 9.9%). The NMIR articles (n= 16, 6.4 %) used fewer integral citations than high-rank international articles of this field (n=22.4, 9.9%). One reason to accept that NMIR utilises more non-integral citations could back to use more Vancouver style in Iranian medical journal (Ghoodarzi & Gholami, 2017). Therefore, the Iranian writers are familiar with this type of citation.

Regarding to subcategory of integral citation, Iranian AL articles used more *verb controlling* type (n= 72.9, 37.6%) in comparison with high-rank international articles (n=32.1, 20.5%). Based on the literature, this is mainly due to its 'popularity' (Swales, 2014) and its 'simplicity' (Jalilifar, 2012).

Naming was defined as a noun phrase or a part of a noun phrase that controls the citation. As shown in Table 7, the difference was statistically significant in this type of citation (p= .035, Fisher's exact test). ALIR articles (n=23.8, 12.3%) used twice as more naming citation as the international articles (n=11.6, 7.4%). In contrast, the NMIR articles (n=3.4, 1.4%) utilised less naming citations compared to the international articles (n=7.5, 3. 3%).

Non-Citation is used to refer to another writer but the name is given without a year reference because the reference has been provided earlier in the text and therefore, the writer avoids repeating it. Evaluation of the Iranian NM journals revealed that non-citation was not used in these journals.

Non-integral citation, the author's name appears outside the sentence structure, separated from the text and placed within brackets and consists of *Source, Identification, References*, and *Origin*. As shown in Table 7, the results of the chi-square conducted on non-integral citation indicated that there was a significant difference (x^2(1) =5.58, p<.05). The articles published in the high-rank international AL journals have used a much higher number of non-integral citations (i.e., n = 110.3, 70.2%) in comparison with the Iranian ones (i.e., n =85, 43.9%), however, the international and Iranian NM journals have made use of an almost equal number of non-integral citations (i.e., NMHI: n = 203, 90.1%; NMIR: n = 235.5, 93.6%) in their introduction and literature sections.

The first type of non-integral citation is the *Source*, which shows where the concept or knowledge came from. Although this kind of citation was the most common rhetorical function of citations in the corpus, significant differences were found (x^2(1) = 15.8, p<.05) in this regard. In the papers published in the international journals of AL, more source citations were used (n=56.3, 35.8%) compared to the Iranian articles of this discipline (n=34.8, 18%). In contrast, the number of this type of citation in Iranian NM articles (n=181.8,72.3%) is higher than the high-rank international ones (n= 110.5,49%). Using source or attribution is one way to demonstrate the writer's knowledge, acknowledgement, and appreciation of previous studies (Kafes, 2017) and confirm their idea.

Identification identifies an agent and actor within the sentence to which it refers. Table 7 illustrates a statically significant difference in the use of *identification* in the corpus (x^2(1)=6.54, p<.05). This kind of citation was used more in ALIR journals (n=29.6, 15.3%) than international ones (n= 13.6, 8.6%). The usage

of identification in NM journals was not equal but the differences were less compared to AL journals (NMIR: n= 46.9, 18.6%; NMHI, n= 56.7, 25.2%).

Reference acts as a signal to refer to further information in other studies. The words "see" and "cf" are actual signs to identify this kind of non-integral citation practice in the text. Although the high-rank international journals in both discipline categories used more reference citations (AL: n= 24.9; NM: n= 6) compared to Iranian NM (n= 0) and AL (n=7.5) journals, there was not any statistically significant difference in Fisher's exact test (p= .313), as shown in Table 7. Through reference, the authors recommended other sources or found more details to their readers.

Origin is associated with citing the originator of a method, theory, and approach. The result of the statistical analysis (Table 7) shows that there was a significant difference in the use of *origin* in the corpus (x^2(1) = 5.16, p< .05). The origin citation was used more frequently in the international journals in AL (n= 15.5,9.9%) and NM (n= 29.9, 13.2%) in comparison with the Iranian AL (n=13, 6.7%) and NM (n=6.9, 2.7%) journals.

Citation in Discussion and Conclusion Sections

In most journals, discussion and conclusion sections are merged into one section. In this study, therefore, both of these sections are considered as one section. Figure 2 demonstrates the proportions of different citation types and functions in the discussion and conclusion sections of the corpus. Chi-square results and frequency (per 10000 words) for citation in these sections were summarised in Table 8.

Figure 2

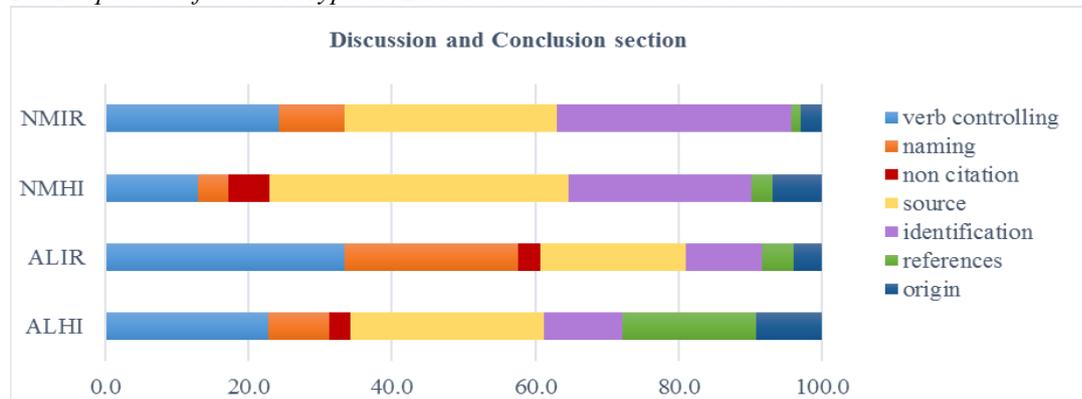*The Proportion of Citation Types in Discussion and Conclusion Sections*

Table 8

Chi-square Results and Frequency (per 10000 words) for Citation in Discussion and Conclusion

Citation type	ALIR		ALHI		NMIR		NMHI		Statistics			
	F	%	F	%	F	%	F	%	Chi	Fisher	df	sig
Integral	57.1	60.7	27.5	34.2	44.5	33.3	25.4	22.8	.196	-	1	.131
Verb Controlling	31.4	33.3	18.3	22.8	32.4	24.2	14.4	12.9	.422	-	1	.516
Naming	22.8	24.2	6.8	8.4	12.1	9.1	4.8	4.3	.211		1	.646
Non-citation	3	3.2	2.4	3	0	0	6.2	5.6	-	.61	-	-
Non-Integral	37.0	39.3	52..9	65.8	89	66.7	85.9	77.2	2.26	-	1	.13
Source	19	20.2	21.7	27	39.7	29.7	46.5	41.8	001		1	.969
Identification	10.1	10.7	8.8	11	43.7	32.7	28.3	25.4	6.54		1	.503
References	4.1	4.4	14.9	18.6	1.6	1.2	3.4	3	-	.56	-	-
Origin	3.7	4	7.5	9.3	4	3	7.7	6.9	-	1	-	-

According to Figure 2 and Table 8, the articles published in Iranian journals (AL: n=57.1, 60.7%; NM: n= 44.5, 33.3%) utilised more integral citations in their discussion and conclusion sections compared to the high-rank international journals (AL: n=27.5, 34.2%; NM: n=25.4, 22.8%). The chi-square test result showed no statistically significant difference in terms of the integral citation in the discussion and conclusion sections of the corpus. Moreover, the Iranian journal articles employed verb controlling and naming more frequently, although the difference between the Iranian and the high-rank international journals was not significant (p >

.05). For non-citation, Fisher's exact test was checked. It should be reminded here that non-citation was not used in the Iranian Nursing and Midwifery articles. This research found that citation patterns were significantly different in the introduction and literature sections. This finding could confirm that introduction and literature are the central sections for finding citations.

Discussion

Reference or citation is considered as a strategy by which scholars refer to other examinations and discoveries. The fitting utilisation of reference is an integral asset at the writer's transfer to influence the readers. On the other hand, lack of information about the citation method can lead to failure to convey sufficient motivation. Moreover, comprehension of reference is a fundamental aptitude in the academic text since it empowers writers to build up and keep up a decent correspondence with readers through unique writings. This study investigated whether there were any significant differences between using citation patterns in the research articles published in the high-rank international journals and the Iranian journals of AL and NM articles. In order to answer these questions, the chi-square test was run to determine the differences in citation patterns. The results of the cation pattern analysis revealed that there are statistically significant differences in some types and functions of citation in the corpus as well as in different sections of the articles. However, there is no significant difference in the total citation patterns in this corpus, which could mean that the density of citations was similar to each other. This finding is in line with Hu and Wang (2014), in a cross-disciplinary, cross-linguistics study of citation patterns in Chines and English journals in medicine and applied linguistics. However, this result contrasts with some of the previous studies (Hyland, 1999, 2000; Thompson & Tribble, 2001) that reported more citations in soft discipline than in hard ones. In this corpus, more citations were used in the Iranian articles in AL and NM journals than those published in the high-rank international journals of these fields. This finding was confirmed with previous works (e.g. Farnia et al., 2018; Oskuie & Kuhi, 2014) that Iranian writers used more citation practice than international research articles.

The finding of this research indicated that both types of integral and non-integral citations were used across the four corpora. The results indicated that a significant difference was observed in using integral citation in the AL articles in the introduction, and Iranians employed more integral patterns compared to the high-rank international journal articles. The result is in line with the researchers who found the differences in citation patterns in native and non-native or expert and novice writers, indicating that novice and non-native writers used more integral citation (Marti, Yilmaz & Bayyurt, 2019; Kafes, 2017; Hu & Wang, 2014; Mansourizadeh & Ahmad, 2011; Mur Duenas, 2009; Adel & Garreston, 2006). This parallels previous findings that the integral citation practice in the Iranian journals was more than the international journals (Farnia et al., 2018; Shooshtari, Jalilifar, & Shahri, 2017; Kamyabi, Ghonsooly & Mahdavi, 2014; Shooshtari & Jalilifar, 2010). However, Monreal and Salmon (2011) investigated citation patterns in the literature review chapters in PhD theses written in Spanish and English. They found that a high ratio of integral citations in English corpus in comparison with Spanish writers.

Regarding the traditional view, AL is referred to the soft and NM to the hard discipline. Hyland (1999, 2002) found that hard disciplines used more non-integral citations and soft disciplines used more integral citations. In contrast, the results of Duke's study revealed that there was a high ratio of non-integral citations in Educational Research (ER) and Applied Linguistics and Language Studies (ALS) as soft sciences disciplines. By reviewing Hyland and Jiang's study (2017), the non-integral citations without considering particular disciplines have been increased. It seems that information reports are the goal of citation in the international context instead of emphasising the cited authors. Scholars using more non-integral citation emphasise the propositional content (Hyland, 1999; Swales, 1990; Thompson, 2005). Weissberg and Buker (1990) describe integral and non-integral citations as 'author prominent' and 'information prominent'. This view could indicate that Iranian writers in the AL articles show the authors' tendency instead of information.

The citations function, verb controlling and source, were the most frequent functions in integral and non-integral citations. Verb controlling was used more frequently in Iranian AL articles in the target corpus. Such findings are similar to Farnia et al., who analysed 168 introduction sections of applied linguistics in international and Iranian journals. The findings of this research are also consistent with the previous studies on the citation indicating verb controlling was the most frequent type in non-native and novice writers (Kafes, 2017; Nguyen, 2014; Jalilifar & Dabbi, 2012). Also, more verb controlling was found in discussion sections of the Iranian journal articles. This view supports earlier findings in which non-native writers displayed a tendency to overuse verb-controlling citations (Mansourizadeh & Ahmad, 2011), due to popularity (Swales, 2014) and simplicity (Jalilifar, 2012). To this extent, Petric (2007) claims that attribution (source) is the most frequent citation type in student academic writing because of its simplicity.

This study also showed that more reference and origin citations were used in the introduction and conclusion sections of the international articles in both disciplines. Kafes's (2017) study, in a similar vein, revealed that expert writers used more references and origin. In other words, novice writers employ a limited range of citation types and functions (Thompson & Tribble, 2001). To sum up, the results of current research

showed that the international journal articles utilised all types and functions of citation. Also, this study revealed that the patterns of citation between NM journals with different contexts (Iranian and international journals) were more similar to AL and NM in the same context. In a similar vein, Fløttum, Dahl, and Kinn (2006) found more similarities between a French and Norwegian medical research article than French linguistics and French medical articles and concluded that discipline is more important than language. Moreover, in this research, it was found that citation patterns were significantly different in the introduction and literature sections. This finding could confirm that introduction and literature are the central sections for finding citations.

Conclusion

English as an academic lingua franca (EFL) has become the first language in academic contexts and research articles. Citation is one of the important aspects of scholarly debate. It enables scholars to illustrate the significance and relevance of their study, their experience in the field, and the validity of their claims and findings. Citing other studies serves rhetorical purposes by allowing authors to support their study in current disciplinary expertise. The analysis of research articles in Applied Linguistics and Nursing and Midwifery in English, one written by Iranian scholars (in local journals) and the other with different linguacultural background writers (in high-rank international journals), shows variation use of citation patterns. One side of the citation's continuum style is the integral citation that easy to use, and another side is non-integral that a bit complicated. The finding of this research indicated that both types of integral and non-integral citations were employed across the four subcorpora. In the traditional view, in AL articles as a soft discipline was used more integral citations the same as Iranian authors. In contrast, the international context demonstrated that a high ratio of non-integral citations. Therefore, it could be difficult to reach a common conclusion that authors in different fields follow their colleagues to use the same patterns and types of citation.

The literature review evaluation revealed that non-integral citation is a sign of expert and native writers in APA style. Furthermore, this study revealed that scholars in high-quality international journals utilised all types of citation patterns. Therefore, utilising all types of citations based on a citation style could be an essential item to reach the experts' style. The results of this research indicate that the awareness of students and novice writers how expert writers use citations and support their claims is one of the needs for academic writing courses. Pedagogical tasks for citation practices should be developed for EAP courses to understand the functions of citations. Therefore, "citation as a literacy practice needs to be taught and learned" (Hu & Wang, 2014, p.36). Also, citation practices should not be taught in 'isolation' (Luzon, 2015) but focusing on paraphrasing, summarising, or synthesising, as well.

Most of the academic materials (see Swales & Feak, 2004; Bailey, 2003) focus on the quotation, summarising, and paraphrasing and integral and non-integral citations. However, little attention has been paid to the functions of citation practices. Thompson and Tribble hint at corpus-based pedagogy as a successful strategy in citation instruction. Therefore, a concordance program could be used for searching and analysing the types and the functions of citation in EAP courses for teaching citation practices based on this framework. The extent of this examination did not consider the investigation of different perspectives in this territory, which could yield fascinating outcomes. In citation patterns, the analysis of self-citations, the use of direct quotation, summary, paraphrasing, and generalisation citation could be other areas for further research.

References

Ädel, A., & Garretson, G. (2006). Citation practices across the disciplines: The case of proficient student writing. In A. Perez-Llantada, Carmen, R. Plo & P. Neumann (Eds.), *Academic and professional communication in the 21st century: Genres and rhetoric in the construction of disciplinary knowledge*, 271-280. Zaragoza, Spain: Prensas Universitarias.

Arik, B. T., & Arik, E. (2017). "Second Language Writing" Publications in Web of Science: A Bibliometric Analysis. *Publications*, 5(1), 4.

Bahadorfar, R., & Gholami, J. (2017). Types and functions of citations in master's theses across disciplines and languages. *Discourse and Interaction*, 10(2), 27-45.

Bailey, S. (2003). *Academic writing: A practical guide for students*. Psychology Press.

Cargill, M. & Burgess, S. (eds.) (2017). *Publishing Research in English as an Additional Language: Practices, Pathways and Potentials*. Adelaide, Australia: University of Adelaide Press.

Dontcheva-Navratilova, O. (2015). Cross-cultural variation in citation practices: A comparative analysis of citations in Czech English-medium and international English-medium linguistics journals. *English as a scientific and research language: Debates and discourses. English in Europe*, 2, 185-205.

Dontcheva-Navratilova, O. (2016). Rhetorical functions of citations in linguistics research articles: a contrastive (English-Czech) study. *Discourse and Interaction*, 9(2), 51-74.

Duke, L. (2020). *The Discursive Construction of Authorial Voice and Disciplinarity through Citation: When Educational Research and Applied Language Research Articles Intersect with Decoloniality* (Unpublished Masters Dissertation). Stellenbosch University, South Africa.

Egbert, J. (2007). Quality analysis of journals in TESOL and applied linguistics. *TESOL Quarterly*, *41*(1), 157-171.

Farnia, M., Zohreh, B. & Saeedi, M. (2018). Comparative citation analysis of applied linguistics research articles' introduction sections. *Brno studies in English*, *44*(1),27-43.

Field, A. P. (2009). *Discovering statistics using SPSS (3rd ed.).* London: SAGE Publications Ltd.

Fløttum, K., Dahl, T., & Kinn, T. (2006). *Academic voices: Across languages and disciplines*. John Benjamins Publishing.

Flowerdew, J. (2013). *Discourse in English Language Education*. London: Routledge

Friedman, D. A. (2019). Citation as a social practice in a TESOL graduate program: A language socialisation approach. *Journal of Second Language Writing*, *44*, 23-36.

Ghadessy, M., Henry, A., & Roseberry, R. (2001). *Small corpus studies and ELT: Theory and practice*. Amsterdam: John Benjamins.

Gimenez-Espert, M. D. C., & Prado-Gasco, V. J. (2019). Bibliometric analysis of six nursing journals from the Web of Science, 2012-2017. *Journal of advanced nursing*, 75(3), 543-554.

Goodarzi, R., & Gholami, J. (2017). Types and Functions of Citations in Native vs. Non-native Written Medical Research Articles. *The Journal of Urmia University of Medical Sciences*, *28*(4), 54-63.

Harwood, N. (2009). An interview-based study of the functions of citations in academic writing across two disciplines. *Journal of Pragmatics*, *41*(3), 497-518.

Howell, D. C. (2002). *Statistic method for psychology*. Pacific Grove, CA: Duxbury/ Thomson Learning, 384-387.

Hu, G., & Wang, G. (2014). Disciplinary and ethnolinguistic influences on citation in research articles. *Journal of English for Academic Purposes*, *14*, 14-28.

Hyland, K. (1999). Academic attribution: Citation and the construction of disciplinary knowledge. *Applied Linguistics, 20*(3), 341-367. https://doi.org/ 10.1093/applin/20.3.341

Hyland, K. (2000*). Disciplinary discourses. Social interactions in academicwriting*. Harlow: Longman.

Hyland, K. (2002). Activity and evaluation: Reporting practices in academic writing. In J. Flowerdew (Ed.), *Academic discourse,* 115-130. London, Longman.

Hyland, K., & Jiang, F. (2017). Points of reference: Changing patterns of academic citation. *Applied Linguistics*, *40*(1), 64-85.

Jalilifar, A. (2012). Academic attribution: Citation analysis in master's theses and research articles in applied linguistics. *International Journal of Applied Linguistics, 22*(1), 23-41. doi: 10.1111/j.1473-4192.2011. 00291.

Jalilifar, A., & Dabbi, R. (2012). Citation in applied linguistics: Analysis of introduction sections of Iranian master's theses. *Linguistik online, 57*(7), 91-104. doi: 10.13092/lo.57.252

Kafes, H. (2017). Citation practices among novice and expert academic writers. *Education and Science*, *42*(192),441-462.

Kamyabi, A., Ghonsooly, B. & Mahdavi, E. (2014). A Contrastive Study of Rhetorical Functions of Citation in Iranian and International ELT Scopus Journals. *Linguistics and Literature Studies*, *2*(6), 155-165.

Karimi, M. N., & Asadnia, F. (2014). Metadiscourse Strategies and Citation Patterns as Resources of Authorial Identity in Research Articles across International/Local Journals and Applied Linguistics Subdisciplines. *Journal of Teaching Language Skills*, *33*(1), 49-72.

Kennedy, G. (1998). *An Introduction to corpus linguistics*. New York: Longman.

Larson-Hall, J. (2010). *A guide to doing statistics in second language research using SPSS*. New York and London: R. Routledge.

Lorés-Sanz, R. (2016). ELF in the making? Simplification and hybridity in abstract writing. *Journal of English as a Lingua Franca*, *5*(1), 53-81.

Luzon, M. J. (2015). An analysis of the citation practices of undergraduate Spanish students. *Journal of Academic Writing*, *5*(1), 52-64.

Luzón, M. J. (2018). Variation in academic writing practices: The case of reporting verbs in English medium research articles. *Ibérica: Revista de la Asociación Europea de Lenguas para Fines Específicos (AELFE)*, (*36*), 171-194.

Mansourizadeh, K., & Ahmad, U. K. (2011). Citation practices among non-native and novice scientific writers. *Journal of English for AcademicPurposes,10*(3), 152–161.

Marti, L., Yilmaz, S., & Bayyurt, Y. (2019). Reporting research in applied linguistics: The role of nativeness and expertise. *Journal of English for Academic Purposes*, *40*, 98-114.

Moed, H. F. (2005). *Citation analysis in research evaluation*. Dordrecht, the Netherlands: Springer.

Monreal, C. S., & Salom, L. G. (2011). A cross-language study on citation practice in PhD theses. *International Journal of English Studies*, *11*(2), 53-75.

Mur Duenas, P. (2009). Citation in business management research articles: a contrastive (English- Spanish) corpus-based analysis. In E. Suomela-Salmi, & F. Dervin (Eds.), *Cross-linguistic and cross-cultural perspectives on academic discourse* (pp. 49-60). Amsterdam, Netherlands: John Benjamins

Nguyen, L. T. T. & Pramoolsook, I. (2016). Citations in Literature Review Chapters of TESOL Master's Theses by Vietnamese Postgraduates. *GEMA Online® Journal of Language Studies, 16*(2), 17-32.

Nguyen, T. T. L. (2014). *Move-step structures and citation practice in English TESOL master's theses by Vietnamese students* (Unpublished Doctoral dissertation), Suranaree University of Technology, Thailand, Nakhon Ratchasima.

Okamura, A. (2008). Citation forms in scientific texts: Similarities and differences in L1 and L2 professional writing. *Nordic Journal of English Studies*, *7*(3), 61-81.

Oskueia, M. H. H., & Kuhi, D. (2014). The use of citations in academic writing: Analysis of introduction sections of Iranian and native English master's theses. *Journal of Social Issues & Humanities*, *2*(3), 216-220.

Petric, B. (2007). Rhetorical functions of citations in high-and low-rated master's theses. *Journal of English for Academic Purposes, 6*(3), 238-253.

Pickard, V. (1995). Citing previous writers: What can we say instead of "say"? *Hong Kong Papers in Linguistics and Language Teaching, 18*, 89-102.

Rowley-Jolivet, E., & Carter-Thomas, S. (2014). Citation practices of expert French writers of English: issues of attribution and stance. In *Occupying niches: Interculturality, cross-culturality and a culturality in academic research*, 17-34. New York: Springer.

Shi, L. (2010). Textual appropriation and citing behaviours of university undergraduates. *Applied Linguistics*, *31*(1), 1-24.

Shooshtari, Z. G., & Jalilifar, A. R. (2010). Citation patterns of research article discussions across subdisciplines of applied linguistics. *Journal of Teaching Language Skills*, *2*(1), 45-66.

Shooshtari, Z. G., Jalilifar, A., & Shahri, S. (2017). Ethnolinguistic Influence on Citation in English and Persian Hard and Soft Science Research Articles. *3L: Southeast Asian Journal of English Language Studies*, *23*(2), 58-74.

Swales, J. (1990). *Genre analysis: English in academic and research settings.* Cambridge University Press.

Swales, J. M. (1986). Citation analysis and discourse analysis. *Applied Linguistics, 7*(1), 39-56.

Swales, J. M. (2014). Variation in citational practice in a corpus of student biology papers: From parenthetical plonking to intertextual storytelling. *Written Communication*, *31*(1), 118-141.

Swales, J. M., & Feak, C. B. (2004). *Academic writing for graduate students: Essential tasks and skills*, 1. Ann Arbor, MI: University of Michigan Press.

Thompson, P. (2005). Points of focus and position: Intertextual reference in Ph.D. theses. *Journal of English for Academic Purposes*, *4*(4), 307-323. https://doi.org/10.1016/j.jeap.2005.07.006.

Thompson, P., & Tribble, C. (2001). Looking at citations: Using corpora in English for academic purposes. *Language Learning & Technology*, *5*(3), 91-105.

Weissberg, R., & Buker, S. (1990). *Writing up research: Experimental research report writing for students of English.* Englewood Cliffs, NJ: Prentice Hall Regents.

Yeh, C.C. (2009). Student researchers' citation behaviour. *Taiwan Journal of TESOL, 6*(1), 1-21.

Ethics Declarations
Competing Interests
No, there are no conflicting interests.
Rights and Permissions
Open Access