

Postgraduate Students' Use of Reporting Verbs in Literature Review Writings

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ABSTRACT

Academic writing is intrinsically a persuasive discourse and for the argument to be well received by the discourse community, citation is mandatory. A successful integral citation requires writers to use appropriate reporting verbs in their writing texts which is different from non-integral citation. However, past studies have shown that novice writers had difficulties using reporting verbs in integral citations. Therefore, this action research sought to investigate the frequencies and forms of reporting verbs used by novice postgraduate students in their literature review writings. Using convenience sampling and Hyland's (2002) Categories of Reporting Verbs, a total of 32 literature review writings of non-native novice postgraduate students were analysed quantitatively and qualitatively. The findings illustrated that although the students used all the three categories of reporting verbs, *Research Acts* reporting verbs were more dominantly used, followed by *Discourse Acts* reporting verbs. The least used was *Cognition Acts* reporting verbs. As for the forms used, the most common forms under *Research Acts* were *found* and *conducted* while *stated*, *concluded* and *suggested* were the most dominant forms under *Discourse Acts*. As for *Cognition Acts*, *believed* and *agreed* were the key forms. To conclude, the study demonstrated the need to raise the novice writers' awareness on the three different categories of reporting verbs that could be used in integral citations for a more effective academic writing.

Keywords: academic writing; integral citation; literature review writings; persuasive discourse; reporting verbs

INTRODUCTION

In the past decades, there has been a paradigm shift in the management of knowledge development among academicians (Wahyudin et al., 2018). They do not only impart their knowledge through lectures but also through publication of their discoveries in scientific journals. This is especially true for Malaysian research universities where the core business of such universities is not only on teaching but on research and publication as well. In tandem with this shift in the research environment of such universities, it has become mandatory for postgraduate students to publish their work as a requirement for graduation.

With this emphasis on research and publication, there is no doubt that an initiation to the knowledge of academic writing convention, in particular, the writing of research articles, is essential. Research article is a legitimate platform for researchers to make known their discoveries

to their discourse community and at the same time be able to acknowledge the contribution of other fellow researchers for the “cumulative construction of knowledge” (Charles, 2006, p.326). As a result, knowledge on appropriate citation convention is key to successful writing of research articles. This aspect has been emphasised by earlier writing scholars such as Hyland (1999), and Thompson and Ye (1991) who highlighted that citation or giving credit to other researchers indicated the writer’s magnanimous attitude towards the work of other researchers in a community. Writing a research article is a persuasive endeavour and such a benevolent attitude is crucial as it is in line with the ethos of persuasive writing as propounded by Aristotle more than 2000 years ago.

According to Hyland (2002), there are two types of citations: Integral citation and non-integral citation. Integral citation provides avenue for a writer to cite the author(s)’ name(s) as part of the reporting sentence, for example *Brown (2019) states that ...*. On the other hand, in non-integral citation, the writer cites the author(s)’ name(s) in parentheses at the end of the sentence, for example *Academic writing is intrinsically a dialogic activity (Smith, 2020)*. Of the two citation types, the focus of this study is on the former. This is because in using integral citation, the writer needs to incorporate appropriate reporting verbs in the sentence and this calls for adequate knowledge on the use of reporting verbs. As argued by Granger and Paquot (2009, p.195), insufficient knowledge of verbs is a serious handicap as it prevents writers to express their thoughts “in all their nuances and couching them in the expected style”. In addition, the ability to incorporate appropriate reporting verbs in sentence construction requires the writer to have the underlying understanding of the grammar of verbs. As viewed through the lens of Systemic Functional Linguistics (Halliday & Matthiessen, 2014), grammar has communicative intent. Therefore, in writing research articles, the writer uses reporting verbs in citations to report the various verbal processes of previous researchers such as *argue, state, claim, and refute*. When reporting research findings, reporting verbs such as *find, show and reveal* are also commonly used (Yasir Bdaiwi, 2023). However, studies on reporting verbs by various researchers such as Nyugen and Pramoolsook (2015), Muna and Seyed Ali (2019) and Suwitchan and Nathaya (2020) to name a few have documented the difficulties encountered by novice writers in using appropriate reporting verbs in integral citation. The difficulties include the inappropriate use of reporting verbs in terms of the function, voice and tense.

LITERATURE REVIEW

The inability of ESL writers to use reporting verbs in integral citation has motivated several studies to be carried out in the last couple of years. The focus of these studies was mainly on reporting verbs in postgraduate theses and research articles. One such study was conducted by Manan and Noor (2014). Investigating the reporting verbs of only six Masters theses and using Hyland’s (2002) model as their analytical framework, they found that the *Research Acts* category had the highest percentage of occurrences (44.8%), followed by *Cognition Acts* (30.2%) and *Discourse Acts* (25%) categories. In terms of the forms of reporting verbs used, *found* in the *Research Acts* category and *suggest* and *states* in the *Cognition Acts* category recorded the highest frequency of use. In brief, the results highlighted that the participants of the study were more inclined to use reporting verbs of *Research Acts* rather than those of the *Cognition* and *Discourse Acts*.

Apart from Manan and Noor’s (2014) study, Nguyen and Pramoolsook (2015) also examined the use of reporting verbs in postgraduate theses. However, the sample size of Nguyen and Pramoolsook’s (2015) study was much bigger. Using Hyland’s (2002) model on reporting

verbs, Nguyen and Pramoolsook (2015) investigated the use of reporting verbs in 24 Literature Review sections of theses written by Vietnamese postgraduate students. They found that Vietnamese students randomly used reporting verbs without paying attention to their rhetorical functions. As a result, they were not able to use appropriate reporting verbs, tense and voice in citation to achieve the desired communicative intent. Their findings led them to conclude that explicit instructions need to be given to these postgraduate writers in order for them to write a successful master thesis.

Another study which also investigated reporting verbs used by Vietnamese postgraduate students was by Nguyen (2017). In her study on 24 TESOL Master's theses, she analysed each chapter of the thesis based on Hyland's (2002) classification of reporting verbs. The findings of the study showed that *Discourse Acts* were the most dominant, accounting for two thirds of all the reporting verbs found in the corpus of 24 TESOL M.A. theses. *Research Acts* were the next frequently used reporting verbs followed by *Cognition Acts*. As for the evaluative categorization, the findings showed that non-factive reporting verbs were employed the most, followed by factive and tentative ones. Although the findings showed this pattern, Nguyen believed that the writers' use of reporting verbs to indicate their evaluations of the author's content in certain chapters seemed to be inappropriate. A possible reason could be due to the writers' lack of awareness of this evaluative potential of reporting verbs.

In another study on Masters postgraduate students, Muna and Seyed Ali (2019) used Hyland's (1999) evaluative functions of reporting verbs (factive, non-factive and counter factive verbs) to investigate the use of reporting verbs in the Introduction section of Master dissertations. The study revealed that the participants mostly used factive and non-factive verbs in their writing with little use of, counter-factive reporting verbs. This indicated the participants' lack of critical thinking in evaluating the various citations needed in their writing. This study further reaffirmed the serious challenges faced by the student writers in their use of reporting verbs in academic writing. These limitations in the student writings have rendered their writing monotonous and arid.

A more recent comparative study on reporting verbs used in the Introduction chapters of Bachelor and Master theses by Chinese -English major students was conducted by Wen and Pramoolsook (2021). Based on Hyland's (2002) classification of reporting verb framework, the result showed that the undergraduate writers used fewer and narrower range of reporting verbs when compared to the Master student writers. Additionally, both groups preferred the use of *Research* and *Discourse acts* reporting verbs than *Cognition Act* reporting verbs. In terms of evaluative functions, undergraduate student writers showed their preference towards non-factive reporting verbs and Master student writers used more factive reporting verbs.

While the above studies focused mainly on students' theses, Yeganeh and Boghayeri (2015) investigated the reporting verbs in 60 English research articles by native Persian and English speakers. Their study used Thompson and Ye's (1991) classification of three types of reporting verbs for analysis, namely textual, mental and research reporting verbs. In Hyland's model, textual could be equivalent to *Discourse Acts*, while mental and research can be considered as *Cognition* and *Research Acts* respectively. The findings revealed that reporting verbs in *Discourse Acts* (e.g. argue) were used more frequently than the other types by both Persian and native writers. Specifically, Persian writers used more verbs in *Discourse Acts*, followed by verbs in *Research* and *Cognition Acts*. The English speakers also frequently used discourse verbs but differed in the use of the other types of reporting verbs. The English speakers showed their preference for the use of reporting verbs in *Cognition* and subsequently *Research Acts*. One possible reason could be that the English speakers are able to put forth their ideas in a coherent

manner through the use of reporting verbs in *Discourse Acts*. Similarly, they are able to evaluate the arguments in the citations through the judicious use of reporting verbs in *Cognition Acts*. Therefore, it is not surprising that the English speakers performed better in the use of reporting verbs compared to native Persian whose native language is not English.

Another investigation on the use of reporting verbs in research articles, Suwitchan and Nathaya (2020) investigated the reporting verbs used in 84 articles in three prominent journals of Applied Linguistics. Using Hyland's model (2002), their data revealed that *Research Acts* was the most frequently used category. This implies that the writers were using reporting verbs to describe the experiments or activities conducted in the real world. Similar to the novice writers in the previous studies, these participants seemed to have a lack of awareness on the use of reporting verbs under *Cognition* and *Discourse Acts*. An over-use of *Research Act* reporting verbs would definitely make the writing unengaging and ineffective.

In a current study, Bui (2022) also investigated the frequencies and functions of reporting verbs used in a corpus of TESOL research articles by Vietnamese writers. Different from previous studies which mostly used Hyland's (2002) framework, this study used RMIT University Study and Learning Center's (2012) categorization of reporting verbs in terms of the writer's stance such as tentative, neutral and strong position. The corpus consisted of 35 TESOL research articles collected from a PDF book of TESOL international conference proceedings. The findings showed that TESOL research Vietnamese writers had a tendency to use reporting verbs with neutral position. These writers showed their preference for reporting verbs with functions of agreement, argument/persuasion, believing, conclusion, disagreement/questioning, discussion, emphasis, evaluation/examination, explanation, presentation, and discussion. The results can guide TESOL research Vietnamese writers, scholars as well as student writers with more knowledge of reporting verbs in their future academic writing tasks and publications.

Based on the above discussion, it can be surmised that the use of reporting verbs is a challenge to L2 writers as it involves the writers' sensitivity to the various functions of reporting verbs used in citations. It has also been reported that non-native novice writers often have difficulties in using reporting verbs appropriately in their writing. As Jaroongkhongdach (2015) posited, novice writers may have insufficient vocabulary to use the appropriate reporting verbs; therefore, they would have restricted use of reporting verbs to be able to engage the readers successfully when writing the literature review.

Furthermore, studies on reporting verbs so far have been limited to the use of reporting verbs in Master dissertations and research articles (Manan & Noor, 2014; Nguyen & Pramoolsook, 2015). Apart from Agbaglo's (2017) study on Literature Review section of research articles written by Ghanaian lecturers, no other study has so far focused on the use of reporting verbs in the Literature Review section of first semester non-native postgraduate students' writings.

In view of this limitation, this study sought to carry out a classroom action research to investigate the students' ability to use reporting verbs when referring to other authors' ideas and claims. Specifically, this research attempted to examine the patterns of use and forms of reporting verbs in the novice postgraduate writings. The following research questions were framed to guide the study.

1. What is the pattern of use of the reporting verbs in the literature review writings by the novice postgraduate students?
2. How varied are the forms of reporting verbs used by the novice postgraduate students in their literature review writings?

It is hoped that this study will provide insights into this particular group of non-native novice postgraduates' use of reporting verbs in their literature review writings. The results obtained can help writing instructors understand and address the challenges faced by non-native novice postgraduate writers in the writing classrooms, particularly in their use of reporting verbs in academic writing.

METHOD

SAMPLING AND INSTRUMENT

This action research adopted a mixed method design. The data were manually analysed quantitatively to examine the frequency of the reporting verbs used by the participants in their literature review writings. Additionally, the forms of reporting verbs were also examined qualitatively to investigate the variation of the forms of reporting verbs used. To further verify the results of this study, a google form questionnaire which consisted of 22 items, was used to determine the forms of reporting verbs that were most preferred and least preferred by the participants.

A total of 32 literature review samples from the participants were selected from an intact group. In other words, the whole cohort of these participants was taken from one single class. These participants were postgraduate students who were in the first semester of their programme of study. They were from different countries such as Malaysia, Iran, Libya, Yemen, China, Taiwan, Iraq, Nigeria and Jordan. These participants were enrolled in the *Writing the Research Paper* course which is a compulsory course offered for the first time in a postgraduate programme. This course aims to train postgraduate students in writing a research paper.

This 14-week course *Writing the Research Paper* emphasizes on the use of appropriate writing styles, citation conventions, rhetoric, academic vocabulary, the writing of the various sections of a research paper, and self-editing. The course therefore sensitises the postgraduate students to the effective practices of writing a good research paper. As one of the effective practices is the ability to write a good literature review, a literature review assignment of around 500 words was given to the participants as a classroom activity. This activity was a take-home assignment given on the third week of the semester and participants were given three weeks to complete the assignment. The collection of this assignment was then taken as the samples for this study.

A set of questionnaire (see Appendix) was also constructed to elicit the participants' responses of their preferences on the use of reporting verbs. It consisted of two parts. Part A consisted of 5 items related to personal details while Part B were items related to the participants' academic practices focusing on their use of reporting verbs. In total, there were 17 items consisting of open-ended and closed-ended types of questions. An example of an open-ended and closed-ended question is shown below:

Open-ended Question:

"Do you think it is important to teach the different types of reporting verbs when teaching integral citation in the writing classroom? Yes? No? Why?"

Closed-ended Question:

For each reporting verb, identify the frequency of its use in your literature review writing by stating the following options: Always; Very Often; Sometimes; Rarely; Never

Due to the pandemic, these questions were uploaded in the google form to provide easy access for the participants in this study. The questionnaire was deemed necessary to provide more insights and depth into the qualitative and quantitative analyses.

ANALYTICAL FRAMEWORK

To analyse the reporting verbs in the participants' literature review writing, Hyland's (2002) three main categories of reporting verb were adopted. They are *Research Acts*, *Cognition Acts* and *Discourse Acts*. Reporting verbs under *Research Acts* represent experimental activities or actions carried out in the real world. These verbs are mainly found in statements of findings and procedures. Some common forms of reporting verbs used in statements of findings are *observe*, *discover*, *notice* and *show* while procedure verbs are shown by words such as *analyse*, *calculate*, *assay*, and *explore*.

Reporting verbs under *Cognition Acts* reflect the researcher's mental processes. These processes can be expressed in the form of positive and neutral attitudes, tentative view and critical stance. Each of these mental processes is realised by different linguistic realisations. For example, positive attitude is shown through the use of reporting verbs such as *agree*, *concur*, *hold*, *know*, *think*, and *understand* while neutral attitude is manifested through the use of reporting verbs such as *picture*, *conceive*, *anticipate* and *reflect*. Reporting verbs that express tentative view towards reported matters are mainly demonstrated through the use of reporting verbs such as *believe*, *doubt*, *speculate*, *suppose* and *suspect*. For critical stance, *disagree*, *dispute* and *not think* are some of the common linguistic realisations of the reporting verbs.

Finally, reporting verbs in *Discourse Acts* convey an evaluation of cited materials. Writers have the option of either taking responsibility for their interpretation, conveying their uncertainty or assurance of the correctness of the claims reported, or attributing a qualification to the author. Under the *Discourse Acts*, there are three main sub-categories which are *Doubt*, *Assurance* and *Counter*. *Doubt* reporting verbs can be further divided into verbs which are tentative (e.g. *postulate*, *hypothesise*, *indicate* and *suggest*) and verbs that are directly critical (e.g. *evade*, *exaggerate* and *not account*) while *Assurance* reporting verbs are used to cite materials in a positive manner to neutrally inform readers of the author's position (non-factive) or to use that position to support the writer's own argument (factive). For reporting verbs under *Counter*, writers use the reporting verbs to refute or support an opposing argument. Some of the linguistic realisations are *deny*, *critique*, *challenge*, *attack*, *question*, *warn*, *refute* and *rule out*. A graphic summary of Hyland's (2002) categories of reporting verb is shown in Figure 1.

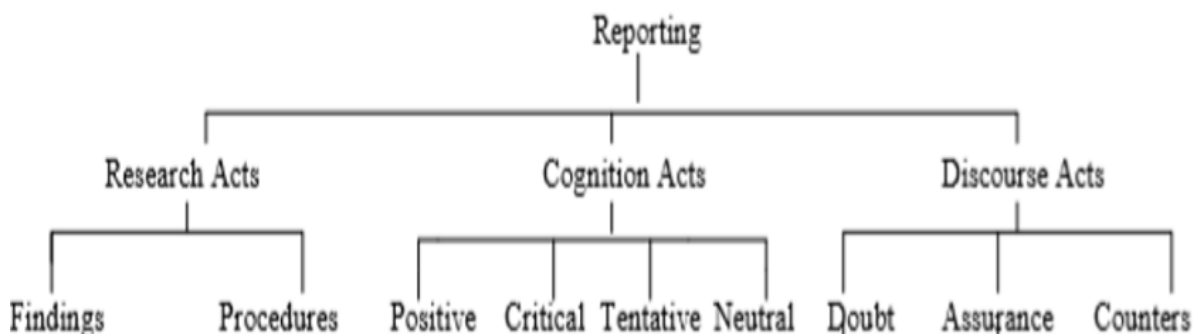


FIGURE 1. Categories of reporting verbs (Hyland, 2002)

DATA ANALYSIS PROCEDURE

Once the samples were collected, the researchers read each sample twice, and identified manually the reporting verbs. As reporting verbs are found only in integral citation, the integral citations in the students' writing were identified. After which, each reporting verb that occurred in the integral citation was closely examined based on the categories of reporting verbs by Hyland's (2002) classification framework. For frequency count, each occurrence was counted as a token. For example, *Brown (2023) revealed in their study that EFL female learners of English performed better than males in their academic writing.* In this example given, the verb "revealed" was considered a reporting verb and it was given a token. As the token was quantified, the variety of forms of reporting verbs were notated. For the occurrences and the variety of forms of reporting verbs used, they were both quantified in percentages.

To assure the reliability and credibility of the data analysis, the results were verified by the rater, who has knowledge and expertise in the field of discourse analysis. As this study is a small one, the researchers felt that having the rater's comments and agreement would help the researchers to analyse the data objectively. Analysing reporting verbs is also context sensitive, therefore a consensus on the categorisation is invaluable for the researchers to investigate the reporting verbs. Similar studies which also used raters' comments and agreement were Manan and Noor (2014), Nguyen and Pramoolsook (2015) and Agbaglo (2017). A total of five samples, which formed more than 10% from the collected data were selected for analysis. As Hodson (1999) states that 10% of the total collected data is considered enough for the reliability and agreement process. Several steps were followed during the rating session. First, the research questions, categories of reporting verbs of Hyland's (2002) framework and coding scheme were explained to the rater. At the same time, the rater was told to focus only on integral citations. Second, the rater read each sample and identified the reporting verbs in integral citations. Third, the rater categorised the reporting verbs into the types of reporting verbs based on Hyland's (2002) framework. Fourth, both researchers and the rater discussed the categorisation of reporting verbs for each sample. In times of discrepancy, both the researchers and the rater discussed to come to an agreement of the analysis. For example, based on Hyland's (2002) framework under *Research Acts*, the reporting verb *demonstrated* can be used to show how writers accept the authors' findings or conclusions or how the writers can report the research procedures. However, during the rating session, the reporting verb *demonstrated* was only used to describe the procedures of the author's investigation and was not found to show the writer's acceptance of author's findings. Therefore, both researchers and the rater came to an agreement that when the reporting verb *demonstrated* was used as in *Using a pretest-posttest design, Alessandri et al. (2017) demonstrated the way experimental manipulation is used in the intervention programs,* and *Lv and Chen (2010) demonstrated the steps for metacognitive strategies-based writing instruction in the experimental group,* it would be categorised under *Research Acts* - as a verb form to state procedures instead of writer's acceptance of author's findings.

As for the questionnaires, they were distributed to the participants on the day the assignments were submitted. The participants were directed to the google form. The participants were asked to submit the form the next day. Their responses were then extracted from the spreadsheet and reported.

RESULTS

Generally, the data of the study revealed that the participants were able to use all the three categories of reporting verbs. However, among the three categories of the reporting verbs, the participants were more inclined to use the reporting verbs under *Research Acts* (47%), followed by *Discourse Acts* (39%). The lowest frequency of use recorded was for the *Cognition Acts* with 14% occurrences (See Table 1).

TABLE 1. Frequency of occurrences of reporting verbs

Research		Discourse		Cognition		Total	
N	%	N	%	N	%	N	%
95	47	78	39	29	14	202	100

To answer research question 2, the variety of forms of reporting verbs was tabulated (See Table 2). The result showed that there were more variety of *Research Act* reporting verbs compared to *Discourse* and *Cognition Act* reporting verbs.

TABLE 2. Variety of forms of reporting verbs

Research		Discourse		Cognition		Total	
N	%	N	%	N	%	N	%
15	55.5	7	26	5	18.5	27	100

The details of the realization of the forms of reporting verbs for each category are discussed below. For *Research Acts*, the various forms used under stating findings were *found*, *revealed* and *showed* with the form *found* having the highest frequency of use (Table 3).

TABLE 3. Research Acts - Reporting verbs for stating findings

Reporting Verbs for Stating Findings	Frequency	Percentage
found	20	38
revealed	16	30
showed	12	22.5
discovered	4	7.5
noticed	1	2
Total	53	100

Examples of the use of the most dominant to the least dominant forms of *Research Act* reporting verbs (stating findings) in the literature review writings are illustrated below:

The most dominant forms:

Altotaibi, Shu-hua and Alrabah (2018) found that Kuwaiti BA and Diploma learners of English tend to choose the proposition 'with' rather than 'within' as in "it is not with my power to help you."
....Al-yaari and Al maflehi (2013) revealed in their study that Saudi females' learners of English Performed better than males in producing the propositions "at, in and on".
Kirmizi (2015) and Yan (2018) showed that anxiety is multidimensional and can be affected by cognitive and emotional factors.

The least dominant forms:

Denton (2014) discovered that using Spanish is stigmatised among Nuyoricans.
Searle (2010) noticed there was a strong link between language and people's senses of nationalism.

As for the procedural verbs under *Research Acts*, varied forms of reporting verbs were used with differing frequencies (Table 4).

TABLE 4. Research acts – Forms of procedural verbs

Forms of Procedural Verbs	Frequency	Percentage
conducted	12	29
carried out	7	17
analysed	4	9.5
examined	4	9.5
administered	3	7
studied	3	7
investigated	3	7
demonstrated	3	7
employed	2	5
utilised	1	2
Total	42	100

Based on Table 4, the top two procedural reporting verb forms used by the participants were *conducted* (29%) and *carried out* (17%). Other forms used were *analysed*, *examined*, *administered*, *studied*, *investigated*, and *demonstrated*. The forms which had the lowest frequency were *employed* and *utilised*. These forms had a frequency of 5% and 2 % respectively. All of the reporting verbs used were in the simple past tense. These various forms of reporting verbs were used in their literature review writings to describe the samples, instruments, procedures and method of data analysis from the past studies. Some examples of the most dominant to the least procedural verbs are shown below:

The most dominant form:

Hatami and Asl in 2017 conducted a case study on Iranian Advanced English language learners regarding their reading strategies.
Hassan (2001) carried out a study using 182 3rd year students enrolled in the English Department in Egypt.

The least dominant form:

Ata and Cevik (2018) employed two surveys to discover the relationship between mobile readiness and learning styles of pre-service instructors.
Bejarano (1987) utilised the conventional whole-class teaching approach in the two separate EFL classes in dual small-group.

In this study, the reporting verbs of the *Discourse Acts* were manifested in various forms. The top three highest frequency of *Discourse Acts* are shown in Table 5.

TABLE 5. Forms of reporting verbs in discourse acts

Forms of Discourse Verbs	Frequency	Percentage
state	22	28
conclude	19	24
suggest	17	22
explain	8	10
mention	6	8
argue	4	5
report	2	3
Total	78	100

The results revealed that *state* (28%) had the highest frequency of use while *conclude* (24%) and *suggest* (22%) had the second and third highest frequency of use followed by *explain* (10%), *mention* (8%), *argue* (5%) and *report* (3%). Generally, the reporting verbs are used in the simple past and present perfect tense. Examples of the most common to the least common forms of Discourse Acts reporting verbs are shown below:

The most dominant forms:

Mokhtari (2002) stated “MARSI was originally designed for students who are native English speakers, it was inappropriate for use with non-native speakers.
McLain et al. (1991) concluded that the index of reading awareness had questionable reliability and validity.
Razi & Cubukcub (2014) suggested that conscious awareness and controlled of one’s learning were involved in metacognition.

The least dominant forms:

Brown (2001) has argued that attitude is related to emotion, feelings and moods that emerged in oneself.
Aryu Zulfa (2019) reported that giving presentation in class can be stressful for students.

In this study, the use of reporting verb for *Cognition Acts* was limited (14%) as shown in Table 1. The most common reporting verbs used by the postgraduate writers for *Cognition Acts* in this study were *believe* (38%) and *agree* (31%) while the least common ones were *concur* (10%) and *criticise* (4%) (see Table 6).

TABLE 6. Forms of reporting verbs in cognition acts

Forms of Cognition Verbs	Frequency	Percentage
believe	11	38
agree	9	31
assert	5	17
concur	3	10
criticise	1	4
Total	29	100

Examples of the most common to the least common reporting verbs for Cognition Act are shown below:

The most common reporting verbs:

*Eshghinejad (2016) **believed** that gender may also affect the language learning process.*
*Choy and Troudi (2006) **have agreed** that the inner side of learners may affect their perspectives and attitudes towards language learning.*

The least common reporting verbs:

*Tengku Mohamad Masum and Maarof (2013) **concurred** that among the three metacognitive strategies subscale in MARSJ, problem solving strategies had the highest frequency of usage.*
*Farhan (2017) **criticises** the statement "trait anxiety is a part of a person's character and is a permanent disorder".*

DISCUSSION

Based on the above results, the participants were able to use all the three categories of reporting verbs, and the most frequently used reporting verb category was *Research Acts*, followed by *Discourse Acts* and *Cognition Acts*. The results on the frequency of occurrences in this study seem to be consistent with Suwitchan and Nathaya's (2020) results. They also found that the most common reporting verbs found belonged to the category of *Research Acts*, followed by *Discourse Acts* and *Cognition Acts*. Similar results were also found in the research conducted by Manan and Noor's (2014). They found that among the three categories of the reporting verbs, *Research Acts* had the highest frequency. However, in their study in which they investigated six master theses of Malaysian postgraduate students on their use of reporting verbs, the next highest frequency of use was *Cognition Acts* followed by *Discourse Acts*. This order of frequency is not congruent with the current findings as *Discourse Acts* was the second highest frequency of use. One possible reason could be that in the current study, the participants were inexperienced in writing research papers. As first semester students, these participants may not have been initiated into the writing practices of research writing. In contrast, participants in Manan and Noor (2014) were postgraduate students who were writing their thesis. Therefore, an assumption can be made that these students were relatively more matured and therefore have the capacity to think critically. In turn, it is not surprising that participants in this study had very low use of *Cognition Acts*. This is because as novice writers, they may not have been exposed to the higher order skills such as thinking critically, synthesising and criticising work of previous researchers.

Apart from Manan and Noor's (2014) study, the study of Agbaglo (2017) revealed interesting results. Different from Manan and Noor (2014) and the current study, his data revealed that the most preferred reporting verbs were *Discourse Acts* (51%), followed by *Research Acts* (42%) and *Cognition Acts* (7%). His study was on the use of reporting verbs in the Literature Review section by lecturers from the University of Ghana. Despite being lecturers, they seemed to exhibit a lack of critical thinking skills. As Agbaglo (2017) did not offer a reason for this scenario, further study needs to be carried out to examine the reason for these participants' lack of higher order thinking skills even though they are academicians.

As reported earlier, the forms for research act reporting verbs were more varied compared to reporting verbs in *Discourse Acts* and *Cognition Acts*. In *Research Acts*, there are two sub-categories: reporting verbs stating findings and reporting verbs stating research procedures. Between the

two categories, the forms of reporting verbs stating research procedures were more varied by 50% (See Table 4). The highest frequency of reporting verb forms under stating research procedures was *conducted* and the lowest frequency was *utilised*. However, the various forms used under stating findings were limited to the following forms: *found*, *revealed*, *showed*, *discovered* and *noticed*. Among these forms of reporting verbs, *found* had the highest frequency of use. This result concurs with Manan and Noor's (2014) research where they also discovered that the reporting verb *found* had the highest frequency of use. Additionally, Yilmaz and Erturk (2017) who performed a contrastive corpus-based analysis of the use of reporting verbs by native and non-native ELT researchers also had similar findings. Their non-native and native participants had a high frequency of use for the form *found*. This is not a surprise as the participants were novice writers who lack exposure to the repertoires of reporting verbs used in academic writing.

An interesting finding and worth mentioning was that although several discourse reporting verb forms were used, reporting verbs such as *state*, *suggest* and *conclude* were repeatedly used. Similarly, the participants repeatedly chose *believe* and *agree* as reporting verb for *Cognition Acts*. This could imply that learners may possibly favour these reporting verbs more than other forms. According to Yilmaz and Erturk (2017), over use of certain forms could be due to the fact that recalling those forms was easier than recalling other forms. These forms could have been introduced to the writers and thus, they were more familiar with the forms.

The data from the questionnaire further affirms the findings of this study. The majority of the participants (85%) preferred reporting verbs such as *find*, *show* and *reveal* to state the findings of other researchers. However, for Procedural verbs, the participants stated their preference for the use of reporting verbs such as *study* and *investigate* instead of *conduct* and *carry out* as shown in their analysed samples of literature review. It is heartening to note that the participants were able to use reporting verbs in the literature review other than the ones listed in the closed-question. In the literature review samples, the reporting verbs were used appropriately and in context. This interesting finding could be due to the closed-question type constructed in the questionnaire. Perhaps, future study could have a more comprehensive list of reporting verbs.

The data from the questionnaire on *Discourse Acts* revealed reporting verbs such as *state* as the most frequently used verb by the participants (100%), followed by *suggest* (92%). However, reporting verb *conclude* was mentioned as the less frequently used verb (78%) when compared to *argue* (71%) and *report* (71%). When the participants were asked whether they used other reporting verbs, only one of them suggested *affirm*, *claim*, and *point forward*. Nevertheless, these reporting verbs were not found in the literature review samples. For *Cognition Acts*, the participants reported that they frequently used reporting verbs such as *believe* and *agree*. The result is congruent with the results found in the analysis of their literature review writings. This further confirmed the limited knowledge of the participants on the myriad reporting verb forms under the *Cognition Acts*.

On the whole, their personal perceptions of their ability to use citation did not seem to resonate with the analysis of their use of reporting verbs in the literature review writings. Contrary to their perceptions on their use of reporting verbs, the analysis reported that they lacked the use of *Cognition Act* reporting verbs. Perhaps these participants are of the opinion that as long as they use citations in their writings, regardless of the types of citation and reporting verbs used, their writings are acceptable. However, this is far from the truth. Successful academic writing calls for sophistication in writing in terms of the use of varied forms of language expressions and in this instance, the use of varied reporting verbs that illustrates the writers' high order thinking skills to comment on the propositions of other writers. To reiterate what Granger and Paquot (2009) had

highlighted earlier, writers need to express their propositions in all their “nuances” and word them appropriately so that the writing is comprehensible and engaging to the readers.

The fact that these participants responded that the different types of reporting verbs in integral citation should be taught explicitly to students further strengthens the above argument that their knowledge of reporting verbs is still limited, and they need further exposure to the conventions and functions of citations. Additionally, uncovering the varied forms and functions of reporting verbs in integral citation can assist them in deciding the appropriate choice of reporting verbs to use.

Apart from the questionnaire items on the use of reporting verbs, the participants were asked for their preference of use between the integral and non-integral citations. The data generally revealed that almost half of the participants (42.9%) used both types of citations, integral and non-integral citations in their literature review writing while 35.7% and 21.4% of the participants stated that they used integral and non-integral citations respectively. Although the participants generally were aware of the important use of citation, they were more inclined to use reporting verbs under *Research Acts* compared to *Discourse* and *Cognition Acts*. This implies that the participants have to be taught the use of reporting verbs in *Discourse* and *Cognition Acts* in their writing of literature review. This will help to make their writing more engaging and effective.

CONCLUSIONS

To conclude, the study revealed the general pattern of use of reporting verbs among novice postgraduate writers in the literature review writing. Among the three categories of reporting verbs, these novice writers used more reporting verbs under the *Research Acts* followed by *Discourse* and *Cognition Acts*. This result indicates that these novice postgraduate writers lack critical thinking skills, which are more demanding cognitively. They did not use reporting verbs to compare, synthesise and criticise the work of previous researchers. Instead, they merely reported the findings of other researchers and the procedures used in the research. This could be because *Research* and *Discourse Act* Reporting Verbs are straight forward reporting and therefore they are easier to master. Additionally, the result revealed that *found* and *conducted* from the *Research Act* category were the most commonly used reporting verbs while *state* and *believe* were the two most dominant reporting verbs used from the *Discourse* and *Cognition Act* categories. The result seems to suggest that these reporting verbs were more common to them. Perhaps, they were exposed to these verbs in their writing classes.

Though the study has revealed insightful results of the participants’ use of reporting verbs, the result is only true to this particular group of participants. Future studies could delve deeper by taking the study to a different dimension. For example, future studies could investigate the use of reporting verbs of participants in different disciplines or cultures. A comparative analysis in such dimension may yield interesting results.

Furthermore, the current study only investigated reporting verbs used in integral citation in the Literature Review section because of time constraint. Therefore, future studies could extend the current study to include other sections in a research article. This may provide a more holistic view on the use of reporting verbs as not all the sections of an article warrant an equal amount of use of citations. By the rule of thumb, the propensity to use citations is commonly seen in the Introduction, Literature Review and Results sections rather than the Methodology and Conclusion sections. Additionally, this action research is a small study, so Cohen Kappa score is not obtained.

To strengthen the methodology, perhaps future study could expand on the data collection and Cohen Kappa score could be obtained.

Though the current study may have some limitations, for example, the construction of questionnaire items, the results obtained have brought to the fore the knowledge base of the use of reporting verbs in integral citation of the participants undergoing training in writing a research paper. Contrary to the previous studies on reporting verbs in citations which mainly focused on postgraduate theses and research articles, this study took a different angle by focusing on the use of reporting verbs among the first semester postgraduate students. This is the novelty of the current study. Besides bringing a new perspective on the use of reporting verbs to the existing body of literature, this study has several pedagogical implications.

As a classroom action research, the results obtained would provide writing instructors the necessary insights into the ability of the participants' use of reporting verbs. Such insights will necessitate teachers to create their own teaching materials that capture the different stances of reporting verbs used in integral citations (Bloch, 2010). Besides this, the results obtained will be a useful resource for writing instructors to use as they are "authentic occurrences in discourse" (Bloch, 2010, p.224). The authenticity of the data would go a long way in helping learners use the different types of reporting verbs in citation appropriately in their writing. In a nutshell, the results yielded from the study are invaluable informed input for the classroom practices of writing instructors.

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REFERENCES

- Agbaglo, E. (2017). The types and frequencies of reporting verbs in research articles written by lecturers in a Ghanaian university. *Journal of Literature, Languages and Linguistics*, 34, 51 – 57.
- Bloch, J. (2010). A concordance-based study of the use of reporting verbs as rhetorical devices in academic papers. *Journal of Writing Research*, 2 (2), 219-244. <https://doi.org/10.17239/jowr-2010.02.02.7>
- Bui, T.K.L. (2022). Frequencies and functions of reporting verbs used in TESOL research articles by Vietnamese writers. *VNU Journal of Foreign Studies*, 38 (3), 2525-2445. <https://js.vnu.edu.vn/FS/article/view/4843>
- Charles, M. (2006). Phraseological patterns in reporting clauses used in citation: A corpus-based study of theses in two disciplines. *English for Specific Purposes*, 25, 310-331. <https://doi.org/10.1016/j.esp.2005.05.003>
- Granger, S., & Paquot, M. (2009). Lexical verbs in academic discourse: a corpus-driven study of learner use. In Charles, M., Pecorari, D. & Hunston, S. (Eds.), *Academic writing: At the interface of corpus and discourse*, (pp. 193-214). Continuum. <https://doi.org/10.5040/9781474211703.ch-010>
- Halliday, M. A. K., & Matthiessen, C. M. I. (2014). *An Introduction to Functional Grammar*. Routledge. <https://doi.org/10.4324/9780203783771>

- 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. (2002). Activity and evaluation: Reporting practices in academic writing. In J. Flowerdew (Ed.), *Academic discourse* (pp 115- 130). Longman. <https://doi.org/10.4324/9781315838069-15>
- Hodson, R. (1999). *Analyzing documentary accounts* (Vol. 128). Thousand Oaks, CA : SAGE Publication.
- Jaroongkhongdach, W. (2015) Idea sharing: Reporting verbs in research writing: Lessons from Experts. *PASAA*, 50, 143-154. <https://doi.org/10.14456/pasaa.2015.6>
- Manan, N. A., & Noor, N. M. (2014). Analysis of reporting verbs in Master's theses. *Procedia-Social and Behavioral Sciences*, 134, 140-145. <https://doi.org/10.1016/j.sbspro.2014.04.232>
- Muna, A. S., & Seyed Ali, R. K. (2019). Evaluative functions of reporting verbs in the introductions of Master theses. *Humanities and Social Sciences Reviews*, 7(6), 139-142. <https://doi.org/10.18510/hssr.2019.7628>
- Nguyen, T. T. L. (2017). Reporting verbs in (TESOL) Master's thesis written by Vietnamese postgraduate students. *The Asian ESP Journal*, 25, 35-58.
- Nguyen, T.T.L., & Pramoolsook, I. (2015). Reporting verbs in literature review chapters of TESOL Master's theses by Vietnamese postgraduates. *Journal of English for Specific Purposes*, 3(2), 196-215.
- Suwitchan, U., & Nathaya, U. (2020). A corpus-based study on the use of reporting verbs in Applied Linguistics articles. *English Language Teaching*, 13(4), 162-169. <https://doi.org/10.5539/elt.v13n4p162>
- Thompson, G., & Ye, Y. (1991). Evaluation in the reporting verbs used in academic papers. *Applied Linguistics*, 12(4), 365-382. <https://doi.org/10.1093/applin/12.4.365>
- Wahyudin D., Muhammad A. R., Rinda C. & Abdusy S. A. (2018). Strategic design of Information system implementation at university. *International Journal of Engineering & Technology*, 7 (2), 787-791.
- Wen, S. Q., & Pramoolsook, I. (2021). A comparative study of reporting verbs used in the Introduction chapters of bachelor's theses and master's theses by Chinese English-majored students. *Indonesian Journal of Applied Linguistics*, 11(2), 452-462. <https://doi.org/10.17509/ijal.v11i2.32748>
- Yasir, B. J. (2023). Restating findings in research articles discussion section: A corpus analysis of linguistics cues and lexical bundles. *GEMA Online Journal of Language Studies*, 23(1), 225-243. <http://doi.org/10.17576/gema-2023-2301-12>
- Yeganeh, M. T., & Boghayeri, M. (2015). The frequency and function of reporting verbs in research articles written by native Persian and English speakers. *Procedia : Social and Behavioral Sciences*, 192, 582 – 586. <https://doi.org/10.1016/j.sbspro.2015.06.097>
- Yilmaz, M., & Erturk, Z. O. (2017). A contrastive corpus-based analysis of the use of reporting verbs by native and non-native ELT researchers. *Novitas-ROYAL (Research on Youth and Language)*, 11(2), 112-27.

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