

Article

# A Corpusbased Functional Analysis of Reporting Verbs in the Literature Reviews of Sports Science Masters Theses

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**Abstract:** Reporting verbs (RVs) serve as a fundamental element in academic writing, and they enable writers to attribute information to prior sources while simultaneously conveying both the reported research activities and their evaluations of the cited content. The literature review part, as a core component of any thesis or the broader genre it belongs to, is typically the section where RVs are most frequently employed. However, regardless of whether students are native or nonnative speakers, they often face challenges in managing citations in their academic writing, particularly in understanding and applying the evaluative functions of RVs. Adopting a corpusbased approach, this study examines the use of RVs in 16 pieces of literature reviews from American master's theses in the sports science discipline. Drawing on Hylands' taxonomy of RVs, this study systematically analyzes the dual functions of RVs: their denotative capacities and evaluative potentials. The findings of this study indicate that all three categories of RVs are employed with varying frequencies in sports science master students' theses. In terms of frequency, discourse acts verbs appeared more frequently than research acts verbs and cognition acts verbs. In terms of evaluative functions, assurance and procedure verbs were the most frequently utilized to express their stances on the reported claims and present the procedures of prior sports research. While this study contributes to the existing body of literature, it also provides practical guidance on the appropriate selection and application of RVs in the sports science discipline, a relatively neglected field in academic writing.

**Keywords:** literature review; academic writing; reporting verbs; citation; the sports science discipline

## 1. Introduction

Academic writing plays a pivotal role in students' academic journey [1]. Students must develop proficiency in multiple academic genres, including essays, research proposals, journal articles, and theses, while strictly observing disciplinespecific conventions and stylistic requirements. Among these genres, the thesis may pose a particularly significant challenge. Students need to present their research coherently and credibly while demonstrating its relationship to previous work through substantive literature engagement, thus establishing their relationship with the broader disciplinary discourse community [2]. During their writing process, citing other works is a defining characteristic, with complex communicative functions that vary syntactically, semantically, and pragmatically [3,4]. Hyland also emphasizes that even the most original research paper must integrate existing scholarship and present relevant theories, concepts, and findings from prior studies [3]. Without doing so, it is unlikely to meet the publication requirements of scientific journals, let alone meeting thesis requirements. Besides, citation is "central to the social context of persuasion" [2]. The conventional structure of a thesis consists of five integral components, the introduction, the literature review, the methodology, the findings and discussions, and the conclusion, with each section serving a distinct and specific

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purpose. Among all chapters, citations are most commonly found in the literature review part [5]. This particular section serves to delineate the scope of the study, define key terms pertinent to the current investigation, and synthesize prior research to identify research gaps [6]. For this reason, the literature review section typically features a greater number of RVs. While students may integrate their own interpretations throughout their work, such assertions must be substantiated by authoritative sources. Therefore, RVs are an important linguistic tool for writers to establish the credibility of cited claims and develop evidencebased arguments [7-10]. Accordingly, this research investigates the employment of RVs in the literature review section.

Over the past decades, academic writing in the sports science discipline has been underemphasized in academic communities. Few scholars have specifically studied the characteristics of academic writing within this discipline. As a matter of fact, the sports science discipline, an interdisciplinary field, combines theory with extensive empirical research. To position their work within the existing scholarship and build their arguments, students of this field also employ a wide range of RVs in their academic writing. From this perspective, their academic writing also deserves attention. However, the appropriate selection and application of RVs in thesis writing often pose a significant challenge for these students. This difficulty may stem from the interdisciplinary nature of their field, which blends the distinct rhetorical traditions of the natural and social sciences. So, there exists a practical and urgent need to explore the functional use of RVs in these students' academic writing. Thus, this study adopts a corpusbased functional analysis of RVs in the literature review section of sports science master's theses. This research hopes to offer insights for academic writing in the sports science discipline, enhance the rhetorical awareness of students and educators, and contribute to the body of empirical studies in this field.

## **2. Literature Review**

### *2.1. Classifications and Functions of Reporting Verbs*

Reporting verbs play a significant role in academic writing. These verbs help writers integrate the work of others into their texts while indicating their stance towards the cited materials [11]. Scholars have extensively investigated the classifications and functional roles of RVs in academic writing from diverse perspectives.

Thompson and Ye categorize RVs into three categories based on the processes they denote: textual verbs, which involve processes where verbal expression is essential (e.g., state, write, challenge...); mental verbs, which pertain to mental processes (e.g., believe, think, focus on...); and research verbs, which refer to the mental or physical processes integral to research work (e.g., measure, calculate, find...) [7]. As the earliest classification, it laid the foundation for later RVs research. Thomas and Hawes classify RVs based on the type of activity referenced [8]. Their classification system identifies three main categories of RVs: real-world or experimental activity verbs (e.g., observe, find, establish...), discourse activity verbs (e.g., hypothesize, document, suggest...), and cognition activity verbs (e.g., assume, consider, regard...), which broadly align with the categories proposed by Thompson and Ye but are adapted to the specific context of medical journals [7].

Hyland synthesizes both systems to classify RVs into three categories based on the activity they refer to [2]. Research acts verbs describe experimental activity carried out in the real world (e.g., demonstrate, conduct, show...), while cognition acts verbs reflect the researcher's mental processes (e.g., conceptualize, suspect, view...). Discourse acts verbs, conversely, are concerned with the verbal expression of cognitive or research activities (e.g., hypothesis, state, ascribe...). Hyland further subdivides these three types of RVs by introducing evaluative dimensions [3]. Writers can adopt RVs to signal supportive, tentative, critical, or neutral stances towards the reported claims. This framework allows the writer to vary their commitment by using verbs which either imply a personal stance or attribute an attitude to the cited author [3].

## *2.2. Applied Studies on Reporting Verbs*

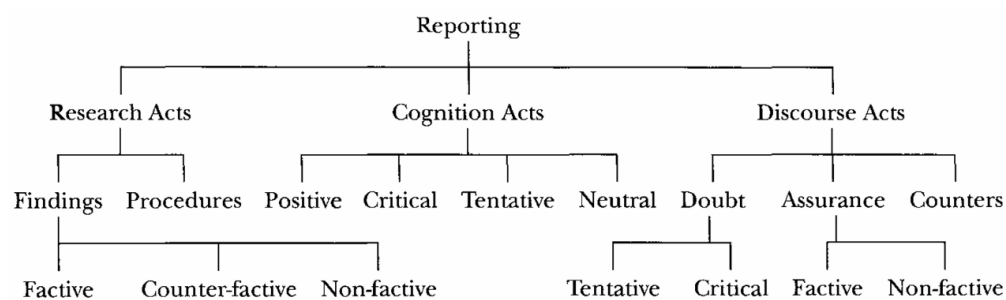
Reporting verbs are important grammatical tools for writers to convey their stance on prior studies in academic writing [12]. Effective use of RVs thus offers writers opportunities to give credence to their own authority by responding to previous work in an academic discussion [13]. Given the significance of RVs, scholars have extensively examined their use and functions of RVs in academic writing.

Some investigations highlight how disciplinary conventions shape preferences for RVs in academic writing. Uba explores semantic categories of RVs across four disciplines, accounting, applied linguistics, engineering, and medicine from 120 research articles [14]. She finds that the humanities discipline (accounting, applied linguistics) used RVs more frequently than STEM fields (engineering and medicine). Hu and Wang examine 84 journal articles in applied linguistics and general medicine [15]. They show that applied linguistics articles tend to use more dialogically expansive citations while medical articles favor dialogically contractive citations. These differences are linked to discipline-specific epistemologies and ethnolinguistic communication norms. More recently, Hyland and Jiang analyze RVs as part of their broader investigation into academic informality, comparing their use in electrical engineering (hard discipline) and sociology (soft discipline) [16]. Writers in the hard discipline favor research act verbs to foreground empirical evidence while writers in the soft discipline use more discourse act verbs to engage with theoretical debates. Studies of this nature can help learners better understand the importance of RVs and employ them more effectively to develop their own discipline-specific authorial voice [9,17-19]. Research on RVs has also predominantly examined their use in different genres, with a strong focus on RAs (research articles). Harwood conducts an emic, interviewbased study to explore the functions of citations within computer science and sociology RAs [20]. He states that over half of the citations in both fields serve more than one function and thus citation analysis should consider the subjective meanings placed on citations by authors. Hewings et al. further analyze a 1.5millionword corpus of psychology articles to examine how citations function as interpersonal tools that enable authors to signal affiliation with their disciplinary community and negotiate their position within it [21]. Besides, scholars have also discovered that learners' language proficiency influences the choice of RVs. Mansourizadeh and Ahmad compare the types and functions of citations used by nonnative expert and novice scientific writers in the field of chemical engineering [22]. They show that expert writers have a higher overall citation density. Similarly, Marti et al. investigate how nativeness and expertise influence the use of RVs within the field of applied linguistics [19]. At last, student writing in the form of doctoral dissertations and master's theses has been analyzed [23-25].

From the literature, we can see that both discipline and genre could influence the choices of RVs in academic writing. While previous research has extensively examined numerous disciplines, including intradisciplinary and interdisciplinary work, the sports science discipline has received inadequate attention [26]. Besides, previous studies have demonstrated that learners' language proficiency affects their selection and application of RVs. This is why this study targets at master students, whose academic writing development bridges the relative immaturity of undergraduates and the sophisticated competence of doctoral candidates [27].

## **3. Analytical Framework**

The analytical framework guiding this study is Hyland's classification of RVs [3]. This taxonomy is the most comprehensive and clearest for categorizing RVs, as it encompasses both the researcher's research activities and the writer's evaluative judgments, two essential elements in the reporting process of academic writing. The framework is depicted in Figure 1 and further explained below [28].



**Figure 1.** Hyland's Classification of Reporting Verbs [3].

Hyland categorizes RVs based on their denotative functions into three distinct processes: research (realworld) acts verbs represent experimental activities or actions carried out in the real world (e.g., notice, discover, show, observe,...), cognition acts verbs relate to the researcher's mental processes (e.g., conceptualize, assume, suspect, believe, view...) and discourse acts verbs indicate the verbal expression of cognitive or research activities (e.g., report, hypothesize, ascribe, state, discuss...) [3].

In terms of evaluative functions, each process category encompasses a set of evaluative subcategories. Within the finding category of research acts, writers can express their acceptance of the researcher's claims using factive verbs like demonstrate, show, confirm, establish, and solve. Alternatively, they can adopt a counterfactive stance by portraying the researcher's judgments as false or incorrect with verbs like fail, misunderstand, ignore, and overlook. Additionally, they can comment on research findings in a nonfactive manner using nonfactive verbs like find, identify, observe, and obtain, which do not convey a clear attitudinal signal regarding their reliability. Finally, verbs in the procedure category, however, are neutral and simply report research procedures without any evaluation, such as examine, explore, and analyze.

In cognition acts category, evaluative functions are handled differently. These verbs not only allow writers to express their personal stance on the reported information but also attribute a specific attitude to the cited author [3]. There are four main options: Writers can depict the cited author as having a positive attitude and accepting the information as true or correct using verbs like concur, agree, know, hold, think, and understand. Alternatively, they can adopt a tentative stance with verbs like believe, speculate, doubt, suppose, and suspect. They can also take a critical view of the reported claims using verbs like disagree, dispute, and not think. Lastly, they can manifest a neutral attitude towards the reported propositions with verbs like anticipate, picture, conceive, and reflect.

Discourse acts verbs enable writers to either take responsibility for their interpretation by expressing uncertainty or assurance about the correctness of the reported claims or attribute a qualification to the researcher [3]. These verbs, which directly convey the writer's view, are divided into doubt and assurance categories. Doubt verbs can be further divided into tentative verbs like hypothesize, suggest, indicate, postulate, intimate, and critical verbs like evade, exaggerate, not account, and not make point. Assurance verbs introduce cited materials either neutrally, informing readers of the writer's position with nonfactive verbs like answer, define, discuss, report, describe, state, and summarize or support the writer's own position with factive verbs like affirm, claim, explain, argue, note, and point out. Counters, another subcategory of discourse acts verbs, allow writers to express their reservations or objections to the correctness of the reported information without taking responsibility for the evaluation like deny, attack, challenge, question, refute, critique, warn and rule out.

Based on the analytical framework, two questions are proposed in this study:

How frequently do different categories of reporting verbs appear in the literature review section of sports science master's theses?

What functions are performed by reporting verbs in the literature review section of sports science master's theses?

## 5. Results and Discussions

### 5.1. Frequency of Reporting Verbs

Table 1 presents the distribution and frequency of RVs utilized in the literature review section of sports science master's theses, organized according to their denotative and evaluative categories. In the corpus, 488 RVs were identified. The study revealed a predominance of discourse acts verbs, constituting 52.4% of all RVs. Research acts verbs emerged as the second most frequent category (36.7%), followed by cognition acts verbs (10.9%). To be more specific, within the evaluative categories, the most commonly used types concerning research acts and discourse acts were the procedure and assurance categories, each with a frequency of 95 and 214, accounting for 19.5% and 43.8%. This suggests that in the field of sports science, there is a focus on reporting research procedures and conveying a factive stance. Findings, on the other hand, had a frequency of 84, making up 17.2% of all RVs. Within the findings category, nonfactive verbs were predominantly used (10.5%), followed by factive (6.1%) and counterfactive verbs (0.6%). In the assurance category, which had the highest percentage among all RVs, factive verbs were the most common, occurring 115 times and representing 23.5% of RVs. Besides, nonfactive verbs occurred 99 times, accounting for 20.3%. At last, these writers steered clear of direct refutation or confrontation with prior researchers, as evidenced by the rare use of both critical verbs (in cognition acts and discourse acts) and counter verbs (in discourse acts). This might stem from these thesis writers' consciousness of the authority imbalance between them and prior researchers, as well as their position within the academic community, as highlighted by Koutsantoni [29]. Hyland also contends that explicit rebuttal and criticism of other researchers is "a serious facethreatening act in academic writing, and such violation of interpersonal conventions is likely to expose the writer to retaliation or the disapproval of publishing gatekeepers" [3].

**Table 1.** Distribution and Frequency of Reporting Verbs.

Category	Frequency	Percentage
Research Acts	179	36.7%
Findings	84	17.2%
Factive	30	6.1%
Nonfactive	51	10.5%
Counterfactive	3	0.6%
Procedure	95	19.5%
Cognitive Acts	53	10.9%
Positive	20	4.1%
Critical	1	0.2%
Tentative	14	2.9%
Neutral	18	3.7%
Discourse Acts	256	52.4%
Doubt	40	8.2%
Tentative	40	8.2%
Critical	0	0%
Assurance	214	43.8%
Factive	115	23.5%
Nonfactive	99	20.3%
Counters	2	0.4%
Total	488	100%

### 5.2. Functions of Frequently Utilized Reporting Verbs

In the corpus, all three process categories of RVs are detected. Hyland contends that English contains more than 400 RVs [3]. Similarly, Thompson and Ye highlight the diversity of RVs available to writers for their thesis development [7]. Following Hyland's taxonomy, RVs were classified into their distinct functional categories. Table 2 presents a selection of common RVs identified in the corpus [3]. To maintain consistency in the results and discussions, examples of RVs are provided in the present tense.

**Table 2.** Examples of RVs in the Corpus.

state, claim, suggest, explain, indicate, show, use, report, say, add, summarize, analyze, find, argue, believe, mention, examine, classify, study, call for, categorize, explore, apply, interview, describe, demonstrate, stipulate, perform, estimate, propose, question, think, identify, know, define, understand, acknowledge, disagree, seek, highlight, fail...
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De Beaugrande points out that simply relying on dictionary definitions is often insufficient for expressing a writer's stance, as there can be a disconnect between dictionary meanings and how these RVs are used in real rhetorical contexts [30]. Bloch further illustrates that even if students make grammatically correct choices, the rhetorical impact of their claims may be weakened if RVs are not contextually appropriate [9]. Selecting appropriate RVs that meet both syntactic requirements and convey their stance toward claims can be particularly difficult for both native and nonnative speakers [22,31,32]. So, each category will be subsequently analyzed, with illustrative examples provided to demonstrate their usages across subcategories in the real context.

#### 5.2.1. Research Acts

Hyland contends that research acts verbs "represent experimental activities carried out in the real world" [3]. They typically occur in statements of findings or procedures. The analytical framework divides findings into three subcategories: factive, counterfactive, and nonfactive. The extracts below suggest that American sports science master students are inclined to employ research act verbs to report sports experimental activities or actions carried out by previous researchers. The distinctions between the subcategories are further demonstrated by the following extracts 2 to 4.

Extract 2: Cooky (2009) and Cooky and McDonald (2005) demonstrated how girls' sport is "othered" in comparison to boys' sport and the effects of this status on the girls who participate (LR5).

Extract 3: Elstad et al., (2020) failed to perform fidelity checks across the three yoga instructors in their study, thus leading to a potential instructor bias as well as inconsistencies in the yoga classes (LR1).

Extract 4: AliChristie (2013) identified that sports participation offers many studentathletes the privilege of attending college, often debtfree (LR15).

In extract 2, the use of "demonstrate" signals the writer's agreement with the cited authors' findings, presenting their work as empirically validated and authoritative. In extract 3, "fail" conveys criticism of the cited study's methodological shortcomings. The writer is likely to justify his own methodologies. In extract 4, "identify" serves to present AliChristie's empirical or analytical discovery without conveying the writer's attitude.

Apart from some common procedure RVs like examine, investigate, analyze to present the procedural aspects of previous researchers' investigations in extract 5, 6 and 9, this study also identified some new procedure RVs (like apply, survey, interview...) used by these writers, as compared with Hyland's findings. Besides, as Hyland argues, these verbs simply help writers present the tasks of prior studies in a neutral manner [3].

Extract 5: Nature Versus Nurture Hager and Brudney (2011) examined the factors of nature, as opposed to nurture, in the recruitment of volunteers to nonprofit organizations (LR6).

Extract 6: Barranco (2021) analyzed how race, community type, and socioeconomic status in U.S. women's professional soccer players (LR4).

Extract 7: In the study, Belanger et al. (2009) surveyed 1293 students over a five-year period (LR3).

Extract 8: Hall (2006) interviewed participants with the goal of understanding the role recreation played in their decision to remain enrolled at the institution (LR5).

Extract 9: Mansori & Chin (2019) investigated the factors that led to shopper satisfaction in malls and applied TPB as well as the disconfirmation model and the stimulus-organism-response model to better understand shopper loyalty (LR5).

### 5.2.2. Cognition Acts

Cognitive acts verbs are concerned with the cited author's theorizing and mental activities. In this situation, RVs are employed to ascribe a particular attitude to the cited authors rather than take a personal stance. RVs of this category emphasize personal interpretation in knowledge negotiation. Four subcategories are included under this type as well, with typical examples like concur (positive), suspect (tentative), dispute (critical), and anticipate (neutral). Extracts 10 to 13 presents some common realizations to support this category.

Extract 10: Rooney et al. (2021) agree that the customer experience topic is an essential part of marketing: scholarly literature is shifting away from customer relationship management to a new focus on customer experience management (LR3).

Extract 11: Porges et al. (2001) conceptualized the polyvagal theory, which states that a higher vagal tone indicates optimal regulation of the external and internal environment (LR8).

Extract 12: However, Patti et al. (2015) didn't think that ASCI is the dominant answer to satisfaction questions (LR7).

Extract 13: Researchers have deemed CES a customer feedback metric, and many posit that this specific customer feedback metric is the best one for deciding how to allocate resources to improve loyalty (Bleuel et al., 2019) (LR11).

In extract 10, "agree" indicates a positive acceptance and endorsement of the idea that customer experience is a crucial part of marketing. It may suggest that the writer shares the common viewpoint with Rooney et al. In extract 11, "conceptualized" suggests that the authors have engaged in a thoughtful and creative process to develop and refine this theory, which is a significant contribution to the field. In extract 12, "didn't think" expresses a negative view of the reported information. In extract 13, "have deemed" neutrally conveys how Bleuel et al. perceive or regard CES.

### 5.2.3. Discourse Acts

Discourse act verbs allow writers to either convey their points of view or attribute their stance to the cited authors [3]. They constitute more than half of all RVs in the corpus. Hyland points out that discourse acts verbs are more commonly employed in argumentative contexts where interpretation, speculation, and arguments are recognized as "accepted aspects of knowledge" [3]. Several examples are cited to demonstrate how these writers apply this category to construct factual reliability and frame knowledge within a particular context.

Extract 14: Accordingly, the researchers suggested that student engagement, social wellbeing, and student fear of failure are pivotal paradigms that female studentathletes might struggle to understand and overcome, to have successful college outcomes (LR-3).

Extract 15: Comeaux (2011) opined that the academic role is most important to college professors and staff, and the athletic performance role is most important to the athletic department (LR14).

Extract 16: Additionally, Karl et al (2008) further added that “given the importance of retaining volunteers, it is imperative that organizations create an internal marketing plan focused on increasing volunteers’ commitment and longterm loyalty” (LR9).

Extract 17: A few years after Reichheld’s article was published, Keiningham et al. (2007) questioned the validity of the claim from an empirical perspective (LR13).

In extract 14, “suggest” indicates that the researchers are proposing or putting forward an idea as a possibility. It conveys a sense of tentativeness or recommendation rather than a definitive conclusion. In extract 15, “opined” subtly distances the writer from Comeaux’s claim, implying a degree of caution or potential disagreement. It signals that the assertion is rooted in Comeaux’s personal perspective, rather than being grounded in empirical research. In extract 16, “added” implies that Karl et al. are contributing additional information to an existing discussion or body of knowledge, which is predicated upon previous research. Thus, it reflects strong confidence in the propositions put forward by the cited sources. In extract 17, “questioned” indicates that Keiningham et al. are expressing doubt or skepticism about the validity of a claim. It suggests a critical stance and implies that the writers are challenging or scrutinizing previous findings.

Besides, some students disproportionately employ call for and use for identifying a research gap and reporting on the research procedure, as displayed in extracts 1821, with these two verbs constituting approximately 75% of all RVs in their literature reviews. So, their literature reviews become a series of reported “calls” rather than a unique argument that they have constructed. This may reflect that these writers may have relatively limited knowledge of RVs. They may not be aware of or comfortable with the range of alternatives. However, using the same verbs repeatedly reduces readability and makes academic writing seem unsophisticated, monotonous and even less convincing. Most importantly, it might suggest that these students didn’t critically engage with the literature. They may rely on other authors to do the critical work for them. It suggests they are not confident enough to build the justification for their own work based on their own critical reading of the field.

Extract 18: de Haan et al. (2015) called for researchers to explore how valuable the different customer feedback metrics, including NPS and CES, are across industries (LR11).

Extract 19: Waqas et al. (2020), Patti et al. (2020), and Zolkiewski et al. (2017) call for future research that will lead to the validation of meaningful customer experience measures in different contexts (LR11).

Extract 20: Singletary et al. (2022) also used TPB in a qualitative study to investigate how educators’ personal beliefs impacted their intention to deliver breastfeeding education during health sciences in middle school (LR5).

Extract 21: Wilkerson et al. (2020) used 60minute interviews with nine African American football players to gain insight to the barriers they experienced as minority SAs interested in utilizing MH support services (LR7).

In addition to the overuse of certain RVs observed in their academic writing, extracts 2225 exhibit nonidiomatic expressions used when citing previous studies. The use of such nonidiomatic or inappropriate expressions in academic writing is problematic, as it not only undermines the writer’s credible ethos, but also indicates a lower level of language proficiency. This may be largely due to the lack of systematic guidance and supervision in teaching the use of RVs. EAP (English for Academic Purposes) materials often treat reporting as the application of “standardized conventions and advice about avoiding plagiarism” [3]. As Hyland further points out, students learn that they must cite sources, but they are not always taught how the choice of a specific RV is a “delicate choice” that shapes their argument and their relationship with the reader. There exist subtle differences in stance between verbs. So, without systematic guidance on the evaluative and strategic functions of different verbs, students may be left to guess or employ a restricted range of words they know. Besides, students may receive generic writing advice that doesn’t account for disciplinary preferences. Without specific instruction on the conventions of their target community, they may use verbs that signal an “outsider status”.



Extract 22: Milyavskaya and Koestner (2011) went on with this conversation, stating “the needs for autonomy, competence, and relatedness are thought to be universal across people and cultures and applicable throughout all aspects of a person’s life” (LR2).

Extract 23: Stebbins (1996) again and again said that volunteers perceive both social and personal benefits as valuable contributions to their lives (LR12).

Extract 24: The research guessed that demographic factors have a significant influence on the motivation to volunteer (LR9).

Extract 25: Mignano et al. (2006) made an attempt at determining if a female athlete’s athletic identity or student involvement was altered based on whether the athlete was enrolled in a singlesex institution compared to a coeducational one (LR10).

#### **4. Research Approach**

This study employs a corpusbased approach to examine RVs in sports science master’s theses with a combination of quantitative and qualitative analysis. Sixteen pieces of master’s theses were sourced from ProQuest spanning the years 2020 to 2023. All the selected materials were converted from their original PDF format into DOC files using an online PDFtoWord converter ([www.pdfonline.com](http://www.pdfonline.com)). Following this conversion, all extraneous elements like illustrations were removed to focus exclusively on the textual content. These documents which contained 58796 words were converted into TXT format first and then imported into AntConc 4.2.4 [26]. Finally, this study employed the Regex function in AntConc 4.2.4 to locate and extract all citations in the texts.

Swales, the pioneer in the study of citation analysis, makes an explicit distinction between reporting and nonreporting citation [27,28]. While reporting citation refers to a citation that includes an explicit RV, nonreporting citations do not contain RVs. He further divides reporting structures as integral and nonintegral. The integral citation is research-focused, that is, the name of the cited author is a grammatical part of the citing sentence. On the other hand, the nonintegral citation (e.g. previous studies has shown that...) takes place outside the citing sentence and the name of the author appears at the end of the sentence. This type of citation is ideafocused.

So, in this study, the identification of RVs was conducted following Swales’ analytical framework. The research employed AntConc 4.2.4 to locate all potential RVs by examining reporting clauses containing authors’ name, noun phrases that indicate further discussions of previously mentioned authors (e.g., this study, this theory, the researchers...), and personal pronouns that refer to previously cited authors (e.g., they, he, she...). In other words, RVs that explicitly demonstrate citation, whether the integral or nonintegral pattern, were counted as valid. Additionally, each concordance line in AntConc 4.2.4 was carefully reviewed to determine whether these words function as RVs, as certain lexical items (e.g., report, claim, state...) could potentially function as nouns in certain contexts.

Extract 1: Despite the pervasiveness of male hegemony in nearly every corner of sport, researchers argue that sport has the potential to be “a catalyst for empowering women to become the center of their own experience” through the development of bodily competence and confidence and through positive relationships with other women (LR5).

In extract 1, the reporting verb “argue”, under the category of assurance verbs, is used to introduce cited materials in a way that supports the writer’s own position or stance that sports can empower women despite systemic male dominance. The writer does not merely report Griffin et al’s positions neutrally but implicitly validates it as a credible perspective worth emphasizing.

#### **6. Conclusion**

The current study seeks to explore the common categories and functions of RVs in the literature review section of sports science master’s theses. Following Hyland’ analytical framework for classifying these verbs, this investigation has analyzed a corpus com-

prising 58796 words from sixteen theses. When it comes to the research findings, the following conclusions can be reached from this study. In terms of frequency, discourse acts verbs were found to occur most often, followed by research acts verbs, with cognition acts verbs being the least frequent. Notably, within the category of discourse acts verbs, the assurance subcategory demonstrated the highest frequency of occurrence compared to other subcategories. In terms of functions, research acts verbs are employed to acknowledge information, present experimental or methodical endeavors of prior studies, and express stance towards the reported claims. The primary role of cognition acts verbs is to reflect positive or negative attitudes toward the reported materials. Discourse acts verbs serve to appraise the cited information, which characterize the nature of the cited author's claims and subtly position the writer's own stance. For example, the subtype of doubt was conveyed in a tentative and critical manner. However, assurance is predominantly observed in the factive stance.

Despite the limited corpus size and its exclusive focus on a single discipline, the findings of this study can offer a broad understanding of how sports science master students utilize RVs to connect the current work to the broader disciplinary discourse and express their evaluative stance toward cited literature in their theses. This research also offers valuable insights for both thesis writers and educators in the sports science discipline. Understanding the classifications and functions of RVs is essential for both academic writing and teaching.

As for thesis writers, this study not only further highlights the significance of RVs in academic writing, but also deepens students' rhetorical comprehension of how to choose and utilize proper RVs to facilitate the flow of academic discourse. By systematically analyzing common usages of RVs, writers can develop a heightened awareness of how these verbs function to enhance their writing credibility in broader academic community. Besides, they can be encouraged to employ these verbs appropriately and effectively across various academic genres, not limited to thesis writing alone. As for educators engaged in thesis supervision or academic writing instruction, this study carries significant pedagogical value. Teachers should be aware of the challenges that students may encounter when employing these verbs. The examples of RVs presented in this research can inform the design of teaching materials and scaffolding activities to address the use of RVs explicitly. In this way, it bridges the gap between theoretical discourse analysis and classroom practice.

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