....

กริยาวิเศษณ์วลีที่ใช้แสดงทัศนคติในส่วนอภิปรายผลการวิจัย: การศึกษาเปรียบเทียบข้ามสาขาโดยคลังข้อมูลภาษา
Adverbial Attitude Markers in the Discussion Sections: A Cross-disciplinary Corpus-Based Study

วัชรี วงศ์ทะเนตร[1], พิชินี เดือนดาว ยาปัน[2], ศิริกาญจน์ ศรีวิศาล[3], และ กชกร นาคสุขมูล[4]

Watcharee Wongthanet[1], Pichinee Duandaw Yapan[2], Sirikan Sriwisan[3], and Kachakorn Naksukmool[4]

[1]อาจารย์ประจำ วิทยาลัยนานาชาติ มหาวิทยาลัยราชภัฏอุตรดิตถ์,

[2,3,4]อาจารย์ประจำ คณะครุศาสตร์ มหาวิทยาลัยราชภัฏอุตรดิตถ์

[1]Lecturer, International College, Uttaradit Rajabhat University

[2,3,4]Lecturer, Faculty of Education, Uttaradit Rajabhat University

[1]E-mail: Watcharee.won@uru.ac.th, ORCID ID: https://orcid.org/0000-0001-8696-5871

[2]E-mail: pic_ing@hotmail.com, ORCID ID: https://orcid.org/0000-0002-2732-4967

[3]E-mail: sirikan_iw@yahoo.com, ORCID ID: https://orcid.org/0000-0003-0755-2441

[4]E-mail: Kachakorn.nak@live.uru.ac.th, ORCID ID: https://orcid.org/0000-0001-8225-0123

บทคัดย่อ

    กริยาวิเศษณ์วลีที่ใช้แสดงทัศนคติเป็นหนึ่งในเครื่องมือทางภาษาที่ผู้เขียนมักจะใช้เพื่อแสดงทัศนะต่อประเด็นต่างๆ การศึกษานี้เป็นงานวิจัยเชิงปริมาณโดยใช้คลังข้อมูลภาษา มีวัตถุประสงค์เพื่อศึกษาลักษณะทางวากยสัมพันธ์ของดัชนีปริจเฉทแสดงทัศนคติที่เป็นกริยาวิเศษณ์วลี และเปรียบเทียบการใช้ดัชนีปริเฉทประเภทดังกล่าวในส่วนของการอภิปรายผลงานวิจัยจำนวน 100 เรื่องที่รวบรวมมาจากวารสารวิชาการระดับนานาชาติในสองสาขา คือ สาขาภาษาและภาษาศาสตร์ และสาขาชีวเคมี จำนวนทั้งสิ้น 20 เล่มๆ ละ 5 บทความ โดยทั้งหมดได้รับการตีพิมพ์เผยแพร่ในปี 2557 เครื่องมือที่ใช้ในการจำแนกกริยาวิเศษณ์วลีคือ TagAnt วิธีการวิเคราะห์ข้อมูลโดยใช้สถิติเชิงพรรณนา ผลการศึกษาพบว่าผู้เขียนบทความในทั้งสองสาขามีการใช้ดัชนีปริเฉทแสดงทัศนะที่เป็นกริยาวิเศษณ์คล้ายคลึงกันในเชิงปริมาณและการเลือกใช้คำ โดยปรากฏดัชนีปริเฉทแสดงทัศนะที่เป็นกริยาวิเศษณ์ 19 รายการ เฉลี่ยน้อยกว่า 1 ครั้งต่อ 1,000 คำ แม้ว่าคำกริยาวิเศษณ์จะสามารถวางไว้ได้ในหลายตำแหน่งของประโยค แต่พบว่าดัชนีปริเฉทแสดงทัศนะที่เป็นกริยาวิเศษณ์นั้นมักจะปรากฏในส่วนหน้าของประโยคมากกว่าตำแหน่งอื่น ผลการศึกษานี้ให้ความรู้เกี่ยวกับการใช้ถ้อยคำในการแสดงทัศนคติในการเขียนอภิปรายผลงานวิจัยที่จะเป็นประโยชน์ต่อการเรียนการสอนการเขียนเชิงวิชาการได้

คำสำคัญ: กริยาวิเศษณ์วลี; ดัชนีปริเฉทแสดงทัศนคติ; การศึกษาคลังข้อมูลภาษา

[845]

....

Abstract

Adverbial attitude markers are among the linguistic devices authors use to indicate their attitude to propositions. The purposes of the quantitative corpus-based study are to explore the syntactic features of adverbial attitude markers, and to compare the use of the attitude markers in the discussion section of 100 RAs collected from 20 international academic journals; 5 articles from each journal which were published in 2014 in the two different fields of language & linguistics and biochemistry. For the identification of adverbial attitude markers, a corpus tool called TagAnt was employed. Data were analyzed using descriptive statistics. The results show that authors from both fields used adverbial attitude markers similarly in terms of frequency and word choice, with 19 items considered as attitude markers which occurred less than once in every 1,000 words in both fields. Despite its mobility of attitude adverbs, the adverbial attitude markers in the initial position in the clause tend to be extensively more common in the discussions of RAs than others. This paper provides rhetorical knowledge for research article authors and has pedagogical implications in academic writing.

Keywords: Adverbials; Attitude Markers; Corpus-based Study

Introduction

It is widely acknowledged by academic researchers that publishing in English is critical, especially in the form of research articles (hereinafter RAs). Academic texts were traditionally encouraged to be objective and impersonal, aiming to communicate neutral facts and minimalize authorial projection onto texts (Dobakhti, 2013). However, academic and scientific writings have been viewed from different perspectives that they have varying degree of subjectivity that helps relate to the audience (Hyland, 2005; Sultan, 2011; Hussein, 2012; Adams, 2013). This degree of subjectivity differs among disciplines. Authors in different disciplines represent themselves, their work, and their readers in different ways. The soft knowledge disciplines tend to use more subjective language than the hard knowledge ones. For instance, a study on stance by Hyland (2004; 2005) showed that writers in the humanities and social sciences took far more explicitly involved and personal positions than those in the science and engineering fields.

....

One of the ways in which authors can indicate their personal involvement in a text is through attitude markers. Various definitions have been introduced in the literature with regard to this term. Attitude markers, one of the five interaction features of Hyland's interactional meta discourse, indicate the authors' "affective attitude" rather than "epistemic attitude" (certainty or doubt) toward a given matter (Hyland, 2005; 2008; 2009). They are words that reveal the author's attitude toward the propositional content and explicitly inform readers of the authors' perspective of a particular idea and important information in the text. Similarly, Crismore and Farnsworth (1990) define attitude markers as the expression of authors' affective value—their attitude toward the propositional content rather than a commitment to the truth value. Attitude markers are also defined as interpersonal meta discourse markers used as indicators of the speaker/writer's affective attitude to propositions (Lopičić, 2014). Attitude markers are employed by writers/speakers in expressing both positive and negative attitudes to convey agreement, disagreement, surprise, importance, obligation, frustration, etc. (Ädel, 2006; Dobakhti, 2013).

Several recent studies have revealed the importance of attitude markers in RAs. Koutsantoni (2004), by examining RAs in the field of electronic and electrical engineering, found that attitude markers were used to stress the importance of the research area, justify the researcher's work, emphasize the originality of the work, evaluate previous studies positively or negatively, and indicate limitations and gaps in knowledge. The study concludes that attitude markers are one of the important and powerful devices for engineers "to create research space for themselves, assert their learned authority and expertise, solicit readers' acceptance of claims, and reach consensus". By analyzing a corpus of RAs from various disciplines, Hyland (1999, 2004, 2005, 2008) found that writers in the hard field used fewer attitude markers in their RAs than those in the soft field. He suggests that in the hard field "the authority of the individual is subordinated to the authority of the text", whereas the soft fields "are less able to rely on proven quantitative methods to establish their claims and this increases the need for more explicit evaluation".

A variety of linguistic expressions can be used to describe a writer/speaker's attitude. Many studies have shown that attitude can be explicitly expressed through sentence adverbs (Hyland, 2005; 2008; Al-Saaidi, 2010; Blagojević, 2009; Biber&Finegan, 1988). Attitude markers

....

can be characterized with respect to two major parameters: semantic class and placement in the clause (Al-Saaidi, 2010). Attitude markers are referred to as amazing adverbials (Biber &Finegan, 1988), attitudinal stance adverbials (Ahmad & Mehrjooseresht, 2012; Al-Saaidi, 2010), content disjuncts (Quirk et al, 1985), and comment adverbs (Swan, 2005). Because of its nature as an adverb, an adverbial attitude marker is mobile, varying in its sentential placement. Their position is quite flexible since they can occur (1) at the beginning and (2) at the end of a clause as well as (3) immediately before the verb and before a complement. However, in their function as modifier in group structure, adverbs are usually placed in the initial position in a clause. They usually refer to the whole clause or sentence rather than just to a particular word or phrase. However, it should be noted that most adverbs of attitude can also serve other functions e.g. adverbs of manner; it depends on how the adverb is used in a sentence.

Although a number of studies have been conducted to examine the use of strategies authors employ to express their attitude into texts, there have been few specific studies on adverbial attitude adverbs. Therefore, the present study seeks to explore the use of adverbial attitude markers in the discussions of RAs in two different fields: Biochemistry and Language & Linguistics. The former is considered a field under the hard-knowledge domain, while the latter goes under the soft knowledge domain. The purposes of the study are to explore the syntactic features of adverbial attitude markers in the discussion section of RAs, and to compare the use of the attitude markers in the discussion section of RAs in the two different fields of language & linguistics and biochemistry.

Objectives of the study

The purposes of the quantitative corpus-based study are to explore the syntactic features of adverbial attitude markers and to compare the use of the attitude markers in the discussion section in the hard-science field and the soft-science field.

....
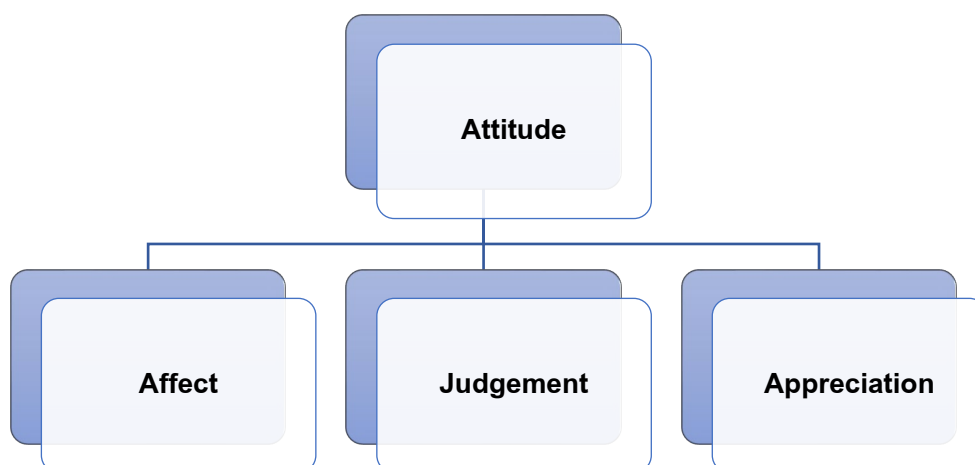
Research conceptual framework

This study primarily adopts the appraisal framework, developed by Martin and White (2003), called Appraisal Theory. Within the appraisal literature, the term "attitude" is used to reference the subsystem of evaluative meanings by which addressees are positioned to adopt a positive or negative view or propositions. This taxonomy divides into three sub-systems:

A) Affect: registering positive or negative/feelings/emotions (e.g. confidently, sadly)

B) Judgment: expressing attitudes towards behavior, which we admire or criticize, praise or condemn (e.g., fortunately, stubbornly)

C) Appreciation: the evaluation of objects and products by reference to aesthetic principles and other systems of social value. (e.g., notably, unremarkably)

Figure I: Martin and White's (2003) Attitude Sub-System in Appraisal Theory

Research Methodology

The orientation of this study is toward a quantitative corpus-based study suited to explore a small number of features across a relatively large data set rather than to an in-depth analysis of a smaller number of texts. This study is restricted to the adverbial attitude markers only at a word level; attitude adverbial phrases and clauses are not included. However, since adverbial attitude items are highly context-dependent, the frequency counts and their syntactic classification according to their placement were carried out automatically in the corpus and then manually for careful consideration. The detailed methods are presented as follows.

....

1. Corpus

To carry out this corpus-based study, 100 articles were collected from 20 international academic journals; 5 articles from each journal were published in 2017. For comparative and contrastive analyses, 10 journals were drawn from each of the two different disciplines under hard-knowledge and soft-knowledge domains: Biochemistry (BC), and Language and Linguistics (LL), respectively. All of the selected journals are available online in the ScienceDirect database. Random sampling was employed for all of the text selection procedures. The study focuses on only one rhetorical section of the RAs, namely, Discussion, due to the fact that it is considered a section in which evaluative items are most likely to appear; the researchers generally employ a positive or a negative assessment of their own research, mainly in the discussion section of their RAs (Kuhi, D., Tofigh, M., & Babaie, R., 2013; Attarn, 2014). Therefore, one major criterion considered in selecting the articles was that they have a separate 'Discussion' section.

Table I: Size of the corpus

	Biochemistry	Language and linguistics
Numbers of articles	50	50
Total number of words	51,882	79,939
The average number of words per article	1,037	1,599

Table I shows the number of articles and words in the study corpus, divided into two sub-corpora: Biochemistry, and Language and Linguistics. Due to the varying length of the texts and the different numbers of words in the two sub-corpora, the occurrences of the attitude markers were equalized; the counts in the two texts were normed to a basis per 1,000 words of text when counts of the study features were examined.

2. Procedures

The major analytical steps of the present study are the identification of adverbial attitude markers in the text, the categorization of syntactic patterns, and the isolation of actual attitude markers from adverbials with other functions.

....

2.1. Identification of potential adverbial attitude markers: Primarily, the discussion parts were extracted from the article to create two sub-corpora of the two different fields, and all adverbs were searched through the two POS-tagged sub-corpora. . For identification of adverbial attitude markers, a corpus tool called TagAnt (Anthony, 2015) was employed. Then, the adverbs gathered from the corpus were analyzed to identify potential adverbial attitude markers. Before attempting any kind of categorization, it is necessary to define what exactly is meant by the term "attitude". The operational taxonomy is based on the Appraisal Theory of Martin and White (2003). Attitude is "concerned with our feelings, including emotional reactions, judgments of behavior and evaluation of things" (Martin & White, 2003). It divides into three sub-systems:

A) Affect: registering positive or negative/feelings/emotions (e.g. confidently, sadly)

B) Judgment: expressing attitudes towards behavior, which we admire or criticize, praise or condemn (e.g., fortunately, stubbornly)

C) Appreciation: the evaluation of objects and products by reference to aesthetic principles and other systems of social value. (e.g., notably, unremarkably)

In this step, the identification is based on the lexical-semantic properties. All potential attitude adverbs were identified, labeled, and counted regardless of their attitude types and sentential context. The identification was checked for its accuracy.

2.2 Categorization of syntactic patterns: After a list of potential adverbial attitude markers had been complied, the concordance retrieval of all adverbials occurring in the corpus was conducted to identify the syntactic patterns according to the position they appear within the clause: initial, medial, and final adverbials. From the literature regarding attitude adverbs, they can occur (1) initially (at the beginning), (2) finally (at the end of a clause,) and (3) medially, (immediately before the verb and before a complement). All instances were categorized and counted.

B.3. Identification of actual attitude markers in the context

In this procedure, the attitude adverbs, actually functioning as attitude markers in the text, were identified. As most adverbs can serve several functions, this procedure entailed individual consideration of each occurrence. See the examples below.

....

1. *Immunoperoxidase localization of NHE1 in paraffin-embedded sections of human/rat/mouse sweat gland showed that NHE1 was expressed in the basolateral membranes of the coiled ducts, but the labelling intensity was reduced* **obviously** *in the ducts compared with the secretory coils (Nejsum et al., 2005). (BC)*

2. **Obviously,** *large input of organic C rich topsoil material is the most important reason for high C contents of the uppermost soil layer of the depositional site. (BC)*

In #1, *obviously* characterizes the manner of the action verb *reduced*, not an assessment of the proposition. In terms of its placement, it is not placed in the potential syntactic position. In #2, *obviously* the writer's explicit comment, located in the initial attitude marker position functioning as a sentential modifier, paraphrased as "*it's obvious that…*". Theoretically, attitude markers can be semantically and syntactically detached from the rest of the clause/sentence they appear in, and are more mobile to other positions, conveying the same meaning (Coll, 2009). Therefore, #2 is counted as an attitude marker, but #1 is not.

Results and Discussion

1. Distribution of adverbial attitude markers occurrences

Out of 50 potential adverbial attitude markers, 19 items were considered as actual ones by examining their syntactic position and the function they perform in the clause. The results showed that actual adverbial attitude markers occurred less than once in every 1,000 words in the RAs in both fields. Table 2 shows the total frequency of actual attitude markers with their occurrences per 1,000 words. The results indicate that both groups of authors use adverbial attitude markers with almost the same frequency. The attitude adverbs were used slightly more frequently by authors from the Biochemistry field than those from Language Linguistics. The results of the present study are inconsistent with Hyland's findings (2004) which showed relatively higher use of attitude markers among writers in soft-science domains than those in hard-science domains. The reason behind this unexpected finding may be that this study focused on only one syntactic construction of attitude markers, while Hyland provided a bigger picture of attitude markers. Moreover, Hyland investigated the stance

[852]

Citation: วัชรี วงศ์ทะเนตร, พิชินี เดือนดาว ยาปัน, ศิริกาญจน์ ศรีวิศาล, และ กชกร นาคสุขมูล. (2565). กริยาวิเศษณ์วลีที่ใช้แสดงทัศนคติในส่วนอภิปรายผลการวิจัย: การศึกษาเปรียบเทียบข้ามสาขาโดยคลังข้อมูลภาษา. วารสารสหวิทยาการวิจัยและวิชาการ, 2 (5), 845-858

Wongthanet, W., Duandaw Yapan, P., Sriwisan, S., & Naksukmool, K., (2022). Adverbial Attitude Markers in the Discussion Sections: A Cross-disciplinary Corpus-Based Study. Interdisciplinary Academic and Research Journal, 2 (5), 845-858; DOI: https://doi.org/10.14456/iarj.2022.129

....

features in the whole RAs, while this study focused only on the Discussions. However, the present finding is likely to reflect the preference for this type of attitude marker over others, as well as a tendency toward using attitude markers in academic writing.

More interestingly, this finding attests to the importance of interpersonal resources in science writing, in accordance with Crismore and Farnsworth (1990) who claim that scientific writing is more than a "mere account of scientific facts". Academic writing is a social perspective, involving interaction between authors and audiences.

Table II: Overall Distribution of Adverbial Attitude Markers in 100 RAs' Discussion Sections

Adverbial position	Overall	
	Total of Attitude adverbs	Attitude adverbs per 1,000 words
Biochemistry (51,882 words)	134	*2.58*
Language Linguistics (79,939 words)	178	*2.24*
Total	312	2.37

2. Adverbial attitude markers occurrences by clause positions

The study found that adverbial attitude markers occurred most frequently in the initial position in the clause, far less frequently in the medial positions, and never found in the final position in the study corpus. This study also revealed that authors from both disciplines used limited items to reveal their attitudes. The attitude adverbs found in the study corpus were all *ly-*adverbs. Once labeled as a potential attitude adverb by its semantic function, the clause-initial adverbials can be definitely predicted, without the virtue of its sentential context, as an actual adverbial attitude marker. The medial adverbials are the most problematic; interpretation and careful examination of their sentential context is critical. Unfortunately, there were no instances of the final adverbials found in the corpus. The distribution of adverbial attitude markers in each

[853]

Citation: วัชรี วงศ์ทะเนตร, พิชินี เดือนดาว ยาปัน, ศิริกาญจน์ ศรีวิศาล, และ กชกร นาคสุขมูล. (2565). กริยาวิเศษณ์วลีที่ใช้แสดงทัศนคติในส่วนอภิปรายผลการวิจัย: การศึกษาเปรียบเทียบข้ามสาขาโดยคลังข้อมูลภาษา. วารสารสหวิทยาการวิจัยและวิชาการ, 2 (5), 845-858

Wongthanet, W., Duandaw Yapan, P., Sriwisan, S., & Naksukmool, K., (2022). Adverbial Attitude Markers in the Discussion Sections: A Cross-disciplinary Corpus-Based Study. Interdisciplinary Academic and Research Journal, 2 (5), 845-858; DOI: https://doi.org/10.14456/iarj.2022.129

....

category shows a similarity between the RAs from both fields. Table III presents the attitude adverb distribution by placement in the clause they are attached to.

The finding that the most frequent category in both sub-corpora was the initial-clause adverbs agrees with the study by Blagojević (2009) on syntactic categories of attitude markers. He found that adverbs functioning as sentence adverbs, or the so-called stylistic adjuncts in his study, were the most commonly identified among the study attitude items. Obviously, this style of adverbial attitude markers can be one of the most powerful linguistic devices in academic writing.

Table III: Frequency of adverbial attitude markers occurrences by clause positions

Adverbial position	Biochemistry		Language and linguistics		Overall	
	freq	Freq/100 0w	freq	Freq/1000w	freq	Freq/1000w
initial	31	*0.60*	36	*0.45*	67	*0.51*
medial	9	*0.17*	22	*0.28*	31	*0.24*
final	0	*0.00*	0	*0.00*	0	*0.0*
Total	40	*0.77*	58	*0.73*	98	*0.74*

3. The most commonly adopted adverbial attitude markers and their features

Among 19 adverbial attitude markers found in this study, the adverbs "*importantly*" (n=19), "*interestingly*" (n=17), "*clearly*" (n=15), "*potentially*" (n=7), "*notably*" (n=6), and "*apparently*" (n=6) were the most common items identified. Most of the attitude adverbs found in this corpus are placed at the beginning of a clause or a sentence as in #3, #4, #5, #6, and #8. The adverb "*importantly*" is the most commonly employed in this corpus. All of the tokens are placed in the initial clause position. They are also found in their comparative and superlative forms as in #4 and #5, respectively. The adverbial attitude markers are often

[854]

Citation: วัชรี วงศ์ทะเนตร, พิชินี เดือนดาว ยาปัน, ศิริกาญจน์ ศรีวิศาล, และ กชกร นาคสุขมูล. (2565). กริยาวิเศษณ์วลีที่ใช้แสดงทัศนคติในส่วนอภิปรายผลการวิจัย: การศึกษา
เปรียบเทียบข้ามสาขาโดยคลังข้อมูลภาษา. วารสารสหวิทยาการวิจัยและวิชาการ, 2 (5), 845-858

Wongthanet, W., Duandaw Yapan, P., Sriwisan, S., & Naksukmool, K., (2022). Adverbial Attitude Markers in the Discussion Sections: A Cross-disciplinary
Corpus-Based Study. Interdisciplinary Academic and Research Journal, 2 (5), 845-858; DOI: https://doi.org/10.14456/iarj.2022.129

....

placed before the nominal-subject complement, immediately after the verb to be as in #7. When there appears an initial-clause coordinator or another type of adverbial like conjunctive adverbs, the attitude adverbs tend to precede as in #1, #8, and #9. The following examples show how the adverbials were used to express an attitude in the study corpus:

*3.1 Results suggest that inhibitory skill can indeed influence perception advantage, as individuals with poorer inhibitory skills responded faster to words with shorter pre-voicing, and, **importantly**, only when those words had a voiceless neighbor. (LL)*

*3.2 **More importantly**, results showed that the majority of the species reported in Iran either might be already extinct or must be considered as critically endangered species. (BC)*

*3.3 **Most importantly**, the type of experience seemed to be more of a differentiating factor than the level of experience. (LL)*

*3.4 **Clearly**, this potentially large pathway of energy flow and nutrient cycling in temperate forests colonized by invasive earthworms deserves further study. (BC)*

*3.5 While playful typography is **clearly** a feature unique to digital writing, deviant orthography and lexical borrowing online are consistently interpreted in the body of research cited throughout this paper as representations of speech styles. (LL)*

*3.6 **Notably**, however, Kim's first version of the abstract differed on some points from the final version that was later printed as part of his thesis. This discrepancy between the first and final versions indexes a metadiscursive practice in which Kim's abstract was evaluated and commented on by colleagues who are acquainted with the register's forms. (LL)*

*3.7 **Importantly**, however, the relation between production and perception that we found suggests that low inhibitory skill leads to an advantage for shorter pre-voicing for words that have a neighbor - the opposite direction than that usually assumed (exaggeration of differences). (LL)*

Taking a look back at all potential adverbial attitude markers, there appears to be a pattern that the adverbs which are somewhere between affective and epistemic (clearly, potentially, etc.) are more likely to be medial, functioning as verb-modifying adverbs as shown in #10 and #11, whereas the adverbs which are clearly effective are more likely to be initial.

Citation:

วัชรี วงศ์ทะเนตร, พิชินี เดือนดาว ยาปัน, ศิริกาญจน์ ศรีวิศาล, และ กชกร นาคสุขมูล. (2565). กริยาวิเศษณ์วลีที่ใช้แสดงทัศนคติในส่วนอภิปรายผลการวิจัย: การศึกษาเปรียบเทียบข้ามสาขาโดยคลังข้อมูลภาษา. วารสารสหวิทยาการวิจัยและวิชาการ, 2 (5), 845-858

Wongthanet, W., Duandaw Yapan, P., Sriwisan, S., & Naksukmool, K., (2022). Adverbial Attitude Markers in the Discussion Sections: A Cross-disciplinary Corpus-Based Study. Interdisciplinary Academic and Research Journal, 2 (5), 845-858; DOI: https://doi.org/10.14456/iarj.2022.129

....

*3.8 However, when such action is oriented towards the aim of performing unprecedented genres, we may even more **clearly** perceive the way in which resources, ipso facto, are significantly transposable across the repertoire. (LL)*

*3.9 Thereby, HFHS-fed rats could **potentially** suffer filament 17 disruption and functional losses. 18 The identification of the carbonylated sites on specific proteins strengthened the 19 occurrences of oxidation in these proteins. (BC)*

Conclusion

The study investigated the occurrences of attitude adverbials in discussion sections written by researchers under two different fields with a focus on the syntactic features of the adverbials. On the basis of this corpus-based analysis, it can be concluded that there were no differences in the use of attitude adverbials among authors of both fields. Attitude adverbs can be characterized by the –ly ending, their semantic function their placement in a clause. Despite its mobility of attitude adverbs, the adverbial attitude markers in the initial position in the clause tend to be extensively more common in the discussions of RAs than their counterparts placed in other positions.

The presence of attitude markers reveals that they are among the features practiced in the discussions of RAs both in hard and soft fields. This paper also suggests that the adverbial position varies depending on particular discourse functions. Therefore, this study can be useful in providing rhetorical knowledge for RA authors when making discourse decisions and may have pedagogical implications in academic writing.

Recommendation

Finding advantage recommendation

This study found that adverbial attitude markers appear frequently in the discussion section of research articles. Academic writers of both hard and soft science fields tended to use adverbial attitude markers in their English research articles. This finding suggests that academic writers become aware of stance markers and use them to build relationships with the readers and follow consistent norms for academic writing. Leaners of academic writing and researchers who want to

....

write research articles in English can benefit from the findings of the study by exploring the linguistic features and understanding the use of adverbial attitude markers.

Further research recommendation

Based on what we have found so far, there are also some limitations in the present research. The data was collected only from one database; more databases and a wider range of fields should be considered during the compilation of the corpus in order to make the data more representative and generalizable. The analysis of the adverbial markers was based on a pre-determined linguistic feature, which may render an interpretation of results subjective. It is recommended that future research may use a corpus-driven approach to show what to investigate further through inductive analysis of corpora. Another limitation for this study is the small size of the two sub-corpora. It is recommended that future researchers may undertake the study with a larger sample size and adopt a different research design to gain more insight.

References

Adams, H. (2013). Adverbial stance marking in the introduction and conclusion sections of legal research articles. *Revista de Linguistica y Lenguas Aplicadas, 8*, 13-22.

Ädel, A. (2006). *Metadiscourse in L1 and L2 English* (Vol. 26). John Benjamins Publishing.

Ahmad, U., & Mehrjooseresht, M. (2012). Stance adverbials in engineering thesis abstracts. *Procedia-Social and Behavioral Sciences*, 66, 29-36.

Al-Saaidi, S. K. (2010). A Semantic Study of Stance Adverbs with Reference to the Language of Emotion in Katherine Mansfield'sshort fiction Bliss. *for humanities sciences al qadisiya*, 13(3).

Anthony, L. (2015). TagAnt (Version 1.2.0) [Computer Software]. Tokyo, Japan: Waseda University. [Online] Available from http://www.antlab.sci.waseda.ac.jp/

Attarn, A. (2014). Study of metadiscourse in ESP articles: A comparison of English articles written by Iranian and English native speakers. *International Journal of Learning, Teaching and Educational Research, 5*(1), 63-71.

Biber, D., & Finegan, E. (1988). Adverbial stance types in English. *Discourse processes*, 11(1), 1-34.

Blagojević, S. (2009). Expressing Attitudes in Academic research Articles Written by English and Serbian Authors. *Linguistics and Literature, 7*(1), 63-73.

....

Coll, M. U. (2009). *'Anyway' a formal approach to the syntax and semantics of discourse markers.* Essex: University of Essex.

Crismore, A., & Farnsworth, R. (1990). Meta discourse in popular and professional science discourse. *The writing scholar: Studies in academic discourse*, 118, 136.

Dobakhti, L. (2013). Attitude markers in discussion sections of qualitative and quantitative research articles. *Internatinal Journal of English and Education, 2*(3).

Hussein, A. S. (2012). Attitudinal markers in translations of dissertation abstracts in social and natural sciences. *Translation Studies, 9*, 7-26.

Hyland, K. (2004). *Disciplinary Discourses: Social Interactions in Academic Writing.* Michigan: The University of Michigan Press.

Hyland, K. (2005). Stance and Engagement : A Model of Interaction in Academic Discourse. *Discourse Studies, 7*, 173-192.

Hyland, K. (2008). Persuation, interaction and the construction of knowledge: representing self and and others in research writing. *International Journal of English Studies, 8*(2), 1-23.

Hyland, K. (2009). Metadiscourse: Mapping Interactions in Academic Writing. *Nordic Journal of English Studies, 9*(2), 125-143.

Koutsantoni, D. (2004). Attitude, certainty and allusions to common knowledge in scientific research articles. *Journal of English for Academic Purposes, 3*(2), 163-182.

Kuhi, D., Tofigh, M., & Babaie, R. (2013). Writers' self-representation in academic writing: The case of computer engineering research articles by English versus Iranian writers. *International Journal of Research Studies in Language Learning*, 2(3), 35-48.

Lopičić, V. (2014). *Values across cultures and times.* (V. L. Ilic, Ed.) Cambridge: Cambridge Scholars Publishing.

Martin, J. R., & White, P. R. (2003). *The language of evaluation* (Vol. 2). London: Palgrave Macmillan.

Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. (1985). *A comprehensive English grammar*. London and New York: Longman.

Sultan, A. H. (2011). A contrasive study of metadiscourse in English and Arabic Linguistics research articles. *Acta Linguistica, 5*(1), 28-41.

Swan, M. (2005). *Practical English Usage* (Vol. 688). Oxford: Oxford University Press.