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Attitude Markers in L2 Learners' Academic Writing: A Case Study of Master's Theses by Czech Students Compared To L1 Students' Writings

Renata Jančaříková

Abstract

Writer-reader interaction is considered a crucial component of a well-written academic text, largely achieved through the use of metadiscourse resources. This paper investigates the frequency and range of 'attitude markers', i.e. one of the five sub-categories of interactional metadiscourse resources (Hyland and Tse 2004) in two learner corpora composed of Czech (L2) and native speaker (L1) university students' academic texts. The survey has shown that research-oriented attitude markers are preferred over topic-oriented ones in both corpora, with the former being used mainly to evaluate the writer's own research and its findings. Attitudinal adjectives were identified as the most frequent and most varied category in both corpora, followed by attitudinal nouns, adverbs, and verbs in their respective order. The results also indicate some interesting differences, for example, that Czech students, unlike L1 students, tend to overuse attitudinal adverbs in the sentence initial position. By highlighting the similarities and differences in the use of attitude markers in L2 and L1 student writing, the study may be of value to both students and their tutors and help to raise students' awareness of the dialogic and interactional character of academic texts.

Key words

Metadiscourse; writer-reader interaction; interactional metadiscourse; attitude markers; academic writing; master's theses

1. Introduction

For several decades the interactional dimension of academic communication has received ever-increasing attention from researchers who have explored the wide array of rhetorical practices employed in academic writing in order to demonstrate that writer-reader interaction is an essential property of a well-written and convincing academic text (e.g. Hyland 2008). In accordance with the view of writing as "a social and communicative engagement between writer and reader" (Hyland and Tse 2004), extensive research into the genre of academic writing has

helped to point to the interpersonal character of academic discourse (e.g. Hyland 1998, Thompson 2001, Koutsantoni 2004, Hyland and Jiang 2016, 2017, Crosthwaite et al. 2017, Hyland and Jiang 2018, Dontcheva-Navratilova 2021).

Interaction with the reader permeates a scientific text as the writer provides the reader with a sufficient insight into the topic, effectively communicates his or her own research objectives and research findings, conveying their importance and credibility, but also acknowledging the research limitations. The writer has to anticipate and consider the audience's (dis)agreement and other possible approaches, demonstrate his or her awareness of other facets of the issues discussed and, ideally, also propose possible directions for future research.

Writer-reader interaction has largely been studied within the framework of metadiscourse analysis. Although the views of and approaches to metadiscourse have varied and developed over the last three decades and a number of classifications have been proposed, some renowned researchers pointed to the importance of metadiscourse for establishing and maintaining interaction with the reader as early as the 1980s and 1990s (e.g. Vande Kopple 1985, Hyland 1998, see Section 2). In order to identify the characteristic features of good writing practice, expert academic writing (i.e. writing by academics who specialize in a particular field, e.g. research articles, henceforth RAs) has provided a wealth of material for study for many researches who have sought to uncover and describe how writer-reader communication is established and developed throughout a well-written academic text. In addition to studies of expert academic writing, student academic writing (mainly at tertiary level) has also received a large amount of attention, both undergraduate and postgraduate (e.g. Bunton 1999, Connor 2004, Hyland 2004a, Hyland 2004b, Povolná 2013, Crosthwaite and Jiang 2017, Yoon and Römer 2020). Investigations into student writing have proved important in identifying which strategies student writers employ (or do not employ) in comparison with, for example, L1 student writers or even expert writers.

The present study explores L2 and L1 university students' academic writing with a focus on 'attitude markers', i.e. one type of interactional metadiscourse resources as defined by Hyland and Tse (2004). Compared to other interactional resources, such as 'hedges' or 'boosters', attitude markers (AMs) seem to have been rather under-researched, given the relatively small number of studies dealing exclusively with attitude markers. The aim of the present analysis is to examine to what extent L2 student writers employ attitude markers in their academic writing compared to L1 students and reveal whether certain types of attitude markers are preferred over others. This should help to determine which strategies L2 (Czech) students tend to employ and which ones they still need to become familiar with and develop in order to establish a successful interaction with the reader through the use of attitude markers.

Since metadiscourse is a relatively broad and complex area and it encompasses a large number of resources, attitude markers being just one of them, Section 2 of the present paper first defines metadiscourse and discusses its importance and role in academic interaction in general and provides an overview of previous metadiscourse studies. Section 2 also outlines the classification of metadiscourse by Hyland and Tse (2004), which represents a model of metadiscourse used wide-

ly in a number of metadiscourse studies in the last two decades (Hyland 2017), including the present one. Section 3 is devoted to attitude markers, their types and roles, as investigated in this study. The corpora and methodology are described in Section 4. The findings are discussed in Section 5, followed by the Conclusion (Section 6).

2. Metadiscourse and academic writing

It has been stated above that a large number of studies that have explored the interpersonal character of academic writing in the last two decades have used metadiscourse as an analytical framework, and "it is perhaps now one of the most commonly employed methods for approaching specialist written texts" (Hyland 2017: 16). Although the term was used as early as 1959 by Zellig S. Harris, metadiscourse began to gain more attention from linguists mainly in the 1980s and the 1990s and since then has been understood in different ways, making it difficult to define (Hyland 2017). The early definitions were rather general and fuzzy describing it as: "writing about writing" (Williams 1981) or "discourse about discourse" (Hyland 1998, as quoted in Wei et al. 2016). It should be noted that some early studies tended to limit metadiscourse mostly to the textual organization devices (see e.g. Mauranen 1993), while others proposed that metadiscourse should be studied in a broader perspective including also the writer's attitude to the content, i.e. the interpersonal dimension (Hyland 1998). The earlier view of metadiscourse as 'discourse about discourse' has thus gradually shifted to the more accurate and apt view of metadiscourse defined as "the range of devices writers use to explicitly organize their texts, engage readers, and signal their attitudes to both their material and their audience" (Hyland and Tse 2004), i.e. encompassing both the textual and interpersonal dimensions. One of the most influential early taxonomies by Vande Kopple (1985) distinguished between textual and interpersonal metadiscourse and was later revised, for example, by Crismore et al. (1993), who have reorganized it to cater for some methodological problems, vagueness of categories or possible overlaps of the categories originally proposed by Vande Kopple (for more, see Hyland 2005). At the same time, other researchers pointed to the need to study metadiscourse devices performing both textual and interpersonal functions. Although the terms 'interactive' and 'interactional' metadiscourse encompass slightly different sub-categories in various taxonomies, the basic distinction was mentioned by Thompson and Thetela already in 1995, further developed by Thompson (2001) and adopted and extended by Hyland and Tse (2004), who added stance and engagement features in their model of metadiscourse in academic texts.

Metadiscourse studies have covered various academic genres, from research articles (henceforth RAs) in various disciplines to student writing. Thetela (1997), for example, discussed evaluation in RAs distinguishing between research-oriented and topic-oriented evaluation in order to demonstrate how attitudinal meaning is negotiated in RAs. Hyland (2001) studied addressee features in RAs pointing to the importance of 'bringing in the reader' in academic texts. He also contributed

largely to the study of metadiscourse by his two books, *Disciplinary Discourses* (2004a) and *Metadiscourse* (2005), which can be considered as seminal works worth the attention of both students and experts exploring metadiscourse in academic texts. The former volume focused on social interactions in various types of discourse including book reviews, abstracts, textbooks, etc.; the latter explored social interactions in student academic writing (master's and doctoral theses) and illustrated how Hyland and Tse's (2004) framework can be used for metadiscoursal analysis of academic writing. Other studies explored metadiscourse resources in RAs in both soft and hard sciences (e.g. Stotesbury 2003, Koutsantoni 2004, Gillaerts and Van de Velde 2010, Hu and Cao 2015, Hyland and Jiang 2016, Hyland and Jiang 2018). Some researchers adopted cross-cultural and/or cross-disciplinary perspectives (e.g. Mauranen 1993, Mur-Dueñas 2011, Dontcheva-Navratilova 2021, Abdollahzadeh 2011, Mu et al. 2015, etc.). Some studies explored just a particular sub-category of metadiscourse markers, e.g. code glosses in RAs (Guziurová 2020), self-mentions in business management RAs (Mur-Dueñas 2007), attitude markers in business management RAs (Mur-Dueñas 2010), hedges and boosters in academic discourse (Dontcheva-Navratilova 2016), etc.

Apart from expert writing, student writing has been found to provide a wealth of material for metadiscourse analysis in order to determine which metadiscourse devices students employ (or do not employ), which devices they use excessively or moderately, and what kind of writing instruction they might need in order to improve the quality and persuasiveness of their academic texts. Hyland's (2005) extensive study of metadiscourse in a corpus of 240 master's and doctoral theses by ELT Hong Kong students has already been mentioned. Ädel (2006) conducted an interesting study comparing metadiscourse in argumentative essays written by Swedish students in English and native speaker student writing, Biber (2006) explored stance in spoken and written university genres, Lancaster (2016) investigated features expressing stance in undergraduate writing, Bunton (1999) explored endophoric markers in PhD theses. Yoon and Römer (2016) studied interactional metadiscourse in student papers from 16 different disciplines, Ho and Li (2018) investigated the use of metadiscourse and persuasion in argumentative essays written by first year university students, Gholami et al. (2014) explored argumentative essays for metadiscourse markers misuses, etc.

The present paper is a contribution to the study of student written academic discourse. It is based on Hyland and Tse's (2004: 168–169) framework of metadiscourse, which includes two dimensions, i.e. 'interactive' and 'interactional'. 'Interactive' metadiscourse resources serve to "guide the reader through the text" and include five sub-categories: 'transitions', 'frame markers', 'endophoric markers', 'evidentials' and 'code glosses'. 'Interactional' resources are the devices employed by writers in order to "involve the reader in the argument", which is achieved by means of 'hedges', 'boosters', 'attitude markers', 'engagement markers' and 'self-mentions'. From the range of the sub-categories within the two dimensions it can be seen that writer-reader interaction is a highly complex phenomenon which may not be easy to master for student writers as it is a matter of a combination of a number of devices and rhetorical practices rather than individual words employed here and there in an academic text.

3. Attitude markers

Attitude markers, as defined by Hyland and Tse (2004) and Hyland (2005), are a sub-category of interactional resources, i.e. the resources used to involve the reader in the argument. Attitude markers "indicate the writer's affective, rather than epistemic attitude to propositions" conveying importance, agreement, surprise, obligation, etc. (Hyland 2005: 53). In other words, the writer resorts to the use of attitude markers (as well as other interactional resources) to draw the reader's attention to and evaluate either the topic or the research proper, the findings, previous research conducted in the area investigated, etc. It is worth noting that apart from successful interaction with the reader, the expression of attitude can also help to situate the writer's research in the context of the field and in the context of previous research, thereby demonstrating its value and, ideally, its novelty in the area investigated.

In relation to the above mentioned, a distinction important for the present analysis is the one between research-oriented evaluation and topic-oriented evaluation, as proposed by Thetela (1997), and adopted, for example, in the study of attitude markers in business management RAs by Mur-Dueñas (2010). In the present analysis the two types are referred to as ROA markers (i.e. research-oriented attitude markers) and TOA markers (i.e. topic-oriented attitude markers). Research-oriented evaluation is "directly related to the research paper and its purpose", as illustrated by Examples 1 and 2. The writer may evaluate his/her own research, its findings, previous research, and future research. Topic-oriented attitude markers, illustrated by Examples 3 and 4, "are related to the area described in the research paper, but [they] do not constitute the research itself" (Thetela 1997: 104). In other words, as Thetela (1997: 105) aptly points out, "the difference is simply between "the writer observing the research" and "the writer observing the world".

(1) *This finding is not unexpected* as weight loss supplements are supposed to help lose weight. (MT 12, ROA – 'findings')

(2) *The wealth of research* on language teaching has set the trend towards the reduction of 'teacher talking time' (TTT) in order to maximize the amount of time students interact with and in the target language. (MT 39, ROA – 'previous research')

(3) *A second highly important factor* in determining the ability to create a stable society was the effect of disease. (BAWE 3, TOA)

(4) *An important issue that cannot be overlooked* in connection to target audience is gender. (MT 12, TOA)

While there are a number of devices available for expression of attitude, such as "subordination, comparatives, progressive particles, punctuation, text location, and so on" (Hyland 2005), attitude markers represent the means which

enable a straightforward and most explicit expression of the writer's attitude. These include a) attitudinal verbs (e.g. *support*, *contribute*); b) attitudinal nouns (e.g. *importance*, *insight*); c) attitudinal adjectives (e.g. *significant, key, interesting, crucial*); and d) attitudinal adverbs (e.g. *surprisingly, interestingly, importantly*). On the other hand, compared to the other four interactional metadiscourse devices (i.e. 'hedges', 'boosters', 'engagement markers' and 'self-mentions', see Hyland and Tse 2004), attitude markers do not seem to be used widely. This follows, for example, from Hyland's (2005) seminal study of 240 master's and doctoral theses, which found out that out of the five sub-categories of interactional metadiscourse markers, attitude markers ranked fourth in terms of frequency of occurrence in master's theses and fifth (i.e. the least frequent) in doctoral theses, whereas the most frequent category in both types of thesis was hedges. In another research of his (2004a), Hyland explored interactional metadiscourse in postgraduate dissertations comparing six different disciplines (3 soft and 3 hard sciences) and found out that in soft sciences (applied linguistics, public administration, and business studies) attitude markers were the least frequent of the five sub-categories of the interactional resources. This might explain why other interactional resources, such as boosters, hedges or self-mentions, seem to have received more attention in academic research so far.

Another study investigating attitude markers, albeit not in the context of student academic writing but in business management RAs written by Spanish and American experts, was conducted by Mur Dueñas (2010), one of the most comprehensive corpus studies dealing exclusively with attitude markers. Her results showed that in the RAs from both cultural backgrounds, research-oriented attitude markers prevailed over topic-oriented ones. In her American corpus, ROAs represented 77.1 percent and TOAs constituted 22.9 percent of all AMs; in the Spanish corpus the proportion was 72.3 percent vs. 27.7 percent respectively). Within the category of ROA markers, the sub-category of 'own research' was identified as the most frequent, followed by the sub-category of 'findings' in both corpora – these two sub-categories constituted approximately 80 percent of all ROA markers, while the sub-categories of 'previous research' and 'future research' were much less frequent representing the remaining 20 per cent of ROA markers. Regarding the realisations of attitude markers, i.e. attitudinal nouns, adjectives, verbs and adverbs (which are also examined in this paper), her results showed that in the American corpus attitudinal adjectives were the most frequent, followed by verbs and nouns in roughly equal proportions, while adverbs were the least common category. The results for the Spanish corpus revealed that Spanish experts also preferred attitudinal adjectives, with nouns being the second most frequent, adverbs the third, and verbs the least common type of the four realisations.

Since attitude markers seem to have been explored less often so far, or at least not to the same extent as some other types of interactional metadiscourse markers, the present study could be an interesting contribution to the field of expressing attitude in academic discourse.

4. Corpora and methodology

The present study explores the use of attitude markers in Czech graduate academic writing (i.e. master's theses) compared to native speaker university students' writing (L2 and L1 student writers respectively). The study is part of a large project investigating writer-reader interaction in English-medium academic discourse by Czech and Anglophone student writers. The project aims to explore metadiscourse in its complexity as employed by Czech students and to compare it with native speaker students' writing.

The main corpus (the MT sub-corpus), totalling 947,492 words, includes 48 English-medium master's theses written between 2010 and 2018 by Czech students who major in English language studies at the Faculty of Education and Faculty of Arts of Masaryk University in Brno, Czech Republic. To ensure a high level of language proficiency, only theses that received grade A were included in the MT sub-corpus. The theses were chosen in order to represent three disciplines equally, i.e. linguistics, methodology, and literary and cultural studies (each discipline being represented by 16 theses), although the present analysis does not focus on cross-disciplinary differences in the use of attitude markers. The inclusion of theses on topics from three different disciplines ensures that the results will not be distorted by possible specificities of one discipline only.

In order to enable comparison of L2 (i.e. Czech students) and L1 students' written academic discourse, the BAWE corpus was used as a reference learner corpus. The BAWE corpus (i.e. The British Academic Written English Corpus) includes argumentative essays from 35 disciplines written by students at three British universities (The University of Warwick, Reading and Oxford Brookes) between 2001 and 2007, totalling approximately 6,500,000 words. The BAWE corpus has been chosen as a source of material for the present analysis for three reasons: 1) no corpus of master's theses written by L1 learners existed at the time of the corpora compilation; 2) the assignments in the BAWE corpus are comparable to the master's theses in the MT sub-corpus in terms of the level of language proficiency; 3) the assignments in the BAWE corpus belong to the genre of argumentative essays, which are considered comparable to master's theses – argumentative essays may take the form of "discussion (issue, pros/cons, final position); exposition (thesis, evidence, restate thesis); factorial (outcome, conditioning factors); challenge commentary (opposition to existing theory); comparison (series of comparative point or arguments); or commentary (series of comments on a text)" and "may correspond to a published academic paper/specialist paper" (Heuboeck et al. 2008: 47). The texts included in the L1 sub-corpus (i.e. the BAWE sub-corpus) for the purposes of the present study were chosen carefully within the genre family of Arts and Humanities to represent disciplines similar to those of the master's theses investigated (i.e. linguistics, literature and cultural studies, and ELT methodology); another criterion was the length (2,500 words on average). Also, it was necessary to ensure that the essays were written by students whose L1 is English as the BAWE corpus also contains assignments by students of other nationalities. The BAWE sub-corpus is smaller in size though; it contains 197 assignments totalling 490,874 words. Therefore, the results have been normalized per 10,000 words.

Table 1. The two sub-corpora

Sub-corpus	No. of texts	Word-count
MT sub-corpus	48	947,492
BAWE sub-corpus	197	490,874

The corpora were compiled and the analysis performed using the software tool *SkechEngine* (Kilgarriff et al. 2004). First, all texts were processed, i.e. abstracts, in-text citations, block quotes, examples, tables, figures and bibliographical references were deleted as, for example, block quotes and in-text citations might distort the results. The corpora were then compiled, automatically tagged and lemmatised using the *SketchEngine.* The corpora were searched for the attitudinal expressions under investigation; as the next step, the concordance lists for individual expressions were examined carefully considering each use in context in order to ensure that only the expressions functioning as attitude markers were subjected to the analysis. The list of attitude markers investigated (attitudinal adjectives, nouns, verbs and adverbs) is based on the lists compiled in several previous studies (Hyland 2004a, 2005; Mur-Dueñas 2010) with several additions of expressions identified in the master's theses on top of those included in the lists from the above-mentioned studies. As for the distribution of attitude markers in the two sub-corpora (which are not of the same size), the non-parametric log-likelihood statistical test (Rayson et al. 2004) was used and the statistical significance of differences determined, a significance level being set at the standard value of <0.05 (very low p-values are represented as 0.001).

The main aim of the present analysis is to investigate how L2 and L1 student writers evaluate and express their commitment towards the propositional content and realize the interaction with the reader through the use of attitude markers. Therefore, the study seeks to answer the following research questions:

1. Do L2 and L1 students use attitude markers to the same or similar extent, or do they differ?
2. What is the frequency of occurrence of research-oriented and topic-oriented attitude markers (ROA vs. TOA) in L2 student writing compared to L1 student writing?
3. What is the frequency of occurrence and realisation of the four sub-categories of ROA markers (i.e. 'own research', 'findings', 'previous research' and 'future research') in L2 student writing compared to L1 student writing?
4. How frequent are attitudinal nouns, adjectives, adverbs and verbs in L2 and L1 student writing and are there any typical or characteristic patterns (e.g. their formal realisation, modification of nouns, the function of adjectives used as modifiers or as separate sentence elements, etc.)?

It might be objected that focusing on particular words only and not paying attention to, for example, the clausal relations at the same time might seem like a simplification that neglects other means of interacting with the reader and limits the

research to a superficial analysis of more or less easily identifiable expressions in a text. However, the aim of the present analysis is to explore just one particular sub-category of interactional resources (i.e. attitude markers) in terms of their frequency of occurrence and realisation, and identify the patterns of occurrence of attitude markers in L2 and L1 student writing. I believe that such an analysis can serve as a good starting point for university students working on developing their argumentation and communication skills in writing in an academic context.

5. Results and discussion

Section 5 first discusses the results concerning the frequency of use and the proportion of topic-oriented (TOA) and research-oriented (ROA) markers in the two sub-corpora. With the latter type (ROAs), the frequency of use of the four sub-categories, i.e. attitude markers evaluating 'own research', 'findings', 'previous research' and 'future research' are examined in more detail (subsection 5.1). Subsection 5.2 discusses the findings on realisations of attitudinal meaning, i.e. the frequency and use of attitudinal adjectives, nouns, adverbs and verbs identified in the two sub-corpora.

5.1 Topic-oriented (TOA) vs research-oriented (ROA) markers

As pointed out in Section 3 above, the writer can express attitude either to the research proper or the topic itself; therefore, the first step of the analysis was to explore whether L2 and L1 student writers use attitude markers in relation to the research or the topic discussed, i.e. to determine the proportion of the research-oriented and topic-oriented attitude markers (for more on the distinction, see Sections 2 and 3 above, and Thetela 1997). The overall statistical results (see Table 2) show that attitude markers are more prominent in the MT sub-corpus than in the BAWE sub-corpus (*LL-G^2* 61.1989, p. value <0.001) with 45.6 cases per 10,000 words in the MT sub-corpus vs. 36.7 cases in the BAWE sub-corpus respectively.

Table 2. TOA vs. ROA markers in the two sub-corpora

	MT sub-corpus			BAWE sub-corpus				
	Raw no.	No. per 10,000 words	% of total AM	Raw no.	No. per 10,000 words	% of total AM	*LL-G^2*	p-value
TOA	1696	17.9	39.2%	709	14.4	39.3%	23.7032	<0.001
ROA	2629	27.7	60.8%	1097	22.3	60.7%	37.7032	<0.001
TOTAL	4325	45.6	100.0%	1806	36.7	100.0%	61.1989	<0.001

The results also show obvious prevalence of ROA markers over TOA markers in both corpora. The proportion of ROA and TOA markers seems to indicate that student writers feel less need to express attitude towards the topic itself, i.e. when they present the propositional content, they do not necessarily evaluate it, or at least they evaluate it less frequently than the research proper. This finding bears similarity to the study by Mur-Dueñas' (2010), although in a different type of genre (i.e. business management RAs written by American and Spanish expert writers). In her study, the ROA markers also outnumbered TOA markers, the former representing more than two thirds of all AMs in both her corpora (for more, see Section 3).

As the previous studies on attitude markers by Thetela (1997) and Mur-Dueñas (2010) have elaborated, ROA markers can be further divided into four sub-categories, i.e. ROA markers related to i) 'own research', ii) 'findings', iii) 'previous research', and iv) 'future research'. Out of these four sub-categories, the results show statistically significant differences in all sub-categories with the exception of the sub-category of 'findings' (see Table 3).

Table 3. Sub-categories of ROA markers in the two sub-corpora

	MT sub-corpus			BAWE sub-corpus				
	Raw no.	Freq. per 10,000 words	% of ROA markers	Raw no.	Freq. per 10,000 words	% of ROA markers	*LL-G²*	p-value
Own r.	1427	15.00	54.30%	511	10.40	46.60%	54.2563	<0.001
Findings	856	9.00	32.60%	447	9.10	40.70%	0.0184	0.892
Previous r.	330	3.40	12.50%	137	2.80	12.50%	4.8900	0.027
Future r.	16	0.16	0.60%	2	0.04	0.20%	5.1006	0.024

Although the attitude markers relating to 'own research' are more prominent in the MT sub-corpus than in the BAWE sub-corpus (LL-G^2 54.2563, p-value <0.001), in both sub-corpora they outnumber the other sub-categories. This implies that students seem to realize that they need to evaluate their own research, acknowledge its limitations, and position it within the particular field of study, which I suppose could be attributed, at least to some extent, to the tuition they receive and/or to their supervisors' advice and recommendations. It is not surprising that both L2 and L1 student writers more or less equally comment on their findings evaluating them as important or interesting – the quantitative analysis shows that the difference is statistically insignificant (LL-G^2 0.0184, p-value 0.892). There is a slight difference worth noting though. While in the MT sub-corpus the frequency of occurrence of AM relating to 'own research' and 'findings' is 15 vs. 9 cases per 10,000 words respectively, in the BAWE sub-corpus it is 10.4 vs. 9.1 cases per 10,000 words, so the proportion seems a bit more balanced in the L1 student writing than in the L2 student writing. Attitude markers relating to 'previous research' and 'future research' again show differences between the two sub-corpora, although

mainly with 'future research' AMs this finding should not be overestimated, as the raw numbers are very low and show that this type of attitude marker is very rare, or it could even be said almost non-existent in both L2 and L1 student writing. Generally, students seem to focus more on their own research and do not often offer proposals for or directions of possible future research, perhaps not feeling erudite enough to do so or not realizing they should do so.

5.2 Realisations of attitudinal meaning

This section discusses the realisations of attitude markers, i.e. adjectives, nouns, adverbs and verbs, their frequency of use and several other relevant features to demonstrate the most frequent patterns of each type, e.g. the position of adjectives in sentences and noun phrases, the sentential position of attitudinal adverbs, and others. The overall results (see Table 4) show that the most frequent in both corpora are attitudinal adjectives, followed by nouns, adverbs and verbs.

Table 4. Frequency of adjectives, nouns, adverbs and verbs in the two sub-corpora (ROA and TOA markers combined)

	MT sub-corpus			BAWE sub-corpus				
	Raw no.	Freq. per 10,000 words	% of all AM	Raw no.	Freq. per 10,000 words	% of all AM	$LL\text{-}G^2$	p-value
Adjectives	2818	29.7	65.2%	1119	22.7	62.0%	58.8946	<0.001
Nouns	748	7.9	17.3%	316	6.4	17.5%	9.5010	0.0021
Adverbs	417	4.4	9.6%	191	3.9	10.6%	2.0181	0.1554
Verbs	342	3.6	7.9%	180	3.6	9.9%	0.0293	0.8640

As can be seen from Table 4, statistically significant differences were found in the use of the two most frequent categories, i.e. adjectives and nouns, which are both slightly more prominent in the MT sub-corpus than in the BAWE sub-corpus, while the results for attitudinal adverbs and verbs do not show statistically significant differences. It will be elaborated in the following sections how all the four types are employed by L2 and L1 student writers.

A. Adjectives

In both sub-corpora, adjectives have been identified as the most frequent of the four types of realisations, which is not surprising due to the fact that apart from the classifying function, adjectives are often used for explicit evaluation. Adjectives have been found to be not only the most frequent realisation compared to attitudinal nouns, verbs and adverbs, but also as the most varied – they display the highest number of different tokens in both corpora (for the full list of attitudinal adjectives identified in the two sub-corpora, see the Appendix).

As Table 4 above shows, in the MT sub-corpus 29.7 cases of attitudinal adjectives per 10,000 words were identified while in the BAWE sub-corpus it was 22.7 cases per 10,000 words (used as TOA and ROA markers) and the difference between the two corpora is statistically significant (LL-G^2 58.8946, p-value <0.001). On the other hand, when it comes to the four sub-categories of ROA markers realized by adjectives, in both corpora attitudinal adjectives are more frequently used to evaluate 'own research' (Example 5) and 'findings' whereas 'previous research' and 'future research' sub-categories are much less frequent (see Figure 1).
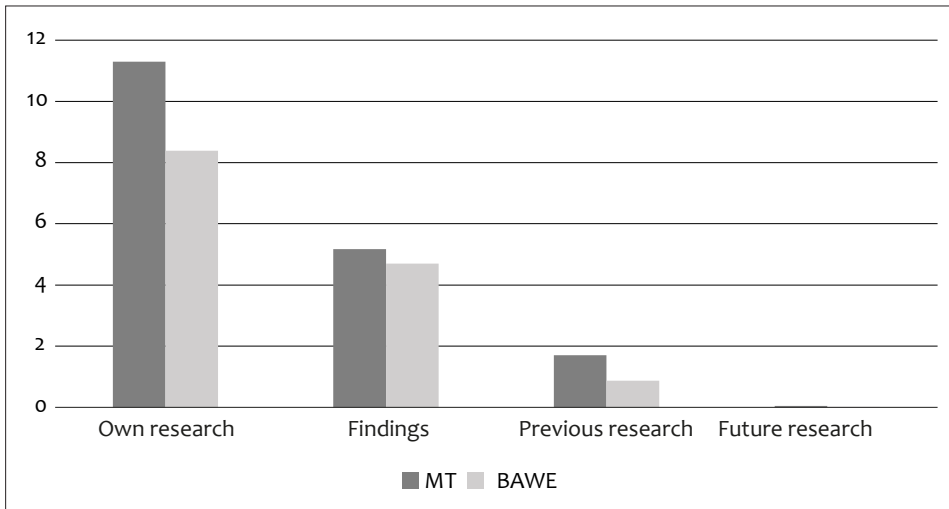

Figure 1. Distribution of attitudinal adjectives as ROA markers across the sub-corpora (normalised per 10,000 words)

Concretely, 'own research' is the most frequent sub-category (11.3 vs. 8.39 cases per 10,000 words in the MT and BAWE sub-corpora respectively), followed by the sub-category of 'findings' (5.17 vs. 4.7). The last two sub-categories can be described as almost non-existent – 'previous research' (1.7 vs. 0.87) and mainly 'future research' (0.05 vs. 0.02), which seems to indicate that student writers (both L2 and L1) feel more confident about evaluating their own research, while the research by others will be outlined and described but not necessarily evaluated. Whether this is due to their lack of expertise and confidence in evaluating the research of others, or the result of the range and type of academic writing tuition within which this area may have been neglected or not emphasized sufficiently, is beyond the scope of the present research. Example 6 provides an interesting but relatively rare evaluation of previous research by a Czech student using the personal pronoun *I,* which in my opinion requires a certain amount of confidence on the part of the student and seems to be avoided by less experienced students, whether native or non-native speakers.

(5) Although this approach is more time-consuming than the impression-based one, *it was considered appropriate* for assessing students' pronunciation and their progress. (MT 32, ROA – 'own research')

(6) A technically similar approach is offered by Hatch (1992), who regards compliments as speech acts, classified as expressives. *I consider her contribution notable* especially for the complex view of compliments, i.e. Hatch takes into consideration the context in which a compliment occurs; what is more, she regards this context as part of compliment. (MT 10, ROA – 'previous research')

From the lists of 8 most frequent adjectives found in the two sub-corpora (see Table 5), it can be seen that both L2 and L1 student writers tend to use a very similar repertoire of adjectives most frequently. The two lists largely overlap – 7 out of the 8 most frequent attitudinal adjectives occur in both lists. Not surprisingly, the adjective *important* is the most frequent in both corpora, followed by *interesting* and *effective* in the MT sub-corpus and by *key* and *interesting* as second and third most frequent in the BAWE sub-corpus. The only two tokens that occur in one sub-corpus but not in the other are *great* in the MT sub-corpus and *obvious* in the BAWE sub-corpus. It is also worth noting that the 8 most frequent adjectives constitute almost a half of all the attitudinal adjectives identified in each sub-corpus, i.e. 45.9 percent in the MT sub-corpus and 48.2 percent in the BAWE sub-corpus. In addition, the adjective *important* is the most frequent in both sub-corpora while the adjective *significant* does not occur among the 8 most frequent attitudinal adjectives identified in the two sub-corpora. This seems to indicate that the students realize that these two adjectives are not used interchangeably as synonyms in academic writing and that the adjective *significant* is generally reserved for comments on statistical significances identified in their research (if statistical results are discussed).

Table 5. Eight most frequent attitudinal adjectives in the two sub-corpora ordered from the most frequent one in each list

MT sub-corpus	Raw no.	%	BAWE sub-corpus	Raw no.	%
1. important	437	15.5%	1. important	182	16.3%
2. interesting	157	5.6%	2. key	76	6.8%
3. effective	144	5.1%	3. interesting	56	5.0%
4. crucial	143	5.0%	4. difficult	52	4.6%
5. difficult	121	4.3%	5. crucial	47	4.2%
6. essential	108	3.8%	6. obvious	44	3.9%
7. key	97	3.5%	7. effective	43	3.8%
8. great	87	3.1%	8. essential	40	3.6%
Total	1,294 cases out of 2,818	**45.9%**	**Total**	540 cases out of 1,119	**48.2%**

Out of the other attitudinal adjectives identified in the two sub-corpora, the adjective *surprising* is worth mentioning. It is used most frequently in relation to the students' own research, i.e. as a ROA marker, mainly when students comment on their own research findings but rarely, for example, on previous research. L2 student writers use this adjective slightly more frequently than L1 student writers. As to the patterns/functions, in both sub-corpora the adjective *surprising* is used more or less to the same proportion as: 1. a pre-modifying adjective, 2. followed by a *that*-clause, and 3. on its own (i.e. typically as a subject complement with the copular verb *be*). Both L2 and L1 students also employ modifying adverbs with this adjective (e.g. *hardly, rather, very, fairly, etc.*) to emphasize how their results match (or do not match) their initial expectations or hypotheses, for example:

(7) *This is a surprising revelation* because the researchers in the first part found out that a preponderance of learners were undeniably motivated. (MT 36, ROA – 'findings')

(8) As for Reagan's deictic pointers, *it is not surprising that* though the attacks on American citizens and the bombing of the enemy occurred outside of the US, the majority of the deictic pointers stay within the local time and place, mainly due to the use of 'I' but also 'this'. (MT 0, ROA – 'findings')

Another issue investigated in the present analysis was the position of attitudinal adjectives in sentences and noun phrases (see Table 6). The patterns of use as shown in Table 6 occur in both sub-corpora in the same order of frequency. Overall, both L2 and L1 student writers most frequently, and quite naturally, use attitudinal adjectives as pre-modifiers (both within the subject and object, see Examples 9 – 11); adjectives used as subject complements rank second in frequency of occurrence, see Examples 12 and 13 (the terminology and classification regarding syntactic functions of adjectives is adopted from Quirk and Greenbaum 1990). Attitudinal adjectives are typically used to express the notions of importance, interest and difficulty. The notions of importance and interest primarily relate to factors/features/issues concerning the students' own research including their own findings (Examples 9 – 13); the notion of difficulty mostly occurs in relation to methodological issues and/or classification problems that the students feel they should acknowledge and/or explain (Example 14).

(9) This *important* linguistic finding is extremely valuable as well as the reason why the speakers do so. (MT 10)

(10) The survey revealed an *interesting* link between teachers' experience and how much importance they give to students' pronunciation. (MT 32)

(11) Moving away from these traditional sources of analyses, this essay has adopted a food blog as a tool of analysis, which has some *crucial* implications. (BAWE 21)

(12) This result is *noteworthy* as the length of instructing was only about ten minutes on average, which is a relatively short time if it is taken into account that the research participants had no English language learning experience. (MT 34)

(13) Therefore, to conclude, the political cult of the dead is extremely *important* in the process of nation building as it may be used by the nation to justify its existence and legitimise the system of power. (BAWE 35)

(14) Some of the advertising messages were *difficult* to analyze in this respect due to unconventional punctuation which is typical for advertising English. (MT 7)

Table 6. Position of attitudinal adjectives in sentences and noun phrases in the two sub-corpora

	MT sub-corpus		BAWE sub-corpus			
	Raw no.	Freq. per 10,000 words	Raw no.	Freq. per 10,000 words	*LL-G²*	p-value
Pre-modifier	1504	15.86	605	12.32	28.6173	<0.001
Subject compl.	769	8.12	347	7.07	4.6432	0.0312
It is+Adj+inf	450	4.75	140	2.85	30.1709	<0.001
It is+Adj+*that* cl.	95	1.00	27	0.55	8.3999	0.0038

As for the two remaining patterns (i.e. the two *it*-constructions), the pattern in which the attitudinal adjective is followed by the infinitive is clearly preferred over the one with *that* in both sub-corpora (e.g. *It is important to notice ...* vs. *It is important that these factors are taken into account ...*); both patterns have been found to be slightly more frequent in the MT sub-corpus than in the BAWE sub-corpus (see Table 6).

B. Nouns

Out of the four realisations, attitudinal nouns rank second in terms of frequency of occurrence in both corpora. On the other hand, there is not a big difference between nouns and the remaining two types - adverbs and verbs, i.e. nouns, verbs and adverbs are used to a very similar extent.

The quantitative analysis of attitudinal nouns reveals that they are again more frequent in the MT sub-corpus than in the BAWE sub-corpus (*LL-G²* 9.501, p-value 0.0021); 7.89 attitudinal nouns per 10,000 words were identified in the MT sub-corpus vs. 6.4 attitudinal nouns per 10,000 words in the BAWE sub-corpus while the frequency of occurrence of adjectives was much higher (29.7 and 22.7 attitudinal adjectives in the two sub-corpora respectively, see Table 4 above). This

clearly shows the dominance of adjectives over the second most frequent type (nouns) and adverbs and verbs too.

The most frequent attitudinal noun in the two sub-corpora is the same, i.e. *importance*. It is worth noting that the adjective *important* was also identified as the most frequent in both corpora (see Table 5 above). And regarding attitudinal adverbs (see Section 5.2C), the adverbs *importantly, more importantly* and *most importantly* are also found among the most frequent adverbs, although they do not rank first in frequency of occurrence unlike the adjective and the noun. This 'word family' therefore represents the most favoured one by both L2 and L1 student writers.

As with attitudinal adjectives, it is worth looking at the proportion of the sub-categories of ROA realized by nouns, as shown in Figure 2 summarising the distribution of attitudinal nouns used as ROA markers in the two sub-corpora.
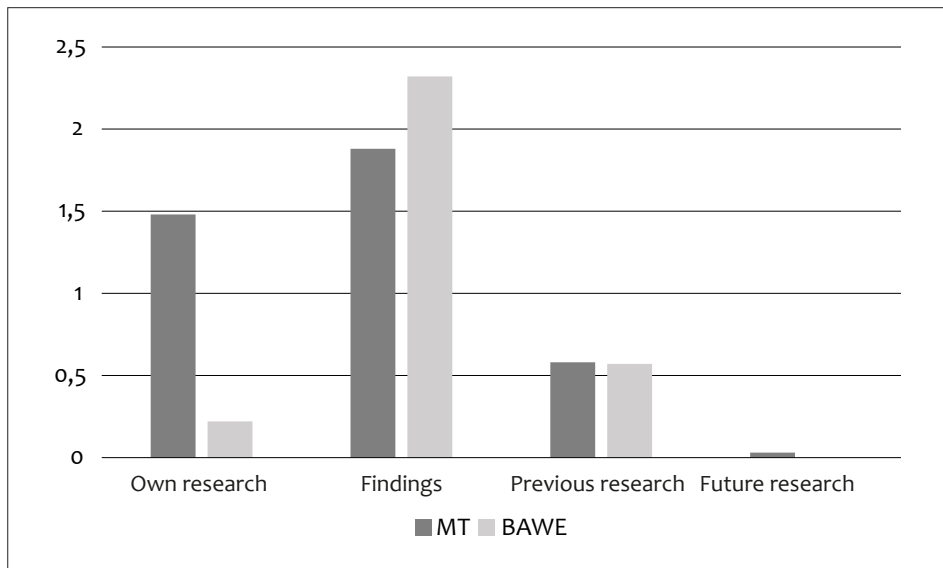

Figure 2. Distribution of attitudinal nouns used as ROA markers across the sub-corpora (normalised per 10,000 words)

With nouns, as can be seen from Figure 2, the sub-category of 'findings' (i.e. not the one of 'own research' as with adjectives, see Figure 1 above) is the most frequent category in both sub-corpora (1.88 vs. 2.32 cases per 10,000 words in the MT and BAWE sub-corpora respectively, the difference being statistically insignificant, i.e. *LL-G²* 2.9192, p-value 0.875). On the other hand, the results for attitudinal nouns relating to 'own research' (1.48 vs. 0.22 cases per 10,000 words respectively) show a statistically significant difference as they are more frequent in the MT sub-corpus than in the BAWE sub-corpus (*LL-G²* 62.4205, p-value <0.001). The last two sub-categories can be described as almost non-existent – 'previous research' (1.7 vs. 0.87 cases per 10,000 words) and 'future research'

(0.05 vs. 0.02 cases per 10,000 words), the differences between the two sub-corpora being statistically insignificant. The use of attitudinal nouns is illustrated by Examples 15 – 17.

(15) None of the studies I have found and presented in Chapter 1 dealt with this particular proficiency level, age group, and level of education so I believe my case study could be a unique *contribution* to the research of language accuracy of Czech learners. (MT 39)

(16) Another important *limitation* that should be mentioned in regard to my case study is the fact that there was only one person (I) who corrected and annotated the essays. (MT 42)

(17) Well documented studies by Labov, 1963 in Martha's Vineyard, and Trudgill, 1972 in Norwich, have given *insights* into the links between class and other social categories. (BAWE 155)

Similarly to adjectives, the lists of 5 most frequent nouns in the two sub-corpora overlap to some extent – three tokens (*importance*, *insight* and *difficulty*) occur in both lists (see Table 7). The variety of nouns is much lower than with adjectives since the five most frequent nouns account for almost two thirds of occurrences of attitudinal nouns in the two sub-corpora (68.5% in the MT sub-corpus and 70.2% in the BAWE sub-corpus). Nevertheless, the overall numbers for nouns are rather low compared to adjectives, the latter being preferred by both L2 and L1 student writers.

Table 7. Five most frequent attitudinal nouns in the two sub-corpora ordered from the most frequent one in each list

MT sub-corpus	Raw no.	%	BAWE sub-corpus	Raw no.	%
1. importance	280	37.4%	1. importance	109	34.5%
2. difficulty	102	13.6%	2. difficulty	53	16.8%
3. insight	50	6.7%	3.-4. insight	21	6.6%
4. limitation	41	5.5%	3.-4. significance	21	6.6%
5. advantage	39	5.2%	5. failure	18	5.7%
Total	512 cases out of 748	**68.5%**	Total	222 cases out of 316	70.2%

As for the position of attitudinal nouns, approximately a half of them occur in the object function (51.8% in the MT sub-corpus vs. 52.2% in the BAWE sub-corpus) while the subject position is less frequent (22.2% vs. 25.3% respectively). Attitudinal nouns are typically unmodified (65.1% in the MT sub-corpus vs. 74.7% in the BAWE sub-corpus) and used only with a determiner.

C. Adverbs

Attitudinal adverbs rank third in terms of frequency of occurrence in both sub-corpora. The frequency of occurrence in the two sub-corpora is very similar, i.e. 4.4 attitudinal adverbs per 10,000 words in the MT sub-corpus vs. 3.9 attitudinal adverbs in the BAWE sub-corpus (*LL-G²* 2.0181, p-value 0.1554). Like adjectives and nouns, attitudinal adverbs occur as ROA markers more frequently than TOA markers. Out of ROA markers, the most frequent category is again the one of 'own research' representing 1.68 cases per 10,000 words in the MT sub-corpus vs. 1.5 cases in the BAWE sub-corpus (*LL-G²* 0.6605, p-value 0.4164), the difference being statistically insignificant as with the category of 'findings' (1.1 cases per 10,000 words in the MT sub-corpus vs. 0.93 in the BAWE sub-corpus) and 'future research' (0.04 vs. 0 cases respectively). The only sub-category of ROA realized by adverbs which shows a statistically significant difference is the one of 'previous research' AMs (*LL-G²* 5.17, p-value 0.0223). On the whole, attitudinal adverbs are used more frequently in the MT sub-corpus (for overall distribution of attitudinal adverbs as ROA markers, see Fig. 3).
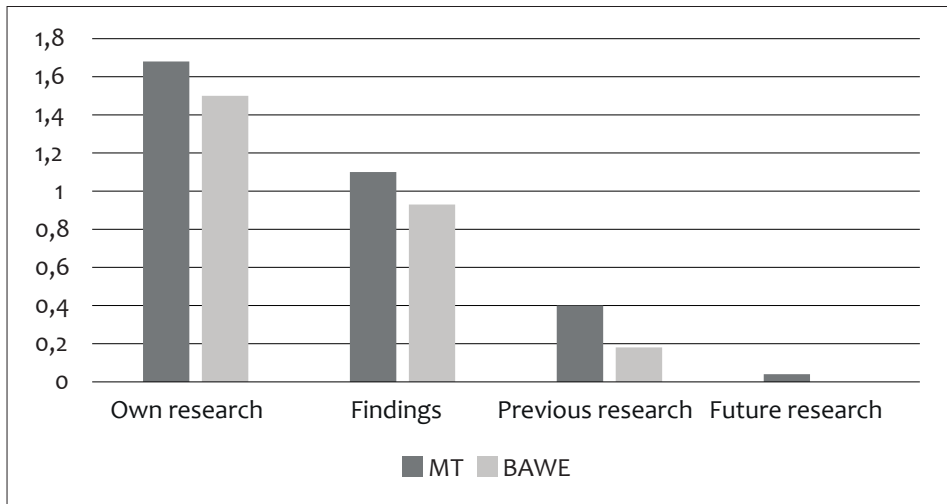

Figure 3. Distribution of attitudinal adverbs used as ROA markers across the sub-corpora (normalised per 10,000 words)

Although the lists of the 7 most frequent attitudinal adverbs are almost identical, i.e. 6 tokens out of 7 occur in both lists (see Table 8), the order displays some noteworthy differences. While in the MT sub-corpus the most frequent adverb is *unfortunately*, followed by *surprisingly* and *more importantly*, in the BAWE sub-corpus the most frequent attitudinal adverb is *essentially* followed by *interestingly* and *more importantly*, while *surprisingly* ranks seventh in the L1 sub-corpus.

(18) Both clichés and innovative approaches to compliments have been observed in the corpus data. *Interestingly enough,* it has been found that compliments are not so unoriginal. (MT 10)

(19) *Not surprisingly,* the number of teachers being certain about how to deal with errors rises with age. While almost 78% of young teachers admit struggling with finding the best way to correct, it is only 64% of teachers from the middle category, and only 33% among the most experienced ones. (MT 38)

The quantitative analysis shows statistically significant differences for *unfortunately* and *surprisingly* (being more frequent in the MT sub-corpus and relating mostly to 'own research' and/or 'findings' and their limitations) and *essentially* (used more frequently in the BAWE sub-corpus expressing the notion of importance), while the results for the other adverbs in Table 8 do not show statistically significant differences.

Table 8. Seven most frequent attitudinal adverbs in the two sub-corpora ordered from the most frequent one in each list

MT sub-corpus	Raw no.	%	BAWE sub-corpus	Raw no.	%
1. unfortunately	52	12.5%	1. essentially	53	27.7%
2. surprisingly	49	11.8%	2. interestingly	28	14.7%
3. more importantly	47	11.3%	3. more importantly	17	8.9%
4. interestingly	42	10.0%	4. dramatically	14	7.3%
5. most importantly	38	9.1%	5. most importantly	12	6.3%
6. essentially	28	6.7%	6. unfortunately	11	5.8%
7. importantly	16	3.8%	7. surprisingly	8	4.2%
Total	272 cases out of 417	**65.2%**		124 cases out of 191	**74.9%**

The results concerning the patterns of use of attitudinal adverbs, i.e. their position in a sentence, reveal some interesting differences between L2 and L1 student writers. Given the meaning of attitudinal adverbs and their typical interpersonal function, it is not surprising that the initial position has been found as the most frequent position of attitudinal adverbs in both sub-corpora. Nevertheless, the statistical results show that L2 students use attitudinal adverbs in this position considerably more frequently than L1 students (*LL-G²* 13.1292, p-value <0.001; see Table 9), which might indicate that L2 students tend to overuse attitudinal adverbs in the sentence initial position. Attitudinal adverbs also occur as pre-modifiers of adjectives or other adverbs and, unlike with the initial position, the pre-modifier function is more frequent in the BAWE sub-corpus than in the MT sub-corpus (*LL-G²* 4.6199, p-value 0.031). The medial and end-positions do not show statistically significant differences in the frequency of occurrence.

Table 9. Position of attitudinal adverbs in the two sub-corpora

	MT sub-corpus		BAWE sub-corpus			
	Raw no.	Freq. per 10,000 words	Raw no.	Freq. per 10,000 words	*LL-G*^{2}	p-value
Initial position	264	2.79	89	1.81	13.1292	<0.001
Pre-modifier	47	0.49	39	0.79	4.6199	0.031
Medial position	81	0.85	54	1.10	2.0212	0.1551
End position	25	0.26	9	0.18	0.9249	0.3362

D. Verbs

Although attitudinal verbs rank fourth and are thus the least frequent realisation of AMs, in terms of frequency of occurrence they are used to a similar extent as nouns and adverbs. In both sub-corpora the frequency of occurrence of attitudinal verbs is the same, i.e. 3.6 cases per 10,000 words (see Table 4 above), which illustrates how rarely attitudinal verbs are used in both sub-corpora. More than a half of these are ROA markers, the distribution of which across the four sub-categories of ROA markers is shown in Figure 4. Two categories, namely 'own research' and 'previous research', show a statistically significant difference between the two sub-corpora, the sub-category of 'own research' being more frequent in the MT sub-corpus (*LL-G*^{2} 13.3234, p-value <0.001) and the one of 'previous research' in the BAWE sub-corpus (*LL-G*^{2} 4.6471, p-value 0.0311), while the sub-categories of 'findings' and 'future research' do not differ considerably. However, it needs to be noted that the numbers are generally very low, so the differences should not be overestimated.
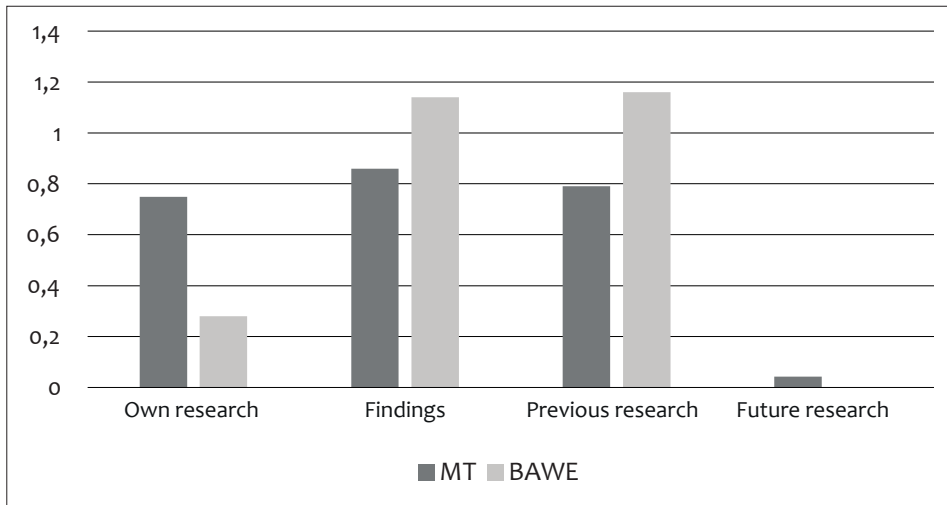

Figure 4. Distribution of attitudinal verbs used as ROA markers across the sub-corpora (normalised per 10,000 words)

The lists of the 5 most frequent attitudinal verbs (see Table 10) show that the most frequent attitudinal verb in both sub-corpora is *support*, but in the BAWE sub-corpus it is used more frequently than in the MT sub-corpus and the difference is statistically significant (*LL-G²* 12.7087, p-value <0.001). Another verb which shows a statistically significant difference between the two sub-corpora is the verb *contribute,* which is used more frequently in the MT sub-corpus than in the BAWE sub-corpus (*LL-G²* 9.1688, p-value 0.0025) while *limit* and *fail* do not differ significantly in the frequency of occurrence. Overall, in both sub-corpora verbs expressing assessment (e.g. *agree*, *limit, support*) display a wider range of tokens and a higher number of cases than the verbs expressing significance (e.g. *contribute, deserve*). It should also be noted that, on the whole, attitudinal verbs do not display such a variety of tokens as the previous types of realisation (see the Appendix).

Table 10. Five most frequent attitudinal verbs in the two sub-corpora ordered from the most frequent one in each list.

MT sub-corpus	Raw no.	%	BAWE sub-corpus	Raw no.	%
1. support	77	22.5%	1. support	72	40.0%
2. contribute	53	15.5%	2. limit	15	8.3%
3. deserve	35	10.2%	3.-4. agree	14	7.8%
4. limit	19	5.6%	3.-4. fail	14	7.8%
5. fail	18	5.3%	5. contribute	11	6.1%
Total	202 cases out of 342	**59.1%**	**Total**	126 cases out of 180	**70.0%**

(20) The concluding chapter (see Chapter 7) summarizes the implications of the research findings, and a modest attempt is made to identify areas *deserving of further research* and to formulate a set of recommendations on how to address some of the burning issues identified in this study. (MT 39)

(21) By and large, Öz (2014), whose study *contributed* particularly to the research on teachers and learners' opinions in an EFL classroom, claims that the learners are very thrilled, excited and curious about having and exploring the potential of an IWB during English lessons. (MT 36)

(22) What O'Gorman *fails* to recognise is the significance of these issues, as these were the key debates of the period. (BAWE 22)

The analysis of patterns of use of attitudinal verbs was also performed and yielded expected results which do not require a detailed commentary. Approximately 88 percent vs. 85 percent of attitudinal verbs in the MT sub-corpus and BAWE sub-corpus respectively naturally occurred in the main verb function.

6. Conclusion

This study has explored the use of attitude markers in English-medium master's theses written by Czech students graduating in English language studies at Masaryk University in Brno. As a reference corpus, a corpus of texts selected from the BAWE corpus was used to allow a comparison of the use of attitude markers in the writing of L2 student writers (Czech) and L1 student writers.

The first research question concerned the frequency of use of attitude markers by L2 and L1 students. The overall frequency considered, attitude markers were used more frequently by L2 than L1 students (45.6 vs. 36.7 attitude markers per 10,000 words respectively), which may indicate that L2 students may be slightly more aware of the need to position themselves towards the propositional content than L1 students, or simply feel the need to evaluate their research in order to justify it sufficiently.

Regarding the second research question about the frequency of use of research-oriented vs. topic-oriented attitude markers, the results showed that both L2 and L1 students used research-oriented attitude markers more frequently than topic-oriented attitude markers, with the proportion of ROA markers and TOA markers in both corpora being approximately 61 percent vs. 39 percent respectively. However, this is not to be considered a feature of student academic writing; the preference of ROA markers over TOA markers was also found in expert writing (namely business management RAs) by Mur-Dueñas (2010) (see Section 3).

The third research question concerned the frequency and realisation of the four sub-categories of ROA markers. The most frequent in both sub-corpora, although more frequent in the MT sub-corpus than in the BAWE sub-corpus, was the category of 'own research' within which the writers typically expressed the importance as well limitations of their own research, and also acknowledged possible methodology or classification drawbacks. The second most frequent was the category of 'findings', which displayed a very similar number of attitude markers used by both L2 and L1 student writers, i.e. both groups of student writers seemed to equally realize that they needed to comment on and justify their own findings. The other two categories, 'previous research' and 'future research', were found to be rather infrequent in both sub-corpora. While previous research was evaluated by students at least occasionally, evaluation with regards to possible future research was found to be rather marginal. These findings indicate that in general students do not tend to evaluate previous research when referring to it in their texts and very rarely identify a research gap (using evaluative expressions) which further research might or should fill. Due to the character and scope of the present analysis, we may only speculate about the reasons for this, one of them probably consisting in the type and amount of tuition the students receive, including recommendations from their supervisors, as well as the amount of exposure to well-written academic texts. The students' lack of confidence concerning evaluation of other researchers' work (i.e. experts whose work they probably do not feel erudite to assess or even criticize) may also play a role here, although the present research does not provide enough evidence for such claims. These

assumptions rather stem from my experience as a supervisor of master's theses and discussions I conducted with my students during the process of theses supervision, and would certainly require a detailed investigation which would map the development of students' writing skills and their improvement based on the tuition and instruction that they receive in academic writing courses or from their supervisors. It has been proven, though, in another research into university students' writing skills conducted previously by my colleagues and myself (Dontcheva-Navratilova et al. 2020) that detailed and systematic tuition does increase students' awareness of possible rhetorical practices, and results at least in some improvement of students' argumentation skills.

Regarding the fourth research question about the use of attitudinal adjectives, adverbs, nouns and verbs, the investigation identified adjectives as the most frequent realisation of attitude markers in both sub-corpora, this type largely outnumbering the other three types of realization. This finding concerning attitudinal adjectives was expected as it is a natural property of adjectives to evaluate entities, the most frequent function being the one of a premodifier. Not surprisingly, attitudinal adjectives were most frequently used in relation to the students' own research and findings. Attitudinal nouns were identified as the second most frequent category in both sub-corpora, although they were slightly more frequently used by the L2 student writers than the L1 student writers. With attitudinal adverbs, the frequency of occurrence in the two sub-corpora was very similar, but an interesting difference has been identified regarding their use in the sentence initial position. Although the sentence initial position is natural for attitudinal adverbs, Czech students seemed to overuse attitudinal adverbs in this position compared to other positions, whereas in L1 student writing the distribution across the sentence positions was more balanced. Attitudinal verbs were identified as the least common realisation of attitude markers in both sub-corpora compared to adjectives, nouns and adverbs, the overall frequency of occurrence of attitudinal verbs being generally very low. In this regard, it is worth noting that in the study of attitude markers in expert writing by Mur Dueñas (2010), attitudinal adjectives were also the most frequent type of realisation in both her American and Spanish corpora of RAs, but the other categories (verbs, nouns and adverbs) showed more variation compared to the results of the present study. Verbs, for example, ranked second in her American corpus, whereas in the Spanish corpus they represented the least frequent category, which is in line with the results for the L2 corpus in the present study. These findings indicate that a more detailed comparison of student and expert writing might provide useful data on similarities and differences between the two groups of writers, and shed more light on which areas of attitude expression might receive more attention in academic writing courses.

In conclusion, the importance of the present research lies in demonstrating how and to what extent L2 and L1 university student writers use attitude markers in their academic writing. It also shows that students realize that in order to interact effectively and successfully with their potential readers, they need to evaluate the propositional content presented to their readers, explain and justify their research objectives, the chosen research method and their findings. Since I adhere

to the view that the ability to write well academically is not a natural capacity of native speakers, but it is rather a skill gained through systematic tuition, I believe that the present study brings some interesting pedagogical implications both for students and academic writing tutors. Apart from pointing to the importance of writer-reader interaction and the interactional dimension of academic discourse, it could help to raise students' awareness of how attitude markers contribute to the clarity and the communicative effect of academic writing. The study could also be of importance to academic writing tutors whom it might provide with some valuable insights into L2 and L1 students' academic writing and indicate which areas would deserve more focus in academic writing courses.

Acknowledgement

References

Abdollahzadeh, Esmaeel (2011) Poring over the findings: Interpersonal authorial engagement in applied linguistics papers. *Journal of Pragmatics 43*, 288–297. https://doi.org/10.1016/j.pragma.2010.07.019

Ädel, Annelie (2006) *Metadiscourse in L1 and L2 English.* Amsterdam and Philadelphia: John Benjamins.

Biber, Douglas (2006) Stance in spoken and written university registers. *Journal of English for Academic Purposes 5*, 97–116. https://doi.org/10.1016/j.jeap.2006.05.001

Bunton, David (1999) The use of higher level metatext in PhD theses. *English for Specific Purposes 18,* 41–56. https://doi.org/10.1016/S0889-4906(98)00022-2

Connor, Ula (2004) Intercultural rhetoric research: beyond texts. *Journal of English for Academic Purposes 3*, 291–304. https://doi.org/10.4236/ce.2022.132039

Crismore, Avon, Markkanen, Raija and Steffensen, Margaret S. (1993) Metadiscourse in persuasive writing: a study of texts written by American and Finnish university students. *Written Communication 10* (1), 39–71. https://doi.org/10.1177/ 0741088393010001002

Crosthwaite, Peter and Jiang, Kevin (2017) Does EAP affect written L2 academic stance? A longitudinal learner corpus study. System 69, 92–107. https://doi.org/10.1016/j.system.2017.06.010

Crosthwaite, Peter, Cheung, Lisa and Jiang, Feng K. (2017) Writing with attitude: Stance expressions in learner and professional dentistry research reports. *English for Specific Purposes 46*, 107–123. https://doi.org/10.1016/j.esp.2017.02.001

Dontcheva-Navratilova, Olga (2016) Cross-cultural variation in the use of hedges and boosters in academic discourse. *Prague Journal of English Studies 5* (1), 163–184. http://dx.doi.org/10.1515/pjes-2016-0009

Dontcheva-Navratilova, Olga (2021) Engaging with the reader in research articles in English: Variation across disciplines and linguacultural backgrounds. *English for Specific Purposes 63*, 18–32. http://dx.doi.org/10.1016/j.esp.2021.02.003

Dontcheva-Navratilova, Olga, Jančaříková, Renata, Hůlková, Irena and Schmied, Josef (2020) Theme choices in Czech university students' English-medium master's theses. *Lingua 243, August 2020, 102892.* https://doi.org/10.1016/j.lingua.2020.102892

Gholami, Javad, Nejad, Sara Rafsanjani and Pour, Jahanbakhsh Looragi (2014) Metadiscourse markers misuses: A study of EFL learners' argumentative essays. *Procedia – Social and Behavioral Sciences 98*, 580–598. https://doi.org/10.1016/j.sbspro.2014.03.454

Gilaerts, Paul and Van de Velde, Freek (2010) Interactional metadiscourse in research article abstracts. *Journal of English for Academic Purposes 9,* 128–139. https://doi.org/10.1016/j.jeap.2010.02.004

Guziurová, Tereza (2020) Discourse reflexivity in written academic English as lingua franca: Code glosses in research articles. *Discourse and Interaction 13* (2), 36–54. https://doi.org/10.5817/DI2020-2-36

Harris, Zellig S. (1959) The transformational model of language structure. *Anthropological Linguistics 1* (1), 27–29.

Heuboeck, Alois, Holmes, Jasper and Nesi, Hilary (2008) *The BAWE Corpus Manual*. Accessed on 2 November, 2022. https://www.reading.ac.uk/internal/appling/bawe/BAWE.documentation.pdf

Ho, Victor and Li, Cissy (2018) The use of metadiscourse and persuasion: An analysis of first year university students' timed argumentative essays. *Journal of English for Academic Purposes 33,* 53–68. https://doi.org/10.1016/j.jeap.2018.02.001

Hu, Guangwei and Cao, Feng (2015) Disciplinary and paradigmatic influences on interactional metadiscourse in research articles. *English for Specific Purposes 39*, 12–25. https://doi.org/10.1016/j.esp.2015.03.002

Hyland, Ken (1998) Persuasion and context: The pragmatics of academic metadiscourse. *Journal of Pragmatics 30*, 437–455. https://doi.org/10.1016/S0378-2166(98)00009-5

Hyland, Ken (2001) Bringing in the reader: Addressee features in academic articles. *Written Communication 18* (4), 549-574. https://doi.org/10.1177/0741088301018004005

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

Hyland, Ken (2004b) Disciplinary interactions: Metadiscourse in L2 postgraduate writing. *Journal of Second Language Writing 13*, 133–151. https://doi.org/10.1016/j.jslw.2004.02.001

Hyland, Ken (2005) *Metadiscourse. Exploring Interaction in Writing*. London and New York: Continuum.

Hyland, Ken (2008) Persuasion, interaction and the construction of knowledge: Representing self and others in research writing. *International Journal of English Studies 8* (2), 1–23.

Hyland, Ken (2017) Metadiscourse: What is it and where is it going? Journal of Pragmatics 113, 16–29. https://doi.org/10.1016/j.pragma.2017.03.007

Hyland, Ken and Jiang, Feng K. (2016) "We must conclude that...": A diachronic study of academic engagement. *Journal of English for Academic Purposes 24*, 29–42. https://doi.org/10.1016/j.jeap.2016.09.003

Hyland, Ken and Jiang, Feng K. (2017) "We believe that ...': Changes in an academic stance marker. *Australian Journal of Linguistics,* published online in December 2017, 139–161. https://doi.org/10.1080/07268602.2018.1400498

Hyland, Ken and Jiang, Feng K. (2018) "In this paper we suggest": Changing patterns of disciplinary metadiscourse. *English for Specific Purposes 51*, 18–30. https://doi.org/10.1016/j.esp.2018.02.001

Hyland, Ken and Tse, Polly (2004) Metadiscourse in Academic Writing: A Reappraisal. *Applied Linguistics 25* (2), 156–177. https://doi.org/10.1093/applin/25.2.156

Kilgarriff, Adam, Rychly, Pavel, Smrz, Pavel and Tugwell, David (2004) The Sketch engine. Proc Eleventh EURALEX International Congress. France: Lorient.

Koutsantoni, Dimitra (2004) Attitude, certainty and allusions to common knowledge in scientific research articles. *Journal of English for Academic Purposes 3*, 163–182. http://dx.doi.org/10.1016/j.jeap.2003.08.001

Lancaster, Zak (2016) Expressing stance in undergraduate writing: Discipline-specific and general qualities. *Journal of English for Academic Purposes 23*, 16–30. https://doi.org/10.1016/j.jeap.2016.05.006

Mauranen, Anna (1993) Contrastive ESP rhetoric: Metatext in Finnish-English economics texts. *English for Specific Purposes 12*, 3-22. https://doi.org/10.1016/0889-4906(93)90024-I

Mu, Congjun, Zhang, Lawrence Jun, Ehrich, John and Hong, Huaqing (2015) The use of metadiscourse for knowledge construction in Chinese and English research articles. *Journal of English for Academic Purposes 20*, 135–148. https://doi.org/10.1016/j.jeap.2015.09.003

Mur-Dueñas, Pilar (2007) 'I/we focus on...': A cross-cultural analysis of self-mentions in business management research articles. *Journal of English for Academic Purposes 6*, 143–162. https://doi.org/10.1016/j.jeap.2007.05.002

Mur-Dueñas, Pilar (2010) Attitude markers in business management research articles: A cross-cultural corpus-driven approach. *International Journal of Applied Linguistics 20* (1), 50–72. https://doi.org/10.1111/j.1473-4192.2009.00228.x

Mur-Dueñas, Pilar (2011) An intercultural analysis of metadiscourse features in research articles written in English and Spanish. *Journal of Pragmatics 43*, 3068–3079. https://doi.org/10.1016/j.pragma.2011.05.002

Povolná, Renata (2013) On some variation in the use of discourse markers by Czech and German students of English. *Discourse and Interaction 6* (2), 41–60. https://doi.org/10.5817/DI2013-2-41

Quirk, Randolph and Greenbaum, Sidney (1990) *A Student's Grammar of the English Language*. Harlow: Longman.

Rayson, Paul, Berridge, Damon and Francis, Brian (2004) Extending the Cochran rule for the comparison of word frequencies between corpora. In: Purnelle, C., Fairon, C. and Dister, A. (Eds) *Le poids des mots: Proceedings of the 7th International Conference on Statistical Analysis of Textual Data (JADT 2004).* Louvain-la-Neuve: Presses universitaires de Louvain, 926–936.

Stotesbury, Hilkka (2003) Evaluation in research article abstracts in the narrative and hard sciences. *Journal of English for Academic Purposes 2*, 327–341. https://doi.org/10.1016/S1475-1585(03)00049-3

Thetela, Puleng (1997) Evaluated entities and parameters of value in academic research articles. *English for Specific Purposes 16* (2), 101–118. https://doi.org/10.1016/S0889-4906(96)00022-1

Thompson, Geoff (2001) Interaction in Academic Writing: Learning to Argue with the Reader. *Applied Linguistics 22* (1), 58–78. https://doi.org/10.1093/applin/22.1.58

Thompson, Geoff and Thetela, Puleng (1995) The sound of one hand clapping: The management of interaction in written discourse. *Text 15* (1), 103–127. https://doi.org/10.1515/text.1.1995.15.1.103

Vande Kopple, William J. (1985) Some exploratory discourse on metadiscourse. *College composition and communication 36*, 82–93. https://doi.org/10.2307/357609

Wei, Jing, Li, Yan, Zhou, Ting and Gong, Zhiwei (2016) Studies on metadiscourse since the 3rd millennium. *Journal of Education and Practice 7* (9), 194–204.

Williams, Joseph M. (1981) Style: Ten Lessons in Clarity and Grace. Northbrook, Illinois: Scott, Forsman and Company.

Yoon, Hyung-Jo and Römer, Ute (2020) Quantifying disciplinary voices: An automated approach to interactional metadiscourse in successful student writing. *Written Communication 37* (2), 208–244. https://doi.org/10.1177/0741088319898672

APPENDIX:
Attitude markers from the two sub-corpora (in alphabetical order)

Adjectives:

acceptable, adequate, amazing, appropriate, astonished, astonishing, best, better, broad, central, complex, comprehensive, confident, consistent, core, critical, crucial, curious, dangerous, desirable, difficult, disappointed, disappointing, dramatic, easy, effective, essential, exorbitant, expected, fundamental, generalizable, good, great, hard, hopeful, important, inappropriate, inconclusive, inconsistent, in-depth, influential, interesting, intriguing, key, limited, logical, main, major, marginal, meaningful, missing, narrow, necessary, new, notable, noteworthy, obvious, opaque, paradoxical, poor, primary, preferable, preferred, problematic, promising, rare, reasonable, relevant, remarkable, robust, satisfactory, serious, shocked, shocking, significant, skewed, striking, sufficient, suggestive, surprised, surprising, tremendous, unbelievable, understandable, unexpected, unexplored, unfortunate, unique, unusual, usual, useful, valid, valuable, wise, worth, worthwhile

Nouns:

absence, advantage, caution, complexity, contribution, credibility, difficulty, dilemma, discovery, failure, hurdle, importance, insight, key, lack, limit, limitation, merit, paradox, risk, shortcoming, significance, strength, support, validity, value, wealth

Adverbs:

admittedly, amazingly, appropriately, broadly, conclusively, correctly, critically, curiously, dramatically, essentially, expectedly, fortunately, hopefully, importantly, more importantly, most importantly, inappropriately, interestingly, interestingly enough, paradoxically, preferably, reliably, remarkably, shockingly, strikingly, surprisingly, understandably, unexpectedly, unfortunately, unusually

Verbs:
a) Verbs expressing assessment:
agree, broaden, criticize (criticise), deepen, disagree, ensure, fail, hurdle, go beyond, ignore, lack, limit, neglect, overemphasize, overlook, prefer, respond, support, value
b) Verbs expressing significance:
   contribute, deserve, expand, extend, merit (attention)

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