Discourse markers in EFL academic essays written by primary school teacher candidates

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Abstract

This article reports a quantitative study of discourse markers identified in the corpus of academic essays written in the English language by a group of teacher candidates (further referred to as participants) enrolled in an undergraduate teacher education program for primary schools at Stockholm University (Sweden). The corpus for this study consisted of the mid-course and final course academic essays written by the participants in English as a Foreign Language (EFL). The aim of the study was to identify and juxtapose discourse markers in the participants' mid-course and the final course academic essays. It is assumed in the present study that the juxtaposition of the participants' mid-course and the final course academic essays would yield data that would indicate possible changes in the use of discourse markers by participants over time, as well as reveal the frequently used discourse markers employed by the participants in their EFL academic essay writing. Following this assumption, the corpus of the participants' EFL essays was analyzed with the help of the *WordSmith* software (Scott, 2012). The results of the quantitative computer-assisted analysis indicate that such discourse markers as *accordingly*, *because*, *however*, *if*, *in order to*, *therefore*, and *usually* were equally distributed in the participants' mid-course and final course essays. The following discourse markers were present only in the corpus of the final course essays and were not identified in the mid-course essays: *also, basically, concerning, first, firstly, generally, hence, hopefully, indeed, initially, in particular, it follows, just, later, next, otherwise, such, thereafter*, and *thereby*. The analysis revealed a number of discourse markers that were identified exclusively in the corpus of the mid-course essays, such as, for example, *besides, despite, eventually, like,*

OK, regarding, regardless, and *yet.* These findings are further presented and discussed in the article.

1. Introduction

This article seeks to identify and juxtapose discourse markers (abbreviated further to DMs) in the participants' mid-course and final course academic essays. Whilst there exists a cornucopia of previous scholarship which elucidates the issue of DMs in academic writing by novice and expert EFL students (e.g., Alyousef, 2016; Aull & Lancaster, 2014; Basturkmen & von Randow, 2014; Hinkel, 2003; Martínez, 2002; Phakiti & Li, 2011; Povolná, 2012; Schleppegrell, 1996; Šimčikaitė, 2012), the novelty of the present research involves the focus on the usage of DMs in academic writing by primary school teacher candidates. Specifically, the DMs are identified and further analyzed in academic writing in EFL by those teacher candidates who are enrolled in a teacher education program for primary schools at Stockholm University (Sweden). First, the background notions involving previous research associated with DMs will be outlined. Second, an overview of previous studies on DMs in EFL academic writing will be presented. Third, the present study will be introduced and discussed, focusing on the participants, the corpus of the participants' academic essays, the quantitative analysis and the findings. Fourth, the article will be concluded with a number of didactic suggestions relevant to the teaching of DMs in academic writing in EFL.

2. Discourse markers

2.1. Background notions

There is a wealth of research literature dealing with DMs from the perspectives of linguistics, applied linguistics, EFL studies, pragmatics, and psycholinguistics (e.g., Fox Tree, 2015; Fraser, 1999; Gebhard, Chen, Graham, & Gunawan, 2013; Hellermann & Vergun, 2007; Polat, 2011; Schiffrin, 1987; Schourup, 1999). Despite a substantial body of research associated with DMs, there is no generally agreed upon definition of this term (Zufferey & Popescu-Belis, 2004, p. 63). As indicated by Fraser (2015, p. 48), there have been considerable debates involving the definition of DMs, their classes and meanings. DMs are described as an ambiguous pragmatic phenomenon, referred to by a plethora of other names

such as, for example, *connectives, connectors, discourse particles, discourse operators, interactive discourse markers, linkers, pragmatic markers, sequencers, utterance indicators*, etc. (Fraser, 2015; Hempel & Degand, 2008; Khedri, Heng, & Ebrahimi, 2013; Polat, 2011, p. 3746). The ambiguity of DMs is explained, partially, by a contention that DMs lack a conceptual core (Martínez, 2002, p. 126). It follows that DMs are theorized to contribute neither to conceptual representations an utterance may communicate (Blakemore, 1992), nor to the semantic truth-value of the utterance (Neumann, Walters, & Altman, 2017, p. 224). However, DMs involve certain instructions about how to interpret conceptual representations of an utterance in a given context (Hansen, 1997, p. 160). Following Blakemore (1992), DMs are thought to involve a set of semantically unspecific elements (Volín, Weingartová, & Niebuhr 2016, p. 319) which do not affect the propositional content of utterances they occur in (Schourup, 1999, p. 227).

One of the canonical definitions of DMs posits that they are "sequentially dependent elements which bracket units of talk" (Schiffrin, 1987, p. 31). Assuming that units of talk, or speech chunks, are associated with syntactic relationships underlying the speech chunks, Hellermann and Vergun (2007, p. 158) suggest that "DMs are words or phrases that function within the linguistic system to establish relationships between topics or grammatical units in discourse (as with the use of words like because, so, then)". Based on syntactic criteria, Fraser (1999, 2015) distinguishes several categories of DMs, such as: 1) coordinate conjunctions (e.g., *and, but, or*), 2) subordinate conjunctions (e.g., *although, as, if, since, though*), 3) adverbials (e.g., *consequently, furthermore, still, however*), 4) prepositions (e.g., *despite, instead of*), and 5) prepositional phrases (e.g., *above all, after all, as a consequence*). A similar contention is expressed by Rezanova and Kogut (2015, p. 267), who posit that DMs are trans-categorical items comprised of different word classes, such as, for example, particles, adverbs, conjunctions, and parenthetical words. Extending the "grammatical-pragmatic" approach towards DMs (Fung & Carter, 2007, p. 411), Fraser (2015, p. 48) defines DM as an expression that is:

> drawn from one of three classes (Contrastive DMs, Elaborative DMs, and Implicative DMs), which typically occurs in S2 sentence-initial position in a S1--S2 combination, and which provides no semantic content value but rather signals a semantic relationship between the two sentences.

Subscribing to the above-mentioned definition of DMs by Fraser (2015), Das and Taboada (2017, p. 5) argue that DMs are lexical expressions that belong to different syntactic classes (e.g., conjunctions, adverbial and prepositional phrases), which are used to connect discourse components in order to facilitate the readers' understanding of the coherence relations between the components in a

written text. Hence, DMs can be regarded as guiding signals to the reader, which help clarify the structure of a text (Dontcheva-Navratilova, 2009, p. 34). In particular, DMs signal various relationships between the segments of written discourse and contribute to both cohesion and coherence (Fraser, 1999). DMs perform text-organizing functions as cohesive means, which reflect underlying connections between propositions (Schiffrin, 1987, p. 61). To reiterate, this contention is echoed by Das and Taboada (2017, p. 2), who indicate that "[c]oherence relations are often signaled by discourse markers (DMs), such as 'because' indicating a causal coherence relation or a condition".

It should be noted that previous scholarship argues that the functions of DMs in spontaneous writing are analogous to their functions in spontaneous speaking (Fox Tree, 2015, p. 64). In other words, DMs in spontaneous writing may play similar roles to those observed in speaking (Fox Tree, 2015). Following this assumption, Fox Tree (2015) classifies DMs into: 1) attitudinal (e.g., *actually, really*), 2) tailored (e.g., *like, you know,*) 3) temporally sensitive (e.g., *um, uh*), and 4) cohesive (e.g., *well*). Whilst DMs in spontaneous speech and in spontaneous writing may involve identical properties, previous studies indicate that DMs in academic writing should strictly conform to the formal register of English language usage (Martínez, 2002; Povolná, 2012; Šimčikaitė, 2012).

In academic writing DMs are deemed to be involved in the construction of epistemic stance and evidentiary support (Aull, Bandarage, & Richardson Miller, 2017; González, Roseano, Borràs-Comes, & Prieto, 2017; Yoon, 2017). DMs have a persuasive purpose and contribute to providing reliable, truthful and relevant information about the propositional content (González et al., 2017, p. 70). In this sense, DMs are theorized to contribute to the concept of the writer's voice and, specifically, stance (McGrath & Kuteeva, 2012). Whilst in oral discourse DMs are associated with epistemic and interpersonal stance (Tan, 2010), the writer's stance involves DMs that express: 1) uncertainty about a proposition and accept the possibility of other options (e.g., *probably*), and 2) the writers' confidence in what they argue or support (e.g., *indeed*) (Yoon, 2017, p. 74). It can be generalized that DMs are regarded as cohesive and connective textual elements in written discourse, which depend on the previous or following discursive units (Asik, 2015, p. 941).

2.2. DMs in EFL academic writing: An overview of previous studies

Previous research on DMs has primarily focused on their meaning in synchrony, DMs' usage from a diachronic perspective (Traugott, 2016), formal properties of DMs (Tanghe, 2016), and the function of DMs in academic writing (Martínez, 2002; Povolná, 2012; Šimčikaitė, 2012). In university settings, academic writing

can be viewed as a purposeful interaction between writers and readers, the visible evidence of which is a text (Povolná, 2012, p. 131). As indicated by Dahl (2004), academic writing and, in particular, academic writing in EFL "has entailed increased research activity into what language and communication tools the students must acquire to become fully socialized into their research community" (p. 1808). DMs are considered one of those tools that an EFL student has to master, especially in university programs tailored for teacher candidates (Asik, 2015).

Several studies have investigated the use of DMs by EFL language learners in university settings (Aull et al., 2017; Aull & Lancaster, 2014; Martínez, 2002; Povolná, 2012; Šimčikaitė, 2012). Aull et al. (2017, p. 31) point to a relatively limited number of previous research publications involving DMs in academic writing that compare academic essays by new college students with academic writing by advanced college students. Amongst these studies, Aull and Lancaster (2014) report that academic writing by novice students compared to both upper-level student writing and published academic writing contains more intensifiers and fewer hedges. Aull et al. (2017) as well as Aull and Lancaster (2014) generalize that EFL language learners underutilize DMs, especially for their pragmatic functions.

Previous research by Martínez (2002), Povolná (2012) and Šimčikaitė (2012) is particularly relevant to the present study, since these authors address the role of DMs in academic writing by EFL university students. The investigation of DMs by Martínez (2002) is embedded into the framework of relevance theory. Martínez (2002, p. 127) defines DMs as elements with procedural meaning, which are characterized by pragmatic features that involve instructions for interpretation of discourse units. Guided by the afore-mentioned view of DMs within the parameters of relevance theory, Martínez (2002) analyzed the conclusion sections of research papers written by seven EFL university students. The aim of the analysis is to determine the range of DMs used by each EFL student. Martínez (2002) reported that EFL students whose first language (L1) is Spanish appear to use DMs that signal 1) a quasi-parallel relationship between two sentences (e.g., *and, moreover, in particular, well*), 2) a conclusion based upon the preceding sentence (e.g., *therefore, then, consequently, so, hence*), 3) the explicit interpretation of a sentence, which contrasts with an interpretation of the previous sentence (e.g., *but, although, however*); and 4) the reason for the contention presented in the previous (e.g., *because, since*). Martínez (2002) indicates that these findings suggest a relationship between the level of competence in EFL writing and the use of DMs.

Similarly to Martínez (2002), Šimčikaitė (2012) analyzed the usage of DMs in academic essays written by EFL students. The analysis involved the frequency counts of DMs drawn from language corpora. Šimčikaitė (2012) indicates that the results of the quantitative investigation revealed that those EFL learners

whose L1 is Lithuanian use stylistically inappropriate DMs, which are more typical of informal spoken discourse than of academic writing. In total, 15 functional categories of spoken DMs were identified in the academic essays written by the EFL students whose L1 is Lithuanian. Šimčikaitė (2012) argues that a higher frequency of spoken DMs in the corpus is determined by a number of variables, such as: 1) the lack stylistic suggestions of the DMs usage, 2) the contradictory definitions of DMs provided by different course books, and 3) the communicative approach to EFL teaching based upon interactive oral activities in the classroom, which focus on spoken language rather than academic writing.

The study of DMs by Povolná (2012) focused on academic discourse written by the EFL MA students whose L1 was Czech. Povolná (2012) embedded the investigation of DMs in EFL academic writing into the role of causal and contrastive relations expressed by DMs. The main contention of Povolna's (2012) research is that DMs contribute to cohesion and coherence in academic written discourse. By analyzing the corpus of MA theses written in EFL Povolná (2012) sought to elucidate causal and contrastive relations expressed by DMs. Another aspect of Povolná's (2012) study involved the correctness and appropriateness of DMs in the EFL writing of Czech L1 MA students (Povolná, 2012, p. 131). The results of the quantitative analysis revealed that causal and contrastive relations tend to be expressed overtly. In particular, causal relations are frequently expressed by paratactic DMs, such as *therefore* and *thus*, whilst contrastive relations are expressed by *but* and *however* (Povolná, 2012, p. 146). Povolná (2012) indicates that EFL MA students appear to use DMs incorrectly and have only a limited repertoire of the DMs at their disposal. Povolná (2012) argues that it is caused by the students' exposure to overt teaching of certain DMs only. It is suggested in Povolná (2012) that the role of DMs and their correct usage in academic writing in EFL should be sufficiently elucidated in tertiary educational settings in order to broaden the students' repertoire of DMs.

3. The present study

Whilst DMs are crucial in EFL oral discourse (Fox Tree, 2015), they appear to be an understudied phenomenon in the context of EFL academic writing (Hellermann & Vergun, 2007), especially in the academic writing in EFL by teacher candidates (Mukminin, Ali, & Ashari 2015). To date, little is known about the usage of DMs by primary school teacher candidates in their academic writing. The study described in this article aims to generate new knowledge about this underrepresented research aspect.

Prior to proceeding with the present research, it seems pertinent to provide a short description of the background context of the English proficiency course

offered to primary school teacher candidates by the Department of English at Stockholm University (Sweden). Primary school teacher candidates have to choose a course titled *English for school years 4-6, EN0146. Language proficiency and theory.* This course is focused upon English skills and language theory, with particular emphasis on the structures of English from a cross-linguistic perspective, spoken vs. written English and language variation in the English-speaking world. The course involves grammar and vocabulary exercises to be done individually and in small study groups. At the seminars, primary school teacher candidates are expected to: 1) discuss problematic aspects of English grammar and vocabulary in relation to language theory, and 2) read about and discuss common conceptions of language, with a special focus on the role of English in today's world. The course aims at acquainting primary school teacher candidates with language variation in the English-speaking world and differences between spoken and written English. Other aims of the course involve the development of English skills, as well as the understanding of the language, its use and the challenges of teaching it (Stockholm University, 2017).

The following literature is used in the course: 1) Bauer, L. and Trudgill, P. (1998). *Language myths.* London: Penguin Books, 2) Murphy, R. (2004). *English grammar in use. A self-study reference and practice book for intermediate students of English, with answers* (4th ed.). Cambridge: Cambridge University Press, 3) Parrott, M. (2010). *Grammar for English language teachers* (2nd ed.). Cambridge: Cambridge University Press, and 4) Redman, S. (2011). *English vocabulary in use. Pre-intermediate and intermediate, with answers and CD-ROM* (3rd ed.). Cambridge: Cambridge University Press. Additional literature used in the course involves: 1) *The curriculum for the compulsory school, preschool class and the leisure-time centre* (English syllabus available at the Swedish Department of Education website, Skolverket, 2017), 2) Jenkins, J. (2003). *World Englishes. A resource book for students.* London: Routledge, 3) Plag, I., Braun, M., Lappe, S., and Schramm, M. (2009). *Introduction to English linguistics* (2nd ed.). Berlin: Mouton de Guyter, 4) Timmis, I. (2012). Spoken language research and ELT: Where are we now? *ELT Journal, 66*(4), 514-522, as well as 5) scholarly journals for further reading, such as *Applied Linguistics, ELT Journal, English Language Teaching, International Journal of Applied Linguistics* (Stockholm University, 2017).

3.1. Hypothesis and specific research aims

Based on previous research (Martínez, 2002; Povolná, 2012; Šimčikaitė, 2012), it is assumed in the present study that the juxtaposition of the participants' mid-course and the final course EFL academic essays would yield data that reveal the frequently used DMs employed by the participants and indicate possible changes

in the usage of DMs over time. Following this assumption, the following specific research aims were formulated: 1) to identify DMs in the participants' mid-course and the final course EFL academic essays, and 2) to juxtapose the participants' mid-course and the final course EFL academic essays, which would reveal possible changes in the frequency and percentage of DMs by the participants over time.

3.2. Participants

In total, 24 participants (18 females and 6 males, mean age = 21 y.o.) took part in the study. All of them were enrolled in the course English for school years 4–6, EN0146. Language proficiency and theory offered to primary school teacher candidates at Stockholm University (Sweden). The participants' real names and other identifying information were coded to ensure confidentiality. The participants' codes were PSTC1-PSTC24 (i.e., primary school teacher candidate abbreviated as PSTC and the number from 1 until 24, respectively). In terms of the English language proficiency, all the participants were intermediate EFL students. There were neither English/Swedish bilinguals, nor English L1 speakers in the group.

3.3. Materials and procedure

The corpus of the present study involved the mid-course and final course essays. Those essays were written by the participants at home in accordance with a number of guidelines. The participants were instructed to write the mid-course essays, between 300 and 400 words in length, based upon an article in the book by Bauer and Trudgill (1998) *Language myths*. They were asked to summarize the article and discuss it in relation to language teaching, in particular EFL. Specifically, the participants were instructed to reflect on the extent the article was relevant to the context of teaching EFL at primary schools in Sweden. The mid-course essays should have a descriptive title and follow APA academic referencing conventions. The mid-course essays had to be written in academic English.

The final course essays had to be between 700 and 800 words in length. The participants were instructed to develop a sample exercise to be used in an EFL class, and write a short essay describing the purpose of the exercise, including its language learning aims. The participants had to justify their didactic approach in relation to at least two scholarly sources from the field of applied linguistics and/or EFL studies. The final essay should comprise the following parts: 1) the descriptive title, 2) the contents page, 3) the description of the language learning aims and the justification of the approach, and 4) references. The final essay had to be written in academic English. It should be type-written in 12-point font and 1.5 lines or double spacing and should have a clear paragraph

structure marked by indenting the first line of every paragraph. The APA referencing system had to be used for in-text and end references. Each participant received detailed feedback in writing after the mid-course essay and after the final course essay. The mid-course and the final course essays were graded. Table 1 includes the descriptive statistics of the mid-course and final course essays.

Table 1 Descriptive statistics of the corpus of mid-course and final course EFL essays

Participant (gender)	Words MC	Sentences MC	Paragraphs MC	Words FC	Sentences FC	Paragraphs FC
PSTC1 fem	362	19	6	739	32	5
PSTC2 fem	426	18	5	909	53	6
PSTC3 fem	382	18	4	1531	36	15
PSTC4 fem	397	16	4	914	52	10
PSTC5 fem	600	33	5	1308	66	15
PSTC6 m	374	22	4	1699	105	22
PSTC7 fem	476	15	4	2025	96	25
PSTC8 fem	385	20	4	832	43	10
PSTC9 fem	393	15	1	1000	41	18
PSTC10 m	410	19	3	839	31	7
PSTC11 fem	441	21	4	819	42	12
PSTC12 fem	365	14	3	1220	56	9
PSTC13 m	327	11	1	736	32	4
PSTC14 m	426	16	5	999	44	12
PSTC15 fem	481	21	5	1057	64	12
PSTC16 fem	429	14	3	895	38	9
PSTC17 fem	311	13	4	1425	52	15
PSTC18 fem	470	22	3	1202	42	9
PSTC19 m	445	18	3	1236	45	5
PSTC20 fem	341	9	5	1419	69	18
PSTC21 fem	481	16	7	2145	86	23
PSTC22 fem	356	14	4	724	31	7
PSTC23 fem	451	24	3	1521	58	11
PSTC24 m	382	17	4	1001	57	14

Explanation of the abbreviations: PSTC1-PSTC24 = the coded names of the participants; fem = female participant; m = male participant; MC = mid-course essay; FC = final course essay

2.4. Methodology

Quantitative computer-assisted methodology was employed in the present study. It involved computer-assisted calculations of word frequencies by the *WordSmith* software (Scott, 2012). Based on previous research (Kapranov, 2017; Povolna, 2012), the *WordsSmith* software was deemed to be reliable and suitable for the purposes of the present study. It should be mentioned that the corpus of the mid-course and the final course essays was analyzed in *WordSmith* without the metadata, such as the title page, the table of contents and the reference sections.

3.5. Results

The results of the quantitative investigation of the corpus are summarized in Table 2.

Table 2 The word frequency and percentage of DMs in the corpus

DM	Occurrence MC	Percentage MC	Occurrence FC	Percentage FC
According to	5	0.05	16	0.07
Actually	7	0.1	7	0.03
Additionally	1	0.01	2	0.01
Although	8	0.1	4	0.02
And	230	2.2	469	3
Also	0	0	98	0.44
As	32	0.33	145	0.65
Basically	0	0	1	0.01
Because	2	0.02	29	0.13
Besides	2	0.02	0	0
But	52	0.53	66	0.23
Concerning	0	0	2	0.01
Despite	1	0.01	0	0
Even though	0	0	19	0.09
Eventually	1	0.01	0	0
Finally	2	0.02	9	0.04
First	0	0	29	0.13
Firstly	0	0	4	0.09
Furthermore	3	0.03	10	0.05
Generally	0	0	1	0.05
Hence	0	0	5	0.02
Hopefully	0	0	7	0.03
However	9	0.1	5	0.02
If	33	0.34	67	0.3
In addition	1	0.01	3	0.01
Indeed	0	0	1	0.01
Initially	0	0	1	0.01
In order to	1	0.01	2	0.01
In particular	0	0	8	0.04
It follows	0	0	14	0.06
Just	0	0	14	0.06
Lastly	1	0.01	12	0.05
Later	0	0	6	0.03
Like	2	0.02	0	0
Moreover	2	0.02	5	0.02
Nevertheless	4	0.04	2	0.01
Next	0	0	7	0.03
OK	1	0.01	0	0
Or	53	0.55	100	0.45
Otherwise	0	0	6	0.03
Probably	8	0.1	3	0.01

Regarding	1	0.01	0	0
Regardless	1	0.01	0	0
Since	10	0.1	9	0.05
So	20	0.3	53	0.24
Such	0	0	20	0.09
Thereafter	0	0	3	0.01
Thereby	0	0	4	0.09
Therefore	8	0.1	26	0.12
Though	2	0.01	10	0.05
Thus	1	0.02	3	0.01
Usually	6	0.1	5	0.02
Yet	1	0.01	0	0

Explanation of the abbreviations: MC = mid-course essay; FC = final course essay

The two corpora, that is the mid-course and final course essays, were normalized and examined in *WordSmith* (Scott, 2012). The results of the normalized data analysis revealed 25 DMs that were present in the corpora. Those DMs are presented in Table 3.

Table 3 The percentage of DMs in normalized data count

DM	Percentage MC	Percentage FC
According to	0.1	0.1
Actually	0.1	0.03
Additionally	0.02	0.01
Although	0.1	0.02
And	2.2	3.8
As	0.1	0.7
Because	0.1	0.1
But	0.5	0.3
Finally	0.02	0.04
Furthermore	0.01	0.05
However	0.2	0.02
If	0.3	0.3
In addition	0.02	0.01
In order to	0.01	0.01
Lastly	0.1	0.05
Moreover	0.04	0.02
Nevertheless	0.08	0.01
Or	0.6	0.5
Probably	0.2	0.01
Since	0.2	0.1
So	0.6	0.2
Therefore	0.1	0.1
Though	0.02	0.05
Thus	0.02	0.01
Usually	0.2	0.02

4. Discussion

Following the main research aims of the present study, a range of DMs were identified in the corpus of mid-course essays and in the corpus of the final essays, respectively. The results of the quantitative analysis revealed that the participants appear to use the following most frequent DMs in their mid-course essays: *and* (N of occurrences = 230), *or* (N of occurrences = 53), *but* (N of occurrences = 052), *if* (N of occurrences = 33), *as* (N of occurrences = 32), *so* (N of occurrences = 20), etc. In the final course essays, the most frequently used DMs are *and* (N of occurrences = 469) followed by *as* (N of occurrences = 145), *or* (N of occurrences = 100), *also* (N of occurrences = 98), *if* (N of occurrences = 67), and *but* (N of occurrences = 66). These findings are in concert with previous research by Povolná (2012, p. 137), who reported a relatively high frequency of hypotactic DMs (*as*) and paratactic DMs (*but*) in the academic writing in English by the university students whose L1 is Czech.

The identification of the DMs in this corpus revealed that the participants use a wider repertoire of DMs in their final course essays (see Table 2). Specifically, the following DMs were present only in the corpus of the final course essays and were not identified in the mid-course essays: *also, basically, concerning, first, firstly, generally, hence, hopefully, indeed, initially, in particular, it follows, just, later, next, otherwise, such, thereafter*, and *thereby*. As seen in Table 2, these DMs were not equally distributed in the corpus of the final essays, as is the case, for example, with: *also* (N of occurrence = 98), *first* (N of occurrence = 29), *it follows* (N of occurrences = 14), *in particular* (N of occurrences = 8), *hopefully* (N of occurrences = 7), *hence* (N of occurrences = 5), *firstly* (N of occurrences = 4), *concerning* (N of occurrences = 2), etc. These findings reflect a variety of stylistic registers, from colloquial (e.g., *hopefully*), to formal academic writing (e.g., *thereafter*) used by the participants in their final course essays. The usage of informal DMs *basically, hopefully* and *indeed*, identified in the present study, seems to support the findings by Šimčikaitė (2012), who indicated that EFL learners tend to use stylistically inappropriate DMs, which are more typical of informal spoken discourse than of academic writing. In contrast to the informal DMs, the use of DMs *hence, in particular, it follows, otherwise, thereafter*, and *thereby* in the present corpus is suggestive of participants' choices of DMs, which are stylistically appropriate in academic writing.

The results of the computer-assisted data analysis revealed a number of DMs, which are associated exclusively with the corpus of the mid-course essays, such as: *besides, despite, eventually, like, OK, regarding, regardless*, and *yet*. It appears that amongst the DMs specific to the mid-course essays, *besides* (N of occurrences = 2) and *like* (N of occurrences = 2) are most frequently used by the

participants. These findings are suggestive of the participants' proclivity to employ DMs associated with the colloquial and informal register. As mentioned earlier in this article, the usage of colloquial DMs is reported in spontaneous writing (Fox Tree, 2015). Arguably, the corpus of mid-course essays is evocative of the semi-prepared and spontaneous writing, since it involves the participants' academic writing prior to the teacher's feedback.

The juxtaposition of the two corpora indicates that the repertoire of DMs identified in the participants' final essays contained 19 DMs not found in the corpus of the mid-course essays. Arguably, a possible explanation of the more substantial repertoire of DMs in the final course essays could be the participants' heightened awareness of the role of DMs in academic writing. Presumably, the awareness stems from corrective feedback which the participants received after their mid-course essay writing, as well as from the perusal of the scholarly articles employed by participants in their final course essay writing. Whilst these assumptions are tentative, the data suggest that the majority of the DMs, which are specific to the final essay writing, are associated with the formal register of academic writing in English. To illustrate, these DMs are *hence*, *initially*, *in particular*, *it follows*, *thereafter*, and *thereby*. Based upon the notion of stylistic register, two more groups of the DMs, which are specific to the corpus of the final course essays, can be distinguished, namely colloquial and stylistically neutral. The group of colloquial DMs is comprised of *basically* and *hopefully*, respectively. The group of stylistically neutral DMs consists of *first, firstly, generally, indeed, just, later, next, otherwise*, and *such*.

It should be mentioned that similar findings were reported in the study conducted by Kapranov (2017). The study involves a quantitative examination of DMs in EFL argumentative essays written by secondary school teacher candidates. Kapranov (2017) found that certain DMs identified in academic writing in English by the secondary school teacher candidates were associated exclusively with the essay drafts and are not identified in the final essays. These DMs are *generally, just, lastly, later, like, probably, usually* and *well*. In contrast to the aforementioned DMs, the data in Kapranov (2017) revealed that there was another group of DMs associated only with the final essays, for instance, *actually, additionally, alas, although, assuming, besides, essentially, first, in addition, indeed, nevertheless, rather, similarly, still, surprisingly, thereafter*, and *thereby*.

It is evident from Table 2 that there is a group of DMs that are specific to the mid-course essays. These DMs can be grouped into 1) colloquial (e.g., *like, OK*), 2) stylistically neutral (e.g., *besides, despite, yet*) and 3) stylistically formal DMs (*regarding*). The presence of the colloquial DMs in the mid-course essays seems to support previous research findings (Šimčikaitė, 2012), which indicate that EFL learners experience problems with differentiation between colloquial DMs used in

informal spoken English and DMs associated with academic writing in English. The participants' insufficient differentiation between colloquial and formal registers in their choice of DMs is further illustrated by the mid-course essay data. The data reveal that there was a tendency amongst the participants to employ colloquial DMs (e.g., *like*) concurrently with the DMs, which are associated with formal academic writing (e.g., *however, therefore*, etc.), as evident from Excerpt 1:

Excerpt 1

Languages incessantly change as a result of particular factors including social, politicial pressure and so on. At present, we use some words being different or not existing in the past and the meanings, pronunciations and gramatical structures of nearly all languages except for few ones like Latin change over centuries. However, the main reasons of the change are still uncertain. According to the author of the book, language change can not be halted because the language changes aren't any problems in meaning and usage of words. However, some people see the language change as a negative thing because they believe that the language change needs to be stopped because of leading to a dangerous. Therefore, this can lead to a danger of misunderstanding and make difficult to determine the real meaning of a word. But, the author of the book believes that this dangerous can be dealt with the help of the context. Like English, which is the most widely spoken target language in the world, Swedish language has lots of words changing over years and I believe rather than the aspect of the author that language change leads to many problems (Mid-course essay written by Participant PSTC19).

The excerpt provides an example of register confusion, which appears to be present in several mid-course essays. Echoing Šimčikaitė (2012), register confusion "could be due not only to the language learning (English as a second language) but also to the learning how to write' (p. 32). The combination of informal and formal DMs observed in Excerpt (1) is evocative of previous research findings (Martínez, 2002; Povolná, 2012), which suggest that many EFL students experience difficulties with adhering to discipline-specific academic registers despite years of schooling. In this regard, Gebhard et al. (2013) posit that EFL students' academic writing is compromised by a number of issues, ranging from the nature of linguistic interactions, the quality of institutional supports schools provide, and race-, class, and gender-based variables. Presumably, the teacher's feedback can be considered a variable that positively impacts the usage of DMs in accordance with the conventions of academic writing in English. After the provision of corrective feedback by the teacher, the final essay written by Participant PSTC19 appears to conform to the standards of academic writing in English as far as the choice of DMs is concerned, as illustrated in Excerpt 2:

Excerpt 2

As future teachers, we need to make vocabulary knowledge of the target language raised because children may not communicate with foreign people without having a particular amount of the vocabulary knowledge. Therefore, I have developed a well-organized vocabulary exercise "Filling the Gaps" for students in 5 grade. Research in language shows (Chappell, 2013: 19) that effective language teaching activity stimulates students to create a vast range of meanings through spoken and written texts by exploring, sharing, and enquiring about things that matter to them in their lifeworlds. Therefore, children are going to be provided an opportunity to develop their English skills including speaking, listening, writing and so on with this exercise. In order to be able to grasp the confusing words in the song easily, children are going to overcome them by assisting each other in a group. Another research in language (Tan Bee Tin 2013: 6) points out that 'Creativity' is the 'ability to come up with new ideas that are surprising yet intelligible, and also valuable in some way and it involves different types of creative thinking'. Therefore, the group work plays an important role in their acquisition of the confusing words and creativity. If the children have any difficulty in translating, I am going to assist them by reaching out to them. After this activity, the song which has been translated by the pupils beforehand is going to be sung together with the whole class. As it is stated in PET, it encourages children to listen carefully and memorize chunks of language, which are important parts of language learning (Brewster, Ellis, Girard, 2002: 44). Therefore, children are going to become familiar with the words by listening to the song and keep them in their mind easily. Children need to use the new vocabulary they have just learnt in both speech and writing in a correct way. Otherwise, they may easily forget these words or they may not express anything with the vocabulary. Therefore, I believe that such an exercise and activities will enable a great deal of advantages to children and they will feel more comfortable about their conversational skills thanks to the exercise while they figure out the vocabulary easily (Final course essay written by Participant PSTC19).

Excerpt 2 suggests that the informal DMs identified in the participant's mid-course essay are superseded by the DMs that are associated with the formal register of academic writing in the English language (e.g., *therefore*). Presumably, the corrective feedback after the mid-course essay played a facilitative role in the decline of the usage of informal DMs and the prevalence of formal DMs in Excerpt 2. Arguably, other variables may have contributed to the correct use of DMs, for instance, course literature, and hyperlinks to the scholarly journals for further reading, such as *Applied Linguistics*, *ELT Journal*, *English Language Teaching*, and *International Journal of Applied Linguistics.* Another possibility involves the participant's use of additional materials (i.e., the scholarly sources that the participant may have used in the essay writing). It can be assumed that the participant used scholarly articles as scaffolding in essay writing. Arguably, scholarly articles published in reputable peer-reviewed journals may serve as a "best example", which offers suggestions to a novice writer in terms of lexical,

syntactic, and discursive choices. However, it is beyond the scope of the present article to explore this assumption.

It is observed in the data illustrated by Excerpt 2 that the usage of the DM *therefore* appears rather excessive and, perhaps, not always necessary. The tendency to overuse DMs (e.g., *therefore*) supports previous research findings which indicate that EFL learners use DMs more frequently than the native speakers of English (Šimčikaitė, 2012, p. 28). Similar findings were reported by Martínez (2002, p. 128), who posits that Spanish L1 university learners of English use DMs extensively in their EFL writing. The overuse of certain DMs in the present data lends support to the observation by Povolná (2012, p. 145), who suggests that some EFL students "tend to overuse certain of the selected DMs, while introducing every other discourse segment with a marker, above all in linguistics theses".

Whilst a decrease in the use of the informal DMs could be observed in the data, the analysis revealed that there was a group of DMs, which appeared to be present in both the corpus of mid-course and final essays (see Table 3). As evident from the data, certain DMs exhibit a tendency to be relatively stable over time. Specifically, the percentage of DMs in the normalized data count indicates that the following DMs are equally distributed in the mid-course (MC) and final course (FC) essays: *accordingly* (0.1% in MC and 0.1 % in FC), *because* (0.1% in MC and 0.1 % in FC), *however* (0.2% in MC and 0.02 % in FC), *if* (0.3% in MC and 0.3 % in FC), *in order to* (0.01% in MC and 0.01 % in FC), *therefore* (0.1% in MC and 0.1 % in FC), and *usually* (0.2% in MC and 0.02 % in FC). These findings can be taken to indicate that the usage of stylistically neutral DMs and some of the DMs associated with the formal academic style (e.g., *therefore*) does not change over time.

It should be noted that the normalized data are indicative of the decrease in the use of the following DMs: *actually* (0.1% in MC and 0.03 % in FC), *additionally* (0.02 % in MC and 0.01 % in FC), *although* (0.1% in MC and 0.02 % in FC), *but* (0.5% in MC and 0.3 % in FC), *in addition* (0.02% in MC and 0.01 % in FC), *lastly* (0.1% in MC and 0.05 % in FC), *moreover* (0.04% in MC and 0.02 % in FC), *nevertheless* (0.08% in MC and 0.01 % in FC), *or* (0.6% in MC and 0.5 % in FC), *probably* (0.2% in MC and 0.1 % in FC), *since* (0.2% in MC and 0.1 % in FC), *so* (0.6% in MC and 0.2 % in FC), and *thus* (0.02% in MC and 0.01 % in FC). These findings reveal that participants' use of DMs associated with the formal style of academic writing (e.g. *although, moreover, nevertheless, since*) declines concurrently with the decrease in the use of more colloquial (e.g., *actually*), and stylistically neutral DMs, such as *lastly* and *so*. The normalized data are suggestive of the increase in the use of the DMs *and* (2.2% in MC and 3.8 % in FC), *as* (0.1% in MC and 0.7 % in FC), *finally* (0.02% in MC and 0.04 % in FC), *furthermore* (0.01% in MC and 0.05 % in FC), and *though* (0.02% in MC and 0.05 % in FC).

Presumably, the increase in the use of certain DMs (e.g., *and, as*) in the final essays can be associated with a relatively high percentage of these DMs in the unfiltered count. For instance, the unfiltered word frequency count revealed that the DM *and* was used 230 times in the corpus of mid-course essays and 469 times in the final essays, whereas the DM *as* was identified 32 times in the mid-course essays and 145 times in the final essays. Interestingly, the unfiltered occurrence of the DM *finally* increased substantially (i.e., N = 2 in the mid-course essays and N = 9 in the final course essays). In a similar manner, a substantial increase of the DM *furthermore* was evident from the unfiltered occurrence in the mid-course essay (N = 3) and the final essays (N = 10).

In this discussion, it seems pertinent to draw parallels with the studies related to the native English speakers' usage of DMs. In this respect, Dahl (2004, p. 1821) indicates that in "the Anglo-Saxon world, particularly the US, much attention is given to teaching students at various levels to write effectively. Emphasis is put on communication with a reader, making this an explicit feature of the writing process". The explicitness of academic writing by Anglo-American writers creates an impression that "the reader is invited to take a tour of the text together with the author, who acts as a guide" (Mauranen, 1993, p. 16). Dahl (2004) found that the explicitness of academic writing by the native speakers of English maps onto the use of DMs that facilitate the structuring of an academic text. In particular, Dahl (2004, p. 1816) reports that these DMs are *above (mentioned), previously, earlier, already, so far, now, later*, and *below*. Presumably, they help structure logical and spatial relationships in a typical academic essay written by a native speaker of English. Judging from the present findings, however, the participants whose L1 is Swedish do not seem to use DMs *above-mentioned, below, previously, earlier, already*, and *below*. Even though it is beyond the scope of this article to juxtapose the present data with the native speakers' use of DMs, it can be assumed that in contrast to the native speakers of English, the Swedish L1 participants structure their logical and spatial relations in their essays by resorting to such DMs as *finally, furthermore, however, lastly*, etc. (see Table 3).

5. Conclusions

This article presented a computer-assisted quantitative investigation of DMs identified in two sets of academic essays – the mid-course essays and the final course essays written by 24 primary school teacher candidates enrolled at Stockholm University. The computer-assisted analysis of the academic essays by means of the *WordSmith* (Scott, 2012) software revealed that some of the DMs tend to be associated with the mid-course essays (e.g., *eventually, like, OK, besides, despite, yet, regarding*). However, the following DMs were present only in

the corpus of the final course essays and were not identified in the mid-course essays, that is: *also, basically, concerning, first, firstly, generally, hence, hopefully, indeed, initially, in particular, it follows, just, later, next, otherwise, such, thereafter*, and *thereby*.

The juxtaposition of the findings indicates that the repertoire of DMs identified in the participants' final essays contained 19 DMs not found in the corpus of the mid-course essays. This finding can be taken to indicate that the participants had extended their repertoire of DMs after the corrective feedback from the teacher and after having read the suggested scholarly articles during or prior to the writing of the final essays. It should be noted that these findings are restricted to the group of participants in this study. Hence, caution should be exercised in terms of the generalization of the results. However, the findings point to the development in the use of DMs, which evidently emerged in the context of the course.

However, it should be noted that the general impression from the present research findings is as follows: whilst the most obvious examples of colloquial DMs (e.g., *OK*) are not observed in the final course essays, there a tendency to: 1) overuse certain DMs, 2) display a preference for a limited repertoire of DMs, especially in the mid-course essays, and 3) use DMs which are appropriate in spoken English rather than in formal academic writing in the English language.

Judging from the present findings, it seems pertinent to propose several pedagogical suggestions. First, it appears relevant to identify those DMs that teacher candidates appear to prefer in oral speech in English. Based upon the identification of the preferred DMs in oral speech, measures should be introduced to widen the repertoire of the DMs preferred in oral speech to include those DMs that are typically associated with the formal stylistic register in academic writing in English. Second, the teacher's corrective feedback in terms of the mid-course essays should involve pointers related to the correct usage of DMs in academic writing. The feedback should explicitly address the use of those DMs that are associated with the formal register of academic writing in English. Third, primary school teacher candidates should be made aware of the overuse of DMs which negatively impacts the appropriateness of academic writing in English.

Acknowledgement

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