

Additive Discourse Markers in English Journal Articles Written by Kurdish and English Native Speakers: A Corpus-Based Study

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ABSTRACT

This paper reports a study that examines the use of additive discourse markers written by Kurdish scholars of English and compares their use with English native speakers. In this study, five discourse markers of 'and, or, for example, for instance, thus' are specifically analyzed. It aimed to investigate functions, frequency, and sentence positions of additive discourse markers. To achieve this, the researchers utilized two language corpora of 34 research articles published by Kurdish scholars in different journals of Iraqi Kurdistan Region Universities and international journals, and a corpus of 27 research articles published by English native scholars in different English Journals. Quantitative as well as qualitative research methods were employed. The results of this study showed that Kurdish scholars overused 'and' and 'for instance' in their writing; however, they underused 'or, for example, and thus'. Moreover, it showed that in both types of writings, there is a similarity in the frequent use of the medial position of additive discourse markers.

Introduction

Writing is affirmed to be the most problematic skill compared to other language skills for learners of English as a Second or Foreign Language (ESL, EFL), and even for speakers whose native language is English (Ong, 2011; Ting, 2003). According to Hyland (2003), one of the most challenging aspects of second language (L2) learning is to learn how to write in L2 setting, since writing effectively requires extensive and specialized instruction.

Halliday (2000), points out that a well-ordered text can be defined by cohesion and coherence. In order to create a discourse that follows the rules produced by their native speaker counterparts, L2 learners are required to have enough knowledge about cohesive devices (Halliday & Hasan, 1976).

According to Liao (2009), one of the most striking discoveries in comparisons between native and non-native speakers (NSs, NNSs) is that, if an L2 speaker wants to sound more like a NS, one way is to adopt

discourse markers (DMs) that NSs use in their native community. DMs link clauses and sentences together to form extended discourse. They typically join two discourse segments that do not contribute to the meaning of either (Richards & Schmidt, 2002).

DMs affect the quality of writing as Jalilifar (2008) argues that, if DMs are employed appropriately, the quality of writing will be improved. Additionally, DMs can assist the writers to create effective and well-ordered writing and help them in conveying their thoughts adequately, while any deficiency or improper use in writing especially with L2 learners can result in breakage of communication (Zhang, 2016).

One of the writing problems amongst English language learners is utilizing correct DMs in different texts. Most of the studies revealed that DMs are often overused, underused and misused by ESL/EFL learners in different positions regardless of their stylistic and pragmatic restrictions (Ha, 2015; Lei, 2012).

The current study is a corpus-based study carried out to analyze the utilization of a sub-class of DMs, that is, additive discourse markers (ADMs) with a close look at their roles across different English journal articles written by Kurdish and English NSs. To have a more concise result, the five most frequently used ADMs of 'and, or, for example, for instance, thus' in both native and non-native writings, are analyzed with the aim of probing into the use of ADMs by the Kurdish researchers in order to see how they use ADMs in their writing research articles and illustrate some possible inappropriate, overuse or underuse of these constituents.

To achieve the purpose of this study, the following research questions are addressed:

1. What is the overall frequency of ADMs in Kurdish Academic Corpus of English (KACE) compared to Native Academic Corpus of English (NACE)?
2. What are the overused and underused ADMs in KACE compared to NACE?
3. What is the most frequent sentential position of ADMs in KACE compared to NACE?

Background of the Study

DMs were first identified by Halliday and Hasan (1976) and called 'conjunctions'. The authors were the pioneers who did the researches on connectives and defined them as linkages between components of texts. They look at DMs as main cohesive devices. These items play a significant role in connecting textual units such as clauses, sentences, and paragraphs, thus, contribute to understanding and cohesion of the text in which they occur. Halliday and Hasan (1976), classify DMs according to the way they link units in the text under four main categories:

1. Additive (e.g. and, in addition, furthermore...etc.)
2. Adversative (e.g. but, yet, on the contrary...etc.)
3. Causal (e.g. so, therefore...etc.)

ADMs, as highlighted by Halliday and Hasan (1976), are used to link discourse units of semantic similarity. The additives introduce the units of discourse which repeat and emphasize the key point or add relevant new information to the expressions mentioned previously and maintain the text's cohesion and coherence.

Literature Review

Regarding the previous conducted studies, Tadayyon and Farahani (2017) conducted a comparative corpus-based study of Iranian scholars and English native writers' published articles, using Fraser's (2006) taxonomy to analyze and compare the type and the frequency of DMs used in written articles published in English by Iranian scholars and English native scholars. For this purpose, 30 journal articles for each NSs and NNSs were examined. The findings indicated that ADMs were used more frequently in Iranian scholars' academic articles than NSs, followed by temporal, contrastive and implicative DMs.

Following Halliday and Hassan's classification of cohesive devices (1976), Liu and Braine (2005) in their frequency-count study examined the application of cohesive tools in argumentative writings of Chinese undergraduate students and claimed that additive devices including "and", "also" and "or" were the most used type of all the cohesive devices, followed by causal, temporal, and adversative devices. In addition, they found that the number of cohesive devices used in writings could represent the quality of the writings.

In another study, Gao (2016) conducted a corpus-based study on linking adverbials or DMs which compared Chinese and English academic writing using a cross-disciplinary corpus of research articles. The differences between the uses of linking adverbials were not significant in terms of density, but additive and adversative linking adverbials were underused by the Chinese students.

Using the DM taxonomy of Fraser (1999), Jalalifar and Alipour (2007) conducted an investigation on the frequency of DMs in the writings of Iranian junior and senior EFL learners and reported that among all the DMs, the most frequent DMs were the

elaborative markers followed respectively by inferential, contrastive, causative, and topic relating markers. They also found a direct relationship between writings quality and the number of used DMs by the students.

Methodology

Data Collection

This study is based on data collected from two distinct speech communities of English and Kurdish. It is developed from the concept of a comparative corpus-based study of Kurdish scholars' texts with their first language (L1) counterparts. The comparison is carried out by using two comparable corpora of English journal articles published in English by Kurdish scholars of English and NSs. The principal reason for choosing online texts of research articles (RAs) is easy and free access to them. Both types of corpora were prepared for the study by the researcher himself. In the current study, these types of corpora are named as NACE and KACE, and described in details in the following sub-sections:

Native Academic Corpus of English

For NSs, the corpus was taken from the English NSs' journal articles. The samples which composed NACE were collected from 27 RAs published 2011-2019 in the discipline of applied linguistic field consisted of 150426 running words. The RAs were downloaded and gathered by the researcher from nine distinguished journals; Applied Linguistics, ELT Journal, Discourse and Communication, The Teacher Educator, Research Gate, Studies in Second Language Learning and Teaching, Journal of Pragmatics, Journal of Language Teaching and Research, and Linguistic Approaches to Bilingualism.

Kurdish Academic Corpus of English

For NNSs, the data comprised of English journal articles written in English by Kurdish scholars. The samples which composed KACE were gathered from 34 research articles (RAs) published 2015-2019 in applied linguistics consisted of 150418 running words. The RAs were downloaded from eleven distinguished journal websites of Iraqi Kurdistan region Universities and international journals

Table 1 demonstrates the quantity of running words and RAs used in NACE and KACE. The NACE consists of 27 RAs and 150426 words. The KACE comprises of 34 RAs and 150418 words. The total number of RAs is 61, and the total amount of words is 300844 words in both corpora. The two corpora were homogenous in terms of subject matter and total number of words, while the number of RAs is different, since the data was analyzed based on the number of words in both corpora not based on the number of RAs.

Table 1: Descriptive Data of the Corpora

Corpora	Number of RAs	Number of words
NACE	27	150426
KACE	34	150418
Total	61	300844

Data Analysis and Procedure

As the articles were collected and available to the researchers in soft copies, the collected corpora had to follow a clean-text policy. This means that any additional text or mark (i.e. tables, photos, references, figures, quotations, charts, appendices, and footnotes, etc.) were eliminated from the corpora since they were not part of the main data of the articles. Accordingly, this approves the quality and representativeness of the corpus used in this study. As a result, the word count for each article and the total word count for each corpus were performed online by (Notepad ++). In doing so, the two corpora were collected and saved in separate files of text format which enabled the data to be saved only as plain text with no marks from the papers. Furthermore, the comparisons were made between KACE and NACE corpora to find out differences, frequencies and discourse patterns of usage (overuse, underuse) of the ADMs.

In order to analyze the data adequately, the present study draws on both qualitative and quantitative analysis of two types of texts to estimate the frequency of ADMs in each corpus. Moreover, Halliday and Hassan's (1976) semantic taxonomy and Fraser's (1999, 2005) model were used in the present study to examine ADMs in terms of the sentence position and functions based on syntactic forms of the ADMs, while in conducting the corpus-based analysis of the frequency of ADMs, the described data was passed through a computer software and corpus analysis toolkit (AntConc 3.5.0) created by Anthony (2017) to locate, estimate and calculate the frequency of five most frequently used ADMs (and, or, for example, for instance, thus) in NACE and KACE. It is also used to concord ADMs in the two corpora. To achieve this quantitative step, DMs are searched as key words in context (KWIC) and the frequency of each DM was calculated manually after estimating it by the program, since some terms are not counted as DMs. It is also helpful to locate the sentence positions of the DMs (i.e. initial, medial or final positions). However, the analysis of position was also done manually in both corpora to enhance the reliability of analysis.

AntConc 3.5.0 consists of tools such as concordance, concordance plot, N-grams (part of clusters), file view, word lists, collocates, and keywords. In this study, the concordance menu and file views are the frequently used function to analyze the frequency of occurrence of lexical items. Thus, after compiling the required corpus the following procedural steps are taken into account for the quantitative analysis. First, the overall frequency of occurrence of ADMs in both KACE and NACE were marked. Then, the frequency of individual ADMs is compared between both corpora. Next, the syntactical positions of ADMs along with their frequency of occurrence are compared between both types of corpora. Finally, the functions of ADMs are described in both corpora.

Results

As stated earlier, the current study aims at giving an adequate corpus-based analysis of the five most frequently used ADMs in the English RAs written by Kurdish scholars of English and English NS scholars. The major issues analyzed in this section are addressed as below:

Frequency and Percentage Frequency of Additive Discourse Markers in Kurdish and Native Academic Corpus of English

The overall ADMs frequency and percentage frequency in KACE and NACE are 1210 (0.80%) and 1270 (0.84%) respectively. In order to calculate the percentage frequency, the total frequency of ADMs was divided by the total number of words in each corpus and multiplied by 100%. It is a noticeable difference in the frequency and percentage frequency of ADMs in KACE and NACE.

Table 2 shows the frequency and percentage frequency of each ADMs in NACE and KACE corpora. In order to calculate the percentage frequency of each ADMs, the frequency of each ADMs was divided by the total number of ADMs in each corpus and multiplied by 100%.

Table 2: Frequencies and Percentage Frequency of ADMs in KACE & NACE

ADMs	KACE		NACE	
	Fr.	%	Fr.	%
And	916	75.70	899	70.78
Or	46	3.80	59	4.64
For example	88	7.27	169	13.30
For instance	61	5.04	34	2.67
Thus	99	8.18	109	8.58
Total	1210	100	1270	100

As far as the individual items are concerned, the most frequent ADM in KACE is "and" which accounts for 916 (75.70%), and the least frequent ADM is "or" which covers 46 (3.80%) compared to other terms in the corpus. As to the other ADMs, the second preferable ADM is the term "thus" which makes up 99 (8.18%) followed by "for example" and "for instance" consisting 88 (7.27%), and 61 (5.04%) respectively.

Regarding the frequency of individual terms in NACE, the most frequent ADM is "and" which occurs 899 times with the rate of (70.78%) compared to other terms in the corpus, and the least frequent ADM used by NSs is "for instance" which makes up

34 (2.37%) among other terms in the corpus. The second most frequently employed ADM in NACE is "for example" which makes up 169 (13.30%) followed by "thus" and "or" covering 109 (8.58%) and 59 (4.64%) respectively.

Since the NACE was taken as a benchmark for the patterns of usage (overuse and underuse) of ADMs in the whole corpora, the focus is on KACE in order to know how ADMs are used by Kurdish scholars compared to NSs. According to the findings, there is a similarity in both corpora where the most frequent used ADM is the term "and", while a difference is observed in the least frequent ADM where the least frequent ADM is "or" in KACE, while "for instance" is considered as the least frequent ADM in NACE. As to the patterns of usage, the Kurdish scholars overused "and" and "for instance", whereas they underused "or, for example, thus" compared to English NSs.

Sentential Positions, Frequency, and Functions of Additive Discourse Markers in Kurdish and Native Academic Corpus of English

The sentential positions of ADMs are determined based on syntactic forms identified by Fraser (1997) as follows:

- a. S1. DM, S2 b. S1, DM+S2 c. DM+S1, S2

According to Fraser (2005), a lexical expression functions as a DM, if it occurs at the initial position of segment 2 (S1-LE+S2). Moreover, Fraser (1999) refers to DMs as a category of lexical expressions drawn primarily from the syntactic classes of conjunctions, adverbs, and prepositional phrases. Drawing from Fraser (1999), DMs in the present study function as ADMs at the initial position, and function as a prepositional phrase and an adverb medially and finally. As stated by Fraser (2005, p.12), DMs that are prepositions, prepositional phrases, and adverbials "have a much greater latitude syntactically, some occurring in S2-final position, with others occurring in both the final and medial position". It seems that this case is not applied to "and" and "or", since they only function as ADM at the initial and medial positions as they were counted only when they are restricted to a pair of clauses or sentences and have cohesive function in both types of corpora (Halliday & Hasan, 1976). The tables and figures below illustrate the frequency, position, and function of each term:

And: As depicted in Table 3 below, "and" is a commonly used DM in this corpus. Its occurrence is restricted to the initial and medial position of the sentences, and functions as ADM. It is employed by Kurdish scholars less frequently than by NSs at the initial positions with the frequency of 197 (21.50%) vs. 416 (46.27%) respectively. As to the medial position, the results show that Kurdish scholars employed "and" more frequently than NSs at the medial positions with the frequency of 719 (78.49%) vs. 483 (53.72%) respectively. The final slot is empty for both groups since the term "and" is used to add a point to the previously mentioned information.

Table 3: Frequencies and percentages of the sentential positions of "and" in NACE & KACE

Corpora	Sentential positions					
	initial		medial		final	
	Fr.	%	Fr.	%	Fr.	%
NACE	416	46.27	483	53.72	0	0
KACE	197	21.50	719	78.49	0	0

In the following extracted example screenshots from both NACE and KACE, the positions and functions of the term "and" are illustrated:

NACE: NSs use "and" in two syntactic combinations at the initial position such as (S1. And, S2) and (S1, and S2), also they employ it in two forms at the medial position as in (S1, and, S2) and (S1 and S2). This DM functions as an ADM in both positions as shown in figures 1 and 2 below:

cognition is within empirical reach. And, as any social action effects
improve from observation and feedback, and these experiences can h

Figure 1: The use of "and" as an ADM at the initial position

grammatical features (Lust et al. 1996), and, therefore, it is claimed that
of talking about language learning and how these might differ across dif

Figure 2: The use of "and" as an ADM at the medial position

KACE: Three syntactic forms, namely (S1. And, S2), (S1? And S2?), and (S1, and S2), are observed to use "and" by Kurdish scholars at the initial position, whereas there is only one sentence form (S1 and S2) at the medial position. This DM functions as an ADM in both positions as in figures 3 and 4 below:

dex, which was equal to (0.70). And the learners were asked to report
resemble semantically and syntactically? And where do they differ? If
age inside the class should be polite, and euphemism is a favorable in

Figure 3: The use of "and" as an ADM at the initial position

ndents had more confidence in NESTs and they were probably more seri

Figure 4: The use of "and" as an ADM at the medial position

Or: As it is clear from the results in Table 4 below, a visible difference is seen at the initial position of the sentences in which Kurdish scholars use "or" with a less frequency than using it by native scholars. By contrast, there is a similarity between both groups at the medial position by which the frequency of employing "or" is the same (35 vs. 35), whereas its ratio is different in some way (59.32% vs. 76.08%). This position is considered to be the most preferable position to place "or" by both groups compared to initial position. This DM is not used in the final location, because it is used between two statements, questions or choices.

Table 4: Frequencies and percentages of the sentential positions of "or" in NACE & KACE

Corpora	Sentential positions					
	initial		medial		final	
	Fr.	%	Fr.	%	Fr.	%
NACE	24	40.67	35	59.32	0	0
KACE	11	23.91	35	76.08	0	0

In the following figures, the position and function of "or" are illustrated in NACE and KACE:

NACE: NSs use "or" in two syntactic forms at the initial position, namely (S1, or S2) and (S1? Or S2?), also they utilize it in two forms at the medial position: (S1, or, S2) and (S1 or S2). This DM functions as an ADM at the initial and medial positions as in figures 5 and 6 below:

seeks evidence on outcomes, or it might be done in separate studies
was so polite in her request? Or was it just because she was asking a

Figure 5: The use of "or" as an ADM at the initial position

on of two frames of thought, or, as he called them, matrices, defined
er really thought of doing a language or it would be needed in the

Figure 6: The use of "or" as an ADM at the medial position

KACE: Kurdish scholars use "or" in three syntactic combinations at the initial position: (S1. Or, S2), (S1, or S2) and (S1? Or S2?), and they utilize it in two syntactic forms in the mid-sentence position: (S1 or S2) and (S1, or, S2). The DM "or" functions as an ADM in both positions as can be seen in figures 7 and 8 below:

citizens when we are on the internet. Or, in other words, we can be
beginning and follow supporting ideas, or they may present the de
ne could say, who do you speak to? Or who do you talk to? 'speak'

Figure 7: The use of "or" as an ADM at the initial position

classified under one particular given category or it has more than one body and its behavior are figured, or, more accurately according to

Figure 8: The use of "or" as an ADM at the medial position

For example: According to the results presented in Table 5 below, the ADM "for example" occurs at all sentence positions in NACE, while in KACE it is restricted to the initial and medial locations. A notable difference in employing "for example" can be seen between NSs and NNSs. That is, this DM is underused by Kurdish scholars in all sentence positions compared to NSs' written texts. The most preferable position where "for example" is used by is the initial position in both groups followed by medial and final locations.

Table 5: Frequencies and percentages of the sentential positions of "for example" in NACE & KACE

Corpora	Sentential positions					
	initial		medial		final	
	Fr.	%	Fr.	%	Fr.	%
NACE	86	50.88	81	47.92	2	1.18
KACE	61	69.31	27	30.68	0	0

In the screenshots below, the functions and sentence positions of "for example" are shown in both corpora:

NACE: The ADM "for example" is utilized by NSs in three syntactic forms at the initial position: (S1. For example, S2), (S1; for example, S2), and (S1, for example S2), and it is used in two forms at the medial position: (S1, for example, S2) and (S1 for example S2). As to the final position, it is utilized by NSs in two forms: (S1+ S2, for example) and (S1 for example, S2). This DM functions as an ADM initially, adverb medially, and prepositional phrase finally as exposed in figures 9, 10, and 11 respectively:

ance to which they will attend. For example, they need to decide how they would not use the speech act; for example, they need to decide whether their thoughts focused inwardly, for example on self-doubt or accomp

Figure 9: The use of "for example" as an ADM at the initial position

sed presence could include, for example, an examination of the role of LLA literature can be seen for example in Ciekanski's (2007) study

Figure 10: The use of "for example" as adverbial at the medial position

ties for addressing women or seniors, for example. Given such a context, Jente's (2003) research paper for example, in which she analyzed

Figure 11: The use of "for example" as a prepositional phrase in the final position

KACE: Kurdish scholars use "for example" in two forms at the initial position: (S1. For example, S2) and (S1, for example S2), and two forms at the medial position as in: (S1, for example, S2) and (S1 for example S2). This DM was not used finally. It functions as an ADM, a prepositional phrase, and adverbial initially and medially as displayed in figures 12, 13 and 14 respectively:

nts in using English language. For example, in writing a paragraph designed for a particular purpose, for example historical corpus is de

Figure 12: The use of "for example" as an ADM at the initial position

...in a particular point of time, for example, dealing with central I

Figure 13: The use of "for example" as a prepositional phrase at the medial position

..., while other type of phrases for example noun phrase may not

Figure 14: The use of "for example" as adverbial at the medial position

For instance: Table 6 shows a visible difference of employing "for instance" in NACE and KACE. Kurdish scholars use it more frequently than native scholars at the initial position, covering 47 (77.04%) vs. 12 (35.29%) respectively. By contrast, it is utilized by Kurdish scholars less frequently than by NSs in the mid-sentence position, 14 (22.95%) vs. 22 (64.70%) respectively. Tail slots are empty in both varieties.

Table 6: Frequencies and percentages of the sentential positions of "for instance" in NACE & KACE

Corpora	Sentential positions					
	initial		medial		final	
	Fr.	%	Fr.	%	Fr.	%
NACE	12	35.29	22	64.70	0	0
KACE	47	77.04	14	22.95	0	0

In the following extracted examples, the position and the function of "for instance" are clarified:

NACE: The data suggests that "for instance" occurs in three combinations at the initial positions: (S1. For instance, S2), (S1, for instance S2), and (S1; for instance, S2), and it happens in two forms at the medial position: (S1, for instance, S2) and (S1 for instance S2). This marker functions as an ADM initially, and it functions as an adverb and prepositional phrase medially as seen in figures 15, 16, and 17 respectively:

...ive and a positive valence. For instance, school-oriented factors c
certain discourse markers, for instance without focused training t
ed analogy in his thinking; for instance, he hypothesized about th

Figure 15: The use of "for instance" as an ADM at the initial position

he Interaction Hypothesis, for instance, posits that language learr

Figure 16: The use of "for instance" as adverbial at the medial position

...s or strategies, exclaiming for instance 'I wish I was better at scan

Figure 17: The use of "for instance" as a prepositional phrase at the medial position

KACE: This DM appears in two syntactic forms at the initial position as in (S1. For instance, S2) and (S1, for instance S2), and it occurs in two forms at the medial position: (S1, for instance, S2) and (S1 for instance S2). This marker functions as ADM, prepositional phrase, and adverb as presented in figures 18, 19, and 20 respectively:

...kind of their body behavior. For instance, in Kurdish society the
n source text and target text, for instance Nida's formal equivalence

Figure 18: The use of "for instance" as an ADM at the initial position

and the notion of equivalence, for instance, formal equivalence or

Figure 19: The use of "for instance" as a prepositional phrase at the medial position

in each students' samples for instance <language> can be classif

Figure 20: The use of "for instance" as adverbial at the medial position

Thus: Table 7 shows that both Kurdish scholars and native scholars are fond to utilize "thus" initially followed by medial position. However, a notable difference is observed in the frequency of "thus" where it is overused by Kurdish scholars compared to native scholars at the initial positions which stands for 69 (69.69%) vs. 56 (51.37%). On the contrary, at the medial position, the ADM "thus" is underused by Kurdish scholars compared to NSs 30 (30.30%) vs. 53 (48.62%). This DM is not used by both groups in the final locations.

Table 7: Frequencies and percentages of the sentential positions of "thus" in NACE & KACE

Corpora	Sentential positions					
	initial		medial		final	
	Fr.	%	Fr.	%	Fr.	%
NACE	56	51.37	53	48.62	0	0
KACE	69	69.69	30	30.30	0	0

The function and position of "thus" are illustrated in NACE and KACE as below:

NACE: NSs use "thus" at the initial position in two types of combinations: (S1. Thus, S2) and (S2, thus S2), and also they utilize it in two forms (S1, thus, S2) and (S1 thus S2) at the medial position. This DM functions as an ADM and an adverb at the initial and medial positions respectively as in figures 21 and 22:

ts' related to that entity change. Thus, in the almost ubiquitous ex
ocutors' mutual understanding, thus becomes crucially importan

Figure 21: The use of "thus" as an ADM at the initial position

journalism operates under. We, thus, cautiously welcome the clos
vel of metacognitive awareness thus helping them to make more i
a model of advisor thinking was thus designed to illustrate the inn

Figure 22: The use of "thus" as an adverb at the medial position

KACE: Kurdish scholars employ "thus" at the initial position in two types of combinations such as (S1. Thus, S2) and (S1, thus S2), they also use it in these forms (S1, thus, S2) and (S1 thus S2) at the medial position. This marker functions as an ADM initially and functions as an adverb medially as seen respectively from the figures 23 and 24 below:

e, taxi are reliable and convient. Thus, they afford a car and appr
people can not mention directly, thus they use euphemistic expre

Figure 23: The use of "thus" as an ADM at the initial position

difficulty in the same situations, thus, showed their highest misu
ed to this designated instance is thus assumed to be valid for all

Figure 24: The use of "thus" as an adverb at the medial position

To conclude, the findings revealed that some occurrences were preceded by a comma, a semicolon, a question mark and others by a full stop at the initial position, whereas at the medial position, some ADMs occurred between two commas or without commas in both corpora which seems that it is a matter of style since this does not influence the function of ADMs.

Moreover, the syntactic combination (DM+S1, S2) identified by Fraser (1997) was not found in both NACE and KACE. Besides the syntactic structures such as (S1, DM, S2), (S1, DM S2), (DM+ S1, S2) identified by Fraser (1997) to show the position of DMs, the following syntactic forms were found in NACE and KACE:

(S1, DM, S2), (S1 DM S2), (S1? DM S2?), (S1; DM, S2), (S1+ S2, DM), and (S1 DM, S2).

Discussion

In response to the first research question that, "what is the overall frequency of ADMs in Kurdish Academic Corpus of English (KACE) compared to Native Academic Corpus of English (NACE)?", the findings of the study revealed that the Kurdish scholars underused ADMs in comparison to NSs' use. The percentage of the occurrence of ADMs in the whole corpus of KACE is 0.80% while in the whole corpus of NACE is 0.84%. These findings are in line with Gao (2016), who conducted a study between Chinese learners and NSs research articles, and found that the ADMs were underused by Chinese learners. However, this study is not in line with the study of Rahimi (2011) and Jalalifar and Alipour (2007) who found in their investigations that EFL learners overused ADMs in their written texts compared to English NSs. The findings are also not similar to those of Tadayyon and Farahani (2017) who found that Iranian scholars used ADMs more frequently than NSs. Granger and Tyson (1996) points out; the reason for learners to underuse or overuse the discourse elements is the interference of their mother tongue, and also the lack of detailed description of the connectors' usage in the dictionaries.

In response to the second question that, "what are the overused and underused ADMs in KACE compared to NACE?", the results revealed that the ADM "and" is frequently used by both Kurdish and English NS scholars though "and" is considered to be overused by Kurdish scholars compared to NSs in their written texts covering (916 vs. 899) occurrences. This finding is in line with Tadayyon and Farahani's (2017) and Liu and Braine's (2005) studies where in former "and" overused by Iranian scholars and in latter "and" overused by Chinese undergraduate students compared to NSs. One reason to overuse "and" could be that the term "and" is the first conjunction to be learned in one's first language and its initial use is to show addition. According to the literature, using "and" a lot by writers is to give a stream of information in a more linear way which makes the reader follow what is focused on. On the other hand, it is argued that the over-reliance on the ADM "and" by writers is due to the fact that they try to compensate for their unfamiliarity with the other ADMs.

The second overused ADM by Kurdish scholars compared to NSs is the term "for instance" which accounts for (61 vs. 34) occurrences. This finding is in agreement with Granger and Tyson's (1996) study who found that "for instance" was overused by French learners of English. It is also in line with Altenberg and Tapper's (1998) investigation who found that the Swedish learners overused "for instance" and underused "thus" compared to English NSs. The reason for overusing the ADMs "and" and "for instance" by Kurdish scholars might be attributed to the first language interference such as negative transfer, resulting from their first language (Kurdish). According to Hinkel (2001), one of the reasons that cause this overuse is the interference of learners' mother tongue or first language factors, because as Mauraen (1993) claims, using DMs can vary from one language to another. In other words, this linguistic interference can occur in different levels of language. So, the interference of Kurdish might be a factor to this overuse. For example, "and" equals Kurdish conjunctive of (wa, w), and "for instance" equals Kurdish conjunctive of (bo nmuna) which are considered as the main DMs used to connect sentences in Kurdish. This may also be related to two factors as stated by Crewe (1990); the first one is that learners or writers are trying to impose surface logicity on their written texts, where deep logicity is not necessary. The second reason is that the overuse of DMs might be seen as a way to mask poor writing as writers try overcoming an area of difficulty through the abundance of superficial links.

In addition, it is found from the findings that the rest of the ADMs analyzed in the current study were underused by Kurdish scholars in their published articles compared to English NSs' published articles. The compared frequency for each term are as following: "or" makes up (46 vs. 59), "for example" constitutes (88 vs. 169), "thus" consist of (99 vs. 109) respectively. These underused ADMs are similar to Milton's (2001) study who reported that Chinese learners underused "for example" compared to NSs, while it is contrast to Granger and Tyson's (1996) study who found that "for example" was overused by French learners of English, whereas they underused "thus" which is in line with the present study's underusing of "thus". It is also dissimilar with Liu and Braine's (2005) and Tadayyon and Farahani's (2017) investigations where "or" overused by Chinese learners and Iranian scholars respectively. The findings are also in contrast with Bolton, Nelson, and Hung's (2003) study in which Hong Kong learners overused "thus" in their academic writing.

Granger and Tyson (1996) also propose solutions to the problem of over-underuse of such types by noting that English-language DMs should not be utilized as stylistic enhancers, but should be treated as higher-level discourse elements. They

also state it is essential to pay more attention to how to use DMs and emphasize investigating their usage in authentic texts. They are in agreement with Crewe (1990) who claims that misleading lists of so-called interchangeable DMs that are often used in textbooks should be avoided at all costs and also improper mechanical exercises on some DMs is another reason.

Regarding the third question that, "what is the most frequent sentential position of ADMs in KACE compared to NACE?", it should be stated that according to Biber, Johansson, Leech, Conrad, and Finegan (1999), in academic prose, the most common sentence position for DMs is initial, and the medial positions constitute the second-highest proportion of occurrence, and also final positions are rare. Also, Fraser (1999) states that almost all DMs occur at the initial position (*though* being an exception); fewer occur at the medial position and still fewer in the final position. However, the preference of the ADMs discovered in the current corpora to occur initially is different, since the medial position was used as the first highest proportion of occurrence for employing ADMs in NACE and KACE followed by initial and final locations. This also does not go with what is confirmed as a general characteristic of DMs (including additive) in the literature that they tend to occur sentence-initially (Muller, 2005).

Although, the medial position was overused by Kurdish scholars while they underused the initial position compared to NSs. In addition, the findings are not in line with those of Tanko (2004) and Field and Yip (1992). Field and Yip (1992) discovered that Cantonese L1 speakers utilized significantly more DMs than Australian NSs of English, and were located more often at the initial position of sentences. Also, Tanko (2004) revealed that the most frequent position for DMs in the Hungarian corpus is the initial-sentence position followed by medial position. He suggests that, the learners simply "observe and accurately reproduce linguistic phenomena they encounter frequently (e.g. by reading) and that have a regular pattern" (Tanko, 2004, p.176). Many other previous studies of learners' DM usage have found a tendency to place DMs at the initial position (Altenberg & Tapper, 1998; Granger & Tyson, 1996; Narita, Sato, & Sugiura, 2004). However, in these studies the occurrence position of all the DMs is studied, while in the present study only the sentence position of the top five most frequently used ADMs in the corpora is examined. This could be one reason to use ADMs medially as the most frequent position in KACE and NACE. The second reason might be that, some of the ADMs analyzed in the current study such as "and, or, thus" do not have a changeable position, since they do not occur in the sentence-final position, and this increases their frequency of occurrence at the initial or medial position. As stated by Quirk et al. (1985), many DMs in English can have a changeable sentence position. Even though the initial position is the norm for most DMs, some DMs are common in medial position (e.g. however) or final position (e.g. anyway). The third reason might stem from the fact that the Kurdish scholars and NSs of English overused the ADMs that are drawn from coordinate conjunctions, that is "and" and "or" which occur more frequently at the medial position than that of the front position. On the other hand, NSs relied heavily on these syntactic forms (S1, or, S2) and (S1 or S2) at the medial position, whereas Kurdish scholars of English depended only on this syntactic combination (S1 and S2) in the whole corpus at the medial position. As to the ADM "or", both Kurdish scholars and NSs depended completely on the same sentence structures which are (S1, or, S2) and (S1 or S2) at the medial position.

Conclusion and Pedagogical Implications

As a conclusion of this study aiming at investigating the use of ADMs in the research articles written by Kurdish scholars and English NS scholars, the researchers found that the overall frequency of ADMs in KACE and NACE shows that Kurdish scholars utilize less ADMs than English NSs. Also, they are fully aware of applying punctuation marks for ADMs in their writing but they do not have sufficient knowledge to use them appropriately or native likeness in terms of quantity as they encounter overusing and underusing individual items. It is argued that this problem may originate from language habits and language transfer. Furthermore, they tend to place ADMs most frequently in sentence-medial position, but less frequently in initial and final positions. This is similar to what English NSs do.

On the other hand, ADMs function as ADM at the initial position of sentences, whereas they function as an adverb and a prepositional phrase at the medial and final locations in both NACE and KACE. The findings of this study are similar to other studies. The use of ADMs by Kurdish scholars is similar to some other NNSs. There are many reasons that are responsible for this. One of these reasons is the interference of the mother tongue.

As to the recommendations for Kurdish scholars, they should learn to distinguish the choices of ADMs and try to acquire ADMs in a direct manner. Also, they should learn to use these ADMs in a proper way and to use various items of these markers. Furthermore, they should concentrate more on the restrictions imposed on certain ADMs and improve semantic comprehension of ADMs. In other words, they need to avoid mixing the English language system with their mother tongue.

In general, this study is an attempt to contribute to the achievement of the competence required in discourse. The current study is limited in terms of the restricted number of texts taken from both native and non-native corpora and focusing on only five ADMs (and, or, for example, for instance, thus) and representing a wide range of frequency distribution in texts, it presents 'frequencies'. These limitations of the current study give ground for future research. For future research, more focus may be placed on more than this number of DMs, it can be investigated the most misused, overused and underused DMs using by non-native English learners and focusing on the use of other types of DMs such as (adversative, causal, and temporal) in other journalistic genres as spoken or written discourse and the control corpus could be selected in the same genre.

As to the pedagogical implications, the findings may help the students and second language teachers to improve their language learning and teaching situation. This study may facilitate L2 learners as they may acquire native-like structures. The findings will help them achieve a native likeness. In addition, using ADMs makes learners' compositions more coherent and it has a positive effect on the quality of their writings. They also give a chance to the speaker to clarify their position to explain statement or to make it more informative or finally for the sake of linking old and new information.

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