

An Investigation on Discourse Markers, Fluency and Their Interaction in Study Abroad

Context: a Case Study.

Vladyslav Gilyuk

Department of English, Université Paul Valéry

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Prof. Amanda Edmonds and Prof. Elisa Sneed German

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Abstract

The present study examined the development of Discourse markers (DMs), fluency and their interaction in Study abroad (SA) context. It aimed to find out how did DMs and fluency change during and after SA period and to determine whether the use of DMs can be said to contribute to the development of fluency. The current study is a qualitative case study: five interviews of upper-intermediate learner of English, who spent one academic year in Ireland, were conducted at different points in time (before, during and after SA experience), coded and analyzed. The results showed that both DMs and fluency significantly developed after SA period. Whereas during SA, both showed significant development at the beginning and at the end of SA period, while the results in the middle interviews were lower, but still higher than in the pretest interview. Finally, the results indicated a correlation between the development of DMs and the development of fluency which suggests the acquirement and use of DMs contribute to the development of fluency.

Keywords: Discourse markers, Fluency, Study Abroad, Second Language Acquisition

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1. Introduction

Discourse markers (DMs) constitute a relatively new, but growing field of research. The first studies on DMs were in fact studies on Formulaic sequences (FS), since DMs were considered as one of the subsets of FS (Wray & Perkins, 2000). A lot of studies on FS proved that the development of FS leads to the development of fluency (Boers et al., 2006; Boers and Lindstromberg, 2008; Chen, 2019; Cordier, 2013; Mcguire & Larson-Hall, 2017; Wood, 2006, 2009). Moreover, the importance of context was also highlighted, suggesting that Study abroad (SA) context leads to the development of FS (DeKeyser, 1991; Collentine, 2009; Segalowitz & Freed, 2004; Valls-Ferrer, 2011). However, when it comes to the studies of DMs independently from FS, there is a lack of similar ones. Despite the suggestions that DMs may facilitate the production of speech (Brinton, 2010; Müller, 2005), and thus increase fluency, there have not been any studies in which the impact of DMs on fluency was examined directly. Most of studies on Discourse markers in spoken corpus compared the use of DMs by native and non-native speakers and found that latter ones used much less DMs and linked this finding to lower fluency results (Fuller 2003; Liao 2009; Müller 2005; Sankoff et al. 1997; Trillo 2002). Moreover, all these studies agreed with the suggestion of Sankoff et al. (1997) that “a higher frequency of discourse marker use is the hallmark of the fluent speaker” (p.191), but none of them has measured the development of DMs and the development of fluency directly, and thus “the link between DMs and fluency remains to be addressed in order to describe the specific contribution of DMs to fluency” (Crible, 2017, p.69). Similarly, in contrast to FS, there are no studies on the development of DMs in SA context. Therefore, the present study aims to examine the development of DMs and the development of fluency in SA context and investigate whether DMs contribute to the development of fluency.

The thesis is organized as follows: section 2 presents a brief overview of literature on previous studies. Section 3 presents the research questions and explains methodology.

Section 4 present and discusses the obtained results. Section 5 presents the limitations of the study and suggests the ideas for further research. The conclusions are presented in Section 6.

2. Literature Review

For the needs of this study, the literature review will be divided into three parts: the first sub-subsection will present the literature on phraseological part, where formulaicity and Discourse markers will be explored, the second will analyze the findings on fluency and the third will focus on research in SA context.

2.1. Phraseological part

My research is concentrated on formulaic discourse markers which are a subset of formulaic language. In order to have a clear understanding of what can be considered as formulaic, the definitions and studies on formulaicity will be discussed at first, and then in the same way the definitions and studies on discourse markers will be presented.

2.1.1. Formulaicity

Each time one speaks, they try to use different words and sets of words in order to produce new utterances which differ from the previous ones. However, the ability to produce new unique utterances is limited, according to Hopper (1998), who argued that in most cases people just repeat their already used utterances: “anything that is said has been said in something like that form before” (p.165). Bolinger (1976) suggested that people are naturally predisposed to use something that has already been used before, than to create something new: “the human mind is far less remarkable for its creativity than for the fact that it remembers everything” (p.2). Creativity was opposed to formulaicity, and the latter was studied by Altenberg (1990) who concluded that about 70% of adult native language may be formulaic. Therefore, studying formulaicity may be of particular importance for better

understanding of language production and language in general. However, at first, one needs to define what is formulaicity.

2.1.1.1. Definitions of Formulaicity. The first mentions and definitions of formulaic language were vague, and concentrated mainly on the fact that people tend to use a lot of memorized sequences rather than building new ones each time. For example, Jespersen (1924/1976) suggested that: “a language would be a difficult thing to handle if its speakers had the burden imposed on them of remembering every little item separately” (as cited in Wray, 2002, p.7) and was supported by Bolinger (1976) who argued that “our language does not expect us to build everything starting with lumber, nails, and blueprint, but provides us with an incredibly large number of prefabs” (p.1). Jespersen (1924/1976) also tried to define formulaicity, by proposing that anything that cannot be modified without losing its meaning can be called formulaic:

[It] may be a whole sentence or a group of words, or it may be one word, or it may be only part of a word,— that is not important, but it must always be something which to the actual speech instinct is a unit which cannot be further analyzed or decomposed in the way a free combination can. (As cited in Wray, 2002, p.7)

Similar, but different definition was proposed by Filmore (1979) who also put an emphasis on memorization and fixedness: “‘Formulaic expressions’ are ‘memorized’ rather than ‘generated’ in the sense that they are fixed expressions whose interpretations and functions could not be predicted by somebody who merely knew the grammar and the vocabulary of the language” (pp. 91-92). However, a turning point in research on formulaicity happened in 1983, when Pawley and Syder drew a parallel between memorized sequences and native-likeness. They argued that fluency of native speakers is strongly based on “ready-made expressions” (208) and “memorized clauses and clause-sequences” (p.208): “Indeed, we believe that memorized sentences and phrases are the normal building blocks of

fluent spoken discourse” (p.218). Fluency is achieved because the user of such sequences does not need to invent new ones but rather use the memorized ones: “Coming ready-made, the memorized sequences need little encoding work. Freed from the task of composing such sequences word-by-word, so to speak, the speaker can channel his energies into other activities” (p. 208). Pawley and Syder’s (1983) suggestion of the importance of memorized sequences was supported by Edmondson et al. (1984), who argued that non-native speakers use less memorized sequences and sometimes may use them inappropriately what makes their speech non-fluent and non-native like. Lennon (1990) and Schmidt (1992) also confirmed Pawley and Syder’s (1983) suggestion and stressed the necessity of noticing and learning of such sequences for non-native speakers.

The researchers used various terms to refer to these sequences, but Wray (2002) having presented 60 terms, which relate to different aspects of formulaicity, proposed to use the term “formulaic sequences” (FS) and provided one of the most used definition of FS:

A sequence, continuous or discontinuous, of words or other elements, which is, or appears to be, prefabricated: that is, stored and retrieved whole from memory at the time of use, rather than being subject to generation or analysis by the language grammar. (p.9)

Another well-known researcher, Wood (2006), proposed similar, but more detailed definition which was concentrated on the impact of FS on fluency:

Formulaic sequences are fixed combinations of words that have a range of functions and uses in speech production and communication, and seem to be cognitively stored and retrieved by speakers as if they were single words. They can facilitate fluency in speech by making pauses shorter and less frequent, and allowing longer runs of speech between pauses. (p.13)

Both definitions were called “speaker-internal” in recent article by Myles and Cordier (2017), who drew the attention to the multiplicity of meanings and definitions of FS. Using the terms “speaking-external” and “speaking-internal” (originally proposed by Wray (2008)) they divided definitions on two categories: the studies which were concentrated on idiomatic expressions, collocations and lexical bundles (e.g. “Irujo, 1993, ... Foster, 2001 ... Chen & Baker, 2010; Farghal & Obiedat, 1995; Laufer & Waldman, 2011” (Myles & Cordier, 2017, p.6)) were marked as ones that have “Speaker-External Approaches to Formulaicity” (p.6), whereas more widespread studies which put an emphasis on not necessarily idiomatic multiword sequences which are holistically stored (e.g. Wray & Pekins 2000; Wray 2002, 2012; Wood 2006, 2009; Cordier 2013) were marked as ones that have “Speaker-Internal [or psycholinguistic] Approach to Formulaicity. Myles and Cordier (2017) also criticized previous speaker-internal definitions and proposed their own, that focuses on the advantage of formulaic sequences: “A psycholinguistic FS is a multiword semantic/functional unit that presents a processing advantage for a given speaker, either because it is stored whole in their lexicon or because it is highly automatized” (p.10). However, they underlined that their definition may not be used for all studies and stated that there is a need for further investigation of FS definitions.

2.1.1.2 Studies on Formulaic Sequences. A lot of researchers tried to confirm or deny various claims about FS. In this section, I will focus on the relevant FS studies for my research which are connected to fluency and/or learning context.

The majority of researchers focused their attention on instructed teaching of formulaic sequences and its effects on fluency. For example, the studies of Boers et al. (2006) and of Boers and Lindstromberg (2008) examined the impact of formulaic sequences on fluency and showed the positive outcomes of using an instructional method (making students notice FS on purpose) for learners’ fluency. The study by Taguchi (2008), in which students were

taught grammatical chunks, in contrast, showed no gains in fluency (although showed the development of complexity of speech). However, the following year, Wood (2009) suggested that teachers may have more influence on the fluency development of their students by using “focused instruction of formulaic sequences” (p.39) and confirmed it in a case study, by presenting the increase in student’s fluency as a result of instructed teaching of formulaic sequences. Furthermore, the study by McGuire and Larson-Hall (2017) also proved the effectiveness of explicit teaching of formulaic sequences on fluency development, by the comparison of the results of two groups (control group (task-based approach) and treatment group (explicit approach)). Finally, Chen (2019) using a directional association measure also showed that formulaicity increased with proficiency.

When it comes to the uninstructed/natural methods of FS learning, they were mostly associated with studying abroad. However, only a few studies investigated the development of FS and fluency in such SA context. For example, the study of Arvidsson (2019b) took a speaker-external approach to formulaicity and focused on the development of idiomaticity in SA. The study showed that SA context played a key role in increasing of idiomaticity: “a relatively varied TL [target language] contact in combination with a favorable psychological orientation and/or a social network including TL speakers promote the development of L2 idiomaticity during the semester abroad”. Another researcher, Cordier (2013), applied speaker-internal approach to formulaicity: “this study seeks to evaluate and characterize the presence of psycholinguistically-defined FS” (p.i). She conducted a longitudinal study that showed significant correlations between the use of formulaic sequences and both the development of fluency and lexical diversity as a result of influence of SA context.

To conclude, the presented above studies showed that FS tend to develop fluency. However, the main problem about FS is its vast field, which results in differences in defining and using approaches (speaker-internal vs speaker-external) for identification of formulaic

sequences, which, in its turn, may cause contradictory results in studies on FS. Therefore, it may be useful to study a concrete part or parts of formulaicity along with fluency in order to get more trustworthy results.

2.1.2. Discourse Markers

Formulaicity, is a vast and complex field, which was compared to the elephant by Wray (2012): “formulaic language is like the elephant differently described by blind men with access to different parts of its huge mass” (p.239). Because of its “huge mass” some researchers concentrated only on one part of the “elephant”, arguing that it will give more detailed and qualitative results. For the needs of my study I will also concentrate on one part of the “elephant” — on “small”, “inconspicuous” formulaic words and phrases which are called — Discourse Markers.

2.1.2.1. Definitions of Discourse markers. According to Cambridge Dictionary, Discourse markers “are words or phrases like anyway, right, okay, as I say, to begin with [that are used] to connect, organize and manage what we say or write or to express attitude” (“Discourse markers,” n.d.). However, such definition may be considered too general by the researchers who tackled DMs from different perspectives.

For instance, Quirk (1953) was one of the first researchers who underlined the role of words like: “well”, “you know”, “you see”:

It is easily demonstrable that these play, from the point of view of grammatical structure, no part in the transmission of information, yet not only is our present-day colloquy constantly embellished with them, but popular talk stretching back to Shakespeare and beyond has been similarly peppered with these [at first sight] apparently useless and meaningless items ... [which in fact] in our everyday talk, are of considerable importance. (as cited in Chen, 2019, p.2)

Another researcher, Levinson (1983) stressed the need of further investigation (“We still await proper studies of these terms” (p.88)) of “words and phrases in English, and no doubt in most languages, that indicate the relationship between an utterance and the prior discourse. Examples are utterance-initial usages of but, therefore [...]” (p.87). Schiffrin (1987) was among the first researchers who used the term “Discourse Markers” defined as “sequentially dependent elements which bracket units of talk that signal relationships between immediately adjacent units of talk, and which have thus a coherence building function on a local coherence level” (p.31). Schiffrin (1987) also proposed that all DMs (except “oh” and “well”) contain meaning (p.314). Schiffrin’s suggestion was later developed by Redeker (1991) and Fraser (1990, 1999). For example, Fraser (1990) suggested that without DMs, there may be a “communicative breakdown” (p.390). He defined discourse markers several times, the one of his most cited definition emphasized that DMs have a “core meaning”:

I define DMs as a pragmatic class, lexical expressions drawn from the syntactic classes of conjunctions, adverbials, and prepositional phrases. With certain exceptions, they signal a relationship between the segment they introduce, S2, and the prior segment, S1. They have a core meaning which is procedural, not conceptual, and their more specific interpretation is ‘negotiated’ by the context, both linguistic and conceptual. (Fraser, 1999, p.950)

However, more recent studies argued that DMs may not necessarily contain meaning, but play rather an interactive role: “discourse markers because they are elements that have no apparent meaning or grammatical ascription, are elusive to classification, but play a fundamental role in the pragmatic structure of interaction” (Trillo, 2002, p.774). Aijmer (2004) also suggested that discourse markers are used for “creating a space for planning what to say” (p.177) and “also used as strategies when the learners have communication problems”

(p.188). Similarly, Müller (2005) declared that DMs may function “as a filler or delaying tactic” (p.9) or may be used “to aid the speaker in holding the floor” (p.9). Furthermore, Brinton (2010) proposed that DMs have a restricted meaning or no meaning at all, and are mainly used “to assist in turn taking in oral discourse or “chunking” ... in written discourse” (p.6). Finally, Chen (2019) underlined that DMs may be optional (if DM is taken out of sentence – nothing changes for the meaning and/or grammar of sentence) in two ways:

Firstly, they are almost universally regarded as syntactically optional in the sense that removal of a DM does not alter the grammaticality of its host sentence. Secondly, DMs are also widely claimed to be optional in the further sense that they do not enlarge the possibilities for semantic relationship between the elements they associate. (p.7)

Also, differences in definitions may have happened due to fact that various terms were used interchangeably or as alternatives of DMs by researchers: “Pragmatic Markers” (Fraser, 1990, 1996, 1999,) “Discourse Particles” (Aijmer, 2002) “Discourse Operators” (Redeker, 1991) and 15 others presented in Fraser (2009, p.294). Although, the term “Discourse Markers” has been established and used in most of the studies (Fraser, 2009), there are still issues with its defining that “deserve a further explorative effort” (Chen, 2019, p.8) which should help to establish one common definition. However, it was also suggested that there may be no unique definition, and thus, one should be made depending on the purpose of the study.

2.1.2.2. Studies on Discourse Markers. The majority of articles on DMs, as it was shown above, are rather theoretical, suggesting definitions and describing the functions of DMs, whereas the studies which aim to check how DMs are used in practice are limited. Especially limited are the ones in spoken corpus, as they are considered to be more challenging than in written corpus. The importance of distinguishing spoken DMs from

written ones was pointed out by many researchers, for example, Ajimer (2004) suggested that there are some DMs that are more used in spoken corpus: “Certain linguistic items are more characteristic of speech than of writing or occur only in speech. Lexical items “peculiar to spoken language” are, for example, well, you know, you see, actually, sort of, ect. (Stenstrom 1990)” (p.174). Biber (2006) also emphasized the differences between the corpora, by claiming that there are some DMs that are “restricted primarily to spoken discourse” (p.66) and some which “are primarily characteristic of written registers” (p. 70). Crible and Cuenca (2017) wrote that written corpus is more developed for studies as it is more fixed (for example, Fraser’s (2009) taxonomy is used by the most of researchers for identifying DMs in written corpus; moreover, there are possibilities for automatic identification of written DMs which makes the studies in written corpus much easier), while spoken DMs are more multifunctional and cannot be studied in the same way and according to the same taxonomies as written ones: “It is generally acknowledged that Discourse markers are used differently in speech and writing, yet many general descriptions and most annotation frameworks are written-based, thus partially unfit to be applied in spoken corpora” (Crible & Cuenca, 2017, p.149).

Despite the suggestions that DMs may facilitate the production of speech (Brinton, 2010; Müller, 2005) and thus increase fluency, there have not been any studies in which the impact of DMs on fluency was examined directly. Instead, a lot of studies compared the use of DMs between non-native speakers (NNS) and native speakers (NS) and mentioned fluency indirectly or did not mention it at all (therefore, the relation between DMs and fluency may be only discovered by the discussion of the differences in the results between NNS and NS). For example, the study of De Cock et al. (1998) showed that the lack of formulae (which were in fact DMs: “you know”, “I mean”, “in fact” [...] (p.74)) in NNS speech, which resulted in dysfluency: “underuse of formulae by learners, potentially compensated for by the

use of more repetition and filled pauses. In other words, these features may be signs of higher dysfluency in learner speech” (p.74). Therefore, the suggestion that fluency may be influenced by DMs can be made. The same results were shown by Trillo (2002) and Fuller (2003) in comparison of non-native and native adults. Müller (2005) and Liao (2009) also pointed out the lack of DMs in oral productions of NNS and their restricted use (NNS mainly relied on the same DMs). In a different way was organized the study by Sankoff et al. (1997) which compared the use of DMs within the same speakers in Montreal in their L1 and L2. The study showed a greater use of DMs in the first language (“a ratio of about 3:1” (p.213)) and connected the frequent use of DMs with fluency: “a higher frequency of discourse marker use is the hallmark of the fluent speaker” (p.191), and the lack of DMs with dysfluency:

It is clear from the results on the overall use of markers that the least fluent, least competent L2 speakers used almost no discourse markers, and those who did not use discourse markers often produced speech that was in other ways dysfluent.
(p.213)

Moreover, Sankoff et al. (1997) highlighted the importance of natural context for the development of DMs (and consequently fluency): “As a feature that is not explicitly taught in school, mastery of the appropriate use of discourse markers is thus particularly revealing of the speakers' integration into the local speech community” (p.191).

To conclude, all these studies assessed DMs and fluency only partially or indirectly, and there is still a need for a more detailed research: “the link between DMs and fluency remains to be addressed in order to describe the specific contribution of DMs to fluency” (Crible, 2017, p.69).

2.2. Fluency

Fluency is one of the most studied topics in first and second language acquisition. Most often, fluency is measured in reading, writing and speaking, among others. For the needs of this study, I will focus on oral fluency or in other words, fluency in speech production. At first, the definitions of fluency will be reviewed and after the measurement of fluency in studies will be discussed.

2.2.1. *Definitions of Fluency*

Fluency in speech has always been associated with nativelikeness, because native speakers are considered to be much more fluent than non-native ones (Deschamps, 1980). The term “native-like fluency” (191) was developed by Pawley and Syder (1983) and defined as “the native speaker’s ability to produce fluent stretches of discourse” (p. 191). Richards et al. (1985) also underlined the importance of nativelikeness by defining fluency as: “the features which give speech the qualities of being natural and normal, including native-like use of pausing, rhythm, intonation, stress, rate of speaking, and use of interjections and interruptions” (p. 108). These definitions were considered too broad by Lennon (1990) who presented two own definitions: the first one underlined the three major processes (which Segalowitz (2010) would successfully develop later): “[1] an impression on the listener’s part that the psycholinguistic processes of [2]speech planning and [3]speech production are functioning easily and efficiently” (p.391), while the second one was more narrow and practical for studies on fluency: “a working definition of fluency might be that rapid, smooth, accurate, lucid, and efficient translation of thought or communicative intention into language under the temporal constraints of on-line processing” (Lennon, 2000, p.26). Similar definition was proposed by Segalowitz (2003) who defined fluency as: “an ability in the second language to produce or comprehend utterances smoothly, rapidly and accurately”. At the same time, two contradicting approaches (Individual Differences Approach and Universalist

Approach), which aimed to explain the differences in fluency among non-native speakers, were developed. Individual Differences approach supported by Kormos (1999) and Shekan (2002), suggested that the differences in learner's individual abilities (e.g memorization or learning strategies) may be the reason of being less or more fluent. Whereas, Universalist Approach declared that the differences in fluency are rather the result of "automatization of encoding processes, previous proceduralization from declarative knowledge" (Vallas-Ferrer, 2011, p.67), suggesting that in order to be more fluent one needs to do more practice in oral production and in such way automatize his speech (DeKeyser, 1997; Segalowitz, 2000; Towell et al., 1996). Brown (2003) also argued that fluency is something that can be achieved by working on it rather than having special aptitudes to it:

Fluency is probably not an absolute characteristic that students either have or do not have. If, in fact, fluency is a matter of degrees, students at any level of proficiency can probably achieve some degree of fluency. (p.7)

However, despite the fact that fluency is a "complex phenomenon" (Freed et al., 2004, p.279) and may have contradicting approaches to it, there is no lack of understanding of what fluency is, among ordinary people. For example, Freed et al. (2004) concluded that the students' simple definitions of fluency such as: "speaking quickly and smoothly," "speaking without saying um, without hesitations," "being bilingual," "speaking perfectly," "the ability to make jokes in a language," and "talking easily" (p.277) were similar to the definitions of researchers. However, according to Segalowitz (2010), all previous definitions cannot be considered reliable, because they did not fully describe all dimensions of fluency. Segalowitz (2010, p.165) developed the definition of Lennon (1990, p.391) by distinguishing three constructs of fluency: cognitive fluency, utterance fluency and perceived fluency. He suggested that each of three dimensions is responsible for the concrete part of fluency, for example, cognitive fluency defined as: "the speaker's ability to efficiently mobilize and

integrate the underlying cognitive processes responsible for producing utterances with the characteristics that they have” (p.165) is responsible for speech planning, utterance fluency defined as : “the features of utterances that reflect the speakers’ cognitive fluency” (p.165) is responsible for speech production, and perceived fluency defined as “the inferences listeners make about speakers’ cognitive fluency based on their perceptions” (p.165) is responsible for listeners’ perception of speech.

Although these three constructs of fluency are deeply interconnected, their distinction clarified the issues concerning fluency measurement. It was concluded that measuring of utterance fluency, using temporal variables, is the most objective (especially in contrast to measuring of perceived fluency) way to measure fluency.

2.2.2. Measurements in Fluency Studies

Generally, fluency has been measured in two ways:

Many studies examining fluency in second language acquisition have focused either on speakers’ productions (Raupach, 1980; Towell, Hawkins & Bazergui, 1996; Rigggenbach, 2000; Freed, Segalowitz & Dewey, 2004; among others), or to a lesser extent, on listeners’ perceptions, using judgments from raters (Ejzenberg, 1992; Trofimovich & Baker, 2006). (Valls-Ferrer, 2011, p.66)

According to Segalowitz’s (2010) definition, the researchers who measured “speakers’ production” – measured utterance fluency, whereas, the researcher who measured “listeners’ perceptions” – measured perceived fluency. Measurement of perceived fluency is generally regarded as too subjective, because it totally depends on individual differences of judges’ perception, whereas measurement of utterance fluency is considered to be much more objective, because it is based on concrete fixed measures that exclude or minimize subjectivity. However, in order to measure the latter construct of fluency, one needs to decide what kinds of measures should be used. For instance, Raupach (1980) suggested that

temporal measures such as speech rate, articulation rate, length of runs and hesitations in form of silent pauses and their length, may be used to measure fluency. In contrast, Lennon, (1990) and Freed (1995) argued that measuring of speech rate and phonological rate may be enough. Towell et al. (1996) were the first researchers who used the mean length of runs; they argued that two measures: speech rate and mean length of runs reflect the changes in fluency in the most accurate way. Later, Towell (2002) described these temporal measures as “objective measurements of the output of the productions which must lie behind language processing” (p.119) and also underlined the importance of changes in pauses which mirrored changes in fluency. Cucchiari et al. (2002) and Kormos and Denes (2004) argued that the use of both temporal and hesitation measurements gives more possibilities for studying and assessing fluency. The controversies in choosing the most appropriate measures were summed up by Kormos (2006). She described different combination of measures, used in previous studies, and concluded that the choice of measures should be based on the goals and needs of the particular study. Therefore, for the needs of my study, I will present the measures of fluency which were used in studies which are similar to mine.

For instance, the study of Segalowitz and Freed (2004) investigated the impact of learning context (AH vs SA) on oral fluency of university students in their L2. In pretest and posttest interviews, the utterance fluency was measured:

in terms of four temporal or hesitation-based measures: speech rate, mean run length containing no silent pauses or hesitations greater than 400 ms, mean run length containing no filled pauses (e.g., um, ah), and longest run containing no silent or filled pauses. (p.175)

The measures provided by Segalowitz and Freed (2004) may be especially useful in comparisons of fluency. However, more measures were used by Wood (2006, 2009) who investigated the role of formulaic sequences in fluency development of students' L2. He

suggested that utterance fluency should be measured in terms of “rate of speech, measured as syllables uttered per minute, amount of pauses and the length of runs, measured as number of syllables uttered between pauses” (Wood, 2009, p.41) and in that way showing how fluency changes over time. Whereas, in order to check whether the changes in fluency and in the use of formulaic sequences correlate, two measures were used:

mean length of run (MLR), calculated by dividing the total number of syllables uttered for a speech sample by the number of runs between pauses; and formula/run ratio (FRR), calculated by dividing the total number of formulas in a sample by the number of runs. (Wood 2006, p.19)

Both Wood (2006, 2009) and Segalowitz and Freed (2004) used temporal and hesitation measures. However, one of the most important differences in their measurements consisted in choosing a threshold for pauses.

Segalowitz and Freed (2004) set the threshold of 400 milliseconds, using Freed’s (2000) suggestions that “only those unfilled pauses [(\geq 0.4 a second or larger)]... [are] heard as dysfluent” (p.248). Whereas, Wood (2009), basing on Towell’s et al. (1996) suggestion of 250ms to 300ms threshold, set the lower cut-off point at 300ms . He argued that: “anything less than 0.3 seconds is easily confused in a spectrogram with other speech phenomena such as the stop phase of a plosive sound, and anything longer can omit significant pause phenomena” (p.46). Moreover, the study of Jong and Bosker (2013), in order to set the most reliable threshold, compared the correlation between cut-off points from 50 to 400 milliseconds and fluency. The results of the study showed that the threshold should be neither shorter than 250ms because it “leads to a measure of fluency that is less strongly related to L2 proficiency” (p.2) nor longer than 300ms which also “leads to lower correlations” (p.20). Furthermore, the most optimal threshold was considered to be set at 250ms: “we therefore

conclude that for the purpose of L2 research, the traditional cut-off point of 250ms is a good choice” (p.20).

2.3. Learning context – Study Abroad

In the second half of the 20th century, studying in a foreign country was becoming more and more popular among university students. Various student exchange programs, which aimed at establishing the connections between the universities and thus giving more opportunities for studying in a foreign country, were founded. For example, the most popular European exchange program Erasmus+ was founded in 1987, as a result, 3,244 students went abroad to study at the same year. Since then, the number of participants has been raising with every year; according to the last official Erasmus+ report in 2018: “Erasmus+ supported more than 850,000 mobilities, who benefited from learning, working or volunteering abroad” (*Erasmus+*, p.9).

However, studying abroad provides new opportunities not only for students (or other participants of the program), but also for the researchers, by opening a vast field for the research. Firstly, I will present the definitions and general findings in studies in SA context, and then more detailed studies on DMs in SA context will be discussed.

2.3.1. Definitions and Studies on SA context

According to Peterson et al. (2007), Study abroad is defined as “education abroad that results in progress toward an academic degree at a student’s home institution” (p.176). But, the progress from SA is not limited only to an academic degree, as Meyer-Lee and Evans (2007) suggest: “[it] can be broadly classified into four categories of development: language learning, intercultural competence (including host-culture-specific knowledge), disciplinary knowledge, and social growth” (p. 63). Each of these categories is important, but the first one plays a key role in the development of the others and is being paid a lot of attention from the

SLA researches. Second language acquisition is closely linked with a learning context; and different contexts (e.g. SA or AT) may have drastically different effects on it:

One of the most important variables that affects the nature and the extent to which learners acquire a second language (L2) is the context of learning, that is, whether the learning takes place within the society in which the L2 is productive or where the first language (L1) is productive. (Collentine, 2009 p. 218)

According to Valls-Ferrer (2011), there are various factors “such as quantity and quality of input, output, practice, learning opportunities, interaction, etc. [that] make the two contexts differ” (p.14). Also, the possibility to use L2 not only in formal settings is crucial: “out-of-class language contact, important because the greater opportunities for such contact afforded by the SA context is one of the features that strikingly contrasts with other learning contexts” (Segalowitz & Freed, 2004, p.192). The differences between the learning contexts mean that there should also be the differences in their outcomes.

Probably there would have been no surprise if SA which seemed to have serious advantages would be considered as the best learning context:

It is generally assumed that study abroad should confer greater benefits because students have greater access to native speakers (NSs). In a SA context, learners encounter more—and more varied—opportunities to use the language outside the classroom, and they are regularly exposed to the L2 more intensively through the local media than they would be “at home”. (Segalowitz & Freed, 2004, p.174)

However, the researchers showed that SA is not an ideal context. The majority of studies found that the SA (in comparison to AH) has the most positive effects on oral skills, underlining the increase in oral fluency (Collentine, 2004; Freed et al., 2004; Segalowitz & Freed 2004), and on the general development of vocabulary knowledge (Collentine, 2004; DeKeyser, 1991; Lennon, 1990). However, the cases of grammar and writing abilities were

not so flourishing in SA, for example Raupach (1983), and Freed et al. (2003) found that writing skills were better developed in AH context; SA also showed worse results in grammar in Collentine's (2004) research. These studies, which were organized to find out the possible benefits of SA context, mainly concentrated on one or two linguistic aspects only, whereas a research by Segalowitz et al. (2004) tried to embrace all aspects mentioned above (and even more) in one study. The study, which was conducted by 6 well-known researchers (Segalowitz, Freed, Collentine, Lafford, Lazar and Díaz-Campos) on 46 American students of Spanish, aimed to compare "differences in the linguistic gains [...] We examined the gains students made on a number of linguistic dimensions: oral proficiency, oral fluency, grammar, vocabulary, pronunciation, and communication strategies" (p.1) and other less important "background factors" (p.1) in two different context (26 students in SA and 20 students in AH). This study may be seen as a recap of previous studies as its results combine the previous findings in one paper: the increase in fluency: "results suggest that the Study Abroad group made important gains in both oral proficiency and oral fluency gains" (p.8), the development of vocabulary in students, who started using more words which "were informationally rich" (p.8) and no positive results in grammar: "the Study Abroad experience did not result in overall improved grammatical abilities" (p.8) or any other linguistic aspects.

2.3.2. Studies on Discourse markers in SA context

The above-mentioned studies showed the significant gains in oral fluency and the development of vocabulary in general after SA experience. However, the development of vocabulary may show different results depending on the category that is measured. Therefore, the researches started to conduct much more specified studies on its certain categories in SA context. For example, Arvidsson focused on "multiword expressions" in two contradicting studies. In the first study (Arvidsson 2019a), conducted on 41 Swedish learners of French who spent a semester in France, she checked the impact of SA on the possible development

of multiword expressions (“‘prefabs’, ‘conventional sequences’, and ‘formulaic sequences’ [...] shall be referred to here as multiword expressions (MWEs)” (p.146)). However, no gain was found: “Contrary to the expectations, the results showed that quantity of out-of-class TL contact did not predict the development of MWE knowledge during the semester abroad” (p.163). Nevertheless, in the second study, Arvidsson et al. (2019) explored the impact of the social context on the acquisition of the second language of two Swedish learners of French during a semester in France. And that time, the results showed the development of multiword expressions: “un avantage supplémentaire en ce qui concerne le développement du répertoire des expressions polylexicales (EPL) de l’apprenant” (p.255), but no development was found in grammatical accuracy, lexical diversity or most importantly for this study - in the use of Discourse markers: “mais non pas le développement de l’exactitude grammaticale, de la diversité lexicale et de l’usage des marqueurs discursifs” (p.255). However, when it comes to the use of DMs, some researchers showed more positive results. For example, the study of Liao (2009) showed that 6 Chinese students of English that spent between two and four years in the United States “have all acquired native use of DMs to some extent, they either obtained partial acquisition or revealed some discrepancy from NSs in the usage of the individual function of DM” (p.1326). Moreover, Magliacane and Howard (2019) made even more detailed study, which focused only in the use and the development of pragmatic marker (the term PM was used interchangeably with DM in this study) “like” in comparison to its use by native speakers. The study found that 30 Italian learners of English, who spent six month in Ireland

significantly increased their use of ‘like’ as a discourse structurer in conversation and as a focuser device. These findings are particularly revealing when considered in terms of their destination of stay where the use of ‘like’ as a discourse structurer and a focuser in conversation was very frequent in the NS group (p.83)

Having analyzed the literature above, it can be concluded that SA is clearly contributes to the development of fluency, while the studies on the effects of SA on Discourse markers are not speaking in one voice and leave room for further research.

3. The study

The present study is a longitudinal, qualitative case study that examines the development of DMs, fluency and their interaction during SA period in the interviews of a French-speaking, upper-intermediate learner of English who spent an academic year in Ireland.

The study aims to answer the following Research Questions:

1. To what extent did the use of Discourse markers change during and after an academic year in SA context?
2. To what extent did oral fluency change during and after an academic year in SA context?
3. Do the changes in the use of Discourse markers appear to correlate with changes in fluency in SA context?

3.1. Method section

This section describes how the study was organized. It provides the information about the participant, and explains how data was collected, coded and analyzed.

3.1.1. Participants

The participant was a 19/20 year old, female native speaker of French, spending one academic year in Dublin, Ireland. Lucy (pseudonym) was in her third year of undergraduate studies in Applied Foreign Languages (English + Italian) at Université Paul-Valéry, Montpellier, France. She was an upper-intermediate learner of English who had mainly studied English formally and has never been to an English-speaking country for a long period

of time. She spent 9 months in Dublin, being surrounded by native and non-native speakers of English in both formal (lectures and seminars in the university) and informal (her dormitory, where students from different countries used English as lingua franca) contexts.

3.1.2. Data collection

The format of the interview was used as a methodological tool for data collection. The interviews allow getting more accurate and qualitative data by accessing the participant more directly: “in an interview a rapport is established between the interviewer and the interviewee. Not only is physical distance between them annihilated, the social and cultural barrier is also removed; and a free mutual flow of ideas to and fro takes place” (Pandey & Pandey, 2015, p.60). The data presented in this study was obtained from the participant at five different points: before, during and after an academic year 2018/2019. The first interview took place in June, in France, before Lucy went abroad; the second was conducted in November, already in Ireland (the first interview after an immersion in English-speaking society); the third and fourth were conducted in February and March respectively, in Ireland; the last fifth interview took place in France, in June of next year, after “the return of the soldier”. All five interviews were recorded on camera and were conducted by Prof. Amanda Edmonds and/or Prof. Pascale Leclercq (originally for their project/s). In order to get as close to participant’s usual use of English as possible, no corrective feedback was given during these interviews, however, the interviewee was helped with the words which were forgotten or unknown to her. The interviews consisted of the open-ended questions and small remarks made by the interviewer/s and mostly long, broad and full answers (depending on the topic) of the interviewee. The questions posed by the interviewer concentrated mainly on the interviewee herself: general information about herself, her study and life experience in Ireland, the use of English and problems faced during her year abroad. In that way, the interviewer/s aimed at making the interviewee more talkative and producing more data (the

conversations were about 20-30 minutes long) when speaking about the topics the student was familiar with.

3.1.3. Data coding and analysis

First of all, the interviews were manually transcribed in CLAN (Computerized Language ANalysis) which is considered to be one of the best tools for transcription of audio or video recordings (MacWhinney & Wagner, 2010). The transcriptions in CLAN were organized in form of separate utterances (one verb corresponds to one utterance), moreover, each utterance was linked to the corresponding segment of a video file (such organization allows more options for investigations on these interviews in future studies). The transcriptions were conducted with paying attention to the smallest details of participant's speech, for example, all repetitions, errors or reformulations were marked as such with special transcription codes, in order to preserve all particularities of Lucy's natural use of English.

3.1.3.1. Discourse markers. In order to analyze DMs, one needs to define them. The definition of DMs in this study was based on previous suggestions and findings of Trillo (2002), Ajimer (2004), Wood (2008) and Myles & Cordier (2017). It takes more psycholinguistic, speaker-internal approach, underlining the importance of DMs in production of speech, but not in production of meaning:

Discourse marker is a word or expression that serves an interactive purpose rather than has a core meaning; it provides a processing advantage for a speaker, but is not integrated in grammar of sentence.

In order to identify DMs, the transcriptions from CLAN were copied to Word file, and then DMs were manually identified, according to the presented above definition. The process of identification was manual and not automatic, because in order to mark a word or expression as a DM, one needs to look at the context. For instance, words "yeah" or "yes"

were counted as DMs when they were used to start the sentence/utterance or were repeated several times, thus playing rather an interactive role, and were not when they were used meaningfully, for example, to answer to the questions. The expressions like “you know” or “I don’t know” were also counted as DMs, when they were used repeatedly in the same manner, that signaled that they were holistically stored and retrieved already fixed from memory, usually when the speaker could not develop her thought and wished to finish the started sequence. Coordinating conjunctions like “but” or “and” were not classified as DMs, when they were used in order to coordinate two clauses or words (e.g. “English *and* Italian” or “I understand, *but* I don’t speak”) and were classified when they were not coordinating, but starting (and sometimes ending) a sentence/utterance (e.g. “I’m not really fluent... *But* I don’t have much vocabulary”). The most confusing words for identification were “just” and “like”. Word “just” was not considered as DM when it meant “only” (e.g. “*just* the first few months”) and word “like”, when functioned as a verb (e.g. “yeah i like watching movies”) or used to make an example or comparison (e.g. “like &euh cinema”), whereas in other cases when these words did not contribute to the semantic meaning of sentence and were functioning as “structures” (Magliacane & Howard, 2019, p.4) which start or link the sequences (e.g. “euh so maybe *just* &heuh learn new things, *just* that i wouldn’t have learned”), they were identified as DMs. Once all DMs were manually identified in each transcript of 5 interviews, they were extracted to an Excel file, for further analysis.

In order to measure changes in the use of the DMs, they were analyzed at first for the number of Types, the number of new Types and the number of Tokens, and then Type-Token Ratio was counted. In this study, the number of DMs was referred to as the number of Tokens, and the number of different concrete DMs was referred to as the number of Types (e.g. DM “so” used 70 times (70 Tokens) was marked as only 1 Type, DM “just” used 1 time (1 Token) was also marked as 1 Type). Types, new Types (the DMs that have not been used

in any of previous interviews) Tokens and Type-token ratio (counted as: the number of Types divided by the number of Tokens, and multiplied by 100 %) were counted either manually or semi-automatically in Excel. The changes in these measurements should reflect the possible development (or decline) of the speaker's use of DMs during and after a period spent in SA context.

3.1.3.2. Fluency. First of all, for the needs of this study, it was decided to use 10 longest sequences (time when the participant was talking without being interrupted) from each interview for fluency measurement (the analysis of entire interviews is very time-consuming and therefore, may be used in larger studies). Lucy's 10 longest sequences in each of 5 interviews were manually identified by listening to the audio-versions of the interviews in Praat (program software used for speech analysis (Boersma & van Heuven, 2001)), and were extracted from these interviews to separate audio-files (1 sequence – 1 audio file; 50 audio files in total were extracted from 5 interviews). Each audio-file was automatically annotated by Praat for silent and sounding intervals, labeled as “#” and “IPU” (inter-pausal unit) respectively; silent threshold was set at 250ms, as it was proven to be the most optimal one by Jong and Bosker (2013). However, the analysis by Praat was not always correct and did not identify other important phenomena for fluency measurement, such as filled pauses and laugh. Therefore, the annotations of the audio-files were done either totally manually or by correcting Praat's annotations and manually distinguishing filled pauses (“fp”) and laugh (“laugh”). When the annotation in Praat was finished, the data about the duration of each of four labels (“#”, “IPU”, “fp” and “laugh”) from all 50 sequences was extracted to an Excel file (1 Excel sheet - 1 interview (10 sequences), where the total number and the total length of these labels (from each interview) were counted. Also, the total duration of each interview (10 sequences) and the total number of syllables in them were counted for further fluency measurement.

For the purpose of this study, it was decided to measure the utterance fluency, because only this construct of fluency, as suggested by Segalowitz (2010), can be measured objectively. Similarly to Segalowitz and Freed (2004) and Wood (2006, 2009), in this study, measures of both temporal and hesitation phenomena were used in order to check the changes of speaker's fluency. Temporal variables: speech rate and mean length of runs were used, because they were proven to be the most accurate reflectors of the changes in speaker's speech production (Towell, 2002) and 4 hesitation phenomena: the number and the mean length of silent pauses and the number and the mean length of filled pauses were also used, because their measurement, by allowing to have a deeper insight on speaker's hesitations and fluidity in speech, complements the temporal measures (Kormos & Denes, 2004), and thus more detailed and accurate results are obtained. Basing on Kormos (2006), these measures were calculated in the following way:

- 1) Speech Rate (SR) was expressed per minute, and calculated as: total number of syllables divided by total time (including both silent and filled pauses) and multiplied by 60 (sec).
- 2) Mean length of runs (MLoR) was calculated as: total number of syllables divided by total number of runs (IPUs).
- 3) The number of silent pauses (NoSP) per minute was calculated as: total number of silent pauses divided by total time (including both silent and filled pauses) and multiplied by 60 (sec).
- 4) The mean length of silent pauses (MLoSP) was calculated as: total length of silent pauses divided by total number of silent pauses.
- 5) The number of filled pauses (NoFP) per minute was calculated as: total number of filled pauses divided by total time ((including both silent and filled pauses) and multiplied by 60(sec).

6) The mean length of filled pauses (MLoFP) was calculated as: total length of filled pauses divided by total number of filled pauses.

The calculations were done in Excel. The results of these measures are presented and discussed in the following section.

4. Results and discussion

This section will be divided into three parts: DMs in SA context, Fluency in SA context and Interaction of DMs and Fluency in SA context. Each part will present and discuss the obtained results in order to answer the research questions.

4.1. Discourse markers in Study abroad context

Table 1 presents the descriptive statistics for four DMs' measures in all five interviews, which shows significant changes in the participant's use of DMs during and after SA period.

Table 1

Use of Discourse markers

Time	Types of DMs (new)	Tokens of DMs	TTR
Interview №1 in June	16(0)	113	14,1%
Interview №2 in November	24(+8)	368	6,5%
Interview №3 in February	23(+3)	208	11%
Interview №4 in March	25(+3)	210	11,9%
Interview №5 in June	24(+1)	406	5,9%

To begin with, the noteworthy changes were found in the Types of DMs: the number of Types significantly increased (from 16 to 24) in the first interview after an immersion into SA context. But after, only slight changes took place: a decrease in Time 3 (23), an increase in Time 4 (25) and a decrease in Time 5(24). The biggest number of new DMs (the DMs that

have not been used in any of previous interviews) also appeared in the first abroad interview when the participant used 8 new DMs, while in Time 3 and Time 4, the participant used equally less (+3) new DMs, and finally, the worst results were shown in Time 5 (+1). When it comes to the number of Tokens, a considerable increase (from 113 to 368) found between the first two interviews, was followed by a strong decrease in Time 3 (208); then the results slightly improved in Time 4 (210), whereas, the best results were yielded in Time 5, when Lucy used the most of Tokens (406). But more interestingly, the opposite results were achieved using Type-Token ratio: the highest diversity was found in the first pre-abroad interview (14,1%), less high numbers were also found in Time 3 (11%) and Time 4 (11,9%), however the interviews, which yielded the best results in previous measures, showed the worst results in Type-token ratio – Time 2 (6,5%) and Type 5 (5,9%).

Types and Tokens are two main measures in this study that represent general tendency in the use of DMs during and after SA period. The comparison of pretest and posttest interviews indicated a significant development in both measures (from 16 to 24 in Types and from 113 to 406 in Tokens) and therefore in DMs in general. Moreover, both measures correlated in 4 out of 5 Times during a year (which shows how DMs changed during the year): both had the lowest number in pre-abroad interview which significantly increased in Time 2, in the same but opposite way, they both decreased in Time 3 and both slightly increased again in Time 4, although in Time 5 Types slightly decreased while Tokens significantly increased. The two other measures are partially dependent from the previous ones. TTR decreased each time Types and Tokens increased, which means that with the development of DMs, the diversity in their use decreases. As for the new Types of DMs, probably there would have been no surprise if the results had shown that the learner acquired a lot of DMs at the beginning, and were using only them. However, the results of new Types showed that the participant was acquiring and using new DMs during the whole year.

Having analyzed these measures, one may conclude and answer the Research Question №1: The correlations between changes in Types and Tokens suggest that the use of DMs significantly increased at the beginning of the academic year in November, then decreased in February (although was still higher than in first interview in June), slightly increased in March and increased again in final June. Pretest and posttest interviews showed a significant development in the use of DMs, but not in their diversity in SA context.

4.2. Fluency in Study abroad context

Table 2 presents the descriptive statistics for seven fluency measures in all five interviews, which also shows significant changes in Lucy's fluency during and after SA period.

Table 2

Measures of Fluency

Measure	Time1	Time 2	Time 3	Time 4	Time 5
Speech Rate	114,4	190,3	173	177,2	200,7
Mean length of run	7,5	12,4	10,1	10	19,2
Number of S. Pauses	13,4	13,7	16	16,5	9,1
Mean Length of S. Pauses	0,66	0,51	0,58	0,52	0,53
Number of F. Pauses	8	3,8	4,4	5,7	2,4
Mean Length of F. Pauses	0,77	0,56	0,47	0,48	0,68

First of all, as Table 2 indicates, there were similar strong gains in both temporal variables. Speech Rate and Mean length of run both increased in Time 2 (from 114,4 to 190,3 and 7,5 to 12,4 respectively) and then decreased in Time 3 (173 and 10, 1), although in Time 4, the effect was different: SR increased (177,2), whereas MLoR slightly decreased (10,1), in Time 5, SR and MLoR increased again and moreover, both showed the highest results (200, 7

and 19,2). The increase in these measures may signal development of fluency. Whereas, in terms of pause phenomena, the development of fluency will be signaled in the decrease of number and mean length of silent and filled pauses. In contrast to temporal variables, no such correlation in the results of pause phenomena was found. For example, differing results appeared in two measures of silent pauses: NoSP was increasing with each time (from 13,4 pauses in Time 1, to 16,5 in Time 4), however, in Time 5, decreased and was the lowest (9,1), while mean length of silent pauses changed from interview to interview in exact opposite direction: Time 2 decreased (from 0,66 to 0,51), Time 3 increased (0,58), Time 4 decreased (0,52) and Time 5 increased (0,53). When it comes to filled pauses, the results of number and mean length were more correlating: both decreased in Time 2 (from 8 to 3,8 and 0,77 to 0,56 respectively), although in Time 3 NoFP increased (4,4) while MLoFP decreased (0,47), but both increased again in Time 4 (5,7 and 0,48) and Time 5 (2,4 and 0,68).

The results of fluency measures, *prima facie*, may look quite contradicting. However, the majority of them or even all show the same tendency in the development of fluency during and after SA period. For example, in 5 out of 6 measures, the worst results (the lowest numbers in SR and MLoR and the highest ones in MLoSP, NoFP, MLoFP) were found in the first pre-abroad interview, therefore, the results of the same 5 measures positively developed (increase in temporal variables and decrease in pause phenomena) in the first interview after an immersion in SA context. Furthermore, both Time 3 and Time 4 showed the declines in 4 measures (SR, MLoR, NoFP, MLoFP) in comparison to Time 2. Finally, in the last fifth interview, the results of 4 measures (SR, MLoR, NoSP, NoFP) not only were better than in the previous time, but they were also the highest ones in all 5 interviews. Moreover, the results of all 6 measures in final posttest interview were significantly better than the results from the pretest interview.

Therefore, one may conclude and answer the Research Question №2: the results proved that during an academic year spent in SA context, fluency significantly increased at the beginning (Time 2 in November), then declined in the two middle interviews in February and March in comparison to Time 2, but was still better than in Time 1, and increased the most in the final interview in June. Furthermore, the comparison of pretest and posttest interviews shows a significant increase of fluency after a period spent in SA context.

4.3. Interaction of Discourse markers and Fluency in Study abroad context

In order to evaluate the relationship between DMs and fluency, the results of 2 measures of Discourse Markers (Types and Tokens) and of all 6 measures of fluency were combined and presented in Table 3.

Table 3

Measures of Fluency and Discourse markers

Measures of Fluency	Time1	Time 2	Time 3	Time 4	Time 5
Speech Rate	114,4	190,3	173	177,2	200,7
Mean length of run	7,5	12,4	10,1	10	19,2
Number of S. Pauses	13,4	13,7	16	16,5	9,1
Mean Length of S. Pauses	0,66	0,51	0,58	0,52	0,53
Number of F. Pauses	8	3,8	4,4	5,7	2,4
Mean Length of F. Pauses	0,77	0,56	0,47	0,48	0,68
Measures of DMs	Time1	Time 2	Time 3	Time 4	Time 5
Types of DMs	16	24	23	25	24
Tokens of DMs	113	368	208	210	406

First of all, the results of both DMs measures and 5 (except for MLoSP) out of 6 measures of fluency were at their lowest point in pre-abroad interview. The significant increase in the results of all above-mentioned measures in Time 2, mean that the increase of DMs correlated with the increase of fluency. In the following Time 3, the correlation was

also found, but this time in decrease: the use of DMs decreased as indicated in Types and Tokens and the decrease in fluency was also found in 5 (except for MLoFP) measures. However, in Time 4 no strong correlation was found: only two measures of fluency (SR, MLoSP) correlated with the increase of both DMs measures. However, more significant correlations were found in the last Time 5 between the increase of DMs Tokens and four fluency measures (SR, MLoR, NoSP, NoFP), moreover, the yielded results were also the highest in all 5 interviews.

To conclude, the correlations between DMs and fluency were found in majority of measures in four interviews (except for Time 4), therefore, the Research Question №3 can be answered: The changes in the use of Discourse markers correlate with changes in fluency in SA context.

This finding means that each time when the participant used more DMs, her fluency increased, and when the use of DMs decreased, her fluency also decreased. Consequently, it can be stated that the development of DMs leads to the development of fluency. Therefore, there is a need for further investigation on how exactly DMs impact on the development of fluency.

5. Limitations of the Study and Implications for Future Research

The results reported herein should be considered in the light of some limitations. The first one is related to the identification of DMs was limited to the definition developed for this study. The use of different definition may lead to different results in future studies. Another major limitation concerns the measures that were used. First of all, the use of 10 longest sequences limited a number of measures which were used for measurement of fluency and consequently the measure that were used for comparison of DMs and Fluency. The analysis of the entire interviews will allow to use more measures, giving more accurate results on

fluency, and moreover, will also allow for better investigation of fluency and DMs. Finally, the results that were obtained from the used measures allowed to use only descriptive statistics, which described the results in general; however, in further studies, inferential statistics should be used to show more detailed changes and provide more concrete and reliable findings.

Moreover, future studies can be based on a participant with other characteristics (age, native language, level of English ...) or on a comparison of several participants, which will give more trusted results. The use of DMs can be studied in more details in order to discover how and where they function in sentence (e.g. they may be analyzed for turn position which shows whether DMs help to start a turn or are rather used to end it) and how exactly DMs impact on the development of fluency (for example, in this study the development of DMs correlated the most with temporal variables, which may mean that DMs help to produce longer runs, however, the results of number of silent pauses, in contrast showed that DMs may extend the latter ones; the identification of DMs position will allow to investigate these problems more profoundly).

6. Conclusion

Previous studies of SLA have generally studied the development of FS in SA context and their positive impact on fluency. However, no similar studies were conducted on DMs which, as it was suggested by several researchers (Fuller 2003; Liao 2009; Müller 2005; Sankoff et al. 1997; Trillo 2002), also should develop fluency. Therefore, this thesis aimed to investigate the development of Discourse markers, fluency and their interaction in SA context.

This paper provided a reader with a lot of theory related to DMs, fluency and SA context, and described the methodology of the study, before the discussion of the results. The

results showed that DMs significantly developed at the beginning of SA period and showed the best results at the end, whereas in the middle of the year they were lower, but higher than pre-abroad ones. The pretest and posttest comparison showed significant general development of DMs (although their diversity, in contrast, significantly decreased). The results of fluency also showed similar tendency during the year: the highest development in first and last interviews, and lower (but still higher than in pre-abroad interview) results in middle once; also significant increase was found in the comparison of pretest and posttest interviews. Finally, the correlation was found between DMs and fluency: when the participant used more DM – fluency increased, whereas when less DMs were used – fluency decreased, which confirms one of the suggestions that: “a higher frequency of discourse marker use is the hallmark of the fluent speaker” (Sankoff et al. 1997, p.191). To conclude, the present study proved the importance of the acquirement and use of DMs which results in the development of fluency, and thus showed the need for further more detailed studies on this topic.

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