

*The use of discourse markers in L2 writing along the  
novice-expert continuum*

Olga L. Antineskul

National Research University – Higher School of Economics, Russia

<https://orcid.org/0000-0002-3700-8394>

[olga.antineskul@hotmail.com](mailto:olga.antineskul@hotmail.com)

Anton S. Vlasov

University of Munich – Higher School of Economics, Germany

<https://orcid.org/0000-0003-0534-3208>

[vlasov.anton@ya.ru](mailto:vlasov.anton@ya.ru)

Elena V. Kostareva

National Research University – Higher School of Economics, Russia

<https://orcid.org/0000-0002-3707-4789>

[ekostareva@hse.ru](mailto:ekostareva@hse.ru)

Tatiana M. Permyakova

National Research University, Russia

<https://orcid.org/0000-0003-4960-5038>

[perm1@hotmail.com](mailto:perm1@hotmail.com)

Abstract

The correct use of discourse markers is one of the key indicators of language proficiency in L2 writing, therefore developing a good command of discourse markers, often referred to as cohesive devices, is now viewed by researchers and language teachers as an integral part of foreign language acquisition. This study seeks to empirically explore the interconnection between a learner's level of professional competence (ranging from novice to expert) and their strategies for using discourse markers in written English. To find out how these strategies evolve along the Novice-Expert continuum two types of analysis – quantitative and qualitative – were carried out on the basis of a corpus of 98

essays written by Russian learners of English as a foreign language. The research findings show that converging strategies prevail in the use of discourse markers, particularly sequencing ones. Divergence occurs only at higher levels of competence as the learner progresses on the novice-expert scale and, in parallel, moves from academia to a professional environment. This study has significant implications for ESAP teaching, content and language integrated learning, and mastering English as a medium of instruction. The study findings can be seen as contributing to language teaching and learning in an international context.

*Keywords:* discourse markers; second language writing; Russian learners; novice-expert continuum; competence

## 1. Introduction

Developing a good command of discourse markers plays an essential role in foreign language acquisition. Discourse markers, which delineate different kinds of boundaries as well as assist in turn-taking in spoken discourse and in structuring written discourse, are claimed to fulfill textual functions and act as communicative tools for organizing and evaluating ideas (Purko, 2015).

The correct use of discourse markers (henceforth DMs) is an important indicator of language proficiency in written discourse. Although DMs have traditionally been classified as connective elements that “signal the relationship of the basic message to the foregoing discourse” (Fraser, 1996, p. 186), their linguistic relevance to defining the various levels of professional competence on the novice-expert continuum (novice-beginner-competent-proficient-expert) is just as evident. This study investigates the use of DMs in written English by Russian learners at three levels of competence along the novice-expert line: novice, competent user, proficient user. Quantitative and qualitative methods of analysis were applied to investigate how L2 English learners at 3 different levels of professional skill acquisition make use of DMs in their writing. For the purpose of this study, it is stipulated that the linguistic competence level is not taken into account.

The paper is structured as follows: firstly, it provides an overview of research on discourse markers, professional discourse and the novice-expert continuum with regard to L2 learners; secondly, both stages of the analytical procedure – quantitative and qualitative – are described; finally, the strategies employed in L2 writing along the professional development scale are revealed and explained.

## 2. Literature review

The study of languages for academic purposes in relation to learners' competence in specific professional domains has lately been the focus of the discursive research agenda (Everaert, Lentz, de Mulder, Nilsen, & Zondervan, 2010; Myers, 2003; Suomela-Salmi & Dervin). Professional discourse, a key tool for knowledge dissemination, is seen as a form of asymmetric communication between experts and laypeople, or intercultural and inter-discourse communication between different cultures, discourse communities, and professional communities, which needs to be recontextualized and reconceptualized (Bondi, 2015). Examining the acquisition of professional expertise has been a research challenge in its own right (Tynjälä, Nuutinen, Eteläpelto, Kirjonen, & Remes, 1997). A number of studies have put forward the idea of integrating the perspectives of working life expertise and individual learning in an educational context. One of the findings springing from professional expertise being viewed as cognitive competence is that experts have more coherence in their knowledge structures than novices (Chi, Glaser, & Farr, 1988; Ericsson & Smith, 1991; Ericsson & Lehmann, 1996; Eteläpelto, 1993; Saariluoma, 1995). For the purposes of this research, it is assumed that this difference should be reflected in L2 writing as well.

The concept of the developmental continuum of expertise was discussed by Dreyfus and Dreyfus (1980) in the framework of skill learning and acquisition through a 5-stage model which suggests that learners progress from the novice level to the advanced (expert) level by gradually replacing context-free rules with situational factors. Essentially, this implies that at the novice stage a person tends to follow fixed rules that have no contextual meaning; competence develops as a certain amount of experience is gained; proficiency is achieved when an individual reaches the level of being able to use their intuition in decision making and to devise their own rules; expertise is characterized by analytical processes that are carried out unconsciously, automatically, and no longer rely on explicit knowledge (Dreyfus, 2004). Thus, the learner's progression is regarded as "a transition from a rigid adherence to taught rules and procedures through to a largely intuitive mode of operation that relies heavily on deep, implicit knowledge but accepts that sometimes at expert level analytical approaches are still likely to be used when an intuitive approach fails initially" (Peña, 2010, p. 1). Notably, Dreyfus and Dreyfus (1980) highlight the educational implications of this transition: it is crucial that the learner's developmental stage should be taken into account throughout the learning process in order to facilitate their progression to the next stage, and to prevent the use of methods and materials which "might improve performance at a particular level," but "would impede advancement to a higher stage, or even encourage regression to a lower one" (Dreyfus & Dreyfus, 1980, p. 16).

Linguists agree that academic discourse as a *language for a specific purpose*, “that of transferring knowledge, be it of linguistic, pedagogic or disciplinary nature” (Suomela-Salmi & Dervin, 2009, p. 5), is a part of professional discourse, which “includes written texts produced by professionals and intended for other professionals with the same or different expertise, for semi-professionals, i.e. learners, or for non-professionals, i.e. laypeople. It also means talk involving at least one professional” (Gunnarsson & Hyland, 2009, p. 5). Therefore, it is logical to assume then that the degree of professional expertise in academic discourse depends on the professional competence of speakers.

The body of literature focusing on discourse research provides a general framework for studying the levels of learners’ competence in specific knowledge domains. However, theoretical works do not seem to offer any insight into how this analytical approach could be applied to L2 writing in terms of language content. As a step towards filling the existing gap between discourse theory and English for Academic Purposes (EAP) teaching/learning practice, certain features of academic discourse, i.e., the use of discourse markers, could be analyzed in relation to EAP learners’ various levels of professional competence.

To have a clear idea of the role that discourse markers play in foreign language acquisition and use, one should focus on how they contribute to fulfilling the communicative function of language, both written and spoken. As observed by Al Kohlani (2010), discourse markers cross sentence boundaries to connect textual units above the sentence level and guide the reader’s interpretation of a text in accordance with the writer’s communicative intentions. Even though discourse markers are often regarded as semantically empty and grammatically optional elements, there is extensive research which proves that they perform a variety of pragmatic functions on the textual and interpersonal level of discourse rather than being meaningless and merely stylistic (Brinton, 1996). In other words, the use of these linguistic components is linked to the communicative purpose of a text through organizing and evaluating ideas (Purko, 2015). Rather than just being viewed in terms of the link they form between elements of propositional content, discourse markers are regarded as conveying interpersonal meaning and thus contributing to the interactive nature of text-structuring. Discourse markers, or ‘connectors’, are defined and analyzed as “features which organize the sharing of meaning, as well as features which create the meaning”, as “part of the interactive apparatus of the language, progressively determining the status of a previous sentence in relation to the current one”, where “coherence is realized by sequences of encapsulation and prospection” (Bondi, 2004, p. 140). According to Bondi (2004), the most significant meta-pragmatic function of discourse markers (more specifically, contrastive connectors) is “to act as signals of the dialogic argumentative structures” that underlie written academic discourse (p. 149).

There have been numerous studies aimed at analyzing the function and distribution of discourse markers across different types of discourse. Among these are works focusing on the variation of conjunctive discourse markers in textbooks and scientific research articles (Verikaitė, 2005), the use of discourse markers in telephone conversations and TV interviews (Verdonik, Žgank, & Pisanski Peterlin, 2008), the function of discourse markers in Arabic newspaper opinion articles (Al Kohlani, 2010), the transfer of L1 cohesive devices and transition words into L2 academic texts (Mohamed-Sayidina, 2010), inferential discourse markers in psychology research articles in English and Persian (Kaveifard & Allami, 2011), causal markers in newspaper articles, blogs and research papers (Mulkar-Mehta, Gordon, Hobbs, & Hovy, 2011), the use of discourse markers in legal and media discourses, both spoken and written (Pjurko, 2015), the patterns observed in how linking adverbials are used in news writing (Yin, 2015), discourse markers in academic report writing (Sharndama & Yakubu, 2013), discourse markers in essays (Feng, 2010) or discourse markers in the argumentative and expository writing of EFL learners (Rahimi, 2011). The findings of the last two studies are of particular relevance to this paper as they indicate that a lack or misuse of discourse markers has a significant impact on the structure and content of essays written by EAP learners with different levels of linguistic competence, especially in terms of cohesion and coherence.

All of the above only goes to show that as well as manifesting the linguistic properties of a set of frequently used expressions (i.e., their semantic and pragmatic meanings, source, and functions), and the organization of social interactions and situations in which they are used, discourse markers are indicative of the cognitive, expressive, social, and textual competence of those who use them. "Because the functions of markers are so broad, any and all analyses of markers – even those focusing on only a relatively narrow aspect of their meaning or a small portion of their uses – can teach us something about their role in discourse" (Schiffrin, 1987, p. 67). The fact that developing a good command of discourse markers plays an essential role in foreign language acquisition and is instrumental in reaching a high level of linguistic competence has led, increasingly, to emphasizing the importance of revising and improving the strategies and methods commonly used for teaching cohesion (Yin, 2018).

Parallel to skill acquisition models, there are various foreign language proficiency guidelines that describe what individuals are expected to be able to do with language in terms of speaking, writing, listening, and reading in real-world situations in a spontaneous and non-rehearsed context (Swender, Conrad, & Vicars, 2012). For each skill, these guidelines identify five major levels of proficiency: novice, intermediate, advanced, superior, distinguished. The major levels are Advanced (highly articulate, well-educated language user), Intermediate, and

Novice (limited or no functional ability). Interestingly, they appear to correspond to the Expert, Competence, and Novice stages in the Dreyfus model.

Richards (2010) views language proficiency from a teaching perspective and considers a number of specific competencies that a language teacher should have in order to be able to teach efficiently, including high-level comprehension skills, fluent use of the target language in the classroom, accuracy in instructions and explanations, and a good command of vocabulary and grammar in both speaking and writing. The author points out that “apart from the contribution to teaching skills that language proficiency makes, research has also shown that a language teacher’s confidence is also dependent upon his or her own level of language proficiency, so a teacher who perceives herself to be weak in the target language will have reduced confidence in their teaching ability and an inadequate sense of professional legitimacy” (Richards, 2010, p. 104). Although the aforementioned levels of language proficiency are defined as ranges of skills, various discourse types and the stages of the Novice-Expert continuum in application to writing are normally seen as a product rather than the process or purpose of writing.

Research findings indicate that computerized tagging can be used to reveal detailed differences among proficiency levels for the features of essay length, lexical specificity (conjunctions, hedges), grammatical structures (nouns, nominalizations, modals) and clause level features (subordination, passives) (Grant & Ginther, 2000). The results of another recent study show that low-level writers tend to use more stance and discourse-organizing expressions in their essays, and more of these identified expressions also appear in the articles included as part of the test materials, i.e., suggesting that low-level writers used verbatim copying as a test-taking strategy. High-level writers were found to be less dependent on the included reading articles and made greater use of referential bundles in their writing (Appel & Wood, 2016). Byun (2016) carried out a comparative study of abstracts written by Korean novice academic writers and experienced academic writers (expert researchers). His analysis is based on two models of the rhetorical structure of research article abstracts – the IMRD model (Hyland, 2004) and the CARS model (Swales, 2004), as well as two types of metadiscourse resources (Hyland, 2005) – textual and interpersonal. The study found a significantly more frequent use of the CARS model and a clear preference for certain types of metadiscourse markers, namely boosters, engagement, and evidentials, in the samples of academic writing produced by novice authors. In addition to that, the two writer groups showed a relationship between the overall move structure and the distribution of metadiscourse markers across moves, but a cross-disciplinary variation in this relationship was only detected in the novice group. These findings can be interpreted as revealing a connection between the subjects’ level of competence and the distribution of metadiscourse markers in their academic writing.

In view of the above, the following research question arises: does the acquisition of professional expertise, i.e. the shift from the educational context to the professional environment, manifest itself in the use of discourse markers in L2 writing? If it does, then what are the strategies for using discourse markers, and how do they evolve along the Novice-Expert continuum?

The R textual analyzer was used to perform quantitative analysis. For qualitative analysis, the method proposed by Utkina and Kostareva (2015) was applied, whereby the range and quantity of discourse markers were compared. The hypothesis of this research is that no significant qualitative difference is likely to be found between the three different levels of competence in terms of sequence, summary and exemplifying, as those features are expected to be observed throughout the learning continuum; however, it is assumed that the levels of competence differ quantitatively, especially when it comes to contextualizing the specific knowledge presented in arguments. Consequently, this paper hypothesizes that learners should demonstrate converging rather than diverging strategies at different levels of competence.

### 3. Methodology

#### 3.1. Data collection

The analysis was carried out on the basis of a corpus of 98 essays on some of the current public issues written by Russian learners of English as a foreign language at the National Research University – the Higher School of Economics in the city of Perm, Russia: 37 essays at the novice level, 34 – at the competent user level, and 27 – at the expert user level. The average ages of the students in the three groups were 18.4, 21.9 and 32.7 years respectively. The learners at the first two levels were students of social sciences (law, management, economics) in their 1st and 3rd-4th years of study respectively. The expert level learners were young professionals in the corresponding domains – lawyers, middle managers, and economists. The research was carried out during the English language course in 2016-2018.

Given this heterogeneity, the participants were offered a variety of topics covering legal and corporate issues. For example, the law students could choose to express their agreement/disagreement with the opinion that the state should not rely on the taxpayer's money, while the economists and managers could address the factors of corporate success, which often include financial performance. Since the suggested topics focus on the problems of justice, public benefits, and individual contribution, they address the issue of public choice, thus forming an integral data framework.

Following the novice-expert continuum, we assigned ranks corresponding to a student's education level, based on the year of enrollment in an educational program. This implies that freshmen and sophomores from all of the education majors under study represent novices and beginners, third-year and fourth-year students constituting the competent and proficient user groups respectively. We took into account the fact that freshmen have no or little experience and/or expertise as the first-year curricula at the Higher School of Economics (HSE) does not offer any courses taught in English. Young professionals were included in the expert group on the premise that though proficient students may have some work experience, the structure of the core curriculum and the study load to which HSE students are exposed preclude full-time work or employment.

The participants were assigned to write a discursive essay presenting their personal opinion, with a 250-300-word limit. An example is provided below:

Writing task

You should spend about 40 minutes on this task.

Write about the following topic:

*In some countries, people pay different rates of tax depending on their salary, in other countries everyone pays the same rate. Which do you believe is the better system?*

Give reasons for your answer and include any relevant examples from your own knowledge and experience.

Write at least 250 words.

### 3.2. Analysis

In order to identify the strategies of convergence/divergence for the use of discourse markers at each of the stages of the novice-expert continuum, both quantitative and qualitative analyses were applied.

Quantitative analysis was a four-step process involving text tokenization, marking the occurrence of different parts of speech, assigning notional words to various groups of discourse markers, and, finally, identifying the speech patterns that indicate the level of professional competence. Subsequently, in accordance with the research question, the subjects' discourse level and their use of the five groups of discourse markers were compared (see Table 1). As for the qualitative approach, it involved interpreting the contextual meaning of discourse markers in relation to the arguments presented in the structure of an



essay, i.e., in, within and between paragraphs. For text processing, *Quanteda* – a quantitative analysis package in the R programming language – was applied. This is a textual analyzer and corpus manager for the English language, widely used by researchers, students and analysts. This tool provides document-level statistics, based on text segmentation by words, sentences, and paragraphs. The average processed essay consisted of 243 words, four paragraphs, and 15 sentences. At the same time, text volume generally increased as the students' rank shifted from novice to competent (see Table 2).

Table 1 Discourse markers grouped by discourse level on the novice-expert scale

Stages	Context use	Discourse markers
Novice	Tends to see actions in isolation	DM1. <i>again, also, and, in addition, furthermore, moreover/what is more, besides, too</i>
Beginner	Sees actions as a series of steps	DM2. <i>at the beginning, at first, at the end, after, then, before, earlier, initially, first/firstly, second/ secondly, later, next, finally</i>
Competent	Sees actions at least partially in terms of longer-term goals	DM3. <i>in order to, to demonstrate, to explain, to illustrate, to show, to be exact, namely, thus, for example, for instance, in other words, in particular</i>
Proficient	Sees the "overall" picture and how individual actions fit into it	DM4. <i>above all, as a rule, largely, mostly, in most cases, on the whole, usually, in general, generally, absolutely, in fact, the main point, the most necessary, the most significant (can be important/can be crucial), to emphasize, to stress, to highlight, for this reason, i strongly believe</i>
Expert	Sees the overall "picture" and alternative approaches	DM5. <i>finally, as a result, in conclusion, to conclude, to sum up, to summarize, in short, to end, in comparison, like, same as, similar to, similarly, as well as, on the other hand, but, in contrast, opposite, otherwise, on the contrary, instead, despite, in spite of, unlike, unfortunately, yet</i>

Table 2 Descriptive statistics for paragraph, sentence, and word counts by the level of competence

Level	Novice		Competent		Expert	
	M	SD	M	SD	M	SD
Paragraph count	5	2,75	5	3,41	3	2,96
Total sentence count	14	0,92	18	1,19	13	1,28
Total word count	223	45,63	308	65,43	196	62,47

Despite the fact that the students' essays were categorized as noisy, including spelling mistakes and incomplete sentences, we did not remove unwanted data, since we relied on discourse markers solely in the form of individual words, counting their occurrence. Before proceeding with the data analysis, we converted the texts to lowercase and passed the marking arrays to *Quanteda*. The quantitative analysis output highlights the differences in the students' education level and the depth of the content of L2 writing.

#### 4. Findings and discussion

##### 4.1. Quantitative findings

Based on the text volume distribution, the paragraph, word, and sentence counts generally increase as a student's rank shifts from Novice to Competent, with Proficient and higher being the bottom line for the cursory text statistics in question. The revealed U-shaped change in the text volume along the novice-expert continuum marks the accumulation of language experience. The accumulation effect relates to including new parts of speech in writing, the progress of which is stunted by reaching a certain level of language competency. The trend reversal is further explained by restricting the quantity of writing to avoid text inundation. As the writers achieving higher levels of language proficiency, they tend to include as many relevant parts of speech as they can. However, competent writers do not differ from the other groups in how deep their reasoning is (see Table 3).

Table 3 Descriptive statistics for discourse marker occurrence by the level of competence

Level	Novice		Competent		Expert	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<i>DM1. Isolation</i>	2	1,09	2	1,6	1	1,41
<i>DM2. Steps</i>	0	0,44	1	0,65	0	0,33
<i>DM3. Goals</i>	0	0,36	0	0,37	0	0,44
<i>DM4. Picture</i>	0	0,23	0	0,46	1	0,35
<i>DM5. Alternatives</i>	1	0,96	1	1,22	1	0,78
Total	3	1,82	4	2,37	3	1,54

Judging by the distribution of discourse markers, the novice-expert continuum contains matching writing patterns. The lack of discrepancies between the different levels of writing also applies to the total discourse marker occurrence. On the whole, the writers use two level 1 markers. The resulting "isolated" view of an essay problem across the levels of expertise, to some extent, reflects the alienation of a writer from the foreign language. The writers' common

tendency to include an alternative approach to a problem (level 5), corroborates their superficial perception of the topic. At the same time, they generally do not elaborate stepwise (level 2), concerning the time horizon (level 3), and do not communicate an overall perception of an individual course of action (level 4). Moving on to combine the two groups of text characteristics, we observed that reducing the amount of written text is quite consistent with a continued tendency towards the isolation thereof.

#### 4.2. Qualitative findings

It seems logical to look at the quantitative findings presented above from the angle of idea introduction and development in paragraphs. The qualitative results are summarized in Table 4. The table provides examples of how the authors use DMs from different groups at different levels of professional competence, without quantifying linguistic competence. The abbreviations *Ex. N*, *Ex. C*, *Ex. E* stand for *example in novice*, *example in competent*, and *example in expert*. All the examples are numbered within the level of competence. The examples for the corresponding group of DM1, DM2, DM3, DM4, DM5 are put in bold, while other markers, not relevant to the group but present in the context, are italicized. Summarized below are the most significant findings for each of the groups.

Table 4 The occurrence of different DM groups on the novice-expert scale

Levels	Novice	Competent	Expert
DM1	<p><i>But</i> the other hand, I can say that all successful people are incredibly rich.</p> <p>So, maybe we can use succes as a primitive way to assess the success of a business. Besides we shouldn't forget about the personal qualities of businessmen or managers. (Ex. N 1)</p> <p>Of course you can research success by the other ways. You can make high quality products or use high speed of making it. Also you can do something new, which will help you to achieve success in business. (Ex. N 2)</p>	<p>The number of persons agrees that without higher education people can't compete and support their business on high level. <i>First of all</i>, if people who want to get position in this company they must have learnings which help to be usefull for firm. So their experience and skills got in university are advantages to apply for job.</p> <p>Moreover, young people often do not have experience when they find job, because they finished their university recently. So only higher education can be used them to work in company and it is opportunity to be sagnificant businessmen in competitive environment. (Ex. C 1)</p>	<p>I think tax is very important for government and country, and people should pay it. But also I think that tax should be different. Large companies and small businesses have not same profit. And percents from profit shouldn't be same also. (Ex. E 1)</p>

DM2	<p>Firstly, the government uses taxes to develop country. <i>For example</i>, the government gives free education, medical services. Secondly, taxes are used to retirement funds, payment of benefits. And finally, taxes are also used for funding military services. It is important for maintaining the political stability of a nation (Ex. N 3)</p> <p>I, personally, do not agree that educated people are more valuable for society, because of some reasons. To start with, such people are usually being enough for one particular job or profession... <i>What is more</i>, I do not think that there is some use to rank people and their skill in that kind of way. (Ex. N 4)</p>	<p>However, there are people which do not consider what education is important part of career. Firstly, we have examples which show that people which do not have higher education rich high goals in their business. So if person has creative thinking and can find decision of problems quickly, he does not need to have education. Secondly, people can find successful partners of have parents with business. As a result, they will have a part of firm. (Ex. C 2)</p>	<p>As a marketing researcher, I should say that various aspects of customer choice are always in the focus of investigation. The question you've raised is among the most discussable. Let me separate my thoughts into two groups – first I will look at the proposed phenomenon from the signaling theory perspective and then I will try to apply the lens of competition. (Ex. E 2)</p>
DM3	<p>Sometimes self-education is really better then classic. For example, you can learn and achieve only that skills which can help you in practice in real life. (Ex. N 5)</p> <p>...skills learnt through experience can also be very beneficial for our society. Most of them we comprehend in childhood. They range from the most basic to the more complex. For example, ability of talk and to walk. (Ex. N 6)</p> <p>However, I can agree with idea that we need pay the same rate if taxes are not large. For example 50% from the salary (Ex. N 7)</p>	<p>They say, that competitive environment of higher education is one of the most important factor. The supporting reason for that is getting skill of working individually without any help. (Ex. C 3)</p> <p>It is said that competition provides a lot of advantages to consumers. A good example of it can be lowering price of education in order to attract young people. (Ex.C. 4)</p>	<p>Again it is obvious that if any person gets education, medical service, uses transport infrastructure, uses electro energy, water, gas etc., he or she have to pay for that. So it comes in a form of taxes. The problem is that when we pay taxes, we want to see clearly where our money go, how government uses it. In other words we want transparency. (Ex. E 3)</p>
DM4	---	---	<p>Managers use such tricks to sell their share with better price. So we should take into account gross debt of company, and turnover. <i>The last</i> indicator is very <i>important</i> because it can show the coming problems, which is difficult to come through when you read the reports or the article mentioned the company. (Ex. E 4)</p> <p>When we speak about the company's success, we shouldn't forget about such thing as reputation. Even though it's difficult to measure, it can be crucial when you work, for example, in public service. (Ex. E 5)</p>

DM5	In conclusion I want to say that during lots of time humanity create some rules, duty and any means to mage state and now when we live in 21 <sup>th</sup> century we should do all rules	On the other hand, there are some people thinking that there should be no taxes or at least payments should be equal for everyone. This persons suppose that everyone can satisfy	Finally, the revenue and profit are very important success indicators. However, we should always check the company's debts, turnover and reputation. (Ex. E 6)
	because all person understand situation in his country and his state. (Ex. N 8)  All things considered, I can conclude that one should definitely not consider not paying taxes. After all, one should keep in mind that, when we spend some effort to make our country a better place, it takes care of us in turn.(Ex. N 9)	his/her needs and wants. So, there are no need in the government and payments. Another their argument is that the government wastes all its money and offer few features to its people who pay taxes. (Ex. C 5)  All in all, people can not satisfy all their needs without government help but to realise this support there is a need of money and the government can get it only through taxation. So, the government's budget will be higher and the bigger support it will be able to offer to its payers. (Ex. C 6)  Finally, some scientists find that workers with higher education have more constant job than uneducational people. As a result, these people can work during 30 years, for example. (Ex. C 7)	Competition is the other facet of the above-mentioned issue. Large businesses are less flexible; they have a limited ability for a quick change. The smaller is the market player, the easier it could transform its strategy and business model. It is especially important when one could observe the growing demand on the customized products. And to compete with large businesses, locals should not use the so-called frontal attack, but contrary to it, attack from the flank. It sounds paradoxically, but the locals' strength is in their size. (Ex. E 7)

Note. The examples from the sample are quoted exactly as they stand in the original

### The learners in the novice group:

- overall, demonstrate a lower variety within the groups of markers used. If they want to enumerate action stages, the standard patterns will be *first/firstly, second/secondly, and finally* (Ex. N 3); Recapitulating facts and having used *first of all/to start with*, students often forget to indicate within the text what exactly is *next* and *last* or try to support information with examples that are irrelevant to the context (Ex. N 4);
- tend to mechanically include markers in the text. This can be seen in the examples where the writers introduce arguments which do not conceptually correspond to the topic sentence, or where they use irrelevant details to illustrate their point (Ex. N 1, Ex. N 6, Ex. N 7). Having said that, in a certain, albeit very limited, number of cases their argumentation is successful (Ex. N 5);
- avoid using DM4, presumably because EAP learners have difficulty sustaining the logic behind their arguments throughout a text and are incapable of using self-monitoring skills at this level;
- overuse DMs, possibly to “impress” the examiner or simply to make sure they do not go under the word limit (Ex. N 9);

The learners in the competent group:

- demonstrate a higher variety within the groups of markers used, intentionally trying to avoid the simpler items, such as *for example* (Ex. C 3, Ex. C 4);
- show a tendency towards overusing markers, which is even more pronounced in this group. In Ex. C 1 different markers are used in each sentence; quite recurrent are examples where it is possible to understand the logic of how the author's idea is structured by using markers, but the arguments are illogical (Ex. C 3); attempts to support information are made, but these are insufficient due to logical fallacies (Ex. C 7);
- show the same trend as the novice group in using DM4, possibly because of the cognitive perception of the overall picture only reflected in the final paragraph of the essay.

The learners in the expert group:

- focus on the key ideas of the task, trying to explain the problem on a conceptual level (Ex. E 1, Ex. E 2);
- demonstrate a low variety of markers within the groups, but tend to use the more complex ones, such as *the last indicator is important, can be crucial, contrary to, it is obvious* (Ex. E 3, Ex. E 7); there is absolutely no sign of "overusing" markers;
- show expert use of DM4 due to their ability to categorize problems on an abstract level (Ex. E 4, Ex. E 5).

Overall, the analysis of the writing samples clearly shows that the differences between the novice and competent levels are primarily quantitative, which is reflected in the higher numbers of DMs used and more words in the essays. As regards comparing the novice-competent level with the expert level, the qualitative aspect is of interest. DM 4 appeared only in expert writing, thus suggesting that at this level professional competence in L2 writing can be observed.

The strategies of DM use along the novice-expert continuum are the following: a quantitative increase in the number of markers from DM groups 1,2,3,5 in the educational context, and the emergence of markers from the DM4 group with a simultaneous decrease in the total number of markers used in the professional context. Consequently, the distribution of DMs use on the novice-expert scale is uneven, depicting a "leap" from a quantitative rise to a qualitative shift.

## 5. Conclusion

The research findings confirm the hypothesis that converging strategies prevail in the use of DMs, particularly sequencing DMs. Divergence occurs only at higher

levels of professional development – presumably due to viewing the purpose and content of writing through the prism of a specific context. Overall, professional development as reflected in L2 writing appears to be non-linear. Following this conclusion, it is evident that educational contexts are limited in their situational scope, though linguistically – especially with regard to lexical variation – they are enriching. In addition, expert learners, even though they do not demonstrate a wider lexical or grammatical range, can be more coherent in L2 writing.

The results of the analysis appear to have been unavoidably influenced by a number of factors, e.g., a limited sample of L2 writing and the genre of writing. Guidelines for teachers might include being more profound in studying ESP content, especially its structure in writing. There is obviously a lot of potential for further study in this area: one of the possible lines of research is developing a specific methodology for studying competence in English for Specific Academic Purposes (ESAP), with particular emphasis on writing. The data used for the analysis could definitely be incorporated into studying various strategies for introducing and adapting ESAP content. One more potential application of the findings of this paper is to use them in the development of materials for content and language integrated learning (CLIL) and English as a medium of instruction; the results of the research could also contribute to enriching general teaching resources and to increasing the efficiency of assessing the complexity of written ESP texts (for example, by measuring the cognitive load).

Another prospective approach to further study is to compare the performance of academic researchers as professionals with that of practitioners in the same professional domain, whose experience is hands-on rather than theoretical. To add an intercultural focus, a cross-national sample of writers might be beneficial. Another field of methodological endeavor could be to expand computerized tagging in a larger written corpus and to supplement it with a wider range of DMs fulfilling different functions.

## References

- Al Kohlani, F. A. (2010). *The function of discourse markers in Arabic newspaper opinion articles* (Unpublished Ph.D. thesis), Georgetown University, USA. Retrieved from <https://repository.library.georgetown.edu/handle/10822/552822>
- Appel, R., & Wood, D. (2016). Recurrent word combinations in EAP test-taker writing: Differences between high- and low-Proficiency levels. *Language Assessment Quarterly*, 13(1), 55-71.
- Brinton, L. J. (1996). *Pragmatic markers in English: Grammaticalization and discourse functions*. Berlin: Walter de Gruyter.
- Bondi, M. (2004) The discourse function of contrastive connectors in academic abstracts. In K. Aijmer & A-B. Stenström (Eds.), *Discourse patterns in spoken and written corpora* (pp. 139-156). Amsterdam: John Benjamins.
- Bondi, M., Cacchiani, S., & Mazzi, D. (Eds.) (2015). *Discourse in and through the media: Recontextualizing and reconceptualizing expert discourse*. Newcastle upon Tyne: Cambridge Scholars Publishing.
- Byun, J. (2016). Comparative study of abstract writings of novice and expert researchers: Move and metadiscourse analysis. *Modern English Education*, 17(4), 25-49.
- Chi, M. T., Glaser, R., & Farr, M. J. (1988). *The nature of expertise*. London: Taylor & Francis.
- Dreyfus, S. E. (2004). The five-stage model of adult skill acquisition. *Bulletin of Science, Technology & Society*, 24(3), 177-181.
- Dreyfus, S. E., & Dreyfus, H. (1980). *A five-stage model of the mental activities involved in directed skill acquisition*. Retrieved from <https://apps.dtic.mil/dtic/tr/fulltext/u2/a084551.pdf>
- Ericsson, K. A., & Smith, J. (1991). *Toward a general theory of expertise: Prospects and limits*. New York, US: Cambridge University Press.
- Ericsson, K. A., & Lehmann, A. (1996). Expert and exceptional performance: Evidence of maximal adaptation to task constraints. *Annual Review of Psychology*, 47, 273-305.
- Eteläpelto, A. (1993). Metacognition and the expertise of computer program comprehension. *Scandinavian Journal of Educational Research*, 37(3), 243-254. <http://doi.org/10.1080/0031383930370305>
- Everaert, M. B., Lentz, T., de Mulder, H., Nilsen, Ø., & Zondervan, A. (Eds.) (2010). *The linguistics enterprise: From knowledge of language to knowledge in linguistics*. Amsterdam: John Benjamins.
- Feng, L. (2010). Discourse markers in English writing. *Journal of International Social Research*, 3(11), 299-305.
- Fraser, B. (1996). Pragmatic markers. *Pragmatics*, 6(2), 167-190.



- Grant, L., & Ginther, A. (2000). Using computer-tagged linguistic features to describe L2 writing differences. *Journal of Second Language Writing*, 9, 123-145.
- Gunnarsson, B.-L., & Hyland, K. (2009). *Professional discourse* (1st ed.). London, New York: Continuum.
- Hyland, K. (2004). *Disciplinary discourses: Social interactions in academic writing*. Ann Arbor: The University of Michigan Press.
- Hyland, K. (2005). *Metadiscourse: Exploring interaction in writing*. New York: Continuum.
- Kaveifard, E., & Allami, H. (2011). Inferential discourse markers in discussion section of psychology research articles across English and Persian. *Theory and Practice in Language Studies*, 1(12), 1786-1791.
- Mohamed-Sayidina, A. (2010). Transfer of L1 cohesive devices and transition words into L2 academic texts: The case of Arab students. *RELC Journal*, 41(3), 253-266.
- Mulkar-Mehta, R., S. Gordon, A., R. Hobbs, J., & Hovy, E. (2011). Causal markers across domains and genres of discourse. In *Proceedings of the Sixth International Conference on Knowledge Capture*, 183-184. <http://doi.org/10.1145/1999676.1999716183-184>.
- Myers, G. (2003). Discourse studies of scientific popularization: Questioning the boundaries. *Discourse Studies*, 5(2), 265-279.
- Peña, A. (2010). The Dreyfus model of clinical problem-solving skills acquisition: A critical perspective. *Medical Education Online*, 15.
- Piurko, E. (2015). *Discourse markers: Their function and distribution in the media discourse*. Retrieved from <http://gs.elaba.lt/object/elaba:8645298/8645298.pdf>
- Rahimi, M. (2011). Discourse markers in argumentative and expository writing of Iranian EFL learners. *World Journal of English Language*, 1(2), 68-78.
- Richards, J. C. (2010). Competence and performance in language teaching. *RELC Journal*, 41(2), 101-122.
- Saariluoma, P. (1995). *Chess players' thinking: A cognitive psychological approach*. Retrieved from [https://catalyst.library.jhu.edu/catalog/bib\\_1914378](https://catalyst.library.jhu.edu/catalog/bib_1914378)
- Schiffrin, D. (1987). *Discourse markers*. Cambridge: Cambridge University Press.
- Sharndama, E. C., & Yakubu, S. (2013). An analysis of discourse markers in academic report writing: Pedagogical implications. *International Journal of Academic Research and Reflection*, 1(3), 15-24.
- Suomela-Salmi, E., & Dervin, F. (Eds.) (2009). *Cross-linguistic and cross-cultural perspectives on academic discourse*. Amsterdam – Philadelphia: John Benjamins. <http://doi.org/10.1075/pbns.193>
- Swender, E., Conrad, D. J., & Vicars, R. (2012) *ACTFL proficiency guidelines 2012*. American Council on the Teaching of Foreign Languages. Retrieved from <http://>

- [www.actfl.org/sites/default/files/pdfs/public/ACTFLProficiencyGuidelines2012\\_FINAL.pdf](http://www.actfl.org/sites/default/files/pdfs/public/ACTFLProficiencyGuidelines2012_FINAL.pdf)
- Tynjälä, P., Nuutinen, A., Eteläpelto, A., Kirjonen, J., & Remes, P. (1997). The acquisition of professional expertise – a challenge for educational research. *Scandinavian Journal of Educational Research*, 41(3-4), 475-494. <http://doi.org/10.1080/0031383970410318>
- Utkina, T., & Kostareva, E. V. (2015). Discourse markers functioning (sphere of economics, students' written texts in English). *Tomsk State University Journal of Philology*, 6(38), 100-115.
- Verdonik, D., Žgank, A., & Pisanski Peterlin, A. (2008). The impact of context on discourse marker use in two conversational genres. *Discourse Studies*, 10, 759-775.
- Verikaitė, D. (2005). Variation of conjunctive discourse markers across different genres. *Man and the Word (Žmogus Ir Žodis)*, 3(7), 68-75.
- Yin, Z. (2015). The use of cohesive devices in news language: Overuse, underuse or misuse? *RELC Journal*, 46(3), 309-326.
- Yin, Z. (2018). Principles of teaching cohesion in the English language classroom. *RELC Journal*, 49(3), 290-307.