# IN A NUTSHELL: AN ANALYSIS OF THESIS ABSTRACTS OF CROATIAN UNIVERSITY STUDENTS IN L2 ENGLISH

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Abstracts are prerequisites for journal publications and conferences, as well as grant applications, which makes writing an efficient abstract a crucial and yet challenging task. This task is particularly demanding for university students who may need to write their thesis abstracts in L2 English. In order to gain insight into students' abstract writing skills in L2 English at the academic level, the present study gives an analysis of a corpus of 100 thesis abstracts written by Croatian undergraduate and graduate students of the Faculty of Humanities and Social Sciences in Split. We have conducted an analysis of rhetorical moves in the abstracts and determined the types and frequency of the students' errors. The results showed that the abstracts frequently lacked the basic information expected in a research abstract, such as a clear explanation of the approach or motivation for the study. Error-wise, the students struggled most with articles and prepositions. Lexical errors, e.g. the mis-selection of words (collocations), were also common, as were problems with punctuation. The identification of these weaknesses in the students' abstract writing skills is essential for the development of teaching guidelines to be used for their prevention and elimination.

KEYWORDS: abstracts, EAP writing, rhetorical moves, writing errors

#### 1. Introduction

English for Academic Purposes (EAP) courses are generally aimed at developing students' language skills for use in the academic environment. Despite the constant increase in the importance of these skills with the growth of English as a world language of academic communication, EAP courses still often lack a theoretical or research rationale and employ a one-size-fits-all approach (Hyland 2006). They are frequently not aligned with the needs of the students involved, which might mean that an opportunity is being missed for students to gain as much as possible from EAP programmes. Writing is possibly the main activity of institutions, given that it represents the foundation of social activities such as educating students, keeping records, and disseminating ideas, while writing in English is especially crucial for students nowadays as English dominates the world of business and academia (Hyland 2013). However, writing itself is a very complex activity which necessitates the use of all four language skills, in addition to metacognitive (setting objectives, planning, layout) and cognitive skills (analysing, synthesising), to name but a few (Frydrychova Klimova 2014). On top of this, academic writing is additionally cognitively demanding as successful writing in the academic context requires the acquisition of academic vocabulary and discourse style, which can be particularly difficult for EAP students (Myles 2002). Academic writing entails conscious effort and practice in composing, developing and analysing ideas – i.e. it necessitates a combination of L2 proficiency, the knowledge of writing techniques, and the acquisition of specific writing-related skills (Myles 2002).

Nowadays, writing in the EAP context is not seen as a generic skill but is focused on achieving competence in target genres for a specific academic or professional context by recognising that the task involves far more than merely controlling linguistic error or style (Hyland 2013). Research abstracts represent an example of a writing genre which is of crucial importance to higher education students. As a concise overview of a planned or conducted study, abstracts are not only important to researchers but also to a variety of professions when applying for grants, seminars, or training programmes. In the Croatian context, although not all university students will go on to an academic career, they are all required to submit a thesis at the end of their undergraduate and graduate programme, which must include an abstract written in Croatian and a second language, predominantly English.

In view of the described importance of writing skills in general, and, more specifically, the complex skills necessary for composing research abstracts, it is essential to gain as much insight as possible into how university students cope with this demanding genre. To our knowledge, no research has been undertaken to study the stated

issue in Croatian academic circles. For this reason, the general aim of this study is to analyse thesis abstracts written in L2 English by Croatian Humanities and Social Sciences students in Split by investigating their content, as well as providing an overview of the writing errors made by the students. Along with contributing to the existing knowledge of writing errors in general, the purpose of this analysis is to determine the possible issues the students encounter when tackling this demanding genre. This information will be used to enhance the content of existing EAP courses at this and similar institutions and, more generally, help raise the awareness of the importance of focusing on abstract writing in such programmes.

#### 2. THEORETICAL OVERVIEW

#### 2.1 EAP WRITING AND RESEARCH ABSTRACTS

Writing is considered to be one of the most important skills for educational success, but also one of the most complex skills to be mastered. Flower and Hayes (1980), who refer to writing as 'juggling with constraints', ascribe the complexity of writing to the compound nature of its three main components: the writer's long-term memory, the task environment, and the writing process. The writing process component encompasses four cognitive activities: planning, translating (putting ideas into language), reviewing/revising, and monitoring, which regulates the first three activities (Hayes and Flower 1980). The fact that all the stated components need to be attended to during writing, often simultaneously, is what makes writing so complex and demanding. Tillema (2012) emphasizes that second language (L2) difficulties are assumed to affect the quality of writing in two ways. First, students' lower L2 proficiency limits their ability to express their ideas. Second, language difficulties are believed to constrict working memory resources, leaving fewer resources for conceptual and regulatory activities (such as structuring and monitoring) and/or causing an inability to transfer L1 writing strategies to L2 writing situations. This is why L2 texts often exhibit lower quality than L1 texts, not only in terms of language use but also in terms of organization.

English as a foreign language (EFL) research within the Croatian educational context seems to corroborate the above statements as writing in English has been confirmed as the weakest among the four language skills of Croatian primary and secondary school students (Zergollen-Miletić 2007). As reported by Mihaljević Djigunović and Vickov (2010), when it comes to EFL writing, logically connecting sentences and

creating well-structured written compositions are the most significant obstacles for Croatian EFL students. Kostić Bobanović (2016) warns that, in general, writing is a source of stress for students, for example when adjusting to a new genre, writing for a critical reader or when working with limited time.

Despite the difficulties L2 learners might experience, developing writing skills in English is still one of the imperatives in their education as it is a key skill in the academic and business environments. With the increasing use of English as the language of scientific communication, academics are pressured into disseminating their research in English (Lorés-Sanz 2016). Because EAP students must be prepared to successfully fulfil the demands of both their university programmes and the world of work awaiting them, one of the aims of EAP courses should be to prepare EFL students to become successful, confident, efficient, effective academic writers (Reid 2001). Research has shown that EAP/ESP (English for specific purposes) students often have difficulty with academic writing (Faya Cerqueiro 2019), partially stemming from the fact that the students' prior writing experience does not prepare them for the expectations of their university or workplace (Hayes 2013). In fact, writing in the EAP context involves developing "new kinds of literacy: equipping learners with the communicative skills to participate in particular academic and professional cultures" (Hayes 2013: 109). However, it has been shown that L2 learners benefit from specific training on academic language in a given discipline (Faya Cerquiero 2019).

Abstracts are a specific genre of writing which is ubiquitous in the academic as well as the professional world. This highly specialised form of academic writing requires a writing style that is clear and concise, as key information needs to be selected and conveyed in a limited amount of space (Krajňáková 2014). According to the Publication Manual of the American Psychological Association (APA 2020), as a comprehensive summary of a paper or study, the abstract can be its most important part since it often is the first contact people have with an article and the basis for their decision on whether to read it or not. A good abstract is accurate, non-evaluative, coherent, readable as well as concise, which, in other words, means that is written in clear language, maximally informative, and it reflects the content and purpose of the paper (APA 2020). University students are commonly required to write abstracts for their final projects (Faya Cerqueiro 2019). Given the complexity of writing itself and difficulties L2 students encounter when performing writing tasks in English, as previously explained, it becomes clear that in order to be able to write a good abstract, students should be provided with high-quality instruction in the field. Empirical research (Swales and Feak 2000; 2009 as cited in El-Sadig and Drid 2020) reports that writing abstracts in English has been found to constitute a thorny task not only for

graduate and international students but also for experienced researchers and authors given the firm norms governing their construction. Writers often fail to observe such constraints, producing inconsistent texts for their readers.

Previous studies on research abstracts have commonly focused on the different rhetorical moves that constitute an abstract (e.g. Can, Karaback, and Ouin 2016; Ren and Li 2011; Tanko 2017). They have also dealt with the specific linguistic features within them (Pho 2008; Tseng 2011), or the differences in rhetorical moves between different research areas (Ebrahimi and Chan 2015). Rhetorical moves are categories of functional roles in communication, or, in simple terms, "a stretch of text that does a particular job" (Swales and Feak 2010:172). The five moves that usually make up research abstracts are: situating the research/introduction, presenting the research/purpose, describing the methodology, summarising the findings, and interpreting results/ findings/giving recommendations (Swales and Feak 2010). However, research has shown that abstracts do not necessarily contain all five moves. Pho (2008) found three obligatory moves in journal abstracts from the fields of applied linguistics and educational technology – presenting the research, describing the methodology and summarising the results. These moves were distinguished by the linguistic features within them – for example, the present perfect was found in situating the research move. In contrast, present simple prevailed in presenting the research move, and the results were reported mostly using the past tense.

The dominance of the three rhetorical moves established by Pho (2008) was confirmed by Can et al. (2016) in another study analysing applied linguistics abstracts. The study found that most abstracts provided information about the purpose, methodology and findings of the associated articles, while about half of them omitted the introduction of the topic and discussion of the results. When it comes to student writers, research conducted by Krajňaková (2014, 2015) on the thesis abstracts of Slovak students showed that they frequently focused on two of the moves, the problem statement and the methods, while they commonly lacked a description of the motivation and results. On the other hand, Ren and Li (2011) compared rhetorical moves in abstracts written by Chinese university students and published research assistants, once again in the field of applied linguistics, with different results. The study showed that all five usual moves are commonly found in both groups. However, just like in the previously mentioned studies, expert writers tend to be selective with the rhetorical moves which they include in their abstracts, while students commonly included unnecessary information. This has led the authors to conclude that teachers must raise students' awareness of the different practices in abstract writing so that they can choose the most appropriate moves to fulfil their aims. An example of a successful approach to abstract writing was presented by Faya Cerquiero (2019). She found that a theoretical introduction into the distinctive features of abstracts, together with a collaborative approach to writing, yielded well-structured abstracts in a sample of 26 Spanish university students with no previous academic writing experience. All in all, the results of the existing research emphasise the need to include EAP writing and abstract writing in particular in university programmes. Students should be familiarised with the language they need in order "umjesto "other" to express rhetorical moves and their attention focused on the differences between disciplines (Ebrahimi and Chan 2015; Pho 2007).

#### 2.2. L2 LEARNERS' WRITING ERRORS

It is of crucial importance for L2 teachers to have a sound understanding of the cognitive and psycholinguistic mechanisms which contribute to the learners' learning processes in order to aid them in overcoming problems they encounter when learning an L2 (Chan 2010). Error analysis may be of great use in this regard, as it can help teachers understand a student's current level in learning, while students can use errors as a learning device to improve their language proficiency (Corder 1981). Not only is a good understanding of the nature of errors necessary before a means of eradicating them can be found, but it also constitutes an important part of the study of second language acquisition and learner language in general (Corder 1981). This is because errors, triggered by an interaction of L1 and L2-related factors, represent an important indication of the learners' interlanguage (Chan 2010).

Language transfer was long thought to be the main source of difficulties for L2 learners, but nowadays it is seen as one of the several factors that contribute to L2 acquisition, rather than the central one (Ellis 2015). Common errors might indeed stem from translating from L1, but they may also be caused by learners trying out L2 structures but being hindered by insufficient knowledge (Myles 2002). Learners might also over-generalize rules they know, they might generally be unsure of what they want to express or lack familiarity with the rhetorical structure of the text they are writing (Myles 2002). Errors can appear at the graphological, grammatical and the lexico-semantic level. They can be classified superficially as errors of omission (when an element that should be present is missing), errors of addition (when a part is present that should not be there), errors of selection (when a wrong item has been chosen), and errors of ordering (where the elements are incorrectly sequenced) (Corder 1981). According to James (1998), learners' ignorance of a target language can be viewed in terms of grammaticality (or well-formedness), acceptability, correctness, and strangeness and infelicity. Not all errors can be treated in the same way, and Ferris

(1999) describes the difference between 'treatable' errors (e.g. subject-verb agreement, missing articles) and 'untreatable' errors (lexical errors, problems with sentence structure). While the former are rule-governed and learners can be easily pointed to a set of rules to resolve them, the latter tend to cause more problems for teachers when giving feedback, as learners need to use their knowledge of language to correct them (Ferris 1999).

In the area of L2 writing errors, research has commonly focused on corrective feedback and its efficacy<sup>1</sup>, which has been a much-discussed topic for the last few decades. Some studies have found feedback to be effective under specific conditions. For example, in their investigation of adult migrants' writing in L2 English, Bitchener, Young, and Cameron (2005) found that explicit written feedback combined with oneto-one conferencing improved the participants' use of the past simple tense and the definite article significantly more than it did their use of prepositions, which is a less 'treatable' error category. The main conclusion of the study was that L2 writers may indeed improve their results if they are exposed to a combination of oral and written feedback. Most authors agree that feedback is an issue that is of importance to teachers, students and researchers, although it still commonly remains an unclear topic for practitioners (Hyland and Hyland 2019). Although the effectiveness of corrective feedback still seems to be a topic under discussion, an important argument in favour of error correction is that students commonly believe it to be valuable (Ferris 1999; Myles 2002). Furthermore, it is a fact that accuracy in writing matters to audiences, both academic and professional, which means that errors may lead to the stigmatization of the writer (Ferris 1999). In any case, as Ferris and Kurzer concluded, "under the right conditions, written corrective feedback can help L2 writers both to acquire specific language features and to improve the overall effectiveness and accuracy of their writing as well as their individual writing strategies" (2019:122).

Except for corrective feedback, other studies in the area of L2 errors have provided taxonomies of errors made by specific groups of learners and discussed their potential origin. The value of these studies lies in the fact that teachers who are aware of the nature or sources of their learners' errors will find it easier to design materials which can help these learners (Chen 2010). For example, Bitchener et al. (2005) found that most of the mistakes made by the participants in their study, adult migrants to the USA, were related to prepositions, followed by articles and the present and past simple tenses. A more comprehensive taxonomy of written errors is presented by Chan

<sup>&</sup>lt;sup>1</sup> For a recent overview of corrective feedback research, see the comprehensive volume edited by Hyland and Hyland (2019).

(2010) in his study of the writing errors of Cantonese L2 English learners, with the aim of raising the awareness of teaching professionals about the necessity for dealing with errors at different levels. For example, although most errors were identified at the syntactic level, 12% of all errors were lexical, which leads to the conclusion that these errors should also receive attention in the classroom. The author found that the sources of learner errors may be L1 transfer, lack of facilitation from the L1 (i.e. lack of comparable equivalents) and different non-L1-related factors, such as lack of awareness of L2 norms, misapplication of L2 rules and/or overgeneralization, undergeneration, selectional mis-hits etc. In the EAP context, Chuang (2005) identified the most common errors of Chinese university students studying in the UK, with determiners accounting for almost a quarter (23.7%) of all errors. Interestingly, there was a striking difference between the actual results and the perceptions of the students' tutors, who believed the most common errors were related to tense and aspect/singular and plural nouns. These results confirmed the great importance of the teacher's insight into the areas which cause most problems for their students. Furthermore, in their research examining university students' writing errors in Arabic (L1) and English (L2), Khuwaileh and Shoumali (2000) found similarities in their performance in the two languages. Students showed deficiencies in the areas of cohesion and coherence, a lack of paragraph unity, overuse of certain tenses, misuse of irregular past tense forms and subject-verb agreement. The results led the authors to conclude that some of the learners' problems stem from their L1 and should thus not be the sole responsibility of English language teachers.

Although it is not possible to eliminate all errors, and the efficacy of feedback is still not an entirely clear topic, studies of learners' errors play an important role in helping researchers understand more about learner language, supporting teachers in anticipating and diagnosing problems, and providing essential information for curriculum designers in planning educational programmes (Chan 2010; Corder 1981). All of these reasons make studies of errors of different groups of learners necessary and useful.

Because of the lack of research dealing with Croatian students' thesis abstracts in L2 English, the present study aims to fill this gap. It aims to provide information which can, in addition to contributing in more general terms to the existing knowledge about abstracts written by EAP students, also inform practice, i.e. the content of actual EAP programmes which students are taught at similar institutions.

## 3. The Present Study

The study reported in this article addresses the question of thesis abstract writing proficiency in the Croatian university context. The overall aim was to provide an analysis of such abstracts written in L2 English by the students of the Faculty of Humanities and Social Sciences, University of Split, Croatia. More specifically, we aimed to answer the following two questions:

Which rhetorical moves are present in the thesis abstracts of Croatian Humanities and Social Sciences students written in L2 English?

What types of errors do Croatian Humanities and Social Sciences students make in their thesis abstracts written in L2 English?

The abstracts were examined using a two-pronged approach. The first part of the study was an analysis of the rhetorical moves present in the students' abstracts, the purpose of which was to determine whether the content of the abstracts was in line with the usual standards of abstract writing (Q1). The second part was an investigation of the types and frequencies of errors made by the Croatian students to ascertain the potential problem areas for this specific group of EAP students (Q2). The answers to the two research questions will hopefully shed additional light on the characteristics and problematic aspects of abstract writing in L2 English at the academic level, as well as provide more insight into the academic writing skills of Croatian university students. In addition, the identification of students' weaknesses is essential for the development of teaching guidelines related to the specific genre of research abstracts and EAP writing skills and errors in writing in general.

#### 3.1. THE CORPUS

The corpus used in the present study comprised 100 thesis abstracts written by undergraduate (50) and graduate (50) students of the Faculty of Humanities and Social Sciences, University of Split. The undergraduate students were at the end of their 3<sup>rd</sup> year of study, and the abstracts were part of their final projects, while the graduate students' abstracts were part of their theses at the end of their 5<sup>th</sup> year of study. The abstracts were randomly selected from the abstracts available to the public in the Faculty's repository, and they were written on a variety of subjects by students with different majors: Art History (10), Teacher Education (14), Preschool Education (15), History (7), Sociology (14), Pedagogy (14), Philosophy (7), Croatian Language and Literature (14). The corpus consisted of a total of 20700 words. The average length of the abstracts was 207 words (max: 675, min: 82, *SD*: 82.76). Students at the Faculty

of Humanities and Social Sciences in Split study one or two majors, and some of the majors offer EAP/ESP courses (e.g. Art History, Teacher Education). As the purpose of the study is to give a general overview of the abstract writing skills and errors of the Croatian students at this specific institution, no further information about their linguistic background or experience with EAP was collected. The random sample is seen as a window into the general situation regarding the abstract writing skills and writing errors of the students at the Faculty.

#### 3.2. METHODOLOGY

#### 3.2.1. Rhetorical Move Analysis

An analysis of rhetorical moves in the abstracts was performed to answer the first research question. In line with a study conducted by Pho (2008), a top-down approach was used, i.e. the identification of the rhetorical moves was content-based and carried out with the aid of questions listed in Table 1. The questions are based on guidelines provided by Koopman (1997) as well as the framework for abstract analysis used by Pho (2008). The analysis was done by identifying whether the abstract contained the answers to the questions related to each rhetorical move. As abstracts are concise summaries of more extensive texts, a move could be realised by structures ranging from a single phrase or a word to several sentences (Pho 2008). The abstract moves were analysed by two raters (the two authors of the study), and in cases when there was disagreement between them, it was discussed and resolved by agreement.

Table 1. Abstract analysis framework (Koopman 1997; Pho 2008)

Moves	Questions asked
Motivation	What is the motivation behind the research/the reason for writing?
Problem	What problem is the research attempting to solve? What is its main thesis or claim?
Methodology	What methods/procedure/approach was used? What did the student actually do in their thesis?
Findings	What are the results/findings of the research? What did the student learn?
Interpretation	What do the results mean? What are the larger implications of the study? What are the practical or theoretical applications or implications for further research?

#### 3.2.2. ERROR ANALYSIS

To answer the second research question, the abstracts were analysed in terms of the errors that they contained. For that purpose, a taxonomy of error levels adapted from James (1998) was used (Table 2). According to this author, errors can be broadly classified as substance errors, lexical errors, grammar errors and discourse errors. An EFL instructor, a proficient speaker of English (who is one of the authors), analysed the abstracts and identified the errors, which were later classified. A sample of 20 abstracts (20% of the corpus) was examined by a second rater with the same background, and the inter-rater reliability was 75%, which was deemed sufficient.

Table 2. Levels of error (adapted from James 1998)

Level	Type	Examples of subtypes	
substance errors	misspelling	punctuation typographic errors	
lexical errors	formal	formal mis-selection mis-formations distortions	
	semantic confusion of sense relati		
	morphology	noun morphology verb morphology etc.	
grammar errors	syntax	phrase structure errors clause errors sentence errors cohesion	
discourse errors	coherence	topical coherence relational coherence sequential coherence	
	pragmatics pragmalinguistic deviati		

### 4. RESULTS AND DISCUSSION

#### 4.1. RHETORICAL MOVES

Overall, most of the analysed abstracts contained three of the five moves (40% of all abstracts), while only 8% contained all five moves, and 6% did not contain any of the moves. As can be seen in Figure 1, the most frequently present rhetorical move was the presentation of the problem (present in 77% of the abstracts), followed by the methodology (72%) and the results (73%), while the implications move was only present in 29% of the abstracts.

Given the frequency of the problem, methodology and findings moves, the results of our analysis seem to be in line with the results of studies which have found that these three moves are almost always present in journal abstracts (Pho 2008; Can et al. 2016). However, upon a closer examination of the results, it becomes apparent that the Croatian students frequently omitted basic information from their abstracts. Almost one in three abstracts (29%) made no mention of the methodology and one in four (24%) omitted the results entirely. The motivation for the study, i.e. the move which would situate the research and explain the background to the study, was also absent from 35% of the analysed abstracts. Similarly, in a study of thesis abstracts of Slovak students conducted by Krajňaková (2015), the most frequent moves present

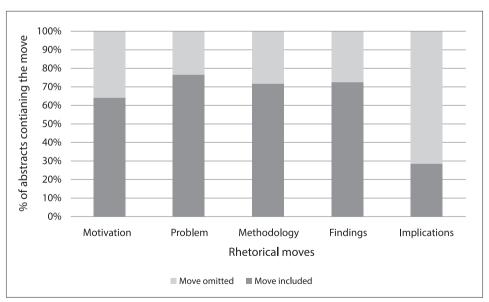


Figure 1. Rhetorical moves in the abstracts

were the problem statement and methodology, while the motivation, results and especially the conclusion move were often omitted. This problem most likely stems from a lack of clear guidelines for the students, which is confirmed by the above-mentioned study conducted by Ren and Li (2011). Their results indicated that university students tended to use all of the five common abstract moves, more so than published research assistants in applied linguistics. These results were partially attributed to the fact that the students included unnecessary information in the abstracts, probably because they adhered to guidelines too firmly. On the other hand, the students whose abstracts were analysed in this study did not have a standardised set of guidelines to observe, and the inconsistency in the rhetorical moves included in their abstracts seem to support the suggestion that this might be the cause. The general impressions from the abstracts are that the reasons and the aim of the study were often unclear, which can leave the reader with an unfavourable impression of the research. Furthermore, there was no consistency among the abstracts when it came to style and format. For example, this was obvious from the length of the analysed abstracts (Max: 675, min: 82, SD: 82.76), with the longest abstracts containing a great deal of unnecessary information, and the shortest abstracts severely lacking in their content. These findings may indicate that students have not been sufficiently exposed to academic texts during their university education. Thus, they further justify the need to make sure that students have the opportunities to read and analyse different types of academic texts relevant to their field of studies, as well as to provide students with systematic instruction and guidelines for abstract writing.

#### 4.2. ERROR ANALYSIS

On average, the analysed abstracts contained 12.78 errors, or 6.16 errors/100 words (Table 3). The abstract with the highest number of errors contained 36 (16.13/100 words), while the abstract that contained the lowest number of errors had only one.

Table 3. Error frequency in the abstracts

	Average	Max	Min	SD
Total errors	12.78	36	1	7.56
Errors/100 words	6.16	16.13	0.52	3.68

When it comes to the types of errors (Table 4), the highest proportion of errors were related to the grammar category, mostly syntax errors. Syntax errors (e.g. errors with articles and word order) made up almost half of all the errors in our corpus, 46.4%,

and they are followed by lexical errors (e.g. mis-selection of words, errors with collocations), which accounted for 26.84% of all errors. Substance errors (mostly punctuation, but also misspelling and typographic errors) constituted 14.01% of all errors.

Table 4. Types of errors

Category	N	Total errors (%)
Grammar - syntax	593	46.4
Lexical errors	343	26.84
Substance errors	179	14.01
Grammar - morphology	95	7.43
Grammar – tense, aspect, voice	68	5.32
Total	1278	100

The most frequent error subtypes are shown in Table 5, with examples listed in Table 6. Articles were by far the most frequent source of error for Croatian learners, especially article omission, which accounted for 294 (23%) error occurrences. Errors with articles were followed by errors related to the misselection of words (16% of all errors) and errors with prepositions, especially mis-selection of prepositions (6.8% of all errors).

Table 5. Most frequent error subtypes

Category	N	Total errors
Grammar - syntax - articles	388	30.4%
Lexical – formal mis-selection	205	16%
Lexical - prepositions	138	10.8%
Substance - punctuation	116	9.1%

The fact that the students in our analysis had so much difficulty with articles is not surprising, as the acquisition of articles is one of the most pervasive issues in L2 English, much discussed in the literature to date (e.g. Chuang 2005; Ionin, Zubizarreta, and Philippov 2009; Trenkic 2007). As reported by Zergollern-Miletić (2011), in Croatian, just like in other Slavic languages, definiteness and indefiniteness are not grammaticalised, which leads to frequent problems in teaching English articles to speakers of Croatian. Her study of Croatian university students' article acquisition showed that the lowest stage of acquisition was characterised by frequent omissions, while substitution (primarily overuse of the definite article) became more prevalent at more advanced stages. However, in our corpus, article omission accounted for 23%

of all errors and represented the overwhelming majority (76%) of all article errors, which would point to the overall lower level of article acquisition in our student population. Zergollern-Miletić (2011) concludes that students should have a good theoretical knowledge of definiteness and indefiniteness as grammatical, semantic, and pragmatic categories. This knowledge would alleviate their frustration and help them to cope with the use of English articles more easily. This suggestion could be applied in the present study as well, as it is evident that the use of the definite and indefinite articles need to be presented to the students more systematically and practically, starting from the very concepts of definiteness and indefiniteness.

Table 6. Examples of most frequent error types

TABLE O. Example.	of most frequent error types
Article omission /addition	It origins in * USA, from where it spread around the world. (1)the figure of the female saint Viviana is *passive female character who needs * protector, as well as were Dora and Anica (41) The paper provides an overview of some of the devices and softwares that can be used in * classroom. (16)
	In order to get the insights on the architecture of *the each church, the paper references *the archaeological research.(5) The author will not write just about *the France (28)
Word mis- selection	The research was done on the *pattern of 150 primary school teachers (90) On the other *side, local authorities do little in terms of providing variety of activities and education for youth due to lack of funding. (50) Maria was thinking about the child itself; how to *please its needs for freedom and inner satisfaction(21)
Preposition mis-selection / addition	Every human being deals with it *on his own way. (91) Content analysis includes a methodological system with ten variables *in the aim of contextualization of the peer conflict phenomenon and possibilities of its best resolving. (20) The research sample consisted *from five most visited internet portals. (77)
	By that we mean *on the parents that accept and understand their child, but at the same time, they have control *above them. (61)  Educational environment's quality in institution of early education, the educator's part as a partner, observer, an associate and, where appropriate, as an assistant notably influences *on children's behaviour and mutual cooperation in a play. (56)
Punctuation	129 pupils ranging from 3 <sup>rd</sup> to 8 <sup>th</sup> grade of primary school, as well as 36 teachers* participated in this study. (8) The role of kindergarden educators*, is to choose a quality cartoon that is appropriate to the child. (11) Ban Paul died in May 1312*. * and he was succeeded by Mladen II.

In addition to errors in the use of articles, other more frequent errors related to syntax included word order errors, pronoun errors (i.e. mis-selection of pronouns) and premodifier errors. About 5% of the errors were related to mis-selection of the aspect, tense, or voice of a verb. One of the ESP programmes available to the study participants, more specifically the one intended for 1st-year Teacher Education students, has a strong emphasis on grammar, especially verb forms. Along with texts on topics relevant to the students, the programme is mostly focused on different tenses, grammatical aspect and voice of English verbs, but largely neglects other parts of syntax. The results of our study indicate that, when it comes to grammar in EAP/ESP programmes, attention may need to be refocused or expanded from the predominance of topics related to verbs (tense, aspect and voice) to other issues such as articles.

However, although almost half of all the errors in the abstracts were syntax errors, lexical errors were also frequent (26.83%) in our corpus. Semantic lexical errors (e.g. errors with collocations) were more common than formal lexical errors (e.g. mis-formations), which is unsurprising at higher levels of proficiency when learners have already learnt the formal aspects of words, while associative knowledge is the last to develop fully (Agustín Llach 2011). In a total of 138 cases (10.8% of all errors), lexical errors concerned the omission (37), mis-selection (35) or addition (14) of prepositions. Prepositions seem to be problematic for students from different backgrounds, as Bitchener et al. (2005) similarly found them to be one of the most common sources of error for migrant ESL students in the USA. Furthermore, out of the 205 cases of formal mis-selection of words, in 68 instances the wrong synonym of a word was used, and in 91 cases the wrong word choice seemed to originate in the direct translation from Croatian. L1 transfer is often the cause of lexical errors in writing, together with the lack of lexical knowledge and lexical practice (Agustín Llach 2011). These results emphasise the need to focus also on the lexical aspect, which is sometimes neglected in favour of teaching grammar.

The analysis seems to indicate that Croatian students commonly used direct translation as a method for composing their abstracts, which is not surprising as their original thesis abstract is in Croatian. For this reason, we assume that students might also benefit from instruction related to translating in the area of EAP. It could focus on word choice and help draw the students' attention to, among other lexical aspects of language, the differences between L1 and L2 collocations, in particular fixed combinations of prepositions and other word classes which tend to differ between the languages. When it comes to giving feedback, articles and word order constitute 'treatable' errors (Ferris 1999), i.e. it is easy for a teacher to instruct students where they can find the rule or guidance that might help them correct the error. On the other hand, wrong

word choice may be seen as an 'untreatable' error and might be harder to correct. However, although it is beyond the scope of our analysis to discuss in more detail the source of the learners' errors, in many cases, it was apparent that they stemmed from direct translation from Croatian. This would mean that these errors are more easily treatable, requiring teachers to place special emphasis on those combinations of words that are frequently misused. In other words, the best way to deal with lexical errors is to provide a lot of practice in both writing in English and translating, focusing particularly on the possible points of transfer between Croatian and English.

### 5. CONCLUSIONS AND IMPLICATIONS

Our analysis approached the thesis abstracts of Croatian Humanities and Social Sciences students from two perspectives. Firstly, the overview of the content of the abstracts, i.e. the rhetorical moves contained within them, has shown that, although most of the abstracts included the basic information expected in this writing genre, a third of the abstracts lacked the crucial problem/methodology/results moves. Only a small proportion of the abstracts contained all five of the moves, and there was a great deal of inconsistency when it comes to the organisation and content of the analysed abstracts. The varying length of the abstracts compounded the feeling of the lack of uniformity in the students' abstract writing, which further justifies the need to provide clear and systematic guidelines for students aimed at enhancing their skills in producing well-structured abstracts in English. Even if this approach results in students including too much information in their abstracts at the beginning, as was indicated in the study by Ren and Li (2011), they would still benefit from receiving more support in the initial stages of their writing skills development, with the expectation that they can become more selective as their experience with abstract writing increases.

The second part of the analysis comprised an analysis of errors to determine the most frequent error types in the abstracts. In addition to contributing to general knowledge about the errors EAP students might make in their thesis abstracts in L2 English, the importance of this analysis lies in the fact that it reveals the problem areas for this particular student population. The results can serve as guidance for practitioners when choosing what to pay more attention to in EAP classes. The results showed that grammar posed a problem for this sample of students, with the omission of articles accountable for almost a quarter of all errors in the corpus. Lexical errors were also frequent, especially errors related to the mis-selection or omission of prepositions and other words. The analysis of learners' errors can be used as an indicator of the changes

that need to be made to the EAP/ESP courses offered by this particular, but also other institutions with comparable programmes. Namely, emphasis needs to be redirected from verbs, which are the most frequent topic of grammar-related lessons, to other parts of syntax such as articles and word order. Lexical aspects of language also need more attention, and emphasis needs to be placed on possible points of negative transfer, especially when it comes to collocations and fixed phrases. Students should also be instructed in the appropriate use of resources, such as dictionaries, which can help them make more appropriate word choices when writing. Students should be given opportunities to write and get feedback on their writing, both oral and written.

The results of the present study point to the need to make sure that the content of the EAP courses offers opportunities for interaction with different types of academic texts. Also, more precise guidance is needed when it comes to writing academic abstracts, as this knowledge can be of great use for students in their future careers. Furthermore, there needs to be a particular focus on the problematic areas detected in the students' writing. As writing is a crucial skill for students and future professionals, students should be given the opportunity not only to write but also to examine a variety of written texts to raise their awareness of how grammar and vocabulary, as well as genre, contribute to the construction of a meaningful text. All this should be done in a planned and organised manner, adapting EAP courses to the needs of the students and allowing them to profit maximally from their studies. A possible approach for a future EAP course would thus include the examination of academic texts from different genres, with a specific focus on research abstracts. The students would be guided through the analysis of the features of abstracts, such as the vocabulary, syntax and organisation, i.e. the rhetorical moves present in the abstracts. The emphasis would be placed on abstracts from the students' specific fields of study. The analysis would be followed by practice, evaluation, and feedback, which could be provided both in written form and orally, to maximise its efficiency. Finally, there should be a particular focus on the most frequent errors and points of negative transfer from the students' L1. This approach would be beneficial to students and make them more efficient abstract writers in their future careers.

#### 6. Limitations and Suggestions for Further Research

The limitations of the present study lie in the fact that the students whose abstracts were analysed had varied linguistic backgrounds, both when it comes to their language learning experience in general as well as the EAP/ESP courses they attended

during their studies. The sample analysed in the present study was intended to provide a relatively randomised insight into the abstracts written by the students of this specific institution, which was why the individual differences between the students were not taken into account. Nevertheless, the sample in this study provides a limited view of students from a particular field of study. Further research could focus on students from different areas of study (e.g. technical, natural sciences, and so forth), providing broader insight into the quality of abstracts of Croatian students. We believe that the present study might open up some important avenues for further research aimed at investigating current practices in similar academic contexts, among students of different L1 backgrounds. Such investigations would enlighten the issues related to, among other things, L1 transfer and the influence of students' native culture in academic writing in English. Different qualitative methods could also be applied to supplement the quantitative results of this study such as think-aloud protocols or retrospective reports on the writing process. Such research would further provide insights into precise difficulties and contribute to enhancing the quality of abstract writing, which targets international readership.

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# Analiza sažetaka završnih i diplomskih radova hrvatskih studenata na engleskomu kao stranomu jeziku

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#### Sažetak

Važnost pisanja sažetaka znanstvenih radova leži u tome što su preduvjet za objavu u znanstvenim časopisima, sudjelovanje na konferencijama, prijavu projekata i slično. No, pisanje kvalitetnoga sažetka zahtjevan je zadatak za hrvatske studente koji su često suočeni sa zadatkom pisanja sažetka svog završnog ili diplomskog rada na engleskomu jeziku. Kako bi pružili uvid u vještine pisanja sažetaka hrvatskih studenata, učenika engleskoga jezika, na akademskoj razini, u ovomu radu predstavljena je analiza korpusa 100 sažetaka završnih i diplomskih radova studenata Filozofskog fakulteta Sveučilišta u Splitu. Provedena je analiza sastavnih dijelova sažetaka i određene su vrste i učestalost učeničkih pogrešaka. Rezultati su pokazali da u sažetcima često nedostaju osnovni podaci koji se očekuju u sažetku znanstvenoga rada kao što je jasno objašnjenje pristupa ili motivacija za rad. Što se tiče pogrešaka, studenti su imali najviše poteškoća sa članovima i prijedlozima. Leksičke pogreške, npr. pogrešan odabir riječi (kolokacije), također su bile učestale kao i problemi s interpunkcijom. Identifikacija ovih slabosti u vještini pisanja hrvatskih učenika od velike je važnosti za razvoj smjernica za poučavanje kako bi se olakšalo njihovo sprečavanje i eliminacija.

KLJUČNE RIJEČI: akademsko pisanje, engleski jezik, pogreške u pisanju, sažetci