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Intercultural pragmatics in the Global Englishes context: Some implications for developing intercultural communicative competence

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Abstract

The prevalent use of English as a lingua franca raises questions about the consequences for the practice of English Language Teaching. This paper investigates some of the pedagogical implications from the perspective of intercultural pragmatics. I argue that developing politeness strategies is an important aspect of enhancing learners' intercultural communicative competence. This is illustrated with the examples of speech acts such as requests, conditional threats and conditional promises. I draw attention to some fundamental misconceptions that may arise from an inadequate interpretation of cross-cultural findings, and argue that in order to establish which politeness strategies to use in the context of global communication, the focus of intercultural investigations needs to be shifted from studying lingua-cultural differences to studying lingua-cultural similarities.

Keywords

intercultural pragmatics, Global Englishes, intercultural communicative competence, English as a lingua franca, English Language Teaching

Pragmatyka międzykulturowa w kontekście globalnego języka angielskiego: implikacje dla rozwoju międzykulturowej kompetencji komunikacyjnej

Abstrakt

Powszechne używanie języka angielskiego jako lingua franca rodzi pytania o konsekwencje dla praktyki nauczania języka angielskiego. Poniższy artykuł bada niektóre implikacje pedagogiczne z perspektywy pragmatyki międzykulturowej. Stawiam tezę, że rozwijanie strategii grzecznościowych jest ważnym aspektem wzmacniania międzykulturowych kompetencji komunikacyjnych uczniów. Powyższa teza jest zilustrowana przykładami aktów mowy, takich jak prośby, groźby warunkowe i obietnice warunkowe. Zwracam uwagę na pewne fundamentalne nieporozumienia, które mogą wynikać z niewłaściwej interpretacji wyników badań międzykulturowych, i twierdzę, że aby ustalić, jakie strategie grzecznościowe zastosować w kontekście globalnej komunikacji, należy przesunąć punkt ciężkości dociekań międzykulturowych ze studiowania różnic językowo-kulturowych na badanie podobieństw językowo-kulturowych.

Keywords

pragmatyka międzykulturowa, globalne angielskie, międzykulturowa kompetencja komunikacyjna, angielski jako lingua franca, nauczanie języka angielskiego

1. Introduction

Today, English is most commonly used as a lingua franca (Galloway and Numajiri 2019). This use involves communication between users from diverse linguistic and cultural backgrounds in a variety of contexts, ranging from personal to educational, business and political. The prevalent use of English in global contexts raises questions about the consequences for English Language Teaching.

This paper investigates some of the implications that today's common use of English as a lingua franca has on pedagogical practice. The perspective taken is that of intercultural pragmatics, with a focus on speech acts such as requests, conditional threats and conditional promises.

The first part of this paper gives an overview of the Global Englishes framework and introduces the notion of intercultural communicative competence, which is crucially important when preparing learners for global communication. Then, three approaches to the study of intercultural pragmatics – cross-cultural communication, intercultural communication in interaction, and interdiscourse communication – are examined and an argument is made for the third of these approaches being the one best suited to the study of global communication.

The next sections look at the role of intercultural pragmatics and, more specifically, speech acts in an English language classroom. The concept of common ground is fundamental to the aspect of the intercultural communicative competence which I refer to as *politeness strategies*. This is followed by a discussion of whether cross-cultural comparisons can form the basis of recommendations for developing the intercultural communicative competence in learners. Some fundamental misconceptions that an inadequate interpretation of cross-cultural findings may yield are also addressed. Finally, I argue that in order to solve the pedagogical problem of which politeness strategies to use in the context of global communication, the focus of intercultural investigations needs to be shifted from studying lingua-cultural differences to studying lingua-cultural similarities.

2. Global Englishes

English as a Lingua Franca (ELF) refers to "any use of English among speakers of different first languages for whom English is the communicative medium of choice, and often the only option" (Seidlhofer 2011: 7). It involves communication between users from diverse linguistic and cultural backgrounds (Galloway and

Numajiri 2019) who need to understand a range of lingua-cultural norms and codes in order to achieve communicative success (Canagarajah 2005). Lingua franca communication transcends the standardised English codes which are introduced in a traditional TESOL classroom (Galloway and Numajiri 2019) and assessed by standardised language testing (Hall et al. 2013). Indeed, the multifaceted nature of contexts and functions of English in the globalised world has led to the development of the Global Englishes framework (Galloway 2013, Galloway and Rose 2015), which incorporates research in the field of World Englishes (focusing on national varieties of English, such as British English or Sri Lankan English), English as a Lingua Franca (examining the use of English as a world language within and beyond the nation-based varieties) and hybrid-language practices such as translanguaging and plurilingualism (Galloway 2013, Galloway and Numajiri 2019, Galloway and Rose 2015).

Among the consequences of reconceptualising English within the Global Englishes perspective is a growing interest in the pedagogical implications. In particular, six areas for change have been identified as those that are essential in making English language teaching (ELT) more reflective of how English is used today. Following Galloway and Numajiri (2019), these Global Englishes Language Teaching (GELT) proposals include:

- increasing World Englishes and ELF exposure in language curricula;
- emphasising respect for multilingualism in ELT;
- raising awareness of Global Englishes in ELT;
- raising awareness of ELF strategies in language curricula;
- emphasising respect for diverse culture and identity in ELT;
- changing English teacher hiring practices in the ELT industry.

One of the overarching goals of GELT-oriented curriculum innovation is to prepare users of English for communication in multilingual and multicultural contexts or, in other words, “to foster

intercultural communicative competence" (Galloway and Numajiri 2019: 5).

It is crucial to note that such intercultural communicative competence is intrinsically tied to the nature of ELF. As pointed out by Sung (2013: 177), ELF is not a variety of English; rather, it should be seen as a communicative activity. This activity is characterised by a variety of lingua-cultural contexts of use and a dynamic community of users "with different constellations of speakers of diverse first-language backgrounds in every interaction" (ibid.). In relation to English language teaching, Sung agrees with Hewings (2004) and Prodromou (2009), who argue that codified and standardised language models traditionally taught in TESOL classrooms should be thought of not as targets of learning but rather as reference points used to help learners develop their own variety of English and prepare themselves for communication in international contexts. As such, ELF is not in competition with the teaching of standardised varieties and forms of English, but is a functional extension of such teaching – an extension that enables learners to engage with English as it is used in real life.

In line with this argument, it is beneficial to expose learners to what Hall et al. (2015: 36-39) refer to as 'unstandardized' varieties of English, including the use of English by "native" as well as "non-native" speakers. Some examples of such exposure include:

- discovering the differences in spelling, pronunciation, use and meaning of slang words in the UK, USA, Australia and India (Lopriore 2016);
- raising students' awareness of accent variation (Sharifian and Marlina 2012);
- raising students' awareness of grammatical variation (McKay 2012);
- setting mini World Englishes research assignments for students to find information about the differences in pronunciation, grammar, vocabulary, idioms and communication styles

pertaining to different varieties of English (Matsuda and Duran 2012);
- conducting activities that focus on raising awareness of how different social and cultural contexts affect the nature of language and meaning (Bayyurt and Altinmakas 2012);
- enhancing cross-cultural awareness with the aim of developing students' confidence about using their own variety of English (Lee 2012);
- using international news media to illustrate the diversity of cultural values and stances that users of ELF come across (Hino 2012).

Notably, the examples above illustrate the wide range of linguistic and cultural phenomena that users of ELF encounter and need to negotiate in order to develop their confidence and achieve communicative success in real-life situations. The next section explores a concept crucial to successful ELF communication, namely that of intercultural communication. Guidance will be provided on how to implement the GELT recommendation to raise awareness of ELF strategies in language curricula. More specifically, the section will lay a foundation for implementing Bayyurt and Altinmakas' (2012) point of raising awareness of how different social and cultural contexts can affect the nature of language and meaning in ELF situations.

3. Intercultural communication

Scollon and Scollon (2001) distinguish three types of approaches to intercultural communication:

- cross-cultural communication,
- intercultural communication, and
- interdiscourse communication.

The cross-cultural approach presupposes the existence of distinct, often nation-based, cultural groups (British, American) and involves comparative studies of patterns in the communicative practices of such groups. The intercultural approach is

similar, in that it tends to begin with the assumption of cultural differences between distinct cultural or other (e.g. ethnic) groups, but it focuses on how members of such groups negotiate their differences in interaction. For the purposes of this paper, I will use the term 'intercultural communication in interaction' in this context; I will reserve the term 'intercultural communication' to refer to the field in general.

The third position listed above, namely the interdiscourse approach, assumes that in any communicative situation the participants are 'multiply positioned' within a complex system of identities (e.g. gender, age, ethnicity, profession, institutional, regional). These identities involve different ideologies and face relationships, and they may also be contradictory. Thus, the focus of the interdiscourse approach is the study of the dynamic, situated construction of cultural and other identities in discourse. In Scollon and Scollon's words (2001: 544), the aim of the interdiscourse approach is to ask "how and under what circumstances concepts such as culture are produced by participants as relevant categories for interpersonal ideological negotiation" (Scollon and Scollon 2001: 544).

As pointed out by Piller (2011), the different conceptualisations of intercultural communication listed above are not merely theoretical. They have real-life implications and may lead to social injustices, including unequal participation in education or the glass ceiling phenomenon which results from lingua-cultural stereotyping. Following Nakane (2007), Piller discusses the case of Japanese students in Australia whose silence in class was interpreted as part of their Japanese cultural identity. When interviewed, it transpired that most of the students wanted to participate actively but were uncomfortable about speaking up in class because they lacked confidence in their English, didn't know when they could speak or weren't sure about what was expected in class. Note that whereas the classification of silence as a cultural trait invites a passive acceptance of such behaviour on the part of the teacher, the

understanding of its real causes is likely to prompt the teacher to find a solution.

Similarly, the reproduction of cross-cultural stereotypes may put individuals working in international companies at a disadvantage. In this context, a study of Finnish-Swedish post-merger companies carried out by Vaara (2000, cited in Piller 2011) found that:

> […] organizational actors often find cultural differences convenient attribution targets. Consequently, failures or unsuccessful experiences are often purposefully attributed to cultural differences, while successes are explained by other factors, such as the management's actions. (Vaara 2000: 105)

What these two cases illustrate is that there is an association between cultural stereotyping and "explanations" of failure. Indeed, Vaara (2000: 105) goes on to posit the existence of a cognitive tendency to explain problems which arise in intercultural contexts by appealing to cultural differences.

In the field of ELT, the cross-cultural approach appears to be predominant. As discussed by Alptekin (2002), integrating language and culture has long been assumed to be pedagogically valuable. However, the problem is that ELT materials tend to present an 'an idealized image of the English-speaking culture' (Alptekin 2002: 60). As a result, learners are instructed to use and interpret language in reference to monolithic, often nation-based, assumptions about cultural norms, rather than in relation to specific communicative situations. Alptekin goes on to argue that, to match the reality of ELF communication, ELT materials should highlight both inter- and intra-cultural diversity.

Looking at the issue from the teacher training perspective, Dogancay-Aktuna (2005: 100) elaborates on Scollon and Scollon's (1995) framework, arguing that pedagogical decisions on incorporating intercultural awareness in an ELT classroom need to be grounded in developing the teachers' awareness of the learners' socio-cultural assumptions. This includes an

awareness of learners' common beliefs and dominant world-views (Do they hold stereotypes?), socialization experiences (What do they assume should be taught in a language class?), attitudes toward languages and communicative practices (Are they aware of sociolinguistic relativity?) as well as politeness norms (What kinds of topics do they consider face-threatening?). The author cautions against reproducing the monolithic view of the target lingua-culture through generalising and constructing simplistic dichotomies while discussing such issues. Preparing teachers for intercultural ELT – hence, preparing learners for intercultural communication – should involve demonstrating areas in which discourse systems may vary as well as raising awareness of individual variation and the dynamic nature of communication.

Similarly, Baker (2011) rejects the monolithic, nation-based, perspectives on language and culture and argues that the concept of intercultural competence needs to involve 'expanded competencies' that will allow learners to navigate the dynamics of real-life ELF exchanges. Crucial to the notion of expanded competencies is the emergent and dynamic view of language and culture, which involves an awareness of the relative nature of cultural norms and an understanding of how language and culture are negotiated in particular communicative situations. In short then, expanded competencies require moving beyond the stereotypes implicated in generalisations of the 'our culture' / 'their culture' type.

Given that ELF is not a variety of English, but a communicative activity characterised by dynamic lingua-cultural contexts and users (Sung 2013), the approach of interdiscourse communication, with its focus on the situated and dynamic nature of communication is suitable for ELF instruction. Considering this, as well as the aforementioned problems that lingua-cultural stereotyping may lead to, the teacher and learner preparation for intercultural ELF communication, should involve:

- raising awareness of the problems that lingua-cultural stereotyping may lead to in educational and professional settings;

- drawing attention to individual variation and the need to navigate the complex system of identities implicated in any conversational situation;
- discussing the above in relation to the monolithic lingua-cultural assumptions encountered in subject literature and teaching materials.

In the next section, intercultural communication is considered from the narrower perspective of intercultural pragmatics. In doing so, the grounds are laid for introducing another recommendation to the list above, namely:

- raising awareness of similarities in the politeness strategies implemented by users from diverse lingua-cultural backgrounds.

4. Intercultural pragmatics

Pragmatics is concerned with the use of language. It studies the ways in which meaning is communicated and interpreted by particular interlocutors in particular communicative contexts. The central topics of pragmatic inquiry include speech acts, conversational implicature, politeness, reference and deixis (e.g. Huang 2007, Levinson 2000).

How meaning is communicated and how utterances are interpreted depends, among other things, on the interlocutors' assumptions about their common ground, specifically the knowledge and beliefs that interlocutors in a conversation consider as shared for the purposes of communication (Clark 1994). As noted by Clark (1994: 989), successful communication depends on participants coordinating their actions through making assumptions about each other. Clark (1994: 989) distinguishes two types of common ground: communal common ground, which refers to the assumptions taken to be shared by members of the same community, and personal common ground, which concerns more specific mutual knowledge that interlocutors have learnt about each other from their previous experiences. In Clark's (1994: 990) words, common ground is

"the back-ground, the context, for everything the participants jointly do and say in [discourse]".

The concept of common ground is fundamental to understanding one aspect of intercultural communicative competence, namely social and pragmatic competence. Social and pragmatic competence involves an awareness of conversational conventions which, in turn, depend on the appreciation of how various relations between people and situational contexts affect the linguistic forms used in communication (e.g. Spiro 2013: 191). For example, a conversation between a boss and an employee may be more or less formal depending on the relationship between these two people. This in itself may depend upon their assumptions about each other's personalities, their knowledge of institutional codes which apply in a particular setting, as well as an understanding of the extent to which a particular interlocutor tends to abide by such codes. A parent-child discussion may be informal at a dinner table, assuming a partner-like relationship between them, but more formal in a school office in the presence of a teacher who is known to keep a degree of social distance in parent-teacher meetings. But what about talking to people whose background and conversational preferences are unknown to us? According to Friedrich (2021: 48), in such 'unfamiliar' contexts we draw on communicative strategies that help us make up for the missing information.

Friedrich (2021: 48) goes on to argue that such 'unfamiliarity' – which we can now conceptualise in terms of missing common ground assumptions – encountered when interacting with people we do not know, or do not know much about, is common in ELF situations, where linguistic diversity adds another dimension. Consequently, ELT classroom work should help students develop competence in choosing adequate and respectful communicative strategies.

What communicative strategies should be taught? According to Vettorel (2018), cooperative negotiation and the co-construction of meaning characteristic of ELF encounters involves a range of strategies for solving non-understandings or pre-

empting potential non-understandings, all of which should receive more attention in ELT classrooms and materials. This includes interactional strategies, such as appeals for help or comprehension checks; achievement/compensatory strategies, such as circumlocution, word-coinage and code-switching; stalling/time-gaining strategies, such as fillers; and self-monitoring strategies, such as self-initiated repair (c.f. Celce-Murcia et al. 1995) . In the next section, I argue that the list should be expanded to include *politeness strategies*. I elaborate on this proposal by focusing on speech acts.

5. Speech acts

Let me begin this section by describing a situation I encountered many years ago when I was an ELT practitioner teaching in-company English courses at a British company based in Poland. A British representative of the company, who was paying an official visit to the Polish site, commented on my students' English in the following way: *Your students' English is really good and I know they are nice people, but they come across as brusque. They should say 'please' more often.* Later, when I talked to my students about this comment, they were surprised: *Whenever I make requests in English, I say 'Could you …' instead of 'Can you …'. Isn't that polite enough?.*

Bardovi-Harlig and Mahan-Taylor (2003) have situations like this in mind when they point out that foreign language learners tend to use and understand certain speech acts differently from the native speakers of the target language. Such differences may be interpreted at a personal rather than linguistic level; for example, the learner's use of language may be interpreted as brusque or rude, potentially leading to denial of requests (Mahan-Taylor 2003). Considerations like these point to the importance of pragmatic instruction in ELT, the aim of which is to raise the learners' awareness about pragmatics and enable them to have control of their linguistic contributions (Bardovi-Harlig and Mahan-Taylor 2003). The authors stress

that such instruction should aim to familiarise learners with the range of available pragmatic devices and practices.

The situation I described above seems to agree with the extant research which suggests that the socio-pragmatics of, for example, Spanish, Greek, Polish, Russian and Hebrew is characterised by a greater employment of direct strategies for performing speech acts when compared to English (e.g. Blum-Kulka 1989, Sifianou 1992, Ogiermann 2009). Indeed, Chałupnik's (2011) study of request strategies found that Polish respondents chose a direct request strategy 34 % of the time, compared with 22 % in the case of English speakers. Direct criticism was chosen 48 % of the time by Poles, compared with 32 % in the case of English speakers. Let us consider these findings in relation to the anecdote that I started this section with. However, before I begin, a caveat is in order: in what follows I do not criticise the studies cited in this and the next section, but draw attention to a potential superficial interpretation of the generic findings of these studies.

Firstly, recall that *Could you …*? without *please* was not indirect enough according to the lingua-cultural conventions my visitor was operating within. This could be explained in relation to Chałupnik's generic findings: the lower preference for direct requests by English speakers than Polish speakers could explain the British visitor's perception of my students as brusque. However, the fact that my students wanted to be (and thought they were) polite enough, as we recall their comment on choosing *Could you …?* instead of *Can you …?*, could also be explained by Chałupnik's data. In this case, the relevant finding is the tendency of Polish speakers to avoid direct strategies for making requests – after all, 66 % of the time direct requests were not chosen by the Polish respondents. Furthermore, the fact that direct requests were not rejected outright by the English respondents (direct requests were chosen 22 % of the time) could explain the fact that my visitor did not hedge his recommendation that my students *should say 'please' more often*. Another problem is that, by definition, a cross-cultural (i.e. nation-

based) approach will not focus on the question of whether my visitor's directness may have been a matter of power relations – the visitor might have felt entitled to be direct when talking to me because he was in a senior position to both my students and myself. Neither will the cross-cultural approach look at the question of whether personal relations between the interlocutors could have been at play here – the visitor might have felt entitled to be direct when talking to me because he was a good friend of mine.

What I hope to have shown with this example is this: when we focus on the differences between the purported nation-based cultures, cross-cultural approaches to lingua-cultural politeness will inevitably yield results which over-generalise and are thus nonexplanatory. What they show is that there may be some nation-based tendencies, but they are too generic to focus on individual variation. In other words, they are not fine-grained enough to be used as a basis for making recommendations on how to interact when talking to the English, the Polish, the Germans, etc.

Considerations like these illustrate the limitations in the explanatory power of cross-cultural generalisations. This in turn gives further credibility to the calls to embed the interdiscourse approach in ELF communication studies. Such an approach is in line with Widdowson's (1998) more general observation that for language to be pragmatically authentic, it needs to be situated, or localised, in a specific discourse community. This is true of any communicative context, including the pragmatic choices that speakers make in ELF situations.

However is there anything about cross-cultural findings that could serve as a basis for ELF practice recommendations? In fact, cross-cultural findings could be directly applied to solving the problem of what politeness strategies to use in the context of missing common ground assumptions (Friedrich's 'unfamiliar' contexts). However, this will only be possible when the focus is shifted from the differences revealed in cross-cultural studies to the *similarities* uncovered by such studies. In this

context, note that what Chałupnik's study of English and Polish request preferences demonstrates is that, despite a higher tolerance for direct requests among the Polish respondents, there is a *tendency to avoid direct requests by speakers of both languages*. The implication of this is as follows: even though direct requests in English (and Polish) are acceptable in some situations for some users (e.g. between friends), in unfamiliar contexts, including ELF contexts, it is advisable to use indirect requests because direct requests may come across as brusque. This should be accompanied by an overview of structures used to make direct and indirect requests in English and their comparison to the structures used in the students' first language.

In the next section, I look more specifically at the intercultural pragmatic aspects of conditional inducements. This will help to illustrate another problem with interpreting cross-cultural findings.

6. Conditional inducements and intercultural pragmatics

Conditional inducements are statements made to influence the hearers' behaviour by telling them about the consequences of their behaviour (Searle 1971). They can take the form of a conditional promise, as in (1) below, or a conditional threat, as in (2).

(1) *If you work hard, I'll take you to a restaurant.*
(2) *If you don't eat your dinner, I won't give you the pudding.*

The conditional promise (1) is used to influence the hearer's behaviour by promising that a reward will be given (the hearer will be taken to a restaurant by the speaker) if the hearer performs the action desired by the speaker (the hearer works hard). The conditional threat (2) is used to influence the hearer's behaviour by threatening that a punishment will ensue (the hearer will not get the pudding) if the hearer behaves in a way which is undesired by the speaker (the hearer doesn't eat the dinner).

Note that speakers have a choice of formulating the inducement in (1) as a threat (*If you don't work hard, I won't take you to a restaurant*) and the inducement in (2) as a promise (*If you eat your dinner, I will give you the pudding*). The difference in the formulation of a conditional inducement is of a motivational type (e.g. Beller 2002, Beller et al. 2005, Fillenbaum 1986, Searle and Vanderveken 1985). Put simply, it is about framing the incentive as a reward or as a punishment. This motivational difference carries with it a wealth of assumptions about the speaker's deontic commitments, which are grounded in a network of complex social relations that the interlocutors assume of each other (part of their common ground). These assumptions concern the questions of what the speaker of a conditional inducement is or isn't permitted and obliged to do. For example, does the speaker have to inflict the stated punishment if the hearer of a conditional threat does not cooperate?

For the purposes of this paper, I will consider two experimental studies of conditional inducements. The first is Beller et al.'s (2005) study into conditional promises and threats in German. The second is Sztencel and Clarke's (2018) English language replication of Beller's original study. Both studies were cognitive and neither of them were cross-cultural in nature (but see Beller et al. 2004, 2009); however, the fact that we have two sets of data from two languages, which were collected with the same instrument, allows us to compare the two sets of findings. In both cases, the participants were university students. In Beller et al.'s (2005) study, there were 66 students, 34 of whom were male and 32 female, with the mean age of 22.7 years (age range 20-32). 70 students took part in Sztencel and Clarke's (2018) study, 34 of whom were male and 36 female, with a mean age 20.1 years (age range 18-32). In what follows, I focus on one of the tasks that the participants in both studies completed, namely the formulation task, which I explain below.

Let us look deeper into the question of how conditional inducements can be formulated. Following Beller et al. (2005), I will use the term canonical to refer to "if p, then q" formulations,

in which the information about the hearer's behaviour temporally/linearly precedes the information about the (dis)incentive, as in (1) and (2) above. As already discussed, the conditional promise in (1) can be (re-)formulated as a threat and the conditional threat in (2) can be (re-)formulated as a promise. The resulting (re-)formulations – *If you don't work hard, I won't take you to a restaurant* and *If you eat your dinner, I will give you the pudding* – will be referred to as *complementary* formulations. Arguably, some conditional promises can also be formulated using a *reversed* form of "if *q*, then *p*" (*If I give you the pudding, you will eat the dinner*). However, the reversed formulation is inappropriate for conditional threats (?*If I don't take you to a restaurant, you won't work hard*). Conversely, it seems that conditional threats can be formulated using the reversed-complementary form, resulting in *If I take you to a restaurant, you will work hard*, but promises cannot *(?If I don't give you the pudding, you won't eat the dinner*).

In the formulation task, the participants were provided with a mutual exchange scenario, like the one below, and informed about whether the speaker will use a promise or a threat.

> Usually, Frank doesn't lend his bike to his schoolmates. However, Henry wants to borrow it today. Henry tries to reach this goal by ***threatening*** Frank with something. Henry knows that Frank would like his help with today's homework, and usually Henry helps him.

The participants were then presented with four conditionals (canonical, complementary, reversed and reversed-complementary) and instructed to select the one that seemed 'the best choice' for the speaker's intended inducement. The choices were:

(a) "Frank, if you lend me your bike, then I will help you with your homework."
   - *Canonical* for promises, *complementary* for threats

(b) "Frank, if you do not lend me your bike, then I will not help you with your homework."
   - *Canonical* for threats, *complementary* for promises

(c) "Frank, if I help you with your homework, then you will lend me your bike."
   - *Reversed* for promises, *reversed-complementary* for threats

(d) "Frank, if I do not help you with your homework, then you will not lend me your bike."
   - *Reversed-complementary* for promises, *reversed* for threats

The participants were assigned into four experimental groups, which varied by the type of the inducement and the ordering of the choices. Table 1 summarises the findings from the formulation task in the German and English studies.

In the German study, the results revealed no significant statistical difference in the frequency of the canonical formulation of conditional promises and threats when compared with the total of the other three possibilities (Beller et al. 2005). However, this difference was significant in the English study (p=.028). In short, the participants in the English study were keener to avoid the canonical threat formulation than the participants in the German study: a significant number of English participants formulated the threat as a promise (*complementary*) or a reversed promise (*reversed-complementary*). We could say that these participants chose to threaten indirectly.

At this point, one might be tempted to attribute this difference to cross-cultural variation, especially when one learns that Beller and Bender's (2004) study found a significant difference in the Tongan participants' formulation preferences. 64 % of the Tongan participants chose the canonical promise formulation (reversed = 18 %, complementary = 12 %, reversed-complementary = 6 %) and only 41 % of the Tongan participants chose the canonical threat formulation (complementary = 38 %, reversed-complementary = 21 %).

Table 1
Summary of the formulation task choices for German (Beller et al. 2005) and English (Sztencel and Clarke 2018)

	German	English
Promises %		
Canonical	94	86
Complementary	6	-
Reversed	-	11
Reversed-complementary	-	3
Threats %		
Canonical	85	62
Complementary	15	23
Reversed	-	-
Reversed-complementary	-	15

Beller and Bender (2004: 89) suggest that because "cooperation and particularly sharing with others are core values in the Tongan society, threats *may* simply be not appropriate as a means of initiating an exchange" [my emphasis added].In cross-comparison, the English participants were more likely to choose the canonical threat formulation than the Tongans, but less likely to do so than the Germans. But can we be sure that this variation is due to the cross-cultural differences in social conventions?

Sztencel and Clarke (2018) voice a concern about attempts to interpret these differences in cross-cultural terms. First, unlike the participants in Beller et al.'s (2005) and Sztencel and Clarke's (2018) studies, Beller and Bender's (2004) Tongan participants were secondary school students with the mean age of 15.4. Thus, a feasible interpretation of the difference is that the older German and English students were more successful at disregarding their the socio-linguistic conventions for the purpose of engaging in the formulation task. It may be the case that the participants who chose the canonical threat formulation in any of the three studies would actually choose to formulate their inducements as promises in real life. Indeed, in Beller et al.'s

(2009) German study, in which the participants were secondary school students with the mean age of 16.6, only 16 % chose the canonical threat formulation (59 % complementary, 22 % reversed). In other words, the choice of the indirect strategy among the secondary-school German participants was higher than among the Tongan, the English and the German participants that took part in Beller et al.'s 2005 study. Again, these participants' choices may have been influenced by their real-life linguistic preferences in combination with an under-developed skill at putting aside their socio-linguistic conventions in order to follow the instructions of an experimental study.

Based on this overview, the recommendation for practice will be similar to the one that I made for requests. Even though conditional threats are used in English (and German and Tongan) in some situations by some users (presumably, an example would be parent-child communication), in unfamiliar contexts, including ELF contexts, it is advisable to formulate conditional inducements as conditional promises. This should be accompanied by a discussion of the differences between conditional threats, which are likely to be interpreted as impolite, and conditional warnings (e.g. *If you don't work hard, they'll fire you; If you don't press this button now, the engine will explode*), which are acceptable. This should be followed by a comparison with the relevant structures used in the students' first language.

Note that when politeness strategies are taken into account, it is no longer sufficient for ELT materials to highlight inter- as well as intra-cultural diversity in order to match the reality of ELF communication (c.f. Alptekin 2002). I hope to have demonstrated that the similarities in the use of pragmatic politeness strategies by speakers with different lingua-cultural backgrounds also need to be highlighted.

7. Conclusion

This paper set out to investigate some implications that the use of English as a lingua franca has on the practice of English

Language Teaching. The question has been discussed in the context of the Global Englishes framework and linked to the interdiscourse approach to the study of intercultural pragmatics. I have argued that *politeness strategies* are an important aspect of developing learners' intercultural communicative competence. This competence stresses the significance of intercultural pragmatics instruction in an English language classroom.

I have drawn attention to the fact that an inadequate interpretation of cross-cultural data may give rise to fundamental misconceptions about intercultural communication. Finally, I have argued that the focus of intercultural communication studies needs to be shifted away from the investigation of differences and toward the investigation of similarities in communicative strategies and trends used by speakers from different lingua-cultural backgrounds. Such a shift will allow us to determine what politeness strategies should be employed in the context of using English for global communication.

References

Alptekin, Cem (2002). "Towards Intercultural Communicative Competence in ELT". *ELT Journal* 56/1: 57-64.

Baker, Will (2011). "Intercultural awareness: Modelling an understanding of cultures in intercultural communication through English as a lingua franca". *Language and Intercultural Communication* 11/3: 197-214.

Bardovi-Harlig, Kathleen, Rebecca Mahan-Taylor (2003). "Introduction to teaching pragmatics". *English Teaching Forum* 41/3: 37-39.

Bayyurt, Yasemin, Derya Altinmakas (2012). "A WE-based English Communication Skills Course at a Turkish University". In: A. Matsuda (ed.). *Principles and Practices of Teaching English As an International Language*. Bristol: Multilingual Matters, 169-182.

Beller, Sieghard (2002). "Conditional promises and threats – cognition and emotion". In: Wayne D. Gray, Christian D. Schunn (eds.). *Proceedings of the Twenty-Fourth Annual Conference of the Cognitive Science Society*. Mahwah, NJ: Lawrence Erlbaum, 113-118.

Beller, Sieghard, Andrea Bender (2004). "Cultural differences in the cognition and emotion of conditional promises and threats – comparing Germany and Tonga". In: Kenneth D. Forbus, Dedre Gentner, Terry Regier (eds.). *Proceedings of the Twenty-Sixth Annual Conference of the Cognitive Science Society*. Mahwah, NJ: Lawrence Erlbaum Associates Inc., 85–90.

Beller, Sieghard, Andrea Bender, Gregory Kuhnmünch (2005). "Understanding Conditional Promises and Threats". *Thinking and Reasoning* 11/3: 209-238.

Beller, Sieghard, Andrea Bender, Jie Song (2009). "Conditional Promises and Threats in Germany, China, and Tonga: Cognition and Emotion". *Journal of Cognition and Culture* 9: 115-139.

Blum-Kulka, Shosana (ed.) (1989). *Cross-Cultural Pragmatics: Requests and Apologies*. Norwood: Ablex Publishing Corporation.

Canagarajah, Suresh (2005). *Reclaiming the Local in Language Policy and Practice*. Mahwah, NJ: Lawrence Erlbaum.

Celce-Murcia Marianne, Zoltan Dörnyei, Sarah Thurrel (1995). "Communicative Competence: A Pedagogically Motivated Model with Content Specification". *Issues in Applied Linguistics* 6/2: 5–35.

Chałupnik, Małgorzata (2011). "Realisation of requests and criticisms in Polish and British English. Working With English: Medieval and Modern Language". *Literature and Drama* 7: 33-45.

Dogancay-Aktuna, Seran (2005). "Intercultural communication in English language teacher education". *ELT Journal*, 59/2: 99-107.

Eslami, Zohreh R. (2011). "In Their Own Voices: Reflections of Native and Nonnative English Speaking TESOL Graduate Students on On-Line Pragmatic Instruction to EFL Learners". *TESL-EJ*, 15/2: 1-21.

Fillenbaum, Samuel (1986). "The use of conditional inducements and deterrents". In: Traugott, Elizabeth Closs, Alice ter Meulen, Judy Snitzer Reilly, Charles A. Ferguson (eds.). *On Conditionals*. Cambridge: Cambridge University Press, 179–195.

Friedrich, Patricia (2012). "ELF, intercultural communication and the strategic aspect of communicative competence". In: Aya Matsuda (ed.). *Principles and practices of teaching English as an international language*, vol. 25, Bristol: Multilingual Matters, 44-54.

Galloway, Nicola (2013). "Global Englishes and English language teaching (ELT): Bridging the gap between theory and practice in a Japanese context". *System* 41: 786–803.

Galloway, Nicola, Takuya Numajiri (2019). "Global Englishes Language Teaching: Bottom-up Curriculum Implementation". *TESOL Quarterly*, 1-28.

Galloway, Nicola, Heath Rose (2015). *Introducing Global Englishes*. Abingdon, England: Routledge.

Hall, Christopher J., Patrick H. Smith, Rachel Wicaksono (2015). *Mapping Applied Linguistics: A Guide for Students and Practitioners*. Abingdon-on-Thames, UK: Routledge.

Hall Christopher J., Rachel Wicaksono, Shu Liu, Yuan Qian, Xu Xiaoqing (2013). "English reconceived: Raising teachers' awareness of English as a 'plurilithic' resource through an online course. *ELTRA Research Papers*: 13–05. Available at http://teachingenglish.britishcouncil.org.cn/sites/teacheng/ files/D053 %20Raising %20teachers %20awareness %20of %20English_ONLINE %20FINAL.pdf

Hewings, Martin (2004). *Pronunciation Practice Activities: A Resource Book for Teaching English Pronunciation*. Cambridge: Cambridge University Press.

Hino, Nobuyuki (2012). "Participating in the Community of EIL Users Through Real-Time News: Integrated Practice in Teaching English as an International Language (IPTEIL)". In: Aya Matsuda (ed.). *Principles and Practices of Teaching English As an International Language*. Bristol: Multilingual Matters, 183-200.

Lee, Hyewon (2012). "World Englishes in a High School English Class: A Case from Japan". In: Aya Matsuda (ed.). *Principles and Practices of Teaching English As an International Language*. Bristol: Multilingual Matters, 154-168.

Lopriore, Lucilla (2016). "ELF in Teacher Education: A Way and Ways". In: Lucilla Lopriore, Enrico Grazzi (eds.), *Intercultural communication: New perspectives from ELF* Rome, Italy: Roma TrE-Press, 167– 188.

McKay, Sandra Lee (2012). "Teaching Materials for English as an International Language". In: Aya Matsuda (ed.). *Principles and Practices of Teaching English As an International Language*. Bristol: Multilingual Matters, 70-83.

Matsuda, Aya, Chatwara Suwannamai Duran (2012). "EIL Activities and Tasks for Traditional English Classrooms". In: Aya Matsuda (ed.). *Principles and Practices of Teaching English As an International Language*. Bristol: Multilingual Matters, 201-238.

Nakane, Ikuko (2007). *Silence in Intercultural Communication. Perceptions and Performance*. Amsterdam: John Benjamins Publishing Company.

Ogiermann, Eva (2009). "Politeness and In-directness Across Cultures: A Comparison of English, German, Polish and Russian Requests". *Journal of Politeness Research* 5: 259- 286.

Prodromou, Luke (2009). "Review of English as a lingua franca: A corpus-based analysis". *ELT Journal* 63: 78-81.

Scollon, Ron, Suzanne Wong Scollon (1995). *Intercultural Communication*. Oxford: Basil Blackwell.

Scollon, Ron, Suzanne Wong Scollon (2001). "Discourse and Intercultural Communication". In: Deborah Schiffrin, Deborah Tannen, Heidi E. Hamilton (eds.). *The Handbook of Discourse Analysis*. Oxford: Blackwell, 538-547.

Searle, John R. (1971). "What is a speech act?". In: J. R. Searle (ed.). *The Philosophy of Language*. London: Oxford University Press, 39-53.

Searle, John R., Daniel Vanderveken (1985). *Foundations of Illocutionary Logic*. Cambridge: Cambridge University Press.

Seidlhofer, Barbara (2011). *Understanding English as a Lingua Franca*. Oxford: Oxford University Press.

Sharifian, Farzad, Roby Marlina (2012). "English as an International Language (EIL): An innovative academic". In: Aya Matsuda (ed.). *Principles and Practices of Teaching English As an International Language*. Bristol: Multilingual Matters, 140-153.

Sifianou, Maria (1992). *Politeness Phenomena in England and Greece: a Cross-Cultural Perspective*. Oxford: Clarendon Press.

Spiro, Jane (2013). *Changing Methodologies in TESOL*. Edinburgh: Edinburgh University Press.

Sung, Chit Cheung Matthew (2013). "English as a lingua franca and its implications for English language teaching". *JALT Journal* 35/2: 177-194.

Sztencel, Magdalena, Leesa Clarke (2018). "Deontic commitments in conditional promises and threats: towards an exemplar semantics for conditionals". *Language and Cognition* 10/3: 435-466.

Vettorel, Paola (2018). "ELF and communication strategies: Are they taken into account in ELT materials?". *RELC Journal* 49/1: 58–73.

Widdowson, Henry G. (1998). "Context, community, and authentic language". *TESOL Quarterly* 32/4: 705–16.

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Corpus analysis in applied linguistics: Selected aspects

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Abstract

Recently, teaching and learning processes have been significantly influenced by modern technologies. Thus, the teacher's position as the only authority in the classroom has been changed into playing the role of a guide or a facilitator who should possess the knowledge and skills to use modern technologies and to freely access data. This change is particularly visible in the field of teaching and learning languages with the application of various educational platforms and software. Since this situation has been widely discussed since the 1990s, for the sake of this article only selected aspects have been taken into account. The major focus of the present article is to present language corpus analysis as a method of activating teachers and students as participants in the Data-Driven Learning (DDL) process.

Keywords

corpus analysis, DDL, activisation

Analiza korpusowa w językoznawstwie stosowanym: wybrane aspekty

Abstrakt

Rozwój technologii w znaczny sposób wpłynął na proces nauczania i uczenia się języka obcego. W konsekwencji, nauczyciel zmienił swoją pozycję z jedynego autorytetu w klasie na rolę przewodnika oraz moderatora, który powinien posiadać wiedzę i umiejętności pozwalające na wykorzystanie technologii i ogólnie dostępnych danych językowych. Widać to szczególnie w dziedzinie nauczania języków obcych, gdzie wykorzystywane są platformy i komputerowe programy edukacyjne. W związku z faktem, iż wpływ technologii na proces kształcenia opisywany jest w literaturze przedmiotu już od roku 1990, niniejszy artykuł omawia jedynie wybrane aspekty z tego zakresu. Główna uwaga poświęcona jest zagadnieniu analizy korpusowej jako metody aktywizacji nauczycieli i uczniów/ studentów poprzez proces uczenia się opartego na danych (Data-Driven Learning).

Słowa kluczowe

analiza korpusowa, DDL, aktywizacja

1. Introduction

The development of technology and the first computers paved the way for changes in all fields of research, including teaching and learning foreign languages. Thus, the traditional methods of introducing knowledge to students as well as the practice of various skills embraced the possibility of methods connected with computers, virtual reality, and free, easy language resources available for public use.

A language resource that is of core interest to this work is represented by the language corpus and teaching/learning method that is Data-Driven Learning (DDL). One of the most obvious applications of a language corpus is that it can function

as a source of knowledge about the target language's forms, use or statistics. Thus, in this respect language corpora constitute an alternative to a dictionary where the focus is mostly on meaning and possible examples where the form is used. One should also bear in mind that a language corpus as a whole always has a digital form, compared to dictionaries that traditionally have a printed form which is subsequently accompanied by a digital form. Yet, the aim of this work is to present how corpus analysis enhances language teaching and learning by offering methods and data that are not available elsewhere. However, bearing in mind the pace of the development of corpus linguistics as well as the abundance of publications connected with this field, for the sake of this article only selected aspects and corpora are further discussed. Thus, the following parts introduce a number of suggestions related to the practical application of language corpora and analysis on the basis of selected corpora for English and Polish.

2. Corpus linguistics

Although corpus linguistics has gained its position relatively recently, the origins of corpus linguistics, yet in a form different from the contemporary one, may be traced back to the 13th century (O'Keeffe and McCarthy 2010). As O'Keefe and McCarthy point out, the need for preparing wordlists and the creation of concordances were methods of Bible exegesis where scholars (mostly monks) and their students indexed the Bible hoping to find divine authorship. Another example mentioned by O'Keefe and McCarthy with reference to religious texts is the work by Anthony of Padua who first listed concordances in the Vulgate Bible. Further developments in the methods of indexing texts for wordlists and concordances were expanded on other kinds of texts, for example Shakespeare's works were annotated for concordances until the late 18th century (O'Keeffe and McCarthy 2010).

However, it is the 20th century with the advent of computers that brought about the most significant breakthrough in the corpus approach to language. The first attempts to create a machine-readable language corpus were made in the 1960s by Francis and Kučera (the Brown Corpus). Yet, with the generative approach to language at that time, their effort met with a significant amount of criticism. Generative grammar emphasizes the importance of a speaker's intuition and it concentrates on an explanatory adequacy, looking for universal language paradigms and principles. Corpus linguistics, by contrast, focuses on descriptive adequacy and examines the well-formedness and grammaticality of sentences (Meyer 2002). At the end of the 20th century, corpus linguistics gained its position and significance as a field of study and it has been acquiring greater importance ever since.

As far as the applicability of corpus linguistics is concerned, McEnery and Wilson (2011) highlight that corpus linguistics is a useful tool for identifying and characterising particular aspects of language use as well as researching these aspects from a linguistic perspective. Further the two authors (McEnery and Wilson) point out that multiple areas of linguistics derive from corpus linguistics, yet each area requires different methodology to analyse language, which has its consequence in the distinction between corpus-based and non-corpus based studies. Since corpus linguistics accounts for the complexity of language as a communicative tool with the application of interfering data (a corpus-based analysis), it stands in opposition to the generative approach whose major task is to study context-independent and most of all universal rules of language (non-corpus based studies) (Meyer 2002).

Consequently, the above-mentioned aspects raise the question of the reasons for creating different kinds of corpora. According to Renouf (2007), the three main arguments for the creation of corpora centre around the issue of science (the scientific drive for the observation and the analysis of data to test various scientific hypotheses), a pragmatic need (defined in practical

categories of the availability of data, funding and formal and technological solutions that are required for such research) and 'a fluke' (understood as an opportunity to start a new initiative that meets certain research or market demands). Moreover, Renouf (2007) mentions that the above factors highly influence both the size and the possible applications of a corpus with the tendency for small and specialised corpora, e.g. Freiburg-LOB Corpus of British English (FLOB) or the Freiburg-Brown Corpus of American English (FROWN) to compare relatively modern corpora with earlier corpora.

Thus, the application of language corpora is the most significant aspect motivated by the need for the investigation of language use in context, where the research data that is collected from a vast array of language users is the greatest benefit to the analysis (Meyer 2002). The usability of a given corpus is partially defined by its size as Meyer (2002) states that large corpora are particularly necessary for inferring details connected with grammatical constructions, forms, frequency, context or communicative power, whereas smaller corpora also possess scientific potential as long as they contain a collection of particular constructions. Undoubtedly, these are lexicographers that benefit from the use of corpus analyses by inferring information about lexical units, their range, morphological realisations and possible meanings; additionally, most of the lexicographic analysis is a largely automatic process (performed by means of computer programmes that provide data such as frequencies of words, lemmas, key words in context, tagged parts of speech) (Meyer 2002). Furthermore, the above method, as Mayer (2002) claims, is also widely applied to studying meanings and the actual uses of words which, without a corpus, are difficult to identify.

Additionally, language corpora are a way of registering language variations of different kinds, such as sociolinguistic characteristics (gender, age, ethnicity) that are represented in metadata. Following Meyer (2002), there is a choice of software

that can be used for the above purpose, an example of which is SARA (available at natcorp.ox.ac.uk/archive/SARA/index.xml).

Historical linguistics can also profit from corpus linguistics and corpus analysis. Two examples of this kind of corpora are the LOB and FLOB corpora (two parallel synchronic corpora) where one can compare language changes as well as variation in grammar and lexis (Renouf 2007). However, as Renouf (2007) points out, diachronic corpora are very often based on chronologically ordered texts or corpora that offer a selection of consequent texts (RDULES unit of the AVIATOR project available at rdues.bcu.ac.uk/aviator.shtml), which allows for the analysis of productive and creative aspects of language, collocation changes as well as word sense or meaning modifications.

Still other fields like translation studies or contrastive analysis develop due to the use of parallel corpora which (according to Meyer 2002) provide information about syntax, morphology or pragmatic aspects of translated text that can be further contrasted and compared. Parallel corpora, based on bilingual dictionaries created for this purpose, can be used for training translators and although it is a demanding task, there is software like Paraconc (paraconc.com) that facilitates the above mentioned procedures (Meyer 2002).

2.1. Examples of corpora

Corpus linguistics has gained its popularity recently, which has as its consequence the fact that a growing number of scholars and businesses are interested in projects which allow for the creation of corpora and making such corpora publicly available. As Lee (2010) points out these are not only English language corpora that are commonly used for corpus analysis but also public corpora for other languages which find their application in language study and research. The access to corpora is offered by distribution agencies and archives sites, with International Computer Archive of Modern and Medieval English (ICAME) (icame.uib.no), Linguistic Data Consortium (LDC) (ldc.upenn.

edu), CLARIN-PL (Common Language Resources and Technology Infrastructure available at clarin-pl.eu/) for Polish, and the Oxford Text Archive (OTA) (ota.bodleian.ox.ac.uk/repository/xmlui) to name a few, but as Lee (2010) highlights, access may be restricted due to the copyright or funding of these corpora.

Additionally, it must be underlined that, as far as parallel corpora are concerned, these are bidirectional and offer information about source texts as well as their translations to facilitate comparison between languages (Lee 2010). One such project that allows for the creation of lexicons and also monolingual corpora in 14 languages is The Preparatory Action for Linguistic Resources Organisation for Language Engineering (PAROLE). It offers standards and specifications for cross-linguistic analysis (Lee 2010). As far as strictly bidirectional parallel corpora are concerned, Lee mentions the English–Norwegian Parallel Corpus (ENPC) and the English–Swedish Parallel Corpus (ESPC).

An interesting example of corpora are those that include multimodal information, including speech transcripts connected with original audio or video recordings. Following Lee (2010), this allows for research into such aspects as prosody, gestures, and situated discourse to name only a few. The Scottish Corpus of Texts and Speech (SCOTS) is often quoted as an example model of this kind of corpora with its 4 million written and spoken texts (Lee 2010) as is SPOKES (http://spokes.clarin-pl.eu/) which currently contains 247,580 utterances (2,319,291 words) in transcriptions of spontaneous conversations (Pęzik 2015).

Additionally, another useful solution for gathering necessary linguistic data is offered by the almighty power of the Internet. Thus, the Web can be treated as a corpus that allows one to find relevant data. This corpus, as Lee (2010) points out, is either dynamic or static including information connected with one particular moment of use or information that is constantly updated for new language sources. Examples of this application of the Internet include Web concordancers (e.g. WebCorp, WebKWiC, KWiCFinder) to make research into concordance, the

Linguist's Search Engine which can be used to examine syntactic structures on the basis of parsed trees and the static web corpus ukWaC where two billion English words are lemmatized and tagged for parts of speech (Lee 2010).

2.2. Learner corpora

Since the major focus of the present work is on the relationship between language corpora, corpus analyses and their possible applications in language teaching and learning, it must be emphasized that these pedagogical implications resulted in the appearance of non-native speaker corpora (including written and spoken learner language). The corpus released in 2002 by Granger, Dangneaux and Meunier serves as an illustration of this pedagogical trend. In Tribble (1997) or Aston (2002) one can read about corpora created by students which centre around either genres or topics of particular interest to the group of students. Further, Braun (2005) developed a corpus of spoken English – ELISA – on the basis of a collection of interviews. Following Widdowson (1991, 2003), ELISA incorporates the principle of pedagogical mediation and the entire corpus is consistent, as far as pedagogical conceptualization is concerned, with respect to annotation, enrichment and search procedures. Thus, it promotes authentic data for learners since it uses both a great deal of decontextualized textual data as well as context-dependent interaction data (Widdowson 2003). It is worth noting that the European Minerva project SACODEYL (2005-08) (Braun 2010, Hoffstaedter and Kohn 2009, Pérez-Paredes and Alcaraz-Calero 2009, Pérez-Paredes 2010, Widmann, Kohn and Ziai 2010) also uses ELISA's pedagogical approach to a great extent including the design and corpus tools.

However, there are corpora dedicated to students who learn foreign languages. An example of such corpus is the Longman's Learner Corpus based on data gained from ESL students. Later, as Meyer (2002) points out, this corpus was used to write a dictionary which included suggestions for students' common

mistakes and strategies on how to counteract them. This information is also useful for teachers. Also, Lee (2010) references the International Corpus of Learner English (ICLE) created on the basis of students' argumentative essays illustrating different English language backgrounds.

Two further interesting examples of learner corpora are the CHILDES database and the Polytechnic of Wales (POW) Corpus (Lee 2010). These are resources that focus on data from children acquiring their native language. These resources are known as developmental corpora and they can assist in research into the way language forms are developed during the process of learning a first language (Lee 2010).

Obviously, this referential function as far as language is concerned is also fulfilled by traditional reference grammars that offer advice on how to form grammatical constructions in accordance with the rules of language (largely a prescriptive approach). An example of this is the corpus-based research of Quirk, Greenbaum, Leech, and Svartvik, which was published in 1972 (Meyer 2002). These scholars were pioneers in using corpora of written and spoken language to explain grammatical constructions.

3. Data-Driven Learning (DDL)

Data-Driven Learning (DDL) seems to be the best solution for the development of metalinguistic knowledge and learner autonomy since this method applies authentic language materials "to empower both teachers and students to develop competences in moving away from mere surface features of a text to selecting and understanding meanings and structures" (Corino and Onesti 2019: 1). One of the first advocates of this method was Johns (1991) who compared every student to Sherlock Holmes discovering the intricacies and mysteries of a language. Similarly, Sinclair (2004) praises corpus-based teaching for the use of authentic language materials. Moreover, Cobb and Boulton (2015) highlight that what is most valuable to the method is

the substantial exposure to authentic language input in a controlled way. Furthermore, among the merits of DDL, Boulton (2016: 3) emphasizes the exploitation of the following elements/aspects: authenticity, autonomy, cognitive depth, consciousness raising, constructivism, context, critical thinking, discovery learning, individualization, induction, learning-to learn, life-long learning, (meta)cognition, motivation, noticing, sensitization and transferability. However, it must be acknowledged that using DDL as an effective method requires time, practice, computer skills and most of all it must find favour with the students (especially those who do not feel comfortable with technological devices). Also, as Meunier (2011) points out, DDL necessitates considerable user investment in time and practice in order to use the data efficiently. As a result the role of a teacher changes from that of a sole authority possessing necessary knowledge to that of "a consultant, guide, coach and/or facilitator" (Suan Chong 2016). As far as students are concerned, whenever they attempt to solve language problems, they activate HOTS (higher order thinking skills), which will result in long-term knowledge retention and improved language skills (Corino and Onesti 2019: 2). Thus DDL, being a hands-on approach, provides opportunities for both teachers and students in indirect and direct applications of corpora in teaching and learning languages.

4. Discussion

As has been discussed above, there have been various types of corpora and different reasons for their creation. Without any doubt, language corpora are valuable language resources with multiple applications and the potential to fulfil different functions. However, the aim of this work is to see if corpus analysis (or working with corpora) can influence the teachers' work and facilitate or enhance the process of learning. Thus, the assumption that is made for the sake of this article is that corpus analysis is a method of activating teachers and students. As follows,

the further discussion focuses on selected aspects connected with possible practical uses of corpus analysis in the teaching/learning process.

The first and foremost aspect of corpus analysis concerns the idea of the corpus as a source of knowledge about language itself. As a result, corpus analysis allows teachers and students to have access to various kinds of language data, depending on the corpus. Some of these corpora are open-source big-data resources, for example, for English the COCA – Corpus of Contemporary American English. If a given corpus is a current project, it is updated with actual uses of language, which makes it a more reliable and applicable resource.

4.1. Teachers

Without any doubt, the most obvious, and at the same time the most significant, function of a language corpus is that it provides knowledge about a language. As has been already mentioned, the purpose of the corpus dictates what kinds of texts are used to build it and, consequentially, what kind of language forms are to be expected.

The job of teachers constantly involves various kinds of interaction with their students. Beginning with lectures and classes through to meetings with their parents, this formal, and at the same time special, relationship always relies on cooperation. There are also physical representations of this cooperation in the form of tests, essays or exercises with a twofold role: on the one hand, they are proof of the students' level of knowledge and competences and, on the other hand, at the same time they provide evidence of mistakes and issues that have to be improved. Such evidence can be collected in a form of a corpus where only language data is gathered (without any personal detail). This collection can be further used to prepare additional teaching materials to revise the problematic issues. Additionally, the frequency and quantity of certain mistakes can prove the need for further reconsideration and revision of teaching syllabuses or

even software so they will be better suited to the real needs of the students.

Another issue connected with corpus analysis is inevitably related to the question of developing a teacher's competences and activating the process of teaching and learning. Some teachers meet the challenge of building their own corpus. In a practical sense this means first learning about the programmes and tools that can be helpful in creating such corpus (developing their computer skills, learning the new software necessary to build a corpus) and then collecting texts that provide language data for the corpus (developing research skills). However, teachers who do not want to build their own corpora can use resources which are already available and look for the necessary data in them (developing analytical skills). Yet, it must be also pointed out that the most demanding task for teachers is still to give focused directions to their classes and to guide their students through data discovery and interpretation since language corpora only provide language data without any analysis. Thus, the major responsibility of teachers (and later students) is to evaluate the information found.

As follows, creating such a corpus and later analysing it seems to be a way to activate teachers, because one of the main adversaries of every teacher is routine. To avoid routine, teachers attend various courses and trainings to raise their qualifications or to look for some alternative solutions for making their lessons or courses more interesting and inspiring to their students. This results in a situation where creating and analysing their own corpora is an additional instrument which allows teachers to break up the school routine and makes their job more attractive.

4.2. Students

Corpus analysis can be profitable for students as well. Introducing corpora as an alternative to dictionaries not only broadens learners' knowledge about possible language resources but also

offers a new, technology-oriented method of learning a language. Introducing learner corpora as educational projects is a worthwhile strategy since students are more motivated to work on language that comes from their own fields of interest. The benefit here is twofold: on the one hand, the student develops his or her language skills, and on the other, the student broadens his or her knowledge about a particular domain.

Furthermore, working with corpora and carrying out a corpus analysis is focused on two major tasks. The first is centred around the creation of a corpus by students. Such a corpus can include various kinds of texts, depending on its aim. To illustrate this idea, students could build a corpus of their own mistakes and another, referential corpus that represents the correct forms. Such corpora that function as reference resources will then include either their own texts with mistakes (genuine language productions) or texts which they collect from formal/ standard resources. This is particularly useful for all kinds of revision and language drills that students can do on their own. An additional value from the perspective of a student is the fact that preparing and working with one's own corpus makes the whole process of learning highly personalized and autonomous and in consequence it allows for a significant amount of learning creativity and learning liberty.

Moreover, students can benefit from the corpus analysis by using and examining prior existing corpora to find information and solutions to their particular language problems or to find applications of selected language forms. To illustrate the above issue one can refer to a case study where a student wants to consult a corpus (which then works as an outer standard language model) to learn and understand the differences in distribution and meaning between words of nearly the same meaning. This probably is a matter of intuition for native speakers but for learners of a foreign language, it may cause problems. The examples below focus on two English words *average* and *medium* in their adjectival and nominal functions and their Polish equivalent(s) since, as far as Polish is concerned, the form in an

adjectival function is the same for both *average* and *medium*. The following examples are from COCA (www.english-corpora.org/coca), NOW Corpus (www.english-corpora.org/now) and PARARELA (http://paralela. clarin-pl.eu) and were retrieved between July and September 2020. Only two kinds of information from the corpora are being further scrutinized, namely the frequency (revealing the quantitative information) and the context (presenting qualitative information), since in the opinion of the present author these are the best and most accessible ways to show the differences between the two concepts in question.

4.3. COCA

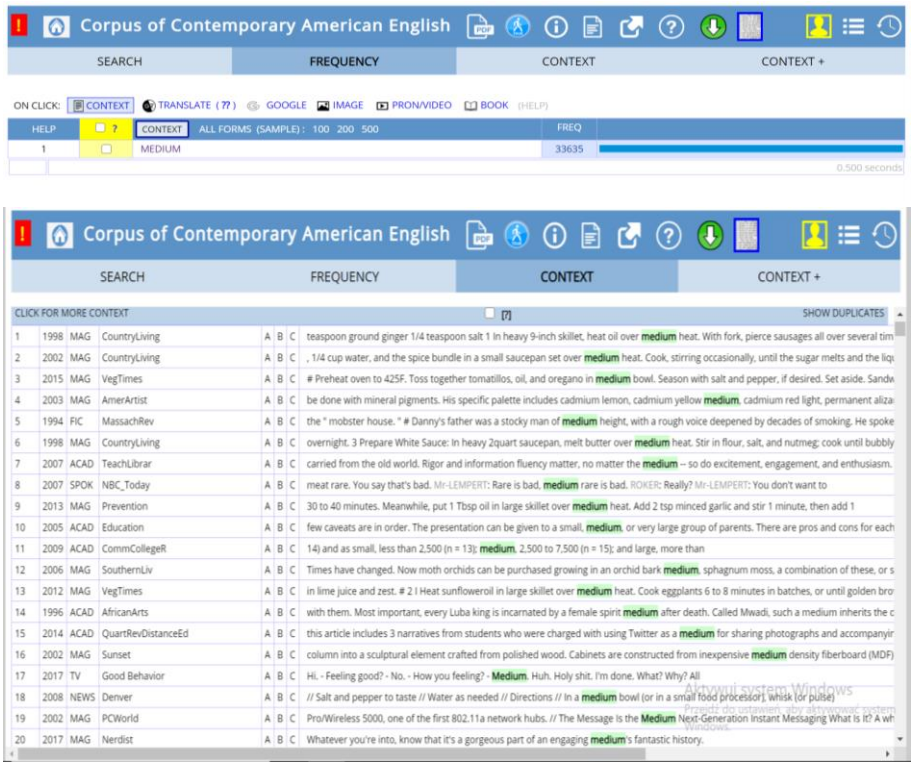

Figure 1
https://www.english-corpora.org/coca/

Upon analysing the examples above, the students find that as far as *medium* is concerned, it is used in the corpus 33,635 times. They can observe that *medium* (meaning intermediate, in-between) as a modifier is used with such concepts as size (3, 10, 18, 11), heat (1,2, 6, 9), height (5), density (16), colours (4), or mood (17) - thus such concepts whose understanding is a matter of scale or gradeability. As far as the nominal function is concerned, *medium* is used to mean 'a means, a channel of transfer' (7, 12, 14, 15, 19, 20). Tracing the examples confirms the students' intuitions and gives them an insight into the definition of the specific content of the terms.

For *average*, COCA presents the following data:

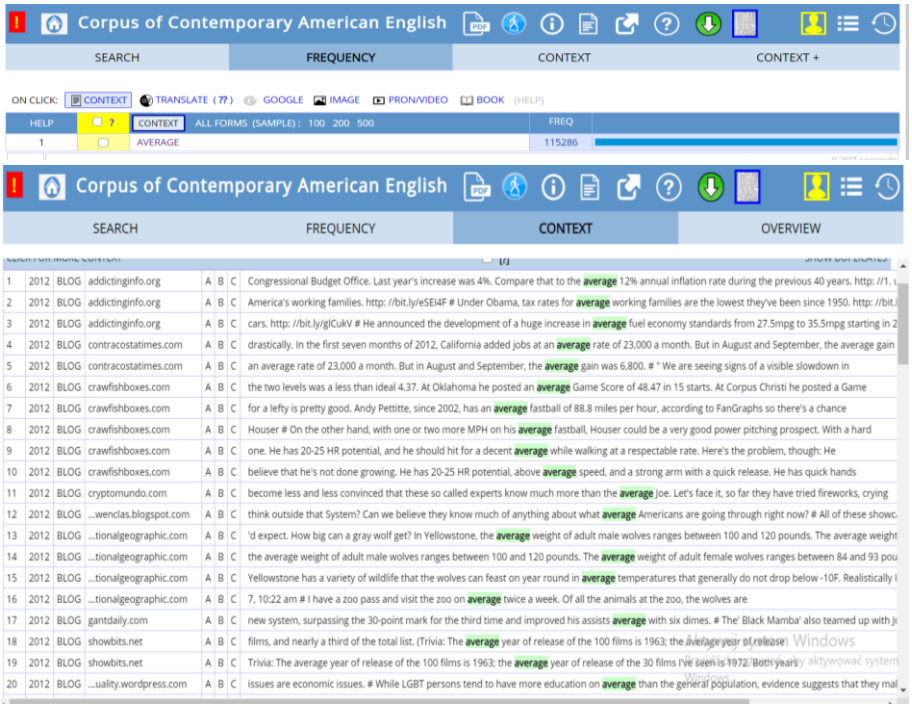

Figure 2
https://www.english-corpora.org/coca/

As has been exemplified above, *average* appears in COCA 115,286 times. Taking its function as a modifier, among 20 examples above *average* (meaning estimated on given data, approximated, being representative of) modifies such nouns as inflation (1), family (2), economy (3), fastball (7), American (12), year (19) and concepts such as rate (4), gain (5), score (6), speed (10), or weight (13). In the nominal function, *average* is used in only one example (9). Other interesting uses of *average* are represented by phrases like *the average Joe* (11) and *on average* (20).

Thus, in studying only one corpus students can see the differences between the two terms in question, in their frequency as well as in the selection of words that they are used with. So, beginning with the frequency of terms and following on to their context, the students can learn how distinct these two words are and how they should be used.

4.4. NOW

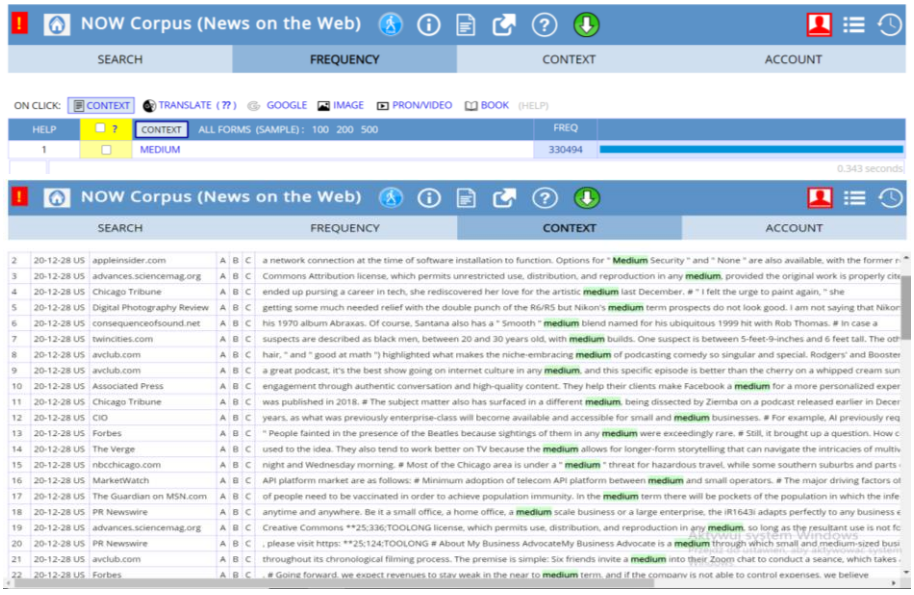

Figure 3
https://www.english-corpora.org/now/

The data above reveals that in the NOW Corpus *medium* appears 330,494 times (a number which considerably exceeds the use of *medium* in COCA). In the function of a modifier this word is used with such nouns as security (2), term (5, 22), blend (6), builds (7), business (12, 18), threat (15), or operator (16). As far as its nominal use is concerned, it is instantiated in examples 3, 4, 8, 9, 10, 11, 13, 14, 19, 20 and 21 of the above table. Thus, when compared to COCA, in the NOW Corpus (or at least in the first 20 examples) one can see that *medium* is used more as a noun than as an adjective. Additionally, the selection of nouns that *medium* modifies in NOW is different in quality from the ones that are modified in COCA, namely they are no longer nouns that require scalar modifiers.

As far as *average* is concerned, NOW offers the following data:

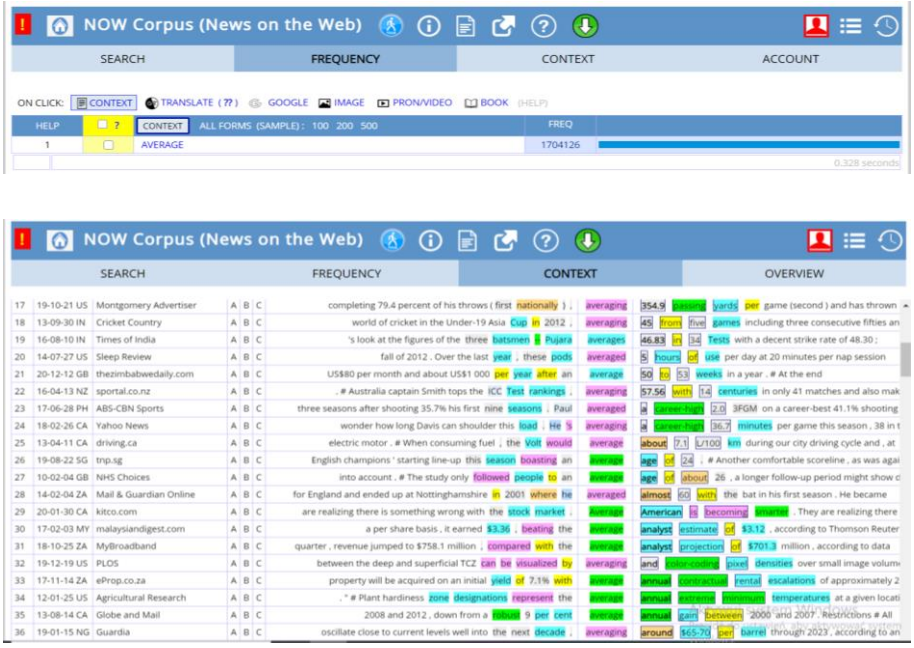

Figure 4
https://www.english-corpora.org/now/

According to the data in the above tables, the frequency of the word *average* in NOW is 1,704,126 times. As far as the application of *average* as an adjective is concerned, it is used with such nouns as age (26, 27), American (29), estimate (30), projection (31), escalations (33), temperature (34) or gain (35). Thus, if compared to COCA, there are two similar examples (American, gain), and the rest of examples differ. The nominal uses of the word *average* are represented in examples: 19 and 21. Yet, what draws the attention is the verbal use of *average* as provided in examples: 17, 18, 20, 22, 23, 24, 25, 28, 32 and 36, the use that has no representation in the examples from COCA. So, differences between *medium* and *average* as presented in NOW in terms of their semantic quality do not seem so obvious as in COCA. However, on the whole (and as the above analysis shows) comparing data from different corpora adds additional information for students looking to find solutions to language intricacies.

4.5. Paralela

It is highly probable that the examples described above do not provoke any questions for native speakers who, without any problems, master the qualitative differences between *medium* and *average*. Yet, these qualitative differences are the most difficult for non-native speakers who frequently look for equivalent terms in their mother tongues. Such a situation is exemplified below where *average* and *medium* have the same equivalent in Polish- *średni* (in its basic form).

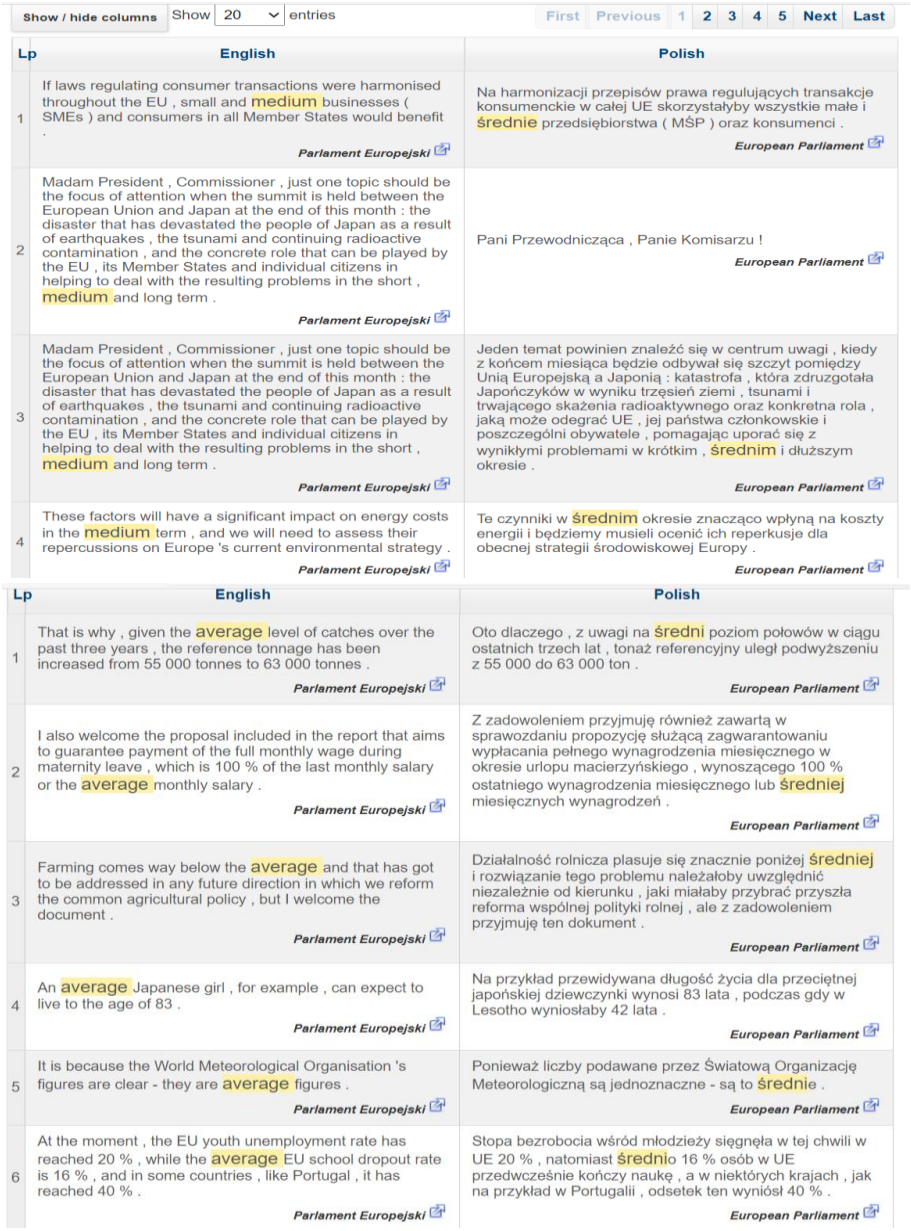

Figure 5
http://paralela.clarin-pl.eu/#search/pl/

In cases similar to the one mentioned above, an option to solve the problem of differences between apparently semantic terms is offered by corpus analysis of the original language. Furthermore, in PARALELA a student can read the different ways in which the words in question function across languages.

On the whole, the above examples of sentences from selected corpora (COCA, NOW, PARALELA) offer a wide selection of illustrations for 'language-in-use' situations for the words *average* and *medium*. However, if a student looks for real-life language applications, a reference to a corpus seems justified. Native speakers intuitively know how to use language (especially fixed expressions) in a given context. Moreover context, as a language phenomenon, has not been researched through grammar books, coursebooks or handbooks for practising 'language-in-use' situations. In other words, language learners have to learn the contextual environment for particular expressions by heart, so a reference source to check if the learners' intuition prompts a correct solution is a useful tool.

5. Conclusions

As has been discussed above, corpus analysis is a useful tool to be applied in teaching and learning foreign languages. Furthermore, selected aspects, theories and examples of corpora prove that they are valuable language resources that, on the one hand, register language forms and, on the other hand, function as reference resources available via open access to a broad public.

Yet, the main question of this article concerns the issues of how corpus analysis can influence the process of teaching and learning foreign languages. The suggestion presented above is that corpus analysis is definitely a method of activating teachers and students to enhance the educational process of teaching and learning foreign languages both inside and outside of the classroom. Furthermore, an additional advantage of using corpus analysis is the fact that students are given freedom to work on materials that they themselves identify with, as well as to

pursue their interests in selected fields which allows for a great amount of autonomy in learning.

References

Aston, Guy (2002). "The learner as corpus designer". In: Bernhard Kettemann and Georg Marko (eds.). *Teaching and Learning by Doing Corpus Analysis*. Amsterdam: Rodopi, 9–25.

Boulton, Alex (2016). "Integrating corpus tools and techniques in ESP courses". *ASP:* 69: 113-137. DOI: 10.4000/asp.4826.

Braun, Sabine (2005). "From pedagogically relevant corpora to authentic language learning contents". *ReCALL* Vol 17/1: 47–64.

Braun, Sabine (2010). "Getting past 'Groundhog Day': Spoken multimedia corpora for student-centred corpus exploitation". In: Tony Harris, María Moreno Jaén (eds.). *Corpus Linguistics in Language Teaching*. Frankfurt am Main: Peter Lang.

Cobb, Tom, Alex Boulton (2015). "Classroom applications of corpus analysis". In: Douglas Biber, Randi Reppen (eds.). *The Cambridge Handbook of English Corpus Linguistics*. Cambridge: Cambridge University Press, 478–497.

Corino, Elisa, Christina Onesti (2019). "Data-Driven Learning: A scaffolding methodology for CLIL and LSP teaching and learning". *Frontiers in Education* 4/7. DOI: 10.3389/feduc.2019.00007.

Hoffstaedter, Petra, Kurt Kohn (2009). "Real language and relevant language learning activities: Insights from the SACODEYL project". In: Anton Kirchhofer, Jutta Schwarzkopf (eds.). *The Workings of the Anglosphere. Contributions to the Study of British and US-American Cultures*. Trier: WVT, 291–303.

Johns, Tim (1991). "From printout to handout: grammar and vocabulary teaching in the context of data-driven learning". In: Tim Johns, Philip King (eds.). *Classroom Concordancing. English Language Research Journal* 4: 27–45. DOI: 10.1017/CBO97811 39524605.014.

Lee, David, Y. W. (2010). "What corpora are available?" In: O'Keeffe, Anne, Michael McCarthy (eds.). *The Routledge Handbook of Corpus Linguistics* (1st ed.). London; New York, NY: Routledge, 107–121.

McEnery, Tony, Andrew Wilson (2011). *Corpus Linguistics: An Introduction* (2. ed., repr). Edinburgh: Edinburgh Univ. Press.

Meunier, Fanny (2011). "Corpus linguistics and second/foreign language learning: exploring multiple paths*". Revista Brasileira de Linguística Aplicada* 11: 459–477. DOI: 10.1590/S1984-63982011000200008

Meyer, Charles, F. (2002). *English Corpus Linguistics: An Introduction*. Available at https://DOI.org/10.1017/CBO9780511606311.

O'Keeffe, Anne, Michael McCarthy (2010). "What are corpora and how have they evolved?" In: Anne O'Keeffe, Michael McCarthy (eds.). *Routledge Handbook of Corpus Linguistics* (1st ed.). London; New York, NY: Routledge, 3–13.

Pérez-Paredes, Pascual, Jose, M. Alcaraz-Calero (2009). "Developing annotation solutions for online Data Driven Learning". *ReCALL*, 21/1: 55-75.

Pérez-Paredes, Pascual (2010). "Corpus linguistics and language education in perspective: Appropriation and the possibilities scenario". In: Tony Harris, Mariá Moreno Jaén (eds.). *Corpus Linguistics in Language Teaching*. Frankfurt: Peter Lang, 53–73.

Renouf, Antoinette (2007). "Corpus development 25 years on: from super-corpus to cyber-corpus". In: Roberta Facchinetti (ed.). *Corpus Linguistics 25 Years on*. Amsterdam: Rodopi, 27–49.

Sinclair, John (ed.) (2004). *How to Use Corpora in Language Teaching*. Amsterdam; Philadelphia, PA: John Benjamins.

Suan Chong, Chia (2016). "Ten innovations that have changed English language teaching". Available at https://www.britishcouncil. org/ voices-magazine/ten-innovations-have-changed-english-language-teaching.

Tribble, Chris (1997). "Improvising corpora for ELT quick-and-dirty ways of developing corpora for language teaching". In: Barbara Lewandowska-Tomaszczyk, Patrick Melia (eds.). *PALC'97 Practical Applications in Language Corpora*. Lodz: Lodz University Press, 106–17.

Widdowson, Henry, G. (1991). "The description and prescription of language". In: James Alatis (ed.). *Linguistics and Language Pedagogy: The State of the Art*. Washington, DC: Georgetown University, 11-24.

Widdowson, Henry, G. (2003). *Defining Issues in English Language Teaching*. Oxford: Oxford University Press.

Widmann, Johannes, Kurt Kohn, Ramon Ziai (2010). "The SACODEYL search tool: exploiting corpora for language learning purposes". In: Ana Frankenberg-Garcia, Lynne Flowerdew, Guy Aston (eds.). *New Trends in Teaching and Language Corpora. Proceedings of the TaLC 2008*. London: Continuum, 321-327.

Language resources

https://www.english-corpora.org/coca/
https://www.english-corpora.org/now/
http://paralela.clarin-pl.eu

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On the rudiments of the eye tracking glottodidactics

SAMBOR GRUCZA

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Abstract

The article presents briefly the main aim of eye tracking supported research carried out within the scope of what is broadly understood to be second language learning and teaching. Special emphasis is placed on the capabilities and limitations of eye tracking based cognition in second language learning and teaching. Eye tracking based research of second language learning and teaching is, from the scientific point of view, relevant in so as much as it measurably contributes to the creation of new, or the verification of previously acquired, scientific knowledge, in as much as it contributes to the scientific cognition of the object of glottodidactics. The article introduces the basic assumptions of eye tracking glottodidactics. In this sense it constitutes the first part of the presentation of the results of the eye tracking supported project "Developing language competences in secondary school students with developmental dyslexia", which was implemented at the University of Warsaw. The second part of the presentation is the article "Layout changes in the textbook of English and their influence on the dyslectic students' work effectiveness – an eye tracking analysis" written by Agnieszka Andrychowicz-Trojanowska and published in this issue of *Beyond Philology*.

Keywords

glottodidactics, eye tracking, glottodidactic methods, experimental glottodidactics

O podstawach glottodydaktyki eye tracking

Abstrakt

Celem poniższego artykułu jest krótkie przedstawienie głównego celu glottodydaktycznie ukierunkowanych badań okulograficznych, czyli głównego celu glottodydaktyki okulograficznej. Szczególną uwagę artykuł poświęca zagadnieniom dotyczącym metodologicznym ograniczeniom glottodydaktycznego poznania okulograficznego procesów uczenia się języków obcych. Badania okulograficzne dotyczące nauczania i uczenia się języków obcych są z naukowego punktu widzenia istotne o tyle, o ile w wymierny sposób przyczyniają się do tworzenia nowej lub weryfikacji wcześniej nabytej wiedzy naukowej, o ile przyczyniają się do naukowego poznania przedmiotu glottodydaktyki. W artykule przedstawiono podstawowe założenia glottodydaktyki okulograficznej. Dlatego niniejszy tekst traktujemy jako pierwszą część prezentacji wyników projektu realizowanego na Uniwersytecie Warszawskim pt. „Rozwijanie kompetencji językowych uczniów szkół ponadgimnazjalnych z dysleksją rozwojową". Drugą częścią tej prezentacji jest artykuł pt. „Zmiany układu w podręczniku języka angielskiego i ich wpływ na efektywność pracy uczniów dyslektycznych – analiza okulograficzna" autorstwa Agnieszki Andrychowicz-Trojanowskiej, opublikowanego w tym numerze „Beyond Philology".

Słowa kluczowe

glottodydaktyka, okulografia, eye tracking, metodologia glottodydaktyczna, glottodydaktyka eksperymentalna

1. Introduction

Eye tracking glottodidactics is a relatively young subfield of glottodidactic cognition; nevertheless, it has developed a considerable record of methodological and research achievements. The established standards of conducting eye tracking experiments and interpreting the collected data samples constitute solid foundations for further scientific research.

The aim of the article is to outline the main cognitive and methodological assumptions of eye tracking glottodidactics, its research potential and limitations, as well as a general description of its possible research areas. Moreover, the article constitutes an introduction to the text written by Andrychowicz-Trojanowska "Layout changes in the textbook of English and their influence on the dyslectic students' work effectiveness – an eye tracking analysis" also published in this issue of *Beyond Philology*.

I will explain what an eye tracking experiment consists of (in particular when it comes to eye tracking glottodidactic cognition) in the further parts of the present text. In order to introduce the topic, I will state here only that it is based on observing and registering the eye movements of study participants while they are performing a specified task, as well as drawing conclusions based on the obtained physical data or the mental behaviour of the participants, and forming or verifying hypotheses regarding such or different behaviours of the specific groups of people.

2. On eye tracking research

It would be wrong to think that the interest in eye movements is a completely new phenomenon. Certainly Aristotle evinced such an interest (cf. Wade 2010). It is possible that such interest might have been expressed even earlier in history. When it comes to eye tracking, it is also not a newly-devised research area. As Płużyczka (2015) rightly remarks, the beginnings of

systematic apparatus eye tracking research can be traced in the studies of reading processes initiated at the end of 1870s by Louis Émile Javal (1839–1907), a French ophthalmologist, the creator and director of an ophthalmology laboratory at the Sorbonne. In his studies he used a mirror which was placed on the pages of a book read by the participant. While standing behind the participant, the experimenter tracked the reflection of the subject's eyes in the mirror.

Edmund Burke Huey (1870–1913) is considered to be the creator of the first eye tracker. In 1898 he presented the results of his studies, where he used an object similar to a contact lens with an opening for the pupil. The lens was connected to an indicator showing the eyeball movement (cf. Huey 1898). The first eye trackers were invasive devices; it was necessary, for example, to anaesthetize the study participants with cocaine. The first non-invasive eye tracker, which was also relatively precise, was constructed in 1901 by two Americans, Raymond Dodge (1871–1942) and Thomas Sparks Cline (1877–?). Their device was the first optical eye tracker. Its description and method of scientific use were presented by its designers in an article entitled "The angle velocity of eye movements" (Dodge and Cline 1901). The first photo eye tracker was presented in 1937 by Guy Thomas Buswell (1891–1994). It used a light beam reflected from the eye of the participant and recorded it on a photographic film.

Modern eye trackers are devices which use highly advanced technology. They can be subdivided into three categories: static, portable and glass-based eye trackers. All of them are video eye trackers, that is, they use a camera image of the eye to recognise the reflection of an infrared beam (sent by the eye tracker) from the surface of the eye.

Both the interest in eye tracking, and, consequently, its development are illustrated, among other indications, by the number of scientific publications. According to the data from online

sources[1] the growth of global interest in eye tracking between 1970 and 2009 was linear. In 1970–1974 approximately 310 eye tracking publications were issued, in 1985–1989 there were already 829 of them, while in 2005–2009 there were as many as 15,000 such publications. In 2010–2014 an exponential growth of eye tracking publications could be observed – approximately 210,000 publications were registered. The data for 2015–2019 indicates that the growth has levelled off – approximately 220,000 new publications appeared.[2]

It is beyond doubt that the strong growth of interest in eye tracking has been caused by the launch of affordable portable eye trackers and also recently eye tracking glasses. Probably, numerous eye tracking publications have also emerged due to the fact that eye tracking studies of various types can now be commissioned on the eye tracking service market. It is also possible to rent eye tracking equipment.

Systematic Polish eye tracking research has started only recently. The disciplinary diversity of the research could be well depicted, although to a limited extent, by the speeches at the Polish Eye Tracking Conference[3] (cf. Grucza, Płużyczka and Soluch 2014, Hansen-Schirra and Grucza 2016). The history of systematic Polish eye tracking research within the areas of linguistics, glottodidactics and translation studies is also relatively short, with roots beginning around 2010.

One of the Polish academic centres conducting systematic eye tracking research is the Faculty of Applied Linguistics at the University of Warsaw. Here, the beginnings of interest in eye tracking research could be dated to approximately 2010. This interest has intensified due to the purchase of two eye trackers, SMI RED 500 and SMI RED 250. In 2008 the Audiovisual

[1] Source: http://imotionsglobal.com/blog/exponential-growth-in-academic-eye-tracking-papers-over-the-last-40-years, cited in Płużyczka, 2015: 175.

[2] An interesting insight into the research-area distribution of eye tracking publications is provided by Aryadoust and Ang 2019.

[3] http://etr.uw.edu.pl/polish-eye-tracking-conference.

Translation Lab was established[4]. It conducts mostly eye tracking studies concerned with audiovisual translation and media accessibility. Established in 2010, the Laboratory for Experimental Eye Tracking Linguistics[5] focuses mostly on glottodidactic and translation-studies research. In 2019, the European Network of Eye Tracking Research,[6] also at the Faculty of Applied Linguistics, was launched. It is aimed at connecting European eye tracking research centres.

We presented the first remarks regarding the scope of the research potential of eye tracking studies in the field of linguistics as early as in 2011 in the article "Lingwistyka antropocentryczna a badania okulograficzne" [Anthropocentric Linguistics and Eye Tracking Research] (cf. Grucza 2011). In the following works, the views regarding predominantly theoretical and methodological foundations of eye tracking translation studies were expressed (Grucza 2013a, 2013b, 2014).

In the meantime, the foundations have been greatly reinforced by the studies of my colleagues: mostly by Płużyczka – whose monograph has allowed her to be awarded with the first habilitation (a Polish postdoctoral degree) on the basis of eye tracking translation-studies research (cf. Płużyczka 2015), and Bonek – whose doctoral thesis was the first in Poland devoted to eye tracking translation studies (cf. Bonek 2017). In 2019 the results of the research by Castelas presented in her doctoral thesis constituted the basis for granting the next doctoral degree in this area. The next eye tracking doctoral thesis by Kudła "Ocena odbioru lokalizacji językowej gier komputerowych na podstawie danych okulograficznych" [Assessment of the Perception of Computer Games Linguistic Localization Based on Eye Tracking Data] is almost complete. Recently our latest work "Czytanie pretranslacyjne a jakość tłumaczenia a vista w świetle wyników badania okulograficznego" [Pre-translation reading

[4] https://avt.ils.uw.edu.pl.
[5] http://www.lelo.uw.edu.pl.
[6] http://etr.uw.edu.pl.

and the quality of sight translation in the light of eye tracking study results] was published (cf. Grucza et al. 2019).

However, our research interests are not limited to translation studies. For some years we have been simultaneously conducting intensive research in the area of eye tracking glottodidactics. The researcher whose studies have contributed the most to the consolidation of the theoretical and methodological research in this area, is undoubtedly Andrychowicz-Trojanowska. Her 2018 monograph, "Podręczniki glottodydaktyczne. Struktura – funkcja – potencjał w świetle badań okulograficznych" [Glottodidactic textbooks. Structure – function – potential in eye tracking research] is the first monograph in the field of eye tracking glottodidactics by a Polish scientist. The sample study conducted by the author consisted of 213 students (!). I would like to explain to readers who are unfamiliar with eye tracking research that this collected eye tracking data definitely constitutes not only the largest glottodidactic eye tracking database, but also probably the largest eye tracking database in Europe in the context of one scientific research project.

In the next chapter I will endeavour to very synthetically outline the rudiments of eye tracking cognition. The fourth chapter characterises in a more detailed manner some areas where eye tracking glottodidactic research should be (and could be) conducted.

3. On eye tracking based cognition

Eye tracking based cognition is not an easy process for several reasons. The first is that the foundation of eye tracking research is the assumption that eye movements and mental processes are correlated, that the eye movements reflect mental processes. Poole and Ball call this assumption "eye-mind hypothesis" and describe it as follows: "Eye-mind hypothesis: The principle at the origin of most eye tracking research. Assumes that what a person is looking at indicates what they are currently thinking about or attending to. Recording eye-movements can, therefore,

provide a dynamic trace of where a person's attention is being directed in relation to a visual display such as a system interface" (Poole and Ball 2006: 216).

In other words, this hypothesis is based on the belief that eye movements are caused by mental (cognitive) processes taking place in the brain of the research subject and that, as a consequence, the eye movements can form a basis for reconstructing these processes, i.e. formulating hypotheses concerning mental (cognitive) processes taking place in their brain. Finally, the hypothesis comes down to the statement that on the basis of analyzing eye movements it is possible to draw conclusions on the manner of the course of mental processes. Soluch and Tarnowski (2013: 90) state the following on that matter:

> We believe that eye-tracking as a method can be of interest to researchers for a handful of reasons. First of all, the eye movement is probably the commonest potentially intentional human behaviour – it occurs three times per second on average. Secondly, it precisely indicates what information is being received by the subject at the given time. Thirdly, at last, control of the eye movement unquestionably constitutes a model example of cooperation between automatic and controlled mechanisms, both in the aspect of perception as well as action.

Obviously, our human intellectual cognition is also essentially based on an assumption that people, while using their cognitive properties, are able to perform some cognition. In one of my works, I have called this assumption epistemic. Accordingly, the assumption that while using an eye tracker we are able to form new knowledge on something that is not subject to direct sensory observation could be (preliminarily) called an eye tracking assumption. It should be added that the eye tracking apparatus is only a more or less ideal "extension" of our senses and that it is not an "extension" of our epistemic competences. It has been clearly emphasized by Ch. Frith, among others, who states that brain imaging experiments distinctly show the unbridgeable gap between the objective physical matter and the subjective

intellectual experience (2007: 27). That is certainly why, while writing on the physical tools of scientific work, F. Grucza suggests the division into "senses" and "instruments sharpening them" (F. Grucza 1983: 59[7]). Finally, it could be stated that eye tracking is a type of an instrument which sharpens the senses.

Sandra, entering into a discussion with Croft on the possibilities of mental representations, says: "Those who propose models of mental representation (or suggest such representation) often commit a fallacy. (…) When discussing mental representations, linguists are more likely to confess a belief than to prove a point" (Sandra 1998: 361). He continues: "What can linguists learn about the human mind by studying language? Let me begin by reiterating what they cannot learn. Linguists cannot address issues pertaining to processing of linguistic material. Such issues concern the language processor rather than the language itself and hence fall outside the limits of linguistic research and within the boundaries of psycholinguistics, which makes use of chronometric techniques for studying ongoing processing. Linguists cannot make statements about the representational format of language elements in the language user's mind either". And further he adds: "In contrast, linguists are able to make some statements on what is in the mind. This especially applies to humans' mental predisposition for language, which may be identified through a careful study of what makes languages typically human (…)" (Sandra 1998: 375).

Of course, reconstruction of the competences does not constitute an easy task. Luria was right when he wrote in 1974 in the first issue of "Language and Brain": "The question of the relation of language and brain belongs to the most complex problems in science. The history of attempts to solve it has been replete with confrontations of opposite approaches, often leading to dead ends. A solution to this problem requires a radical revision of our basic concepts, which have remained unchanged for many decades" (Luria 1974: 1). And yet thirty-five years later

[7] S. Grucza et al. (2017b: 50).

G. Benedetti et al. admit that: "Despite allowing for the unprecedented visualization of brain functional activity, modern neurobiological techniques have not yet been able to provide satisfactory answers to important questions about the relationship between brain and mind" (Benedetti et al. 2009: 1).

The following difficulty of eye tracking based cognition is that it is necessary to standardize the eye tracking experiment parameters. The word "parameter" here refers to a specific property of an object, context etc. that could affect the results of an eye tracking experiment. When it comes to eye tracking glottodidactics research, the following parameters determining an eye tracking experiment can be listed:

- participants' biometric parameters (sex, age, disfunctions, e.g. visual impairment, mental disorder, etc.),
- cosmetic parameters (make up),
- space parameters (properties of the room where the experiment is conducted, e.g. its size, how bright/dark it is),
- eye tracker parameters (type and properties of the device, monitor size, sampling rate),
- object parameters (the properties of the object – text, image, film, which is utilized in the experiment),
- glottodidactic parameters (e.g. the number, kind, scope of linguistic competences, types and scopes of the acquired knowledge),
- experiment parameters (e.g. experimenter's behaviour, properties of the course of experiment, experiment time, time of day when the experiment is conducted, time dedicated for performing the task).

The difficulty of conducting eye tracking research is also connected with the choice and appropriate interpretation of oculomotor (eye movement) activity indicators. The most important indicators include:

- fixations, stabilizing the gaze, the eyeball, on a specific object; the units of fixations' measurement are: their count, millisecond, second, minute, square pixel,

- refixations, also called revisits, new fixations on objects (words) that have already been subject to fixations; they are measured in the same units as fixations,
- saccades, quick jerky movements of the eyeball between fixations,
- scanpath, the physical movement of the eyeball, expressed as the summarized length of all saccades,
- areas of interest, more frequently referred to as AOIs, areas which are particularly important for the purpose of the experiment and determined by the experimenter.[8]

The named indicators are only the general indicators of oculomotor activity (more on that matter in Grucza 2013b). This is not the place to list all the individual indicators. By way of example, it could be said that within fixations alone we can distinguish time of first fixation, time of all fixations, average fixation time, AOI fixation time total, fixation count, fixation frequency, fixations per second, AOI fixation count, stimulus fixation count, AOI fixations distribution, intended fixations, unintended fixations, and fixation count prior the AOI fixation.

The aforementioned lists illustrate that an eye tracking experiment is characterized by a very high degree of complexity. It is connected with a high number of parameters which may influence the final result of the eye tracking experiment. Keeping the same parameters and their values (the parametric constant) constant for all the trials within an eye tracking study is a *sine qua non* for achieving a high degree of explicability of the obtained eye tracking data.[9] The lists demonstrate that the analysis of the obtained eye tracking data is also distinguished by a high degree of complexity. It is obvious that the choice of the appropriate oculomotor activity indicators and their appropriate interpretation translates directly into the quality of the

[8] Due to space limitations no images depicting the possibilities of visualizing the data have been provided. Interested readers should refer to the works mentioned in section 4.

[9] How two different screen layouts can lead to different results in an eye tracking study has been shown by Spinner, Gass and Behney (2013).

explication of the studied state of affairs or the quality of the research hypothesis verification.

Finally, it should be stated that the detailed planning of an eye tracking experiment consists in both planning the research and experiment architecture, and foreseeing the influence of the individual experiment parameters on the result, i.e. controlling the lurking and confounding variables. In the case of the second aspect it is important to know both which areas of the experiment are fully controlled, and which areas of the experiment cannot be strictly controlled or cannot be controlled at all.

4. On eye tracking glottodidactics

If the notion of "eye tracking" is treated as one referring to a certain cognition method, the notion of "eye tracking glottodidactics'' signifies a certain scope of cognitive glottodidactic work, where the subjects of this work use eye trackers as a certain cognitive equipment and eye tracking methods as certain means of cognition. It should be added that by means of glottodidactic eye tracking cognition we can acquire verifying knowledge, gain knowledge complementing the glottodidactic knowledge that has been already obtained, or produce completely new glottodidactic knowledge.

Due to space limitations I will not undertake to describe, or even to outline, eye tracking research methodology. I can only refer the reader to the following works: Ober et al. 2009, 2002, Ober and Ober 2002a, 2002b, Richardson and Spivey 2004, Duchowski 2017, Soluch and Tarnowski 2013, Płużyczka 2015, Holmqvist and Andersson 2017. When it comes to general remarks regarding the use of eye tracking in glottodidactic research, please refer to the following works: Conklin, Pellicer-Sánchez and Carrol 2017, Andrychowicz-Trojanowska 2018, Godfroid 2019.

This is also no place for a broad summary of the previous results of eye tracking glottodidactics studies. I will limit myself to outlining the possible areas of glottodidactic eye tracking

research. In my view, four main research areas can be distinguished here. When it comes to the first area, it is the scope of research cognitive work, which is aimed at describing and explicating specific fragments of the glottodidactic research object. In this area the following narrow scopes of research can be distinguished:

(1) Eye tracking measuring, assessing and modelling of:
- language proficiency/attention/comprehension in second language reading,
- second language competences/learning processes,
- second language competences/learning processes regarding special educational needs
- computer-assisted second language learning,
- usability of page layout of second language learning books,
- usability of second language learning computer programs and mobile apps,
- the impact of visual and acoustic cues on second language reading/performance.

When it comes to the second research area, this includes questions referring to a certain meta-methodological sphere (cf. Hajduk 1996), i.e. firstly, questions regarding the usefulness of eye tracking methodology in glottodidactic description and the explication of specific fragments of the glottodidactic research object, and secondly, questions regarding modifying and improving the eye tracking methodology for the use of glottodidactics. In this area, the following narrow scopes of research can be distinguished:

(2) Explorations in the usefulness of eye tracking methodology for testing and monitoring of:
- second language proficiency/attention/comprehension in second language reading,
- second language competences/learning processes,
- computer-assisted second language learning,
- usability of page layout of second language learning books,

- usability of second language learning computer programs and mobile apps,
- the impact of visual and acoustic cues on second language reading/performance.

The third area of research also includes methodological questions, but ones of a different nature than those previously mentioned. The issue is that the results of the eye tracking analysis of eye tracking data are most often are not sufficient to draw binding descriptive and explicative conclusions regarding the studied fragment of the glottodidactic research object. Consequently, they should be juxtaposed with the results gained via statistical analysis of eye tracking data and the results of the analyses of other data, for example the results of analyzing data gained in interviews, questionnaires and/or observations. Observational data may be obtained, for example, via video recording of individual eye tracking experiment trials. The juxtapositions of various results will render possible the triangulation of the obtained data and compensate for the limitations of the eye tracking method. That is why I would define the third and fourth areas of glottodidactic eye tracking research where data triangulation and method triangulation is utilized (more on that matter cf. Denzin 2009, Denzin and Lincoln 2017) as follows:

(3) Explorations of data triangulation in eye tracking glottodidactics.
(4) Explorations of triangulation methods in eye tracking glottodidactics.

My previous remarks mostly refer to the eye tracking method of gaining glottodidactic diagnostic knowledge, i.e. knowledge regarding states of affairs which are assumed to exist. However, utilizing eye trackers for glottodidactic research cannot be limited to only gaining such knowledge. Perhaps the most important aim of glottodidactics, as it has been rightly noted by F. Grucza, is the prognostic task, that is, striving to gain prognostic knowledge, which is the knowledge regarding states of affairs

that are assumed to exist in the future (cf. Grucza et al. 2017a, 2017b). We should further subdivide prognostic knowledge, as F. Grucza did, into (a) knowledge regarding states of affairs which are assumed to happen as consequences of states of affairs that have been already found to exist, (b) knowledge regarding how particular states of affairs will react if they are affected in a certain manner, (c) knowledge regarding the occurrence of new states of affairs, which are assumed not to exist yet.

The fundamental task of glottodidactics is to design a curriculum for teaching a specific language as well as the tools necessary to implement the curriculum, which will allow for the most efficient internalization of language competences to the highest possible degree. Accordingly, it should be noted that eye tracking research makes fulfilling this task possible because it allows us to gain knowledge of what influence the following factors will have on the efficiency and degree of internalizing language competences: a) changes in some properties of the language teaching curriculum, b) changes in some properties of the tools necessary to implement the curriculum, c) changing the tools or introducing new tools. An example of how such prognostic glottodidactic knowledge might be obtained has been illustrated by Andrychowicz-Trojanowska (2020).

5. Conclusions

One important issue is the numerical data regarding eye tracking publications. Another is the legitimacy and quality of the experiments conducted. Our analysis of publications devoted to eye tracking glottodidactics shows that the strong growth of interest in eye tracking does not go hand in hand with either growth in the quality of conducted studies or with growth in the quality of their results. Many of the studies have been conducted exclusively with reference to the so-called case studies, and many of the published eye tracking result interpretations are highly speculative. Also, today some percentage of eye

tracking publications are merely an effect of satisfying the desire to be innovative.

Many authors have forgotten that experimental research is only scientifically relevant when it indeed contributes either to forming new scientific knowledge or to verifying previously gained knowledge which contributes to the scientific cognition of the research object. Some have also forgotten that an eye tracker as a tool of scientific work cannot be *ex post* used as a definiens of scientific work. However, to summarise this idea, it should be clearly stated that today, in comparison with the first decade of the present century, the quality of the studies conducted has improved considerably.

References

Andrychowicz-Trojanowska, Agnieszka (2018). *Podręczniki glottodydaktyczne: Struktura – funkcja – potencjał w* świetle *badań okulograficznych.* [Glottodidactic textbooks. Structure – function – potential in the eye tracking research] Warszawa: Wydawnictwo Naukowe IKSI. Available at http://sn.iksi.uw.edu.pl/wp-content/uploads/sites/306/2018/08/SN-41-A.-Andrychowicz-Trojanowska-Podr %C4 %99czniki-glottodyd aktyczne.pdf.

Andrychowicz-Trojanowska, Agnieszka (2020). "Layout changes in the textbook of English and their influence on the dyslectic students' work effectiveness – an eye tracking analysis". *Beyond Philology* 17/3: 77–95.

Aryadoust, Vahid, Bee Hoon Ang (2019). "Exploring the frontiers of eye tracking research in language studies: a novel co-citation scientometric review". *Computer Assisted Language Learning* 1–37. DOI: 10.1080/09588221.2019.1647251.

Benedetti, Giulio, Giorgio Marchetti, Alexander Andrew Fingelkurts, Andrew Alexander Fingelkurts (2009). "Mind operational semantics and brain operational architectonics: A putative correspondence". *The Open Neuroimaging Jour-nal* 4: 53–69. Available at https://doi: 10.2174/187444 0001004020053.

Bonek, Anna (2017). *Eyetracking-Analyse computergestützten Übersetzungsprozesses* [An Eye Tracking Analysis of Computer-assisted Translation Process]. Frankfurt/M.: Peter Lang Verlag.

Conklin, Kathy, Ana Pellicer-Sánchez, Gareth Carrol (2017). *Eye-Tracking. A Guide for Applied Linguistics Research*. Cambridge: Cambridge University Press.

Denzin, Norman K. (2009). *The Research Act. A Theoretical Introduction to Sociological Methods*. New York: Routledge.

Denzin, Norman K., Yvonna S. Lincoln (eds.) (2017). *Handbook of Qualitative Research* (5th ed.). Thousand Oaks: Sage.

Dodge, Raymond, Thomas Sparks Cline (1901). "The angle velocity of eye movements". *Psychological Review* 8/2: 145–157. Available at https://doi.org/10.1037/h0076100.

Duchowski, Andrew (2017). *Eye Tracking Methodology. Theory and Practice*. Berlin: Springer.

Frith, Chris (2007). *Making up the Mind: How the Brain Creates Our Mental World*. Oxford: Blackwell.

Godfroid, Aline (2019). *Eye Tracking in Second Language Acquisition and Bilingualism: A Research Synthesis and Methodological Guide.* New York: Routledge.

Grucza, Sambor (2011). "Lingwistyka antropocentryczna a badania okulograficzne" [Anthropocentric Linguistics and Eye-Tracking Research]. *Lingwistyka Stosowana. Applied Linguistics. Angewandte Linguistik* 4: 149–162. Available at www.ls.uw.edu.pl/web/ lingwistyka-stosowana/ls4.

Grucza, Sambor (2013a). "Die Augen reden mächtiger als die Lippen. Eye-Tracking-'Einblicke' in die Sprache" [The Eyes Speak More Powerfully than the Lips. Eye-Tracking Insights into Language]. *Zeitschrift des Verbandes Polnischer Germanisten. Czasopismo Stowarzyszenia Germanistów Polskich* 2: 189–202. Available at www.ejournals.eu/ZVPG/Tom-2(2013)/Zeszyt_2_(2013)/art/2647/.

Grucza, Sambor (2013b). "Probleme? Nichts weiter als dornige Chancen: Zu Parametern und Maßeinheiten der Eye-Tracking-Translatorik" [Problems? Nothing more than thorny chances: The parameters and measures of the eye-tracking translation studies] *Studia Translatorica* 4: 11–22.

Grucza, Sambor (2014). "Grundzüge der anthropozentrischen Translatorik" [The Rudiments of Anthropocentric Translation Studies]. In: Łyp-Bielecka Aleksandra (ed.). *Mehr als Worte. Sprach-*

wissenschaftliche Studien. Professor Dr. habil. Czesława Schatte und Professor Dr. habil. Christoph Schatte gewidmet. Katowice, 127–137.

Grucza, Sambor, Anna Bonek, Maria Castelas, Dominik Kudła, Monika Płużyczka, Mateusz Patera (2019). *Czytanie pretranslacyjne a jakość tłumaczenia a vista w świetle wyników badania okulograficznego*. [Pre-translation reading and the quality of sight translation in the light of eye-tracking study results]. Warszawa: Wydawnictwo Naukowe IKSI. Available at [http://sn.iksi.uw.edu.pl/wp-content/uploads/sites/306 /2019/09/SN-46-Grucza-et-al.-Czytanie-pretranslacyjne-a-tlumaczenie-a-vista.pdf].

Grucza, Sambor, Magdalena Olpińska-Szkiełko, Monika Płużyczka, Ilona Banasiak, Marcin Łączek, Anna Bonek, Agnieszka Kaleta, Alicja Sztuk (eds.) (2017a). *Franciszek Grucza, Dzieła zebrane, t. 5: O uczeniu języków i glottodydaktyce antropocentrycznej I*. Warszawa: Wydawnictwo Naukowe IKSI. Available at http://www.iksi.uw.edu.pl/documents/1173 8337/14640936/FG_Tom_5.pdf. Accessed 23.12.2019.

Grucza, Sambor, Magdalena Olpińska-Szkiełko, Monika Płużyczka, Ilona Banasiak, Marcin Łączek, Anna Bonek, Agnieszka Kaleta, Alicja Sztuk (eds.) (2017b). *Franciszek Grucza, Dzieła zebrane, t. 8: Zagadnienia metalingwistyki. Lingwistyka – jej przedmiot, lingwistyka stosowana*. Warszawa: Wydawnictwo Naukowe IKSI. Available at http:// www.iksi.uw.edu.pl/documents/11738337/14640936/FG_ Tom_8.pdf. Accessed 23.12.2019.

Grucza, Sambor, Monika Płużyczka, Paweł Soluch (eds.). (2014). *Widziane inaczej: Z polskich badań eyetrackingowych*. Warszawa: Wydawnictwo Naukowe IKSI. Available at http://sn.iksi.uw.edu.pl/wp-content/ uploads/sites/306/2018/ 08/SN-41-A.-Andrychowicz-Trojanowska-Podr %C4 %99czn iki-glottodydaktyczne.pdf.

Hajduk, Zygmunt (1996). „Sposoby uzasadniania teorii metodologicznych". *Filozofia Nauki* 4/3: 87–94.

Hansen-Schirra, Silvia, Sambor Grucza (eds.) (2016). *Eye Tracking and Applied Linguistics*. Berlin: Language Science Press. Available at http://langsci-press.org/catalog/book/108.

Holmqvist, Kenneth, Richard Andersson (2017). *Eye Tracking: A Comprehensive Guide to Methods, Paradigms and Measures*. Lund: Lund Eye-Tracking Research Institute.

Huey, Edmund B. (1898). “Preliminary experiments in the physiology and psychology of reading”. *The American Journal of Psychology* 9(4): 575–886. Available at https://doi: 10.2307/1412192.

Luria, Alexander R. (1974), “Language and brain towards the basic problems of neurolinguistics”. *Brain and Language* 1: 1–14.

Ober, J. K., J. J. Ober (2000a). „Pomiar ruchu oka metodą bezpośredniej podczerwieni cz. I”. *Technika Sensorowa Elektronizacji* 2: 24–28.

Ober, J. K., J. J. Ober (2000b). “Pomiar ruchu oka metodą bezpośredniej podczerwieni cz. II”. *Technika Sensorowa Elektronizacji* 3: 21–24.

Ober, J. K., J. J. Ober, M. Malawski, M. Skibniewski, Elżbieta Przedpelska-Ober, J. Hryniewiecki (2002). „Monitoring pilot's eye movements during the combat flight – the white box”. *Biocybernetics and Biomedical Engineering* 22/2–3: 241–264.

Ober, J. K., J. Dylak, W. Gryncewicz, Elżbieta Przedpelska-Ober (2009). „Sakadometria – nowe możliwości oceny stanu czynnościowego ośrodkowego układu nerwowego” [Sacadometry - new possibilities of assessing the functional state of the central nervous system]. *Nauka* 4: 109–135.

Płużyczka, Monika (2015). *Tłumaczenie a vista. Rozważania teoretyczne i badania eyetrackingowe* [Sight translation. Theoretical Considerations and Eye Tracking Experiments]. Wydawnictwo Naukowe IKSI. Available at http://sn.iksi.uw.edu.pl/wp-content/uploads/sites/306/2018/09/SN-30-Monika-P%C5 %82u%C5%BCyczka-T%C5%82umaczenie-a-vista.-Rozwa%C5%BCania-teoretyczne-i-badania-eyetrackingowe.pdf.

Poole, Alex, Linden J. Ball (2006). “Eye Tracking in Human-Computer Interaction and Usability Research: Current Status and Future Prospects”. In: Claude Ghaoui (ed.). *Encyclopedia of Human-Computer Interaction*. Idea Group, Inc., PA, USA.

Richardson, Daniel C., Michael J. Spivey (2004). “Part 1: Eye-tracking: characteristics and methods; Part 2: Eye-tracking: research areas and applications”. In: Gary E. Wnek, Gary L. Bowlin (eds.). *Encyclopedia of Biomaterials and Biomedical Engineering*. Available at www.eyethink.org/publications_assets/ EyeTrackingEBBE.pdf.

Sandra, Dominiek (1998) “What linguists can and can't tell you about the human mind: A reply to Croft”. *Cognitive Linguistics* 9/4: 361–378.

Soluch, Paweł, Adam Tarnowski (2013). "Eye-tracking methods and measures". In: Sambor Grucza, Monika Płużyczka, Justyna Zając (eds.) (2013). *Translation Studies and Eye-Tracking Analysis*. Frankfurt am Main: Peter Lang Verlag, 85–104.

Spinner, Patti, Susan M. Gass, Jennifer Behney (2013). "Ecological validity in eye-tracking: An empirical study". *Studies in Second Language Acquisition* 35/2: 389–415. Special Issue: "Eye-Movement Recordings in Second Language Research".

Wade, Nicholas J. (2010). "Pioneers of eye movement research". *i-Perception* 1/2: 33–68. Available at https://doi.org/ 10.1068/i0389.

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Layout changes in the textbook for learning English and their influence on the dyslexic students' work effectiveness – an eye-tracking analysis

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Abstract

The aim of the following article is to present the results of the second part of an eye-tracking study conducted on Polish secondary school students working with a textbook for learning English. Because of the fact that almost every group of school students consists of both dyslexic and non-dyslexic ones and that all of them use the same textbooks, we wanted to examine if we can adjust the textbook for learning English in such a way as to influence (i.e. improve) the way the students work with it. To check it we used a real-existing layout of a textbook page and its changed version and checked how dyslexic and non-dyslexic students worked with them.

In the article we present the eye-tracking parameters for so called areas of interest as well as correctness of the answers which is a non-oculomotor parameter.

Keywords

textbook, English, school student, eye tracker, fixation, area of interest, layout, dyslexia

Zmiany układu w podręczniku do nauki języka angielskiego i ich wpływ na efektywność pracy uczniów z dysleksją – analiza okulograficzna

Abstrakt

Celem niniejszego artykułu jest przedstawienie wyników drugiej części badania okulograficznego przeprowadzonego wśród polskich licealistów pracujących z podręcznikiem do nauki języka angielskiego. Ze względu na to, że prawie każda grupa uczniów składa się zarówno z osób z dysleksją, jak i bez dysleksji i wszyscy korzystają z tych samych podręczników, chcieliśmy sprawdzić, czy potrafimy dostosować podręcznik do nauki języka angielskiego w taki sposób, aby wpłynąć na (tj. poprawić) sposób, w jaki uczniowie z nim pracują. Aby to sprawdzić wykorzystaliśmy istniejący układ strony podręcznika i jego zmienioną wersję oraz sprawdziliśmy, jak pracują z nimi uczniowie z dysleksją i bez dysleksji.

W artykule przedstawiamy parametry eyetrackingu dla tzw. obszarów zainteresowań oraz poprawność odpowiedzi, która jest parametrem nieokulomotorycznym.

Słowa kluczowe

podręcznik, angielski, uczeń, okulograf, fiksacja, obszar zainteresowania, układ graficzny, dysleksja

1. Introduction

Despite the fact that modern school student groups are relatively strongly differentiated in terms of special educational needs, all of them use the same textbooks for learning a foreign language, and very often these textbooks do not take into account these special educational needs. In almost all cases, the teaching and learning properties of textbooks are subordinated by publishing houses to visual appeal. The effectiveness of textbooks is negatively affected by this situation, and thus the students using these textbooks suffer, and in particular the students with developmental dyslexia. In fact, the problem is even

more complex. It does not concern only textbooks for learning English or other languages. Also in other areas, one can notice the lack of in-depth scientific reflection on the conditions of acquiring knowledge based on textbooks by students with dyslexia.

2. Scope of our interest – textbook and dyslexia

Our research interests are related to the textbooks for learning English used in the Polish secondary schools. We are interested in their layout and its influence on the visual behaviour of their users, i.e. students. The problem is the users are not a homogenous group and in our studies we are mainly interested in those with special educational needs narrowed down to developmental dyslexia.

Developmental dyslexia, or specific difficulties in reading and writing (with simultaneous proper mental development), is more and more often being diagnosed in Polish school students. Dyslexia is often accompanied by difficulties in writing (dysgraphia) and correct spelling (dysortography). Dyslexia can also be combined with dysphasia (a speech development disorder in children), dyscalculia, dyspraxia (lack of physical coordination), with problems related to keeping track of time, with issues linked to spatial and directional orientation, motor hyperactivity or attention disorders, etc. Developmental dyslexia has a neurobiological background and is associated with the structure and functioning of the brain (Habib 2000).

The process of learning English at school is usually accompanied by the use of textbooks for learning English. These textbooks are visually very attractive. However, a school textbook should be clear and readable. Clarity is influenced by the contrast between the letters and the background, as well as the type of paper and print quality, whereas readability depends on the typeface and size of letters, the density of the written text on individual pages (related to space), the width of the lines, the distance between the lines (spacing), the boldness and the colour of letters. Printed text should have a uniform font size, the same line length and margin width, optimal line spacing, perfect composition, good print quality, correct paper whiteness (guaranteeing good paper and print contrast), and text compliant with the principles of safe and effective reading. The textbook should use a uniform typeface and the same font size, avoiding the use of italics, etc. The layout of illustrations and tables on the textbook page is also important (Hanisz

2005: 469). Unfortunately, the big group of textbooks for learning English used in Polish secondary schools does not comply with these hints.

The point is the above hints related to textbook layout are especially important in the case of dyslexic students. To check how we can improve their perception of the material from the textbook for learning English we decided to check their eye movements with the aid of an eye tracker.

3. Eye tracking

Eye tracking allows to observe and analyse the way a subject looks at an object. It makes it possible to see in details what is at the centre of someone's gaze as well as to follow the path as the visual attention of the subject wanders (Duchowski 2007: 3). Because eye trackers are advanced physiological systems of measurements (Holmqvist et al. 2011: 11), they track and record the position of where the eye is looking at and in what order. It allows to identify the areas which are brought to the participant's attention. Modern video-based eye trackers register eyeballs movement with the aid of the camera directed at the eyes and the measuring system integrated with the computer and it allows to identify the areas which are brought to the participant's attention (Holmqvist et al. 2011, Duchowski 2007).

There are two basic eye movements, i.e. *fixations* and *saccades*. Fixations stabilise the retina over an object of interest which is stationary (Duchowski 2007: 46). They are moments when our eyes focus on a particular object lasting approximately 200–300 milliseconds. Saccades are rapid eye movements occurring between fixations and lasting, depending on a source, 40–50 ms (Lorigo et al. 2008) or 30–80 ms (Holmqvist et al. 2011). They reposition the fovea to a new location (Duchowski 2007). During a saccade the eyes move very fast (the velocity can be even 500° per second) and because of this no new information is obtained during a saccade (Rayner, 1998).

Areas of interest (AOIs) are the regions in the stimulus (i.e. material that is the subject of the eye-tracking research and is presented on the computer screen) that the researcher is especially interested in gathering data about (Holmqvist et al. 2011: 187). The participant does not see the AOIs on the stimulus. They are chosen by the researcher and can be changed and/or selected during the analysis of the data. They are also used to include or exclude some parts of the stimulus from the further analysis.

4. Methodology

Our eye-tracking study on textbooks for learning English consisted of two parts, both being conducted as the "Kształtowanie kompetencji językowych u uczniów z dysleksją rozwojową" [Developing language competences in secondary school students with developmental dyslexia] project (financed by the Ministry of Science and Higher Education, research grant No. 206428/E-343/S/2017-1 of 12.12.2017). The first part of the project was described in details in Andrychowicz-Trojanowska 2018 and is of no direct interest in the following article. The article is devoted to the results of the second part which was conducted by the following team: S. Grucza (head), A. Andrychowicz-Trojanowska, K.M. Bogdanowicz, K. Wiejak, and M. Płużyczka.

4.1. Material and data acquisition

The above mentioned second part of the project was conducted between June and November 2018 in Gdansk on 40 secondary school students, both dyslexic (20) and non-dyslexic ones (20). By "dyslexic students" we mean those who had an official certificate from psychological-pedagogical counselling centres confirming their dyslexia. The participants were the students of all three grades of the secondary school.

The place of the eye-tracking study was the school. There were two materials (hereinafter called sets) the participants worked with. The participants were randomly divided into two equal groups, each consisting of 10 dyslexic and 10 non-dyslexic students, working with one of two sets. The sets (set 1 and set 3 – the numbering is related to the one from the first part of the study, described in Andrychowicz-Trojanowska 2018; they were an example of the textbook page) the students worked with were shown on a computer screen. There was also a questionnaire in the written form that was given after completing the tasks (a participant had a chance to write down any of his/her opinions that could be helpful when analysing the research results – the questionnaire answers are, however, of no interest in this article). Both materials together with seven areas of interest each (four pictures: photo 1, photo 2, photo 3, photo 4; three boxes: box 1, box 2, box 3) are shown in Figures 1 and 2.

Figure 1
Set 1 with AOIs. Source: own

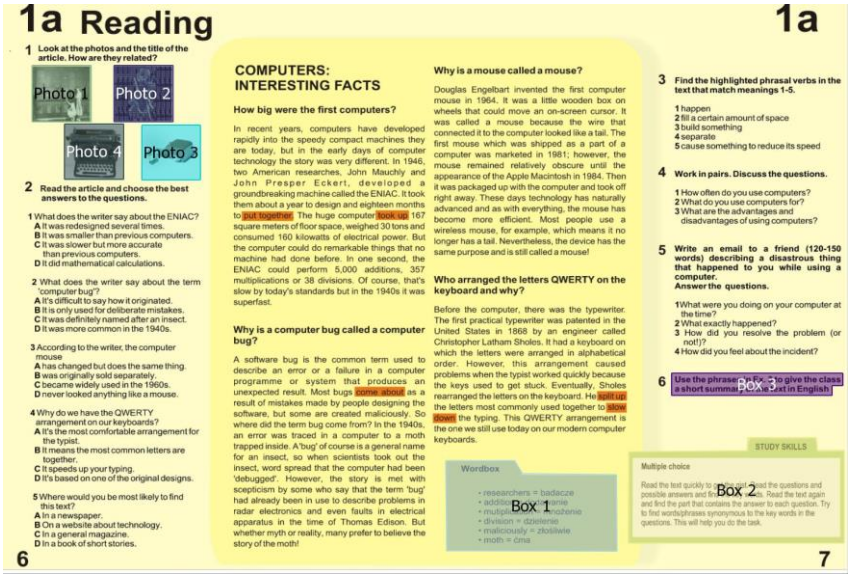

Figure 2
Set 3 with AOIs. Source: own

It should be emphasised that the content of the language learning material in both sets was the same, but the colours used, the location of pictures and the location and content of three boxes. Set 1 mirrored a real-existing textbook for learning English. In set 1, the pictures were located within the paragraphs of the text. There were also three boxes located in the lower right-hand corner of the page. Box 1 (titled *Check these words*) was located rather far from the text although it was related to it. In box 1, there were 6 words occurring in the text that were more difficult to understand. What is important, they were given only in their original, English, form, with no explanation of their meaning. The aim of box 1 was to draw student's attention to these words and encourage the student to check their meaning in a dictionary (that is why no explanation to them was given). Box 2 was titled *Study Skills* and was a short set of hints on how to complete the single choice task (the students were to complete such a task) as to be the most successful. Although box 2 was not directly related to the text, it was situated the closest to it. Box 3 is a separate oral activity and is related to exercise 3 (the latter one should be completed first). Its content was not related anyhow to the text but it was presented in the graphically visible way in the original textbook (it was a separate graphic element there).

In set 3, the colours of the textbook page were changed and their variety was limited according to the suggestions given in the literature (Evans 2001, Bogdanowicz 2011, Mitchell and Wightman 2012, Pollak 2012, etc.), and the pictures were moved from the text area and placed in exercise 1 (they were a part of it). What is more, box 3 was removed and moved to exercise 6. Box 2 was made a bit smaller and moved to a new location, and box 1 changed its size a bit, location (it was moved closer to the text area) and content (the Polish equivalents to the English words from the box were added, as well as shape and colours were changed).

The types of exercises the students were asked to complete were the same in both sets: exercise 2 on page 6 was a single choice task (students were to read the text and choose a proper ending/answer to five sentences/questions out of four possibilities given) and exercise 3 on page 7 consisted in matching the definitions given there with the words highlighted in the text (the maximum number of points in every task was 5, so a participant could get 10 points altogether).

The participants' eye movements were recorded with an SMI RED 500 eye-tracking system with a sampling rate of 250 Hz. The

participants sat in front of a 22-inch LCD monitor (equipped with a mini video camera, i.e. an eye tracker, placed just under it) at a distance of about 60 cm. The average tracking ratio (i.e. the proportion of time the eye tracker recorded point-of-gaze coordinates during the task – Amso et al., 2014, p. 2) was 97 % for the whole study (set 1 = 96.41 %, set 3 = 97.61 %) with a standard deviation of 2.63 % (set 1 = 3.29 %, set 3 = 1.52 %). The recorded data was analysed with the aid of BeGaze 3.7 analysis software and IBM SPSS Statistics (version 25).

When calibration had been completed, the set was displayed on the computer screen and the student heard the task to complete exercise 2 on page 6. When it was done, the second task (to complete exercise 3 p. 7) was given. There was no time limit. At the end of the study the participants were asked to fill in the questionnaire related to the study.

4.2 Hypothesis and eye-tracking metrics

We hypothesise that a proper design of a textbook page improves the way the secondary school students (especially those suffering from dyslexia) work with the textbook material. By the proper design of the textbook we understand here a design that is adjusted to the needs of dyslexic students related to fonts, colours used, location of different parts of the material etc., as it is suggested in the literature (Evans 2001, Bogdanowicz 2011, Mitchell and Wightman, 2012, Pollak 2012 etc.).

To verify the hypothesis we chose the set of parameters that will be compared between the particular AOIs and two sets of materials, and between participant groups (dyslexic and non-dyslexic ones). The set of parameters consists of the group of five eye-tracking metrics for the AOIs, i.e. entry time, first fixation duration, fixation count, dwell time and revisits. There is also one non-oculomotor parameter that is of our interest, i.e. correctness of the answers. *Entry time* is the duration of the time before the first fixation in the area of interest (AOI). *First fixation duration* is the duration of the first fixation at a particular AOI and it reflects the time taken to recognise and identify a part of the stimulus image, processes which are extremely fast (Holmqvist et al. 2011). *Fixation count* is the number of fixations in each trial (in a particular AOI) correlated to total dwell time (Holmqvist et al. 2011). It is said to be the most often used parameter in eye-tracking research (Jacob and Karn 2003). The higher the number of fixations (overall

fixations), the poorer the search capacity of a participant or the poorer the structure of the stimuli. On the other hand, more fixations on a particular AOI may indicate that the AOI is more important and/or more noticeable to the participant than the others (Poole et al., 2004). *Dwell time* is one visit (measured from entry to exit) to an AOI. This is a sum of all the fixations and saccades in a particular AOI (Holmqvist et al. 2011). In other words, it is the total amount of time spent looking within a particular AOI (Tullis and Albert 2013). *Revisits* are a transition to an AOI that has already been visited (Holmqvist et al. 2011), therefore they are a second and further glance at a previously viewed object (AOIs).

In our case the two sets being the imitation of a textbook page combine both textual and visual information. Very often it happens that the visual one is a kind of a distractor.

5. Results

The data are presented in two sections. The first one (5.1) is devoted to five above mentioned eye-tracking parameters in relation to the areas of interests; the second one (5.2) shows non-oculomotor data, i.e. correctness of the answers.

Because of the small number of participants in the second part of our study and relatively high values of standard deviation for eye-tracking parameters (not presented in the following article), the results only show some tendencies that ought to be checked on the bigger group of participants.

5.1. AOIs

According to our hypothesis, the changes in the layout of set 3 in comparison to set 1 should influence the visual attention of the students. Their aim was to change the layout in such a way as to improve the spread of visual attention in the case of dyslexic students and not to disturb it in the case of non-dyslexic ones. The introduced changes were related to the colours used, but also to location of the photos and boxes.

Table 1

Eye-tracking index entry time [s] for dyslexic and non-dyslexic participants in the areas of interest. Source: own

Area of interest	D		ND	
	S1	S3	S1	S3
Photo 1	12.10	56.44	16.61	69.88
Photo 2	215.98	110.81	194.02	1.91
Photo 3	124.34	79.13	169.38	60.01
Photo 4	342.16	3.75	296.19	2.38
Box 1	311.90	190.02	364.78	296.67
Box 2	269.96	344.93	353.11	165.34
Box 3	185.56	308.71	319.31	80.543

Note: *D – dyslexia, ND – no dyslexia, S1 – set 1, S3 – set 3.*

We first examined the differences in the entry time, i.e. the duration of the time needed for the first fixation in a particular AOI. It should be reminded that the shorter entry time, the more visually attractive (for many different reasons) the particular AOI. Our prediction was that there would occur the difference in the case of four photos and of three boxes in favour of set 3. The entry time data is shown in Table 1.

In the case of four pictures big differences can be noticed as the change of their location in set 3 (i.e. moving them from the text area into the upper left-hand corner of the set 3) resulted in longer entry time in the case of photo 1 in both groups of participants, i.e. dyslexic and non-dyslexic ones. In the case of photo 2 and 3 the entry time became shorter and in the case of photo 4 there was very small time value in set 3. That means the changes to the location of the pictures resulted in relatively shorter time needed to notice them. The explanation of that can be the new location of them, i.e. the very left-hand upper corner of the page in set 3. It is known that for example web users direct their eyes exactly into that part of the screen first (Hotchkiss et al. 2005, Nielsen 2006, Hotchkiss 2007).

The changes related to the location and appearance of the three boxes were introduced to draw more attention of the participant to box 1 that contained useful information (that can be helpful especially for dyslexic students), as well as decrease it on two other boxes. In both

groups of participants the entry time on box 1 turned out to be shorter in set 3 which means box 1 was noticed faster. It may be related to the fact that set 3 was less graphically attractive to the participants and that is why they were faster to notice anything different. In the case of boxes 2 and 3 in set 3 it is seen that dyslexic students needed more time to notice them than non-dyslexic ones and in set 3 their entry time was longer than in set 1.

The first fixation duration (FFD) is directly proportional to the level of interest in a particular AOI (there may be different reasons for this interest). The data on FFDs is presented in Table 2.

Table 2 shows that in the case of all the participants the average FFD is shorter for every photo in set 3 than in set 1 – there is no such correlation in the case of dyslexic students only for photo 4. The reason of that may be the location of photo 4 in set 3 – it was placed just above the task to exercise 2 (in the middle of it) that the students were to complete. Dyslexic participants might have looked at the photo 4 while reading the task. Longer FFDs on box 1 in set 3 for dyslexic participants should also be emphasised (in set 3, box 1 was located closer to the text that was read and its design as well as the content were modified).

The changes in the form or the location of the boxes 2 and 3 in set 3 resulted in the decrease of FFDs. That means they became less visually attractive and that was the goal of the changes. However, in set 3 the change to box 3 resulted in a slight increase in FFDs in the group of dyslexic students.

The fixation count shows the average number of fixations in the particular AOIs and is presented in Table 3.

The data as presented in Table 3 show two very important tendencies in set 3, i.e. a decrease in the fixation count for the photos (but photo 4 in the case of dyslexic students), box 2 and box 3, and a significant increase of the fixation count for box 1. In the case of the photos, it is noticeable in both groups of participants, i.e. dyslexic and non-dyslexic ones, that placing the photos within the text (set 1) is unfavourable from the point of view of fixation count. Such a location helps increase the visual attention paid to them and especially dyslexic students are susceptible to it. These are, though, dyslexic students who easily deconcentrate in, among others, such a way. The consequence of all this may be greater distraction, inattention, losing the thread etc. and that may result in the task being completed less well.

On the basis of all this, it seems that the best location for the photos is to remove them from the text to be read, as it was done in set 3.

Table 2

Eye-tracking index of first fixation durations [s] for dyslexic and non-dyslexic participants in the areas of interest. Source: own.

Area of interest	D		ND	
	S1	S3	S1	S3
Photo 1	0.16	0.09	0.19	0.16
Photo 2	0.26	0.13	0.20	0.09
Photo 3	0.21	0.12	0.20	0.10
Photo 4	0.16	0.20	0.19	0.11
Box 1	0.16	0.25	0.20	0.15
Box 2	0.38	0.18	0.29	0.07
Box 3	0.05	0.06	0.20	0.04

Note. *D – dyslexia, ND – no dyslexia, S1 – set 1, S3 – set 3.*

Table 3

Eye-tracking index of fixation counts for dyslexic and non-dyslexic participants in the areas of interest. Source: own.

Area of interest	D		ND	
	S1	S3	S1	S3
Photo 1	8.4	2.3	9.9	1.9
Photo 2	5.9	2	4.1	1.8
Photo 3	10.8	1.4	11	1.3
Photo 4	2.7	4.9	4	1.6
Box 1	3.8	23.6	4.3	17.3
Box 2	18.5	6.8	13.4	1.7
Box 3	1.9	1.8	1.5	0.4

Note: *D – dyslexia, ND – no dyslexia, S1 – set 1, S3 – set 3.*

What is more, the changes made to the parameter for box 1 should be emphasised. In set 3, box 1 was moved closer to the text and its content was modified in such a way so as to make it more useful for the students, especially those dyslexic ones. All these changes caused that in set 3 the fixation count on box 1 sharply increased in both groups of participants. Moreover, it seems that placing the photos outside the text caused the change of the visual attention destination – in set 3 the only graphic element in this area is box 1 and only it draws the visual attention there. On the basis of that it can be concluded that it is possible to consciously steer and control students' attention through proper location of different parts of their textbook material.

It should also be noticed that there was a significant decrease in the number of fixations on two other boxes, especially box 2. Data for box 2, however, proves the observation from the first part of the project (Andrychowicz-Trojanowska 2018) about the importance of consciously locating the parts of any material – the further something is from the text to be read, the fewer fixations on it. This is a very important conclusion – the difference in the number of fixations on box 2 in set 1 (in the group of dyslexic and the group of non-dyslexic students) is rather big, as the dyslexic ones fixated 1.3 times more that the non-dyslexic ones.

In set 3, box 3 was changed into an ordinary exercise, presented in a standard form that was identical with the rest of the activities. The consequence was a decrease in the number of fixations on it. This decrease further proves the conclusion that has already been made about the need for conscious use of graphic elements and colours in the textbooks. There is no need to highlight the parts that are not of major importance on a particular textbook page (this is the case with box 3 – its content was just a task to be completed orally). Eye-tracking data show that such highlighting is the reason for the student's distraction. In the case of dyslexic students it can aggravate their inattention and distraction, which is what should be avoided.

Data on dwell time confirms the previous observations and is shown in Table 4.

Table 4

Eye-tracking index of dwell time [s] for dyslexic and non-dyslexic participants in the areas of interest. Source: own.

Area of interest	D		ND	
	S1	S3	S1	S3
Photo 1	1.87	0.53	2.94	0.35
Photo 2	1.96	0.50	0.86	0.33
Photo 3	3.39	0.48	3.23	0.20
Photo 4	0.59	1.26	0.85	0.31
Box 1	0.92	8.10	1.01	4.81
Box 2	6.18	2.25	3.77	0.33
Box 3	0.44	0.69	0.39	0.09

Note. *D – dyslexia, ND – no dyslexia, S1 – set 1, S3 – set 3.*

In set 1, dwell time, i.e. the sum of all fixations and saccades, in a particular AOI in the group of dyslexic students was definitely the longest for box 2 and then for photo 3. In the case of non-dyslexic ones, the dwell time on box 2 and photo 3 was the longest, too, but at the same time it was definitely shorter on box 2 in comparison to that for dyslexic students. This means the latter group was more susceptible to looking at these two graphic elements. It should be remembered that the interest in photo 3 was definitely influenced by its location (the upper left-hand corner of the third paragraph, so it was surrounded by the text from 3 of its 4 sides – such a location for the picture increases the probability of focusing one's eyes on it).

For the photos in the sets, the dwell time was shorter in set 3 in the case of non-dyslexic and dyslexic students (but photo 4 in their case). This may be a reason to conclude that the photos were the most visually attractive thing in set 1, which was very colourful itself; they were least attractive in set 3 where the photos were located outside the text area. In set 3, dwell time was slightly longer in the case of dyslexic students and photo 4 located in the upper left-hand corner of the set.

The last oculomotor parameter is the revisit count (Table 5).

Table 5

Eye-tracking index of the revisit count for dyslexic and non-dyslexic participants in the areas of interest. Source: own.

Area of interest	D		ND	
	S1	S3	S1	S3
Photo 1	5.4	1.4	7	0.5
Photo 2	3.7	1	2.6	0.9
Photo 3	7.3	0.8	7.6	0.3
Photo 4	1.4	2.4	2.7	0.9
Box 1	1	7.5	1.9	4.9
Box 2	7.2	2.1	5.9	0.6
Box 3	0.5	0.5	0.2	0.2

Note: *D – dyslexia, ND – no dyslexia, S1 – set 1, S3 – set 3.*

In set 1, the biggest number of revisits was for photo 3 in both groups of participants. A similar thing happened with photo 1. When comparing the data for all the photos, it is easily noticeable that the smallest average number of revisits in both groups of students was for the photos in set 3. On the basis of this, it can be concluded that the location of the photos is of great (unconscious) importance to students (both dyslexic and non-dyslexic ones). So, once again it is proved that locating photos outside a read text changed the values of eye-tracking metrics, and, as a consequence, weakened the visual interest in these AOIs.

Table 5 also shows a change in the number of revisits by both dyslexic and non-dyslexic students to box 1, i.e. a very important AOI, and to box 2, i.e. an unimportant one. In the case of box 1, moving it closer to the text that was read caused a decrease in entry time and first fixation duration but it also increased the number of revisits to this AOI. And that was precisely the aim of the changes made to the sets. Similarly, moving box 2 further from the text resulted in a decrease in visual interest in it. This can be seen in the revisits count regarding it.

All the above mentioned parameters for eye movements characterize the way Polish secondary school students acted while completing the tasks. The most significant question, though, is if it anyhow

influences the process of learning, here measured by the correctness of the given answers.

5.2. Correctness of the answers

Because set 1 and set 3 were identical from the point of view of their content, the given answers can be compared. In both sets participants were asked to complete exercise 2 – it consisted of reading the given text and choosing one proper ending/answer (out of a, b, c, d) to five sentences/questions that were given. Exercise 3 was matching five definitions that were given with 5 words highlighted in the text. The maximum number of points in every exercise was 5. Answer correctness is shown in Figure 3.

In Figure 3 the difference in the answer correctness in both groups of participants can be noticed. In set 1, the difference between dyslexic and non-dyslexic students equals 9 % in favour of the latter ones. However, in set 3, which was devoid of pictures in the text area and of graphic elements, the difference between the groups became smaller. Non-dyslexic students gave 1 % less correct answers but at the same time dyslexic ones improved their results – correctness of their answers was only 3 % smaller. That means the changes introduced to set 3 helped dyslexic students be more effective from the point of view of the number of correct answers and did not decrease the results of non-dyslexic ones.

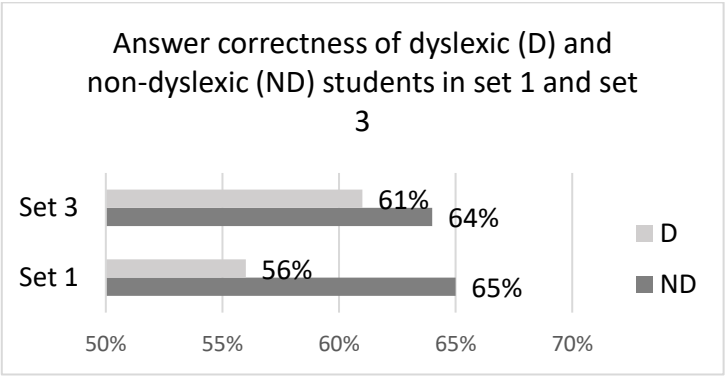

Figure 3
Correctness of the answers given by dyslexic and non-dyslexic students in both sets. Source: own.

6. Conclusions

The above results are of great significance from the social point of view as they show that wise and conscious planning of the textbook layout can support particular groups of students in their work with the textbook, as well as with their final results. However, it should be further checked how to increase the results of dyslexic students and not to decrease the ones of non-dyslexic students at the same time.

The results of our study support the assumption that the way the textbook material is planned and designed on the page of the textbook is significant from the point of view of the way dyslexic and non-dyslexic students work with it and, finally, from the point of view of the results they achieve. It can be said that conscious design of such a page can be a help or a distractor. What is more, wise planning can stimulate the final results of especially dyslexic students, making them become as successful as non-dyslexic ones. And it is a crucial conclusion of a huge social value.

References

Amso, Dima, Sara Haas, Julie Markant (2014). "An eye tracking investigation of developmental change in bottom-up attention orienting to faces in cluttered natural scenes". *Plos One* 9/1: 1-7.

Andrychowicz-Trojanowska, Agnieszka (2018). *Podręczniki glottodydaktyczne: Struktura – funkcja – potencjał w świetle badań okulograficznych*. Warszawa: Studia Naukowe.

Bogdanowicz Katarzyna, Maria (2011). *Dysleksja a nauczanie języków obcych. Przewodnik dla nauczycieli i rodziców uczniów z dysleksją*. Gdańsk: Harmonia.

Duchowski, Andrew (2007). *Eye Tracking Methodology: Theory and Practice*. Clemson: Springer.

Evans, Bruce J. W. (2001). *Dyslexia and Vision*. London: Wiley.

Habib, Michel (2000). "The neurological basis of developmental dyslexia; An overview and working hypothesis". *Brain* 123: 2373–2399.

Hanisz, Jadwiga (2005). "Podręcznik". In: Urszula Śmietana (ed.). *Encyklopedia pedagogiczna XXI wieku*. Vol. 4. Warszawa: Wydawnictwo Akademickie Żak.

Holmqvist, Kenneth, Marcus Nyström, Richard Andersson, Richard Dewhurst, Halszka Jarodzka. Joost van de Weijer (2011). *Eye Tracking: A Comprehensive Guide to Methods and Measures.* New York: Oxford University Press.

Hotchkiss, Gord (2007). *Eye Tracking on Universal and Personalized Search*. Available at http://searchengineland.com/eye-tracking-on-universal-and-personalizedsearch-12233. Accessed 14.07.2016.

Hotchkiss, Gord, Steve Alston, Greg Edwards (2005). *Eye Tracking Study*. Available at http://searchengineland.com/figz/wp-content/seloads/2007/09/hotchkiss-eyetracking-2005.pdf. Accessed 14.07.2016.

Jacob, Robert J. K., Keith S. Karn (2003). "Eye tracking in human-computer interaction and usability research: Ready to deliver the promises". In: Jukka Hyönä, Ralph Radach, Heiner Deubel (eds.). *The Mind's Eye: Cognitive and Applied Aspects of Eye Movement Research*. Amsterdam: North-Holland, 573–605.

Lorigo, Lori, Maya Haridasan, Hrönn Brynjarsdóttir, Ling Xia, Thorsten Joachims, Geri Gay, Laura Granka, Fabio Pellacini, Bing Pan (2008). "Eye tracking and online search: Lessons learned and challenges ahead". *Journal of the American Society for Information Science and Technology* 59/7: 1041–1052.

Mitchell, Michael, Susan Wightman (2012). *Typografia książki: Podręcznik projektanta*. Kraków: Wydawnictwo d2d.pl.

Nielsen, Jacob (2006). *F-Shaped Pattern for Reading Web Content*. Available at https://www.nngroup.com/articles/f-shaped-pattern-reading-web-content-discovered/. Accessed 12.07.2016.

Pollak, David (2012). "Studenci z dysleksją w Wielkiej Brytanii". In: Marta Bogdanowicz (ed.). *Dysleksja w wieku dorosłym*. Gdańsk: Harmonia, 167–197.

Poole, Alex, Linden J. Ball, Peter Philips (2004). "In search of salience: A response time and eye movement analysis of bookmark recognition". In: Sally Fincher, Panos Markopolous, David Moore, Roy Ruddle (eds.). *People and Computers XVIII – Design for Life: Proceedings of HCI 2004*. London: Springer, 363–378.

Rayner Keith (1998). "Eye movements in reading and information processing: 20 years of research". *Psychological Bulletin* 124/3: 372–422.

Tullis Tom, Bill Albert (2013). *Measuring the User Experience: Collecting, Analyzing, and Presenting Usability Metrics*. Elsevier.

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The possibility of using Cooperative Development in pre-service teacher development

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Abstract

Cooperative Development (CD) is viewed by its creator, Julian Edge (1992), as a model of interaction to support the development of teaching professionals by which they become more aware of their practice as they are empowered to act within and upon it with increased confidence. Based upon equality and cooperation, in CD experiential understanding is valued as much as intellectual comprehension, while speaking and being listened to as aids to thinking and deeper reflection are paramount to the approach. Edge also believes that CD has a limited application in most teaching-learning situations, where equality is not usually the norm. The authors of the article, however, consider the use of CD with pre-service teachers during their teaching practices as an approach that, if implemented, may foster greater awareness and confidence in student-teachers as well alleviate one of the problems of the present system that exists in the Institute of English and American Studies (IEAS) at the University of Gdańsk: a heavy reliance upon written documentation produced by the students which is, *de facto*, a way of monitoring the practices after their completion rather than providing support for students when they are involved in them. In considering whether or not teaching practices based upon

CD are feasible in IEAS, the following areas are examined: CD as an approach in teacher development, the level of acceptance of dialogical practices in Polish education generally, the present system of teaching practices in IEAS, data gathered from previous research connected with those practices, as well as analysis of documentation connected with their administration. Measures that would have to be undertaken if CD were to be implemented as an approach in support of pre-service teacher development are also considered in the discussion.

Keywords

Cooperative Development, pre-service teacher development, teaching practice, reflection, dialogical interaction, teaching practice journal

Zastosowanie koncepcji „Cooperative Development" podczas praktyki przygotowującej do zawodu nauczyciela

Abstrakt

„Cooperative Development" (CD) autorstwa Juliana Edge (1992) to stymulujący rozwój model komunikowania się pomiędzy nauczycielami, oparty na wzajemnej pomocy i wymianie doświadczeń, którego rezultatem jest zwiększona świadomość zawodowa i wiara we własne możliwości. Podstawą koncepcji CD jest równość i współpraca, słuchanie i bycie wysłuchanym. To sposób budowania relacji opartej na dialogu, partnerstwie, wspomaganiu rozwoju osobistego i naukowego poprzez refleksyjne podejście do konkretnego problemu związanego z pracą nauczyciela. Edge jest zdania, że taki model komunikacji w relacjach nauczyciel-uczeń, które z założenia są hierarchiczne, nie wydaje się mieć większego zastosowania. Niemniej jednak, autorzy poniższego artykułu uważają, że wprowadzenie zasad CD w Instytucie Anglistyki i Amerykanistyki w Uniwersytecie Gdańskim jako alternatywnego podejścia do praktyk studenckich przygotowujących do zawodu nauczyciela mogłoby w znacznym stopniu przyczynić się do wzrostu ich efektywności. Obecnie monitorowanie i analiza praktyk odbywa się, de facto, na podstawie dokumentacji kompilowanej po ich zakończeniu, a nie w ich trakcie. Podejście CD odwróciłoby ten proces, dając przysz-

łym pedagogom możliwość autorefleksji. Artykuł rozważa za i przeciw takiego rozwiązania.

Słowa kluczowe

Cooperative Development, rozwój osobisty nauczyciela praktykanta, praktyka nauczycielska, refleksja, komunikacja oparta na dialogu, dziennik praktyki nauczycielskiej

1. Introduction

The ideas considered in this paper are part of a greater research project which attempts to find an appropriate model for the pre-service teacher training implemented in the Institute of English and American Studies (IEAS) – teacher specialisation, Faculty of Modern Languages, University of Gdańsk. As such, it relates to other studies concerning teacher and pre-service development for teachers of English where reflection and dialogic interaction are supported (Wallace 1993, Gabryś-Barker 2012, Edge and Mann 2013, Howard and Donaghue 2015).

The article poses the question of whether or not Cooperative Development (CD), as an approach to teacher development, could be implemented as part of the teaching practices that occur in the Institute. This consideration of CD follows on from previous theoretical-empirical research carried out by one of the authors (Blaszk 2020) in which it was proposed that the teaching practices in IEAS might be viewed as a community of practice, thereby positioning them (the teaching practices) within a network of professionals all of whom would contribute to the development of the student-teachers in a mutually supportive and coherent way. However, after analysis of artefacts related to the teaching practices – student-teachers' written reflections on their practices delivered as part of a teaching practice journal (TPJ) – the possibilities of viewing the practices as a community of practice and the advantages this would offer, were percived to be negligible owing to the fragmented and diverse nature of

the relations described by the students. As a result of this, it was felt that a more appropriate way to conceptualize the practices would be through the model of CD, which fosters development through dialogical exchange and reflection at a level of contact between individuals rather than larger groups of people.

In connection with the above, the article is ordered in the following way. First of all, CD as an approach to teacher development is described, followed by a consideration of the level of acceptance for dialogical practices in Polish education. After that, the present system of teaching practices in IEAS is presented along with data gathered from previous research into those practices. Documentation connected with the administration of the teaching practices is also described. Finally, measures that would have to be undertaken if CD were to be implemented as an approach in support of pre-service teacher development are also considered.

2. Research methodology

As was mentioned in the introduction, the described research is an inquiry into the form of the teaching practices in IEAS, in the Modern Languages Faculty at the University of Gdańsk. It is a qualitative inquiry in that the aim is to gain a greater understanding of how the teaching practices in IEAS function. It does not, therefore, as with quantitative research, aim to prove a particular hypothesis or generate data and results that will build towards a generalized theory about pre-service teacher development. In contrast, the information it provides is meant to help the authors, as well as other members of the teacher education team working in IEAS, come to decisions about how to develop the teaching practices so that more support can be offered to student-teachers, thus enabling greater professional awareness and confidence.

The inquiry relates to previous research (Blaszk 2020) carried out between 2014 and 2017, where an attempt was made to answer the question as to whether or not the teaching

practices might be viewed as a community of practice, in which case it would be plausible to construct a model of practice that could use the networks ensuing from the community to support pre-service teachers in the development of a teacher Self. Analysis of data collected from 90 texts created by student-teachers from three cycles of didactics practices (2014-2015, 2015-2016, 2016-2017), showed that there was not one community of practice but rather that each student-teacher was involved in a particular version of a teaching practice, some of which could be viewed to be a community of practice, while others could not. Bearing this in mind, it was suggested that a more appropriate model to exploit for purposes of the teaching practices in IEAS, would be one that is based upon Cooperative Development, which is a dialogical and reflective approach that works on an individual level rather than that of a networked community. This article refers to data gathered from the previous research (Blaszk, 2020) based upon the analysis and interpretation of artefacts (comments written by student-teachers in TPJs), as well analysis of documentation connected with the format (Praktyki nauczycielskie 2019) and administration of the practices (Instrukcja Postępowania 2019) to try and gain an answer to the question of whether teaching practices in IEAS based upon CD are feasible. As with the previous research, this inquiry takes the form of a case-study in that it concerns a particular group of people involved in a particular activity (Wilczyńska and Michońska-Stadnik 2010: 154). It is also a form of action research where structured reflection concerning a particular issue involves questioning and data collection, with the resulting ideas and solutions being applied to further professional action (Wallace 2008: 14).

2. Teaching practices in the light of Cooperative Development

Cooperative Development is seen by its author, Julian Edge (1992: 1) as a practice that helps build the confidence of participants as it empowers them. This is because, through its implementation, participants become:

(a) aware of their own and other people's strengths and skills,
(b) increasingly able to listen attentively to others,
(c) responsive to their own teaching needs and situation.

Fundamental to achieving this is an equal status cooperation with other teachers and learners, with whom "experiences and opinions" can be shared, thereby to "escape from simple, egocentric subjectivity, without chasing after a non-existent objectivity" (Edge 1992: 4). In CD, there is also an acceptance of experiential understanding in addition to intellectual comprehension, so that the emotional process of learning is emphasised along with the cognitive. Importantly, speaking is viewed to be central to the whole enterprise as it allows us to formulate our ideas and, as a result, see how coherent those ideas are.

2.1. The Speaker, the Understander and the Observer

In the implementation of Cooperative Development, the above considerations have definite implications for its form. In each CD encounter, there is a **Speaker**, an **Understander**, and there may also be an **Observer**. The pattern of interaction is as follows. The Speaker elicits the help of an Understander. The Speaker expresses her/himself to the Understander who helps her/him to develop "ideas by clarifying them and following them where they lead" (Edge 1992: 7). In the initial implementation of CD, there may also be an Observer, whose role is to take part in the Speaker/Understander discussions and give feedback as a "third perspective" (Edge 1992: 16). Also, in connection with

the Speaker/ Understander interactions, Edge outlines new norms for interaction between two people. The usual arena of discussion, in which the speaker with the strongest arguments dominates, is replaced by a situation in which the Speaker is given as much space as possible to develop her/his ideas, while the Understander does all she/he can "to help the Speaker to use that space creatively" (Edge 1992: 10). For this to occur successfully, there are some underlying principles that need to be adhered to. First, there is **respect**, which means that the Understander accepts decisions made by the Speaker in relation to what is to be talked about and acted upon. The Understander must also be **non-judgmental**: she/he must accept what the Speaker says and "bracket" her/his knowledge and values for the period of the exchange. Edge (1992: 11) recounts this in the following way:

> Colleagues have every right to their views on teaching and students; they come out of their own experience and understanding. Development can only take place when Speakers recognise their own real views, and then see something in there which they wish to investigate, or to take further, or to change. Mutual, non-evaluative respect is fundamental to Cooperative Development.

In addition to respect, **empathy** is also of vital importance. The Understander has to see the Speaker's teaching situation according to the Speaker's frames of reference. This means there will be requests for clarification throughout the exchange, enabling the Speaker to get the best possible view of what she/he is doing, so that decisions can be made about what to do next. As well as respect and empathy, **honesty** is also an important aspect of the exchanges that take place during CD. However, honesty here does not mean the Understander says exactly what she/he thinks in response to comments made by the Speaker. On the contrary, the Understander is guided by respect and empathy to accept what the Speaker says even if she/he (the Understander) does not agree with it; this is because the

Understander's main purpose is to try and help the Speaker by aiding self-reflection and following on from that (as a result of it), understanding and development.

2.2. Stages, techniques and abilities

As well as the conditions given above, there are also a number of techniques to be used and abilities to be developed to ensure the proper functioning of CD at its different stages. These include the use of *attending*, *reflecting* and *focusing* by the Understander to encourage **exploration** by the Speaker; the facilitation of **discovery** in the Speaker through the implementation of *thematising*, *challenging* and *disclosing* by the Understander; and, putting into **action** the ideas that arise during the interaction of Speaker and Understander, through the use of *goal-setting*, *trialling* and *planning*. More fully, during the different stages, the techniques/abilities used can be described as follows:

Exploration stage (Understander is circumspect, supportive) (Edge 1992: 21-44):

- *attending* – the Understander knows how to read and send bodily and verbal signals, so that the Speaker will feel encouraged to engage fully in the exchange that takes place,
- *reflecting* – the Understander acts as a mirror, to repeat what the Speaker has said (through the use of direct quotation or paraphrase), so that important issues might be given further and more in-depth consideration,
- *focusing* – the Understander asks the Speaker to review what she/he has said and choose a point to pursue more fully or simply recapitulates a point that the Speaker has mentioned and ask her/him to comment upon it further.

Discovery stage (Understander is more active, "interventionist") (Edge 1992: 45-64):

- *thematising* – the Understander perceives themes arising in what the Speaker is saying and brings them to the Speaker's attention for comment or further development,
- *challenging* – the Understander hears the Speaker utter what appear to be contradictory statements on the same issue and challenges the Speaker about these two different points of view,
- *disclosing* – the Understander may disclose his/her own experiences of teaching, however, this is "only to the extent that it may be useful to clarify exactly what the Speaker is trying to say […] as a source of comparison or contrast" (Edge 1992: 61).

Action stage (Understander facilitates the Speaker to put ideas into action) (Edge 1992: 65-77):

- *goal-setting* – the Understander and Speaker formulate a goal that can be realised in terms of "a next step […] in the investigation of professional activity" (Edge 1992: 66),
- *trialling* – the Speaker provides a spoken rehearsal of what is to be done to achieve a particular goal while the Understander points out details that may have been overlooked: the trialling is to help produce a flexible plan for action – one which allows for unforeseen incidents and in which mistakes have a place,[1]
- *planning* – administrative details are decided upon concerning observations of classes by the Understander, contingent

[1] As Edge (1992: 72) writes: "if I am not able to carry out my plan in one particular class, I don't want to spend my time and energy getting too frustrated about it. I want to learn from the unexpected thing that got in my way. Next time I talk to my Understander, I shall try to focus on this event for a while before I move on to set my new goal for the next lesson […]." The emphasis here appears to be on the creation of a procedure in which variation is catered for and dealt with as part of the teaching /developmental process. Further, in the same chapter, Edge comments upon the role of mistakes in teaching and how they are dealt with in CD, hinting at the fact that it is the Speaker's interpretation of events that must always take precedence: "In the area of trialling, it can be particularly difficult for the Speaker not to ask for advice or opinions. Again the fundamentals of this style of cooperation are at issue. As Speaker, I am looking to develop myself to be the best teacher *I* can be. What sounds like a mistake to someone else might not be a mistake for me. If I do plan something that goes wrong, I can live with that and learn from it. The lessons that I learn will also be my own" (72). In this situation, therefore, mistakes are not negative but, if recognised by the Speaker and acted upon, play an important role in her/his (self-)development.

research by the Speaker, or further meetings between the Speaker and the Understander: this stage ensures that the process of CD is maintained and continues to grow.

2.3. Activities

Besides an outline for the functioning of CD, Edge also provides a range of useful activities to be used in the preparation of each stage of its realization. These include, among others:

Exploration stage:

- observation and interpretation of body language – *exploration* (Edge 1992: 24-25),
- statements about teaching to be reflected upon – *reflecting* (Edge 1992: 31-32),
- completion of questionnaire to be discussed – *focusing* (Edge 1992: 40-44).

Discovery stage:

- description of self linked to meditation – *thematising* (Edge 1992: 49-52),
- consideration of self in relation to team role stereotypes – *challenging* (Edge 1992: 55-57),
- completion of a motivations table for self and others – *disclosing* (Edge 1992: 62-64).

Action stage:

- completion of sentences about one's own teaching used as the basis for a Speaker, Understander, Observer interaction – *goal setting* (Edge 1992: 69-70),
- trialling goals which have been set – *trialling* (Edge 1992: 71-75),
- planning the continuation of Cooperative Development – *planning* (Edge 1992: 76-77).

In a number of cases, for various stages of CD, the activities described are also complemented by Edge's commentaries in which examples of the language to be used by the Understander, Speaker or Observer are given (see, for example, Edge 1992: 29, 67). Edge also provides a number of salient comments on the implementation of the approach in connection with mutually agreed signals (physical and verbal) to facilitate the smooth running of the Understander-Speaker exchange (Edge 1992: 16, 17-18), the role of silence and the accuracy of reflection (31), refraining from giving advice on the part of the Understander (Edge 1992: 47) even if the Understander does not agree with the Speaker's views (Edge 1992: 23) and the fact that the exchange allows the Understander opportunities to grow and develop as much as the Speaker (Edge 1992: 72).

3. CD in the context of Polish higher education

At present, reflection-based and dialogic interactions are in use in Polish higher education. In Gdańsk and other universities across Poland, there is support for a greater partnership between those involved in the teaching-learning process in the form of tutoring (Karpińska-Musiał 2016, Karpińska-Musiał 2017), while in connection with second language education (SLE) specifically, there are a number of inquiries into pre-service teacher development in which reflective and dialogic processes are analyzed and promoted (Gabryś-Barker 2012, Lankiewicz 2015, Werbińska 2017).

With regard to the use of CD in the Polish education system, Edge's initial publication was, in part, the result of workshops carried out with groups of teachers across the world, including Poland (Edge 1992: 1). Additionally, the theories which underpin CD are also known to and employed in SLE in Poland; a number of the researchers cited by Edge and the themes they pursue also appear in the volumes given above, in connection with inquiries into pre-service teacher development. The researchers and themes include, among others: Freire (1972) and

the socio-political issues underlying education, Lakoff and Johnson (1980) and the expression and comprehension of experience through language, Underhill (1989) and the application of humanistic approaches, Nunan (1989a) and Wright (1987) and (re)defining roles in teacher development, and Nunan (1989b) in terms of the relationships that exist within the developmental encounter.

Do the uses of shared types of interaction and a concern with similar themes between Edge and Polish SLE researcher-teachers, mean that there are grounds for CD to be used in pre-service teacher development in IEAS? To answer this question, it is necessary to consider the local factors that may have an impact upon whether or not it is possible to implement the model, as well as to review a number of important issues underlying Edge's conception of CD.

3.1. Local factors

With regard to the possibility of implementing CD as a model for pre-service teacher development in IEAS, a model for teacher development that is currently used in the Institute will now be described to determine whether or not CD would provide extra value over and above what is currently offered. In connection with this, guidelines provided at the faculty level (Instrukcja Postępowania 2019) and directives from the Ministry of Education (Dziennik Ustaw Rzeczypospolitej Polskiej 2019) will also be considered.

In the Institute of English and American Studies (IEAS), the system established for the teaching practices undertaken by first level day students on the teacher specialization course is as follows. Approximately 30 students a year participate in practices in which they undergo 150 contact hours with a school of their choice. In doing so, the students are involved in 30 hours of General Pedagogical Practice (GPP), where they analyse and take part in the general running of a school as observers, followed by 120 hours of Didactic Practice (DP), in which they

complete 40 hours of observation and 80 hours of teaching. In connection with IEAS, the teaching practices are officially recognized in the plan of studies where they are allocated to the second semester (GPP) and third, fourth and fifth semesters (DP) (see positions 30 and 53 – Plan Studiów, 2019). Time is also designated for the practices in each semester timetable so that the students can go into schools to carry out the practices. This time is usually blocked together in one day or part of a day (morning or afternoon) and scheduled for the beginning or end of the week – Monday or Friday.[2] Students can also negotiate individually with the school in which they carry out their DP to do part of the practices in September, when there are no lectures or classes taught at the University – see Table 1.

Additionally, there are two members of the academic staff who are assigned to oversee the teaching practices overall. Their functions are given as director of practices and supervisor of practices.[3] The director's job is to liaise between the students and the university administration to ensure that the bureaucratic documentation relating to the setting up and smooth running of the practices is completed correctly and that the students are informed of any changes in the documentation or rules and regulations relating to the practices. The documentation consists of, among other items, a contract between the student and the school for the time the students are involved in their practices, insurance for the students and an invoice to be completed by the school mentor for the consultation hours they work with the student-teacher (Instrukcja postępowania 2019). The rules and regulations are issued by the Ministry of

[2] At the time of writing, the blocks of time devoted to teaching practices on the plan of subjects for students involved in the teacher specialization are Mondays 8:00 – 13:00 for second year students and Fridays 8:00 – 13:00 for third year students. First year students do not have a block of time dedicated to fulfilling their GPP, although Thursday mornings are free between 08:00 – 11:30 (Plan zajęc – stacjonarne, 2020) and it is expected that they might use this time to carry out their practices .

[3] The titles in Polish are "kierownik praktyk" and "opiekun praktyk" respectively.

Education (Dziennik Ustaw Rzeczypospolitej Polskiej 2019) and procedural guidelines are offered at the faculty level (Instrukcja postępowania 2019). The rules and regulations touch upon the legally binding form and content of the teaching practices while the procedural guidelines provide an interpretation and ideas concerning the implementation of that form and content. In addition to the bureaucratic documentation, the director of the practices also collects assessment results from the supervisor of practices and ensures it is posted on the University's electronic system of results. An overview of the administrative documents necessary for both the GPP and DP and who is responsible for completing and/or signing them is given in Table 2.

Table 1

The type of teaching practice, when it takes place, the number of hours to be done and what needs to be done

What?	General Pedagogical Practice	Didactic Practice
When?	Semester 2 Mondays or Fridays allocated for teaching practices (or part of those days – usually mornings)	Semesters 3, 4 and 5 Mondays or Fridays allocated for teaching practices (or part of those days – usually mornings) September may also be used by some student-teachers to carry out their teaching practices
Number of hours / what needs to be done?	30 hours – Participation and Observation Student-teachers take part in and observe the general running of a school	40 hours – Observation Student-teachers observe their mentor (and possibly other teachers) teaching 80 hours – Teaching Student-teachers prepare and teach lessons

Table 2

Administrative documents necessary for both the GPP and DP and who is responsible for completing and/or signing them

Item	Description of documents to be completed and/or signed	Practice type	Completed, kept on file and/or signed by
1	Application form – student-teacher request to conduct teaching practices *Skierowanie na praktyki obowiązkowe*	One document for both GPP/DP	student-teacher, director of practices, university administration/ dean
2	Agreement between the school and the university - enables the student-teacher to conduct teaching practices for a definite or indefinite period of time *Porozumienie na czas określony / nieokreślony w sprawie prowadzenia praktyk obowiązkowych przygotowujących do wykonywania zawodu nauczyciela*	One document for both GPP/DP	school administration/ director, director of practices, university administration/ dean

3	Insurance form – insurance for the student-teacher *Formularz ubezpieczenia*	One document for both GPP/DP	school administration/ director, student-teacher, director of practices, university administration/ dean
4	Contract – between the mentor and the university *Umowa zlecenie*	One document or more - GPP/DP - depending on number of mentors	mentor, university administration/ dean
5	Document providing personal details of the mentor for tax and insurance purposes *Oświadczenie zleceniobiorcy dla celów podatkowych i ubezpieczeniowych*	One document or more - GPP/DP - depending on number of mentors	mentor
6	Certificate of mentor's earnings for National Insurance purposes (completed by the mentor's employer – the school) *Zaświadczenie o uzyskanych dochodach ZUS*	One document or more - GPP/DP - depending on number of mentors	school administration/ director
7	Record of teaching practices *Dzienniczek praktyki studenckiej*	One for both GPP/DP	mentor, student-teacher, director of practices, university administration

8	Mentor opinion – overall assessment of practice by mentor *Ocena przebiegu praktyki studenckiej*	One each for GPP/DP	mentor, director of practices, supervisor
9	Document confirming successful completion of practice *Karta zaliczenia praktyk*	One each for GPP/DP	student-teacher, director of practices, university administration
10	Completed bill of payment for mentor's participation in practices *Rachunek*	One document or more - GPP/DP - depending on number of mentors GPP/DP	mentor, director of practices, dean, university administration
11	Record of consultation hours completed during final month of each practice: GPP – 4h; DP – 16h *Miesięczna ewidencja godzin*	One document with separate entries for GPP/DP	mentor, student-teacher, director of practices, university administration

The supervisor, meanwhile, liaises with the director and students to create materials that can be exploited by the students in support of their teaching practices (GPP and DP). These materials include, among other items, assessment forms of student performance (completed by the school mentor), a record of each hour of observation and teaching that the student-teacher carries out (completed by the student-teacher), tasks to be done during the teaching practices (completed by the student-teacher) and overall reflections on the teaching practices

(completed by the student-teacher). The materials for the GPP and DP, a full list of which are given below in Table 3, are made available to the student-teachers on the Institute website (Praktyki nauczycielskie 2019). The supervisor also assesses the Teaching Practice Journals (TPJs) that the students complete and hand in for both the GPP and DP. The TPJ contains the materials listed above, which the student-teachers and school mentors react to and/or complete throughout the different stages of the teaching practices.

Table 3

Material for TPJs to be completed by either the school mentor or student-teacher during the teaching practices – GPP and DP

Item	General Pedagogical Practice	Completed /supplied by	Didactic Practice	Completed /supplied by
1	Mentor opinion – overall assessment of practice by mentor	School mentor	Mentor opinion – overall assessment of practice by mentor	School mentor
2	Record of involvement in the life of the school (30 hours)	Student-teacher	3 lesson evaluations	School mentor
3	_____	Student-teacher	Record of observation (40 hours) and teaching (80 hours) done	Student-teacher
4	_____	Student-teacher	Syllabus /course content information	Student-teacher
5	Overall comments	Student-teacher	Examples of 5	Student-teacher

	on the general pedagogical practices		observation tasks - written up	
6	_____	_____	Examples of 5 lesson plans, materials used in lessons and self-assessment commentary - written up	Student-teacher
7	_____	_____	Overall comments on the didactic practices	Student-teacher

4. Discussion – reasons for and against the implementation of Cooperative Development

4.1. The success of the present system

At the Institute level, the existing system established for monitoring and evaluating the practices is generally perceived to be successful. The majority of students complete their practices within the prescribed time[4] and most receive "informal grades"[5] of between 4.0 and 5.0 – the

[4] The hand-in date for the GPP is usually the end of the second semester in the first week of June. The hand-in date for the DP is usually the end of the fifth semester in the third week of January.

[5] The official grades given for successful completion of the teaching practices are either a "pass" for successful completion or a "fail" for unsuccessful completion. In addition to this, however, for the DP a non-statutory grade is awarded by the supervisor of practices. This relates to the scale commonly used at university level where 5.0 denotes the top grade possible and 2.0 is a fail. The scaled grade along with written comments given on a feedback form are meant to orientate students about the strengths and weaknesses of their performance in connection with the presented documentation in their TPJ.

upper end of the scale for the scheme of assessment used by the University. In addition, certain forms of documentation and procedures have been recognized at the faculty level as "good practice" and have been given as a model for departments of other languages to follow where teaching practices are implemented.[6]

4.2. The failure of the present system

In spite of the above mentioned success, the teaching practices as they currently exist are not without their problems. In connection with previous research (Blaszk, 2020), student reactions to the teaching practices vary and can be summed up in the following way:

- a rewarding and developmental process,
- beneficial but with some difficulties,
- a problematic experience, with few benefits.

And, although overall the majority of students involved in the teaching practices belong to the first two categories rather than the final one, there is still dissatisfaction related to:

- the bureaucracy connected with carrying out their practices in a school,
- the amount of paperwork the students have to complete as part of the formal assessment of their practices (students have to complete and ensure the correct completion of documentation between the school in which they carry out their practices and the University, as well as write up and hand in the TPJs for their GPP and DP).
- the difficult relations they had with mentor teachers,
- the mismatch between what they were taught in their didactic course at the university and what they experienced in the classroom at school.

[6] In 2014, two documents were recommended for adoption by other departments in the Faculty of Modern Languages by the vice-dean responsible for student practices: the Mentor opinion, where the mentor provides an overall assessment of the student-teacher's practice, and the Record of teaching practices, in which student-teachers give details of the school(s) and mentor(s), as well as the dates of their practices. Both of these documents were created by the academic staff responsible for the teaching practices in IEAS.

4.3. The positive aspects of implementing Cooperative Development

Taking into account these "problems", a scheme of CD might offer an alternative to the amount of paperwork to be completed by students, as it offers a scheme of verbal interaction and reflection that could be used instead of the TPJs. It might also go some way to help students to view the practice in schools not simply as the application of methods and activities presented and explored on a taught course (i.e., the didactics course), but also as an active involvement in which they, personally, have some influence.

The supported discussion and reflection of CD connected to the involvement and development of students as teachers would also fulfil another area which the present system aims to support but does not fully realize: the development of a greater self-awareness (reflection) in the students of the processes they are involved in. In part, the TPJs aim to facilitate this and make it an element of the practices by offering 20 descriptive-reflective observation tasks that the students have to use and complete throughout the observations of the DP (Appendix 1). There is also a Self-evaluation section to be completed after each lesson taught (Appendix 2) and an Overall Comments section to be written up first after the GPP has been completed and then after the DP (Appendix 3). Each of the tasks and the two sections uses a series of questions to help the students to uncover different aspects of what they have experienced. However, it has been the experience of one of the authors of this article, as the person officially designated to review (and assess) the TPJs, that while some students are engaged in the reflection process by writing up their experiences and through that gain a deeper perspective on their thoughts, other students find it difficult to go beyond description and give either cursory answers or neglect to fully complete certain parts of the journal, usually the observation tasks. It is the belief of the authors of this article, therefore, that involvement in the continuous and personalized

dialogical process that the face-to-face encounter of CD offers, would do more to ensure the growth of self-awareness in student-teachers with regard to the teaching-learning processes that they are involved in within the school setting.

4.3. A reason against implementation – Edge's conception of Cooperative Development

Cooperative Development is, first and foremost, about teacher development, where colleagues already involved in the profession want to help one another to do the best they can in their chosen field. Meanwhile, to achieve this, it is understood by the people involved in the process (Speaker, Understander, Observer) that they are acting together as equal partners and that change or innovation for their own sake are not the underlying goals, although these may occur if the Speaker perceives a need for them. When it comes to pre-service teacher training, therefore, the possibilities for its use would appear to be complicated (restricted) by the fact that the relationship between trainer and trainee is most often an asymmetrical one; where the trainer is an expert in the field of teaching and the trainee is a novice who wants to learn about it from the experienced and knowledgeable trainer. Additionally, both the trainer and trainee may see the purpose of the training programme as a mechanism to change the trainee through an appropriation of prerequisite knowledge and skills, so that she/he may become adept at teaching. In such cases, neither the equality of CD nor its Speaker-led definition of goals is achieved. As Edge (1992: 89) writes:

> the question about the trainer/trainee relationship comes down to this: to what extent do trainers see it as their responsibility to change the views and behaviours of trainees? To what extent do trainees see it as the trainers' responsibility to tell or show them what to do and how to do it? As long as one participant is seen as taking responsibility for the views and actions of the other, Cooperative Development is not a real possibility. There would always be a lingering question mark about the honesty of interaction and

> the likelihood of manipulation by the (trainer) Understander towards their own overriding aims. From the other perspective, the (trainee) Speaker might infer guidance where (trainers) Understanders had not meant to give any.

This does not mean that Edge is totally dismissive of a use for CD in pre-service teacher training, although he sees its application there as marginal (Edge 1992: 89) while generally its use outside of peer-group relations is "messy" (Edge 2011: 127).[7] However, Edge is adamant that when pre-service teacher training relies upon the trainer as superior assessing trainees as inferiors "Cooperative Development can have little part to play" (Edge 1992: 90). And this may be the greatest problem for CD. In education systems (worldwide) that are market orientated and view success in terms of the results to be obtained through testing (Potulicka, Rutkowiak 2012) and in a society (Poland) where devolved authority and the personal responsibility it entails (Witkowski 2009, 2011) are not, as yet, readily accepted, the outlook for a practice which does not provide approbation through grading and where there is a shared authority, may prove difficult to put into effect. This is especially true in a situation where the "learner" is expected to become the co-author of her/his own development and for the teacher-trainer to accept and support this.

5. Discussion

The implementation of a CD model for the teaching practices carried out in IEAS would appear to have advantages. It would solve some of the problems of the present system as perceived by the student-teachers. It would mean a reduction in the amount of paperwork the students would be involved in as it would take away the need for TPJs as tools for monitoring the

[7] The example of a non-peer educational situation in which Edge considers CD to be possible is work with doctoral students. However, Edge is firm in his belief that each case would have to be judged on an individual basis.

practices they are engaged in (GPP and DP), although none of the administrative paperwork can be reduced due to tax and insurance requirements. It would ensure that student-teachers are given a structured forum to talk about their experiences as they are occurring and to be supported to try and make sense of those experiences in addition to solve any problems that they may encounter. Furthermore, if the system of CD implemented were to involve both the school mentor and the supervisor in the alternating roles of Understander and Observer in support of the student (Speaker), it would enable a positive model of cooperation that would militate against the possibility of bad relations between any of its participants. It would also ensure a close liaison between the mentors (school-teachers) participating in the teaching practices and the supervisor and, therefore, limit discrepancies between the input student-teachers are given on their didactic courses and what they are expected to do in the schools: the supervisor could act as a mediating presence, establishing points of contact, rather than disparity, between what occurs in the classroom and the approach to teaching-learning that is promoted on the didactic course in IEAS. In addition, the problem perceived by one of the authors of this article, where student-teachers lack the ability for deeper reflection in connection with their practices, will be dealt with by the mechanisms innate to CD which promote and develop reflection in the Speaker (student-teacher).

There is still the question, however, of whether teaching practices for student-teachers based upon CD would actually be feasible. In answer to this, it is the belief of the authors of this article that a number of factors would have to be considered and the potential problems arising from them addressed. The first factor concerns Edge's own reservations concerning the use of CD in a teacher training environment and the need to resist the temptation, on the part of experienced teachers, to steer student-teachers towards particular ways of viewing and then subsequently dealing with the incidents they experience during their practices. This will need discussion and agreement, as well

as, perhaps, awareness raising and training for those professionals who take on the roles of Understander and Observer. Student teachers will also have to be part of this awareness raising if they are to understand the mechanisms they are to be involved in, so that they can get the most from the CD encounter for their own development. This awareness raising would necessarily include bracketing, where the people involved in the encounter would suspend their "own beliefs in order to take a fresh perspective" (Ary, Jacobs, Razavieh and Sorenson 2010: 473) of local and conventionally accepted engagement with authority: achieved through engagement in activities that will lead to sensitisation to peer relations between people who may have formerly viewed each other as either superiors or inferiors. This bracketing would also have to be applied to the idea of assessment, which would be replaced by a system that reports upon and is supportive of the individual self-realization of each student-teacher involved in the teaching practices.

Another factor that would have to be examined when considering the implementation of CD, is whether the level of cooperation necessary to carry out awareness raising on to the realization of CD can actually be achieved. This is extremely pertinent if, as previous research has shown (Blaszk 2020), there appear to be varying types of cooperation amongst the different institutions that, between them, form the community within which the teaching practices take place. Not all of these types of cooperation are conducive to joint and coordinated action. Furthermore, engagement in a CD based model of teaching practice would demand a change of working practice for those people (the student-teacher, school mentor and practice supervisor) who take on the roles of Speaker, Understander and Observer. Additionally, because of the necessity for training in the CD model and the time needed for its application, there may be an increase in the number of hours for all those involved, which may not be acceptable. This is especially true since financial remuneration for those professionals taking part in the practices is at a fixed rate or can be classified as a symbolic payment

rather than one which reflects the real amount of time and effort that they invest.[8]

6. Conclusion

It is obvious from the considerations above that a CD based model for the teaching practices in IEAS would not be without problems and would, therefore, need careful consideration and consultation before implementation could be considered. In spite of the perceived problems, however, it appears to be an approach worth considering as the gains for all those concerned, in terms of supported self-development and through this, greater awareness of self leading to empowerment, are strong attributes to be gained and useful for future self-sustaining development – especially for the student-teacher in the environment of teaching but also today, more generally, in the world as a whole. In connection with this, the next step in the continuing development of the teaching practices at IEAS should be to implement a pilot study, where a number of student-teachers and mentors who are genuinely interested come together to take part in developing such a programme.

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[8] The director and supervisor of practices receive a fixed annual payment related to the number of student-teachers they work with. Mentors in school receive around two Polish złoty (2.26) an hour (approximately 40 cents in relation to the euro or American dollar) for each student with whom they work. Because of this low remuneration many mentors forgo payment altogether for the work that they do.

References

Ary, Donald, Lucy C. Jacobs, Ashgar Razavieh, Christine K. Sorenson (2009). *Introduction to Research in Education*. Belmont, CA: Wadsworth Cengage Learning.

Blaszk, Martin. "Is there a Community of Practice with Regard to Teaching Practices?" (in print).

Dziennik Ustaw Rzeczypospolitej Polskiej (2019). Available at www.prawo.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20190001450. Accessed 24.01. 2020.

Edge, Julian (1992). *Cooperative Development.* London: Longman.

Edge, Julian (2011). *The Reflexive Teacher Educator in TESOL: Roots and Wings*. New York, London: Routledge.

Freire, Paulo. (1972) *Pedagogy of the Oppressed.* London: Penguin.

Gabryś-Baker, Dorota. (2012). *Reflectivity in Pre-Service Teacher Education. A Survey of Theory and Practice*. Katowice: Wydawnictwo Uniwersytetu Śląskiego.

Howard, Amanda, Donaghue, Helen (eds.) (2015). *Teacher Evaluation in Second Language Education*. London, New York, New Delhi, Oxford, Sydney: Bloomsbury Academic.

Instrukcja Postępowania (2019). Available at fil.ug.edu.pl/studenci/praktyki/ instrukcja_postepowania. Accessed 24.01.2020.

Karpińska-Musiał, Beata (ed.) (2016). *W trosce o jakość w ilości. Tutoring oksfordzki w Uniwersyteckie Gdańskim.* Kraków: Wydawnictwo Libron.

Karpińska-Musiał, Beata (2017). "The educational rhetoric of empowerment in academic tutoring. The teacher's and student's perspectives". *Beyond Philology*, 14/1: 205-224.

Lakoff, George and Mark Johnson (1980). *Metaphors We Live By.* Chicago: University of Chicago Press.

Lankiewicz, Hadrian. (2015). *Teacher Language Awareness in the Ecological Perspective. A Collaborative Inquiry Based on Languaging.* Gdańsk: Wydawnictwo Uniwersytetu Gdańskiego,

Nunan, David (1989a). *Understanding Language Classrooms*. Upper Saddle River, N.J.: Prentice Hall,

Nunan, David. (1989b). "A client-centered approach to teacher development". *ELT Journal* 43/2: 111-118.

Plan studiów (2019). Available at https://fil.ug.edu.pl/sites/default/files/_nodes/strona-filologiczny/12946/files/i_ba-n_19-20

_filologia.angielska-stacjonarne.pierwszego.stopnia.19-20_06.09.2019.pdf. Accessed 04.02.2020.

Plan zajęć – stacjonarne (2020). Available at https://drive.google.com/file/d/15KgzI0-k5UFIi5k7YSA5yooQl3qfcPa5/view. Accessed 14.02.2020.

Potulicka, Eugenia, Joanna Rutkowiak (2012). *Neoliberalne uwikłania edukacji.* Kraków: Oficyna Wydawnicza Impuls.

Praktyki nauczycielskie (2019). Available at https://fil.ug.edu.pl/wydzial_filologiczny/instytuty/instytut_anglistyki_i_amerykanistyki/praktyki/praktyki_nauczycielskieteaching_work_experience. Accessed 04.02.2020.

Underhill, Adrian (1989). "Process in Humanistic Education". *ELT Journal*, 43/4: 250-260.

Wallace, Michael J. (1998). *Action Research for Language Teachers: A Reflective Approach*. Cambridge: Cambridge University Press.

Wallace, Michael J. (1993). *Training Foreign Language Teachers: A Reflective Approach*. Cambridge: Cambridge University Press.

Werbińska, Dorota (2017). *The Formation of Language Teacher Professional Identity: A Phenomenographic-Narrative Study*. Słupsk: Wydawnictwo Naukowe Akademii Pomorskiej w Słupsku.

Wilczyńska, Weronika, Anna Michońska-Stadnik (2010). *Metodologia badań w glottodydaktyce. Wprowadzenie.* Kraków: Avalon.

Witkowski, Lech. (2009). *Wyzwania autorytetu*. Kraków: Oficyna Wydawnicza Impuls.

Witkowski, Lech (2011). *Historia autorytetu wobec kultury i edukacji*. Kraków: Oficyna Wydawnicza Impuls.

Wright, Anthony (1987). *Roles of Teachers and Learners*. Oxford: Oxford University Press.

Appendix 1

One of twenty descriptive-reflective observation tasks the students have to use and complete throughout the observations of the DP.

TASK 3. Use of L1 (Polish) and L2 (English) in the classroom (OBSERVE TWO DIFFERENT LESSONS) – to see what language is used in the English language classroom.

a. What language does the teacher use during the lesson - L1, L2 or both?

b. Are there any stages of the lesson or activities, where the teacher decides to use L1 or L2 only? What are the reasons for this?

c. What language do the learners use during the lesson - L1, L2 or both?

d. How does the teacher encourage the learners to use L2?

e. From this particular lesson, what ideas for getting learners to use L2 would you like to use in your own teaching? Why?

Appendix 2

Self-evaluation questions to be answered after each lesson taught.

SELF EVALUATION

1. Did the lesson go according to plan? Give details and say why you think this was the case.
2. What was the greatest success of the lesson? Why?
3. What would you change if you were to run this lesson again? Why?
4. How did you feel during the lesson? How do you believe the learners felt during the lesson? Give reasons for your answers.

Appendix 3

Questions belonging to the Overall Comments sections of the GPP and DP. To be written up after each of the practices have been completed.

OVERALL REFLECTION ON YOUR DIDACTIC PRACTICE

a) Give your overall impression of your teaching practice.

b) Briefly describe what you found to be the differences between teaching at the following levels: primary to lower-secondary: 0, 1,2,3; 4,5,6; 7,8.
c) From the observations you carried out and the lessons you taught:
i) Describe the knowledge / skills you have gained from your teaching practice.
Give specific examples.
ii) Describe the things you view to be the successes of your teaching practice.
Give specific examples.
iii) Say what you feel you still need to work on as a teacher.
Give specific examples.
iv) Say what you would do differently if you could do your teaching practice over again. Give specific examples.
d) Other comments relating to this part of your practice that you would like to share.

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Locus of control of English philology undergraduates

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Abstract

The concept of locus of control shows the relationship between events and people's reactions to them, depending on whether they attribute their outcomes to internal or external factors. Accordingly, people can be divided into two main groups. Those who feel personally responsible for what happens to them are labelled *internals*, whilst those who believe that external forces such as fate, luck or objective difficulties determine their life are termed *externals*. This paper presents the results of a study conducted on 41 English philology undergraduate participants with a view to investigating their locus of control, that is, whether they perceive their academic outcomes as the result of their skills and abilities or rather fate or luck, in other words, if they feel personally responsible for their academic successes and failures.

Keywords

locus of control, second language acquisition, academic achievement, attribution theory

Poczucie umiejscowienia kontroli wśród studentów filologii angielskiej

Abstrakt

Pojęcie poczucia umiejscowienia kontroli pokazuje relację pomiędzy zdarzeniami a reakcjami na te zdarzenia zależącymi od tego, czy ludzie przypisują ich wyniki czynnikom wewnętrznym, czy zewnętrznym. Konsekwentnie, ludzie dzielą się na dwie główne grupy. Osoby, które czują się odpowiedzialne za to co się im przydarza, określane są mianem *wewnątrzsterownych*, zaś ci, którzy wierzą, że ich życie determinują czynniki zewnętrzne, takie jak przeznaczenie, szczęście czy obiektywne przeciwności, definiuje się jako *zewnątrzsterownych.* Artykuł prezentuje wyniki badania przeprowadzonego na 41 studentach filologii angielskiej, którego celem było zbadanie ich umiejscowienia kontroli, to znaczy, czy postrzegają oni swoje oceny akademickie jako wynik zdolności i umiejętności, czy też przypisują je przeznaczeniu lub przypadkowi, innymi słowy, czy czują się odpowiedzialni za swoje sukcesy i porażki.

Słowa kluczowe

poczucie umiejscowienia kontroli, akwizycja języka drugiego, osiągnięcia akademickie, teoria atrybucji

1. Introduction

The term *locus of control* (LOC) is strongly connected with people's perception of the outcomes of their actions – whether they put their faith in destiny or attribute success/failure to their own decisions. The term was coined by Julian Rotter, who stated that individuals' previous experience is the major force that influences the level of individuals' feeling of being responsible for their own efforts (1966: 2). Rotter also emphasized the role of reinforcement or prize in building attributions. However, not uncommonly, an event recognized by one person as a sort of gratification or reward will be interpreted by another in

a completely different way. There may be many factors responsible for such a reception, among which the level of personal belief about having control over life events, in contrast to external forces that are uncontrollable, comes to the fore. This leads to a division described by Rotter as internal and external control. The *loci* of an individual (plural of *locus*, which in Latin means "location" or "place") are presented as internal or external (Williams and Burden 1997: 101). This division is especially important in second language acquisition (SLA). Research in the attributional field seems to provide evidence that internal LOC, in other words, perceiving outcomes as within one's control, is directly related to academic achievement (Williams and Burden 1997). Biedroń's study from 2003 (see also 2008) suggests that English philology students who attribute their academic outcomes to internal factors are more persistent, hardworking, able to maintain motivation, and therefore more successful than their more externally oriented counterparts. Having analysed the attributional reactions of English philology students, she found that they are *internals*, which means that they feel responsible, perceiving the causes of events in their efficient or inefficient trials**.** LOC is not a stable trait, but a changeable, situational characteristic that can be altered in a way that will enable learners to take control over their own learning. Seventeen years after Biedroń's study we decided it is time to investigate whether modern English philology students are the same or different in terms of their LOC as the students 17 years ago. To this end, a study was conducted on 41 English philology undergraduates in order to evaluate their controllability profile, that is, whether they believed that their academic outcomes depended on their own effort or rather on uncontrollable factors.

2. Locus of control

People with an internal LOC, internals for short, have a strong faith in their own skills and personal abilities. Their behaviour is considered "instrumental" (Carver 1976: 358), which means

that they focus mostly on having important tasks completed at all costs. Additionally, this goal-oriented behaviour is often favoured over congenital reactions (Patterson 2018: 77). Internals believe in their skills and abilities during tests and examinations. The more ambitious their goals are, the more strongly they believe that a positive outcome depends on their abilities, and not on some external forces. Such students highly evaluate their opportunities of receiving better grades, and later graduating and proceeding to another educational institution with higher educational standards and prestige (Biedroń 2008: 68).

On the other hand, people with an external LOC, (externals), do not assume that their actions will bring about any noticeable effect. Since they think that they have no influence on the world around them, externals do not change their behaviour, even if such an adaptation would impact the final result: "[…] if a person perceives the outcome of his actions as situated beyond his control the outcome stops determining behavior" (Biedroń 2008: 67). Externally-oriented people believe that they have no control over the events taking place in their lives, assuming that their entire existence is controlled by powerful external forces that are difficult to oppose.

Externals are not a homogenous group. In their research, Wong and Sproule (1984) divided them into three subgroups. The first type, a *passive external*, is an individual who generally lacks motivation for gaining achievements. Such a person believes in their lack of control over events, considering the world to be a bitter, hateful place (Wong and Sproule 1984: 318). The second type is a *defensive external*, who may not vary from internals when it comes to achievement motivation. Such an individual associates failures with external forces, and as a result is freed from guilt and responsibility. Very high ego-defensive mechanisms are also the main part of his/her overall behaviour. The last type is a *realistic external*. His/her choices are inspired more by real life and immediate surroundings rather than higher values. A realistic external is aware of the limits of his/her control and refuses to see the world through rose-tinted

glasses. He/she perceives the world as being full of dilemmas and struggles, all of which are beyond his/her control, yet such an approach does not render him/her a desperate, helpless, or incompetent creature (Wong and Sproule 1984: 319). He/she wants to achieve some realistic goals, which positions him/her somewhere in between the two extremes of idealistic-optimistic controllers and unrealistic-pessimistic controlees (Biedroń 2008: 72).

3. Rotter's I-E scale

Variations in externality/internality of control and people's expectations in relation to the level of their control over certain aspects of life gave rise to different measurement instruments. A classical tool is Rotter's (1966) Internal-External scale for measuring LOC, the I-E scale for short. It is a questionnaire consisting of 29 elements, based on Phares' study from 1957. The participants' task is to select the most suitable answers about the origins of a human's failure, namely, determine whether the misfortune is associated with the individual's misdeeds, and hence internal, or if the lack of success is caused by external elements. The questions are focused on the participants' beliefs about the possible ways of commanding and controlling involvement, which made this test a basic tool for evaluating the externality/internality of control (Rotter 1966: 10). When the results obtained from the use of Rotter's I-E scale were examined, an interesting relationship emerged, which seems to confirm the explanation of the term "control", provided earlier. The aforementioned results, described by Davis and Davis in 1972 and Phares, Wilson and Klyver in 1971 (Wong and Sproule 1984: 317), clearly showed the internal participants as much more determined than the externals, especially in situations when they became intentionally responsible for all activities that they were engaged in. Additionally, people classified as internals, according to Rotter's I-E scale, are more competent in taking control during action than their external counterparts.

Internality of control is also interpreted as an eagerness to possess more actual, sometimes even personal, command over a task.

4. Attribution theory

While discussing Rotter's LOC theory, it is impossible not to mention the whole concept of the attribution theory, which started a body of research into human perception of control and causality. The very first steps in this field were made by Heider (1958) and the concept was further developed in the works of Harold Kelley and Bernard Weiner. Kelley described the attribution theory as "a theory about how people make causal explanations, about how they answer questions beginning with "why?". It deals with the information they use in making causal inferences, and with what they do with this information to answer causal questions" (1973: 107). He also suggested that people make certain attributions under specific circumstances, and that statement led him to differentiate between two main situations in which the attribution process is carried out. In the first, there are cyclical events with a more or less fixed frequency of occurrence, while in the second situation, the events are single, random occurrences. According to Kelley, people will adopt different patterns and standards to make specific attributions for both situations.

In 1985, Bernard Weiner presented a variation of attribution theory, calling it "an attributional theory of motivation and emotion, with achievement strivings as the theoretical focus" (Weiner 1985: 549). He began by identifying the main phenomena that contributed to success or failure, which are associated with achieving high results and various types of accomplishments. The theory was grounded on presenting an individual's striving for achievement with emotions and personal motivation as significant moderators. To define this issue more precisely, Weiner described two studies in which he intended to observe what explanations would be given by the subjects to explain the

results of certain actions. In the first case, only information about the success or failure of a given action was provided to the respondents. Their task was to give causal explanations of the outcome in their own words, using all possible options that appeared in their minds. In contrast, the second group of respondents was provided with a list of causes, and their task was to match the causes to the outcome and assess their impact on each of the final results. After collecting and analysing the answers given, it became apparent that in both groups the causes that, according to the respondents, had the greatest impact on success and failure were the efforts put in the task, and the abilities and skills possessed by the people involved: "that is, success is ascribed to high ability and hard work, and failure is attributed to low ability and absence of trying" (Weiner 1985: 549). These conclusions proved to be universal for most cultures and communities all over the world. The number of causes given by respondents is almost infinite, yet people usually attribute success to hard work and motivation and identify failure with the absence of those two elements. Weiner's research guided him towards a causal structure, which was first distinguished by Fritz Heider in 1958: "In common-sense psychology (as in scientific psychology) the result of an action is felt to depend on two sets of conditions, namely factors within the person and factors within the environment" (Heider 1958: 82, as cited in Weiner 1985: 551).

Weiner's theory presents an attributional process organized within three universal dimensions that influence individual decisions. These dimensions are as follows:

1. Locus of causality (internal – external)
2. Stability (stable – unstable)
3. Controllability (controllable – uncontrollable).

The first dimension of internality/externality is comparable to Heider's (1958) fundamental distinction between internal and external factors. The second dimension was introduced since

among all internal causes some evolve and change, while others remain permanent and stable. For instance, the competence to perform certain tasks is considered to be something relatively stable, while the energy put into the work and the individual's state of mind are treated as factors which are more changeable and flexible. The same criterion can be applied to causes commonly considered external. Examination results, regardless of whether they represent a positive result or grave failure, may be connected with the assessment method that a school has, which is a stable and unchangeable norm or they can be attributed to one's luck or lack thereof during risky behaviours in the exam such as guessing the answers, which is a fluctuating external cause (Biedroń 2008: 78). The third level is the range within which an individual is able or unable to control certain elements in the attribution process. It is called the controllable-uncontrollable dimension and is used for all elements in the attribution (Munton 1999: 20). It results from Rotter's research and his distinction between internal causes that can be controlled in some way and external ones that are beyond control. Among the internal and, at the same time, unstable factors, we can distinguish the mood of a person while performing a task, as well as their tiredness and efforts lasting for a short time. Yet, among those three factors, effort is something dependent on the will of the individual – the subject can boost the amount of effort they use or reduce it. The same rule does not work for mood or tiredness, which, generally, cannot be changed by the subject's will. Similar distinctions were found among causes classified as internal and rather stable – laziness and sloppiness are considered to be subject to deliberate and conscious control, while aptitude, which is internal and stable as well, is not subject to this type of control (Biedroń 2008: 79).

5. LOC and academic achievement in second language acquisition

Attribution theory applies to academic achievement and learning, and so does the LOC theory. The advantages of having an internal LOC far outweigh its associated drawbacks. The areas of life in which being internal is extremely helpful include solving various tasks, studying, and pursuing set goals. They also include successes in learning or in academic life and hence – in academic achievement. People with internal LOC have more faith in their own abilities, which is related mainly to achieving success and, consequently, to a greater possibility of progress in the future.

The studies conducted on students (Biedroń 2008, Kutanis, Mesci and Övdür 2011) indicated that they usually have an internal LOC, which is favourable for personal development in the field of study. The cooperation between the student and the teacher also influences the behaviour associated with achieving success. People who declare themselves to be internals have higher requirements, higher ambitions, and reveal behaviours that are favourable to high achievements, such as searching for information in scientific sources, seeking contacts with professionals or taking part in educational, developing activities (Strickland 1977, as cited in Blass 2015: 237). The previously described striving for achievement in combination with the LOC has an impact on SLA. A few studies were conducted in order to investigate the correlation between language learning and LOC (Biedroń 2008, Gałązka and Trinder 2016).

The study conducted by Biedroń (2003; 2008) concerned the extent to which students believe that they have an impact on certain factors related to the learning of a second language and how students are able to control these factors. This study was conducted on a group of 40 relatively young students (19 to 25 years old). The majority of the participants were identified as internally-oriented autonomous learners. In the case of LOC, many of the respondents believed that they were able to

completely or at least partially control their skills and abilities. It was interesting that a large number of respondents recognized the difficulty of a given task as something that they are able to control. This could be related to the possible freedom of selecting the task that the student has to solve. If a person chooses an exercise suited to his/her skills and knowledge, then he or she may consider the difficulty of the exercise to be a controllable factor (Biedroń 2008: 113). Not surprisingly, the results looked similar when it came to the time that the students spent on learning and the level of effort they put into it. Believing that they have an influence on how they organize their learning process, the respondents considered both factors to be under their control. What is more, the students attributed a role to their interest: If they were interested in the subject, they were able to produce better results. As far as the level of proficiency in English is concerned, the students believed that they had an impact on how much competence in the language they were able to achieve.

Gałązka and Trinder did not find much support for the hypothesis in their study, in which they sought to answer the question about the relationship between the LOC and the achievements gained while learning a second language. From their perspective, an insufficient number of respondents contributed to the lack of expected results, and the results which were obtained had an insignificant statistical value. Their findings did not show LOC as a factor by which the skills of individuals (especially those related to SLA) could be assessed. (Gałązka and Trinder 2016: 139).

Nonetheless, most of the available research results show that the level of the internal LOC among university students is very high. Moreover, even the factors that are objectively difficult to control, such as language skills or difficulty of the tasks received, were also considered controllable. All this means that people who are proficient in a foreign language, that is good language learners, also reveal a high level of confidence in their

own abilities, which is characteristic of the internal LOC (Biedroń 2008: 114).

6. Undergraduates and their LOC

6.1. The study objectives

The main objective of the presented research was to identify which kind of LOC is prevalent among English philology graduates – how they perceive the world and different events in life, and whether they think that their skills or choices influence their outcomes. Specifically, the results of the research were analysed in terms of students' LOC in relation to learning English.

The study was conducted with 41 English philology undergraduates, both male and female, from the first and second grade studies. Most of them studied at the Pomeranian Academy in Słupsk, yet due to the fact that the test was carried out in an electronic form, a few students from universities in Gdańsk and Kraków also volunteered to participate. The respondents were of different ages – the youngest were 23, while the oldest was over 45 years old. The amount of time they had studied English also varied, ranging from 6 years to 16 or more. Most participants gave their consent to participate in the study, yet some of them were volunteers interested in the study results. The questionnaire was anonymous and the participants were not subject to pressure at any time during the procedure. They were asked to give honest answers. The participants were chosen for the test as a result of the profile of their studies – it was assumed that those who had graduated from English philology represented a high level of proficiency, linguistic awareness, and learning autonomy.

6.2. Data collection techniques

The questionnaire was created using Google Forms (appendix A). People willing to take the questionnaire received a link sent

via various messenger apps or e-mails, which led to the questionnaire's website. The questionnaire consisted of three parts. The first was the original Rotter's I-E scale test (1966), which allowed the researcher to check which of the two options better suited the respondents. This test consisted of 29 closed questions with one possible answer per question. The answers allowed the researcher to analyse whether the students were more internally or externally oriented.

The second part of the study was intended to check the respondents' opinion about the control of certain behaviours or circumstances occurring in the process of learning a second language. A concise questionnaire, originally suggested by Williams and Burden (1997: 110), was used to verify the levels of control among the students (appendix B). The survey consisted of eight closed, single-choice questions. Among the available answer options were, among others, the time needed for learning, the difficulty of a given task, skills and interest in the subject.

In the third part, the respondents were asked to provide basic biographical information as well as the length of time they had been learning English (appendix C). Additionally, the decision was made to interview two people who had agreed to share their experiences regarding language learning. During the interview, they also referred to the subject of the survey, explaining why they chose their particular answers, and what was important to them in language learning.

6.3. Results

6.3.1. Questionnaire

The questionnaire was assessed using Rotter's original I-E scale to define whether the students had a more internal or external LOC. The participants responded to 29 questions, 6 of which were "fillers". The number of points from the whole test was later added up. The higher the result, (the closer to 23), the more

externally-oriented the subject was considered to be. The lower the score, the higher the level of internal LOC was assumed.

The test results were collected and analysed. The obtained data, however, indicated that it was not possible to clearly determine if the group was more internally or externally oriented. Twenty three questions were taken into consideration. The average score was 12.05 out of 23 points, with an average score of 11.83 for women and 12.21 for men, respectively. After rounding to a whole number, the score was 12, both for females and males. None of the subjects taking the test was a typical external, whose score would be closer to 23 points, yet also no one turned out to be highly internal with a score approaching zero points. This means that the students on average were somewhere in the middle of the externality-internality continuum.

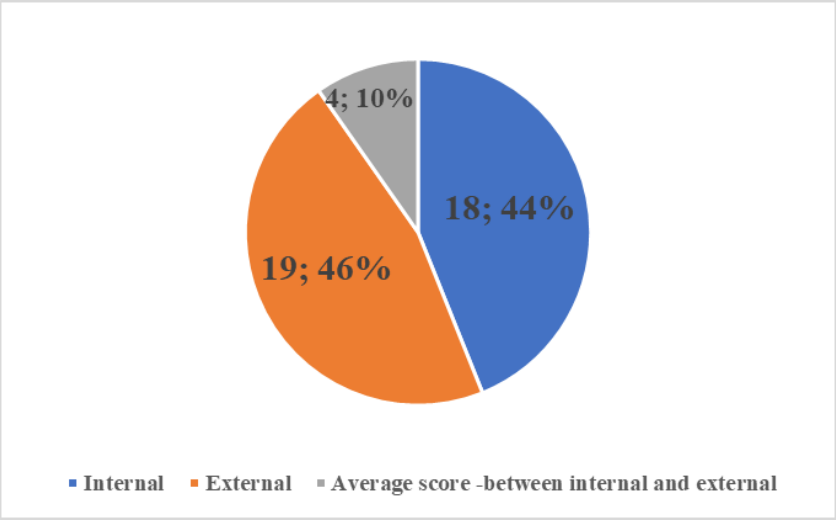

Figure 1
The results of the study - an even distribution of scores is visible

Considering the LOC, the results were quite interesting, as values were distributed evenly. For eighteen (44 %) people, the survey result was below half and totalled 11 or less. These people more often scored on the internal LOC questions, when referring to their own skills and abilities. Among them, eight (44 %) were women and ten (56 %) men. Four people (10 %), one woman and three men, scored 12 points, a score which places them somewhere in the middle. They chose the answers indicating the personality traits characteristic for internals, yet they also sometimes tended to choose options typical of externals, such as those associated with believing in destiny or in external forces that control the world.

Nineteen (46 %) people who scored 13 points, a little above the average score, were classified as those exhibiting traits typical for externals. Furthermore, among this group, gender did not appear to have much significance in the selection of answers, as there were nine (47 %) women and ten (53 %) men.

6.3.2. Controllability in SLA

The results from the second part of the survey, connected with the controllability dimension in SLA are presented below. The test itself was a table in which the respondents had to indicate which of the presented factors they considered to be under their control in comparison with those which were beyond their reach while learning a second language.

The results of the survey clearly indicate that the respondents considered their own abilities to be under their own control. Twenty (48.8 %) people said that they were often able to control their abilities, yet as many as fifteen (36.5 %) thought they were always able to do it. This is difficult to interpret as it seems evident that people are not always able to control their skills, not to mention their abilities, due to a variety of different reasons.

Table 1
The results of controllability in second language learning

	ALWAYS	QUITE OFTEN	NOT OFTEN	NEVER
1. Your ability	15 (36.5 %)	20 (48.8 %)	4 (9.8 %)	2 (4.9 %)
2. The difficulty of the task	8 (19.5 %)	17 (41.5 %)	14 (34.1 %)	2 (4.9 %)
3. How hard you try	27 (65.9 %)	11 (26.8 %)	3 (7.3 %)	-
4. Circumstances	1 (2.4 %)	17 (41.5 %)	20 (48.8 %)	3 (7.3 %)
5. Time	10 (24.4 %)	16 (39 %)	14 (34.2 %)	1 (2.4 %)
6. Interest	26 (63.4 %)	13 (31.7 %)	2 (4.9 %)	-
7. Way in which you learn	17 (41.5 %)	20 (48.8 %)	4 (9.8 %)	-
8. Language learning proficiency	8 (19.5 %)	22 (53.7 %)	10 (24.4 %)	1 (2.4 %)

The difficulty of a given task is often beyond a student's control. In this survey, however, eight (19.5 %) people assumed that they could completely control the difficulty of a task. Additionally, as many as seventeen (41.5 %) believed that the difficulty was often under their control. Fourteen (34.1 %) people said that they were not always able to control it, while two (4.9 %) believed that they had no influence over it.

Another aspect tested in the survey was the amount of effort put into learning, categorised in the third row of the table. Here, the results are not surprising. Twenty-seven (65.9 %) thought that they always had an impact on the effort. Eleven (26.8 %) believed that they could often control their effort, while three (7.3 %) believed that they could not influence it. Nobody chose the last option, "never".

When asked about the circumstances accompanying learning a second language, only one person (2.4 %) thought that

they were always under his or her control, while seventeen (41.5 %) considered that they were quite often controllable. The most common response, with twenty respondents (48.8 %), was that they did not have any influence on external circumstances, and three (7.3 %) admitted that they never were able to control their circumstances.

The control over time devoted to learning was also part of the questionnaire. Ten (24.4 %) people claimed that the amount of time they spent on learning was always under their control, while sixteen (39 %) considered time as something frequently under their control. Fourteen (34.2 %) thought of time as an aspect not often under their control and one person (2.4 %) claimed that he or she was unable to control time devoted to learning.

Interest in the topic was essential for the majority of the students, as twenty-six (63.4 %) people claimed that it was always under their control. A smaller number of respondents, thirteen (31.7 %), considered interest as often under their control. Only two (4.9 %) students denied that their interest was something controllable.

Learning strategies, which students apply to boost the learning process, were considered by seventeen (41.5 %) as always under their control and by twenty (48.8 %) as often controllable. The reason behind such high results may be the individual approach to the matter of learning. Students tend to create a variety of ways to enhance their learning experience, and these are, in most cases, adequate for their skills and abilities.

As far as the last choice, "proficiency" is considered, it was thought to be always under control by eight (19.5 %) students, however, twenty-two (53.7 %) perceived it as quite often manageable. Ten (24.4 %) believed that they were generally not able to control proficiency and, at the same time, only one (2.4 %) claimed that this control was unreachable. Summing up, even if the respondents are generally neither internally, nor externally oriented, when it comes to control over their academic

achievements they tend to perceive causes as mainly controllable.

6.3.3. Interviews

Another tool used in the study was an interview with a few internals and externals to collect opinions from these two different groups. Unfortunately, the attempt to talk with people who showed a greater tendency to be external failed. As the questionnaire was anonymous, it was impossible to determine who had obtained the highest results indicating externality of control, moreover, apparently externally-oriented participants were unwilling to discuss their answers.

Eventually, it was decided to interview two subjects chosen at random, a woman and a man, who were willing to talk about their impressions related to the survey and to learning a second language. Incidentally, they were both internally-oriented. Both of them were very open and willing to share their thoughts, which may resonate with an internal LOC. Additionally, they were successful foreign language learners, able to focus on their academic work, ambitious and gained high marks during their studies.

Their answers indicated that they were able to focus on learning, which was their priority, analyse their mistakes and, in the event of failure, draw conclusions to avoid making the same mistakes in the future. In the case of morally ambiguous or demanding questions from the questionnaire, they were capable of choosing those which suited them best in terms of their personality traits and beliefs, which indicates a high level of autonomy. They also attributed a great deal of importance to their interest in the subject as well as to the potential benefits it can give. They declared themselves to be intrigued by the topics that seemed interesting to them and were ready to devote much more time to familiarize themselves with the issues that were not only interesting, but also useful in the future. The speakers placed great emphasis on their abilities, at the same time discussing

how much they depended on them personally and their involvement.

When it comes to the strategy of learning, both of them emphasized the importance of creating a perfect learning environment to improve the effectiveness of the process. For the male participant, the most important strategy was working in silence, where he could focus on a given topic, while for the female participant, the ideal strategy was connected with her self-motivation to work harder. Both of them thought that favourable conditions for learning were necessary to achieve good results.

7. Discussion

It cannot be unambiguously determined that all of the study participants are internals, who attach great importance to achieving success due to their virtues. The results are almost equally distributed, with comparable numbers of people showing inclinations to be internal, external, and in the middle. No extreme choices were observed.

As previously mentioned, a similar study was carried out by Biedroń in 2003 (see also 2008) on a group of English philology students with a similar number of subjects. The overall results of both studies are very similar, in that they indicate that the students are rather internally oriented when considering their academic achievements related to learning a foreign language. The students regard most factors as being under their personal control, even those that are hardly controllable, for example external factors or internally situated stable features such as aptitude. Small differences between those two studies were noticeable in only two items, namely in the perception of abilities and the difficulty of a given task. When compared to their counterparts from 2003, students from 2019 attribute even more control to seemingly uncontrollable factors, such as abilities or task difficulty. Although this perspective must be perceived as very unrealistic or even naive, it portrays English philology students as success-oriented and quite autonomous foreign language

learners. This also confirms that the perception of factors in foreign language learning as controllable is a significant variable in achieving success in SLA (Biedroń 2008: 114). Therefore, it can be stated that students from 2019 do not differ much from their counterparts from 2003 in their LOC. Students who choose an advanced path of education at a university must display at least some features that are typical of internals. As a result, they are able to achieve success and cope with difficult situations, while at the same time developing their language skills. This does not mean, however, that people with external LOC are doomed to fail. Their approach to certain matters related to learning is simply different. In contrast to the internals, who strongly believe in their skills, externally-oriented people pay more attention to their failures and blame others for unsuccessful outcomes.

In the interviews that took place with two participants a similar approach is visible. These short conversations also contributed to a better understanding of the whole issue of perceived control. The academic achievements of the speakers were quite high, confirmed by good marks obtained during their studies. Their responses clearly indicated an internal LOC, as the speakers put great emphasis on their skills, considering themselves to be responsible for their successes and academic achievements.

8. Conclusions

The purpose of this study was to investigate the level of LOC among English philology undergraduates as compared to those from 2003. It was important to investigate whether students were internal in their beliefs, meaning that they were able not only to focus on their skills and abilities to achieve better academic results, but also to attribute more significance to the factors that depend on them.

The results presented in this paper clearly show that it is impossible to classify every English philology student as either

clearly internal or external, as the large majority of them were almost in the middle of the continuum. This indicates that the students are aware that in order to achieve academic success they need to focus on their skills, strategies and abilities, and not on external factors, yet they are cognizant that not everything can be controlled. It seems that they understand the complex relationship between the reality they live in and the goals that they could achieve by focusing on their own experiences and capabilities. It is also worth mentioning that in most cases the respondents' answers were intuitive and subjective. This is evident, for example, in the case of the question about the capacity to control one's abilities, which is objectively impossible. The affirmative answer indicates that, probably, they look at their own capabilities through the prism of their personal habits or beliefs which sometimes makes a correct judgement of the situation impossible.

The main limitation of the study was the small number of respondents, as well as their homogeneity. In future there should be more answers from which more detailed and reliable conclusions could be drawn, especially in interviews. Furthermore, a larger number of people from different spectra, both internal and external, would allow for a much more detailed description of the results, and offer a better insight into the beliefs and motivation of students.

Summing up, both modern students from 2019, and the group Biedroń studied in 2003 have a convergent approach to the way they learn and see themselves as responsible for their own successes and failures while studying. The similarity of the results suggests that the two groups of students' views and motivations connected with learning are rather comparable and have not changed dramatically over the years. Yet, in order to draw any far-reaching conclusions, another study on a larger and more diversified population is needed in the future.

References

Biedroń, Adriana (2003). *Attribution related affects as a function of perceived causality of academic success or failure among successful foreign language learners*. Unpublished doctoral dissertation. Adam Mickiewicz University in Poznań.

Biedroń, Adriana (2008). *Attribution Related Affects in Second Language Acquisition*. Słupsk: Wydawnictwo Naukowe Akademii Pomorskiej w Słupsku.

Carver, Charles S. (1976). "Attribution of success as a function of locus of control and objective self-awareness". *Bulletin of the Psychonomic Society* 7/4: 358-360.

Davis, William L., Elaine D. Davis (1972). "Internal-external control and attribution of responsibility for success and failure". *Journal of Personality* 40/1: 123–136.

Gałązka, Alicja, Magdalena Trinder (2016). "Locus of control and receptive skills in second language acquisition". *The New Educational Review* 46: 130-141.

Heider, Fritz (1958). *The Psychology of Interpersonal Relations*. New York: Wiley.

Kelley, Harold H. (1973). "The processes of causal attribution". *American Psychologist* 28/2: 107-128.

Munton, Anthony G., Joanne Silvester, Peter Stratton, Helga Hanks (1999). *Attributions in Action. A Practical Approach to Coding Qualitative Data.* Chichester: Wiley.

Özen Kutanis, Rana, Muammar Mesci, Zeynep Övdür (2011). "The effects of locus of control on learning performance: A case of an academic organization". *Journal of Economic and Social Studies* 1/2: 113-136.

Patterson, Ian (2018). *Tourism and Leisure Behaviour in an Ageing World*. Wallingford: CABI.

Phares, Jerry E. (1957). "Expectancy changes in skill and chance situations". *The Journal of Abnormal and Social Psychology* 54/3: 339-342.

Phares, Jerry E., Kenneth G. Wilson, Nelson W. Klyver (1971). "Internal-external control and the attribution of blame under neutral and distractive conditions". *Journal of Personality and Social Psychology* 18/3: 285–288.

Rotter, Julian B. (1966). "Generalised expectancies for internal versus external locus of control of reinforcement". *Psychological Monographs* 80: 489-493.

Strickland, Bonnie R. (1977). "Internal-external control of reinforcement". In: Thomas Blass (2015). *Personality Variables in Social Behaviour.* New York: Psychology Press, 219-280.

Weiner, Bernard (1985). "An attributional theory of motivation and emotion". *Psychological Review* 92/4: 548-573.

Williams, Marion, Robert L. Burden (1997). *Psychology for Language Teachers: a Social Constructivist Approach*. Cambridge: CUP.

Wong, Paul T. P., Catherine F. Sproule (1984). "An attribution analysis of the locus of control construct and the Trent Attribution Profile". In Herbert M. Lefcourt (ed.). *Research with the Locus of Control construct: Extensions and Limitations.* Vol. 3. New York: Academic Press, 309-360.

Appendices

APPENDIX A

ROTTER'S LOCUS OF CONTROL SCALE

1. **a.** Children get into trouble because their patents punish them too much.
b. The trouble with most children nowadays is that their parents are too easy with them.

2. **a.** Many of the unhappy things in people's lives are partly due to bad luck.
b. People's misfortunes result from the mistakes they make.

3. **a.** One of the major reasons why we have wars is because people don't take enough interest in politics.
b. There will always be wars, no matter how hard people try to prevent them.

4. **a.** In the long run people get the respect they deserve in this world.
b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries

5. **a.** The idea that teachers are unfair to students is nonsense.

b. Most students don't realize the extent to which their grades are influenced by accidental happenings.

6. **a.** Without the right breaks one cannot be an effective leader.
b. Capable people who fail to become leaders have not taken advantage of their opportunities.

7. **a.** No matter how hard you try some people just don't like you.
b. People who can't get others to like them don't understand how to get along with others.

8. **a.** Heredity plays the major role in determining one's personality.
b. It is one's experiences in life which determine what they're like.

9. **a.** I have often found that what is going to happen will happen.
b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

10. **a.** In the case of the well prepared student there is rarely if ever such a thing as an unfair test.
b. Many times exam questions tend to be so unrelated to course work that studying in really useless.

11. **a.** Becoming a success is a matter of hard work, luck has little or nothing to do with it.
b. Getting a good job depends mainly on being in the right place at the right time.

12. **a.** The average citizen can have an influence in government decisions.
b. This world is run by the few people in power, and there is not much the little guy can do about it.

13. **a.** When I make plans, I am almost certain that I can make them work.
b. It is not always wise to plan too far ahead because many things turn out to- be a matter of good or bad fortune anyhow.

14. **a.** There are certain people who are just no good.
b. There is some good in everybody.

15. **a.** In my case getting what I want has little or nothing to do with luck.
b. Many times we might just as well decide what to do by flipping a coin.

16. **a.** Who gets to be the boss often depends on who was lucky enough to be in the right place first.

b. Getting people to do the right thing depends upon ability. Luck has little or nothing to do with it.

17. **a.** As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.

b. By taking an active part in political and social affairs the people can control world events.

18. **a.** Most people don't realize the extent to which their lives are controlled by accidental happenings.

b. There really is no such thing as "luck."

19. **a.** One should always be willing to admit mistakes.

b. It is usually best to cover up one's mistakes.

20. **a.** It is hard to know whether or not a person really likes you.

b. How many friends you have depends upon how nice a person you are.

21. **a.** In the long run the bad things that happen to us are balanced by the good ones.

b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.

22. **a.** With enough effort we can wipe out political corruption.

b. It is difficult for people to have much control over the things politicians do in office.

23. **a.** Sometimes I can't understand how teachers arrive at the grades they give.

b. There is a direct connection between how hard 1 study and the grades I get.

24. **a.** A good leader expects people to decide for themselves what they should do.

b. A good leader makes it clear to everybody what their jobs are.

25. **a.** Many times I feel that I have little influence over the things that happen to me.

b. It is impossible for me to believe that chance or luck plays an important role in my life.

26. **a.** People are lonely because they don't try to be friendly.

b. There's not much use in trying too hard to please people, if they like you, they like you.

27. **a.** There is too much emphasis on athletics in high school.

b. Team sports are an excellent way to build character.

28. **a.** What happens to me is my own doing.

b. Sometimes I feel that I don't have enough control over the direction my life is taking.

29. **a.** Most of the time I can't understand why politicians behave the way they do.
b. In the long run the people are responsible for bad government on a national as well as on a local level.

APPENDIX B

Controllability dimension in foreign language learning

Which of the following factors are within your own control when trying to learn a new language?

	Always	Quite often	Not often	Never
Your ability	*	*	*	*
Difficulty of a task	*	*	*	*
How hard you try	*	*	*	*
Circumstances	*	*	*	*
Time	*	*	*	*
Interest	*	*	*	*
Way in which you learn	*	*	*	*
Language learning proficiency	*	*	*	*

APPENDIX C

INTERVIEW – QUESTIONS

1. What made you choose those specific answers?
2. Did you choose answers you liked more or those you thought you "should" as they sound better?
3. What about the answers you were not sure about or you were not always able to agree with?
4. Do you think you have any influence on the quality/way of learning or is it not dependent on you?
5. What is important to you when you learn a second language, what do you pay attention to?

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