'Dyslexia-friendly' Approaches in the Teaching Practice of Croatian English as a Foreign Language (EFL) Teachers

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1. Introduction

Developmental dyslexia is a specific learning difficulty (SpLD) that mainly affects learning to read and write (Croatian Dyslexia Association, 2016). Consequently, this difficulty can affect learning a foreign language (FL) in many ways (Crombie, 2000). It has been established that traditional FL teaching methods are not effective for dyslexic learners and that they learn best when the teaching is based on a cumulative, explicit, and structured approach with multisensory techniques and raising metalinguistic awareness (Ganschow, Sparks & Javorsky, 1998; Schneider & Crombie, 2003). Yet, the recent research has shown that Croatian English as a foreign language (EFL) teachers' knowledge about effective methods in teaching dyslexic learners is limited (Fišer & Dumančić, 2014; Kałdonek-Crnjaković & Fišer, 2016). One of the reasons of such limited knowledge is that the core EFL teacher training curriculum in Croatia does not entail a module which discusses dyslexia and other SpLDs in the context of FL learning and teaching.

2. Dyslexia and foreign language learning and teaching

The language aptitude in dyslexic learners is believed to be weaker and therefore they usually find the phonology, orthography, syntax and structural aspects of a FL difficult to acquire (Crombie, 2000). Consequently, dyslexic learners make very slow progress in learning a FL and it is rather unlikely that they can achieve the highest level of proficiency (Nijakowska, 2008). It was also established that methods based on the 'natural' or 'communicative' approach, as proposed by Krashen (1987), are ineffective in teaching a FL to dyslexic learners and alternative methods based on a multisensory, explicit, structured, and cumulative approach alongside with raising metalinguistic awareness should be adopted (Ganschow, Sparks & Javorsky, 1998; Schneider & Crombie, 2003). A number of studies have suggested a beneficial effect of such approaches in teaching English (e.g., Kahn-Horwitz et al., 2005, 2006; Kałdonek-Crnjaković, 2013; Nijakowska, 2008), German (e.g., Schneider, 1999), as well as French and Spanish (e.g., Sparks & Ganschow, 1993; Sparks, Ganschow, Artzer, & Patton, 1997; Sparks et al., 1991, 1992) as a foreign language. Each of the above-mentioned approaches will be further discussed.

2.1. Multisensory teaching

The principle of multisensory teaching is the simultaneous employment of visual, auditory, kinaesthetic and tactile modes. An example of multisensory teaching in a FL classroom is when the teacher uses flash cards to teach new vocabulary. The teacher shows the card with the word, says the word aloud, and practises the spelling by tracing the letters of the word on the card. The students then repeat the word aloud and practise its spelling by, for example, writing the word with their finger on the table, in the sand tray or in the air.

The kinaesthetic and tactile modes are very important for dyslexic learners, especially for younger learners (Kałdonek-Crnjaković, 2013; Schneider & Kulmhofer, 2016), as they cannot fully process and retain what is being taught when the material is presented just orally or visually. Examples of teaching and learning using the kinaesthetic and tactile modes include, for example, touching lips when producing specific sounds, using body motion in teaching vocabulary or interactive games in which touch and movement are present (Schneider & Crombie, 2003).

2.2. Explicit teaching

On the assumption that dyslexic learners are unable to acquire information by mere exposure to it, Sparks, Ganschow and Patton (2008) suggest explicit teaching of different aspects of a foreign language, including letter-sound relation, grammatical structures, semantic and socio-pragmatic contexts. The explicit instruction involves a contrastive analysis of language items of the target language and the native language of the learner by consideration of similarities and differences, as well as a synthetic approach, for example in enriching vocabulary activities. All these skills are crucial for information storage and retrieval capacity of long- and short-term memory (Schneider, 1999). Lightbown and Spada (2006) stress that advanced learners may find explicit explanation of great value, especially in terms of independent error-correction, whereas younger learners may rather benefit from immediate explicit forms of feedback on errors.

2.3. Structured teaching

The principle of structured teaching is introducing the material gradually where a more complex topic is built on an easier one. Schneider and Crombie (2003) advise that the presented material should refer to the previously learned information. Given the chunkable nature of linguistic patterns of a word and its relation to other words, as well as the existence of a vast set of rules, the structured approach is particularly important in teaching vocabulary and spelling, especially for younger learners or less proficient ones. The specific teaching and learning techniques include making categorisation by a specific letter pattern, the rule of pronunciation or by using keywords that will act as a reminder of the correct pronunciation or spelling. The structure is also important in improving writing skills, especially in the context of producing logical sequences (Schneider & Crombie, 2003; Schneider & Kulmhofer, 2016). It is also important that structure-based approaches aim at integration of the rules so that a learner is not exposed to isolated patterns and forced to practise one structure at a time. The learner should be provided with opportunities to discover how different language features compare and contrast in everyday language use (Lightbown & Spada, 2006).

2.4. Cumulative teaching

Cumulative teaching entails overlearning and systematic summarising of the learning outcomes. Overlearning, which allows for a regular revision of the taught material, gives the learner an opportunity to practise through a variety of activities. The amount of overlearning will depend on the learner's severity of learning difficulty, their underlying ability and memory capacity to automatize the taught material. It is also frequently related to the difficulty of a task or of the language aspect. It can be assumed that a learner with a severe learning difficulty and lower cognitive skills will need more time to successfully retain the material and use it in an independent context. Since some learners may take longer to acquire the taught material, Schneider and Crombie (2003) suggest that overlearning should be provided by using a range of activities that include multisensory techniques to avoid boring and rote learning tasks, which may consequently have a detrimental effect on the learner's motivation for learning.

2.5. Raising metalinguistic awareness

Metalinguistic awareness means conscious thinking about the patterns and rules of the language. Learners should be encouraged to discover independently how language works and how they can self-correct and monitor their own learning process. Building metalinguistic awareness can be attained by thought-provoking questions (e.g., 'What do you mean?', 'How would you rephrase that?') and non-verbal gestures. Also, making reference to the learner's native language may contribute to building their metalinguistic awareness because of positive language transfer (Schneider & Crombie, 2003; Schneider & Kulmhofer, 2016).

2.6. Other considerations in teaching a FL to learners with dyslexia

Apart from multisensory, explicit, structured, cumulative teaching and raising metalinguistic awareness, Schneider and Crombie (2003) suggest that the teacher should consider such accommodations as: presenting the material at a slower pace, providing additional time for task completion, colour-coding, pictograms and graphics, reading materials and worksheets on tainted paper with an enlarged font, and avoiding 'busy' pages. The teachers should also use mnemonic devices that would help the learner remember difficult language concepts and meet the learners' individual needs by teaching according to their learning style, giving an individual pace of work, anticipating possible difficulties, and providing differentiated resources and constructive feedback on student's learning progress.

Furthermore, Miller and Bussman-Gillis (2000) suggest that FL teachers who work with dyslexic learners must understand the speech-sound system and have a good command of spoken and written language. They also need to understand the principles of co-articulation and the physical properties of sounds and be able to recognise how the understanding of language patterns forms the foundation for the study of morphology, syntax and semantics. It is thus important that FL teachers, who work with dyslexic students, have extensive knowledge about both foreign language acquisition and special education (Kormos & Kontra, 2008). Since experience alone is often insufficient to develop an effective teaching practice, teachers should also adopt an on-going reflective approach to their teaching, which allows them to regularly

review their practice and search for the most effective strategies (Richards & Lockhart, 1996; Schneider & Kulmhofer, 2016).

3. Aim and research questions

The present study aimed at investigating Croatian EFL teachers' classroom practice in regard to the recommended teaching approaches and accommodations for dyslexic learners ('dyslexia-friendly' approaches).

We asked the following research questions:
1. Which recommended teaching approaches and accommodations do the teachers use?
2. Which language skills do they teach using the recommended approaches?
3. Does the practice of the primary school teachers differ from the secondary school teachers?

3.1. Participants

The demographic data about the participants are presented in Table 1. Sixteen schoolteachers, eight primary and eight secondary teachers, participated in the study[2]. The participants came from different parts of Croatia: Karlovac, Rijeka, Slavonski Brod, and Zagreb. Their work experience ranged between ten months and 29 years. Five teachers had up to five years of work experience (for the purpose of this paper the term 'novice' teachers will be used) and eleven had six or more years of experience (for the purpose of this paper the term 'experienced' teachers will be used). Twelve participants had experience in teaching dyslexic learners and seven of them had dyslexic students in the observed lesson.

Table 1 Data about the participants

Work place	Primary school	8
	Secondary school	8
Work experience	Novice (up to 5 years)	5
	Experienced (6 or more years)	11
Experience in teaching dyslexic learners	Yes	12
	No	4
Dyslexic students present in the observed lesson	Yes	7

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[2] In Croatia, primary teachers teach students aged 7-14, whereas secondary teachers teach students aged 15-18.

3.2. Methodology

The data were collected through lesson observation using an observation grid with pre-determined categorisation. The observation grid contained the following eight categories:

1. multisensory teaching;
2. explicit teaching;
3. structured teaching;
4. cumulative teaching;
5. raising metalinguistic awareness;
6. use of mnemonic devices;
7. meeting individual needs; and
8. accommodations.

We observed one lesson of 45 minutes taught by each participant. We noted the approach the participant used and the skill that they taught using a given approach. Before conducting the observations, we obtained oral permission from the schools' head teachers as well as from the participants themselves.

We analysed the data using a qualitative and quantitative method and used simple statistical methods for the number and percentage of the participants who had used a given approach or accommodation. We examined comparatively two groups of participants, primary and secondary school teachers, and used descriptive analysis for the examples of skills that were taught using a given approach.

3.3. Results

3.3.1. Multisensory teaching

Table 2 Multisensory teaching

	Primary School	Secondary School
Visual	8(100%)	8(100%)
Auditory	7(87.5%)	5(62.5%)
Kinaesthetic/tactile	7(87.5%)	3(37.5%)

All the teachers used the visual mode. They used graphic organizers, posters, the board, and colour markers for teaching grammar, spelling and vocabulary. In addition, primary school teachers used flash cards, object presentation, supporting a text with pictures, cartoons, videos, and art work prepared by students.

The auditory mode was used by 12 teachers (75%). More primary (87.5%) than secondary school teachers (62.5%) used this mode (Table 2). The teachers used the auditory mode to teach grammar, spelling, pronunciation, and vocabulary. The examples included stressing the sound or the pitch within a word (e.g., when teaching

the spelling of the word *receipt* and *can't*), explaining the language concept (e.g., when teaching a question structure and the suffix *-ly* for forming adverbs), and peer assisted reading. In addition, primary school teachers used books on tapes, paired reading and computerized text readers, language games, songs, and rhymes. Secondary school teachers also stressed pronunciation of new vocabulary.

The kinaesthetic/tactile mode was used by ten teachers (62.5%). It was used more by primary school teachers (87.5%) than by those in the secondary school (37.5%) (see Table 2). Secondary school teachers used the kinaesthetic/tactile mode to teach grammar and spelling, but only to emphasize words patterns (e.g., when teaching the suffix *-ly* for forming adverbs). Primary school teachers used a wider range of forms to teach grammar, spelling, and vocabulary. They primarily used games such as looking for an object, guessing the words they were miming, touching pictures, the 'Simon says' game, raising coloured pens after hearing the correct word, or throwing a piece of chalk at the right word written on the board. Besides games, primary school teachers also asked their students to follow the text with their finger during listening activities, demonstrated a specific sound by using the vocal apparatus (e.g. *-ed* for past tense and *-er* for comparatives), and used the Total Physical Response method (Asher, 1969).

3.3.2. Explicit teaching

All the teachers taught grammar, pronunciation, spelling, and vocabulary explicitly using direct instruction and contrastive analysis by making reference to the students' native language as well as providing detailed explanation and explicit feedback. The examples included the singular and plural form of the noun, present and past tenses, comparatives, prefixes and suffixes, modals and conditionals, homophones, and the pronunciation of the sounds (e.g., /w/ and /v/, the silent *p* in the word *receipt*).

3.3.3. Use of mnemonic devices

Table 3. Use of mnemonic devices

Primary school	Secondary school
6(75%)	4(50%)

Ten teachers used mnemonic devices (62.5%). They were used more by primary school teachers (75%) than by those in the secondary school (50%) (Table 3). The teachers used mnemonic devices to teach grammar, pronunciation, spelling, and vocabulary. They used personalisation, visual and auditory association, gestures and motion clues, as well as keywords and key sentences. The examples included comparing words with similar spelling (e.g., *than* and *then*) and playing 'sticky fingers' when explaining the connection between the root word and the suffix. In addition, primary school teachers used picture and sound clues, songs, face expressions, scanning the text for similar words, and making funny stories with the words that have similar pronunciation.

3.3.4. Raising metalinguistic awareness

All the teachers raised metalinguistic awareness when teaching grammar, pronunciation, spelling, and vocabulary. They asked thought-provoking questions (e.g., when revising the singular and plural form of nouns, object pronouns, and prepositions), made reference to the students' native language (e.g., translating the sentences written by the student in English into Croatian to provoke self-correction or explaining the structure of conditional clauses and modal verbs), used non-verbal and para-verbal gestures (e.g., the teacher facilitated the reading of the word or prompted the retrieval of the correct preposition by sounding out the first letter), changed the tone of their voice (e.g., when emphasizing pronunciation), and referred to the situations from the students' and the teacher's lives (e.g., when discussing the text in the course book). Primary school teachers also used rephrasing and encouragement.

3.3.5. Structured teaching

Table 4. Structured teaching

Primary school	Secondary school
7(87.5%)	6(75%)

Thirteen teachers (81%) used the structured approach (Table 4). The teachers taught grammar, spelling, and vocabulary in a structured way. The introduced material was presented in chunks with a gradual increase of challenge to ensure mastery of learning. The examples included teaching the singular and plural form of the noun, the use of prepositions and new vocabulary in sentences, as well as the structure of present and past modals, conditional clauses, and adverbs. The taught material was stored for later recall in different forms which included flash cards with new vocabulary and students' self-made dictionaries and charts.

3.3.6. Cumulative teaching

Table 5. Cumulative teaching

Primary school	Secondary school
5(62.5%)	6(75%)

Eleven teachers (69%) used the cumulative approach. The approach was used more by secondary school teachers (75%) than by those in the primary school (62.5%) (Table 5). The teachers taught grammar and vocabulary in the form of overlearning and made a summary of the learning outcomes. The examples included teaching the

prepositions of place and the singular and plural form of the noun, as well as revising the key words discussed in the lesson.

3.3.7. Meeting individual needs

Table 6. Meeting individual needs

Primary school	Secondary school
4(50%)	7(87.5%)

Eleven teachers (69%) met individual needs of the students in the lesson and they were met more by secondary school teachers (87.5%) than by those in the primary school (50%) (Table 6). The teachers allowed an individual pace of work (e.g., when students were writing sentences, retelling a story, or doing a grammar task) and gave constructive feedback when correcting a grammar or writing task. In addition, primary school teachers taught according to the students' learning style and recognised students' learning strengths when playing class games or doing pair work. Secondary school teachers differentiated and modified questions to adjust them to the student's knowledge or when the student did not understand the question at first. Secondary school teachers also gave additional explanation for grammar tasks.

3.3.8. Accommodations

Table 7. Accommodations

Primary school	Secondary school
6(75%)	6(75%)

Twelve teachers (75%) provided accommodations. They were provided by an equal percentage of primary and secondary school teachers (Table 7). The accommodations included worksheets with no 'busy' pages and pictures, and giving additional time to complete reading and writing tasks. Primary school teachers also used a seating plan according to students' abilities and provided different opportunities for stress relief such as the use of a stress-ball, eating during lesson, short walks at the back of the classroom, or time-off outside the classroom. They also sat dyslexic students closer to the teacher and the board.

4. Discussion

The aim of the present study was to identify 'dyslexia-friendly' teaching approaches in the Croatian EFL teachers' classroom practice based on the data obtained from lesson

observations. To answer the first research question ('Which recommended teaching approaches and accommodations do the teachers use?'), data was collected using an observation grid with pre-determined eight categories of recommended approaches. Apart from noting the approach that was used in the lesson, the observer also noted the language skill that was taught using a given approach, which provided data to answer the second research question ('Which language skills do they teach using the recommended approaches?'). To answer the third research question ('Does the practice of the primary school teachers differ from the secondary school teachers?'), we examined the data comparatively for primary and secondary school teachers. We calculated the percentage of the teachers who used a given approach and the skills that were taught while using it.

The findings suggest that the participants used all the recommended approaches and provided accommodations. All the participants taught explicitly, in a multisensory way, and raised metalinguistic awareness. An equal percentage of primary and secondary school teachers provided accommodations.

However, there were noticeable differences between the primary and secondary school teachers in regard to other approaches. Regarding multisensory teaching, primary school teachers used more activities that relied on the auditory and kinaesthetic/tactile mode and used a wider range of auditory and visual forms. We believe that this difference in the teaching approach is related to the age of the learner. As suggested by Cameron (2001), teaching EFL to young learners should be based on multisensory experience, where the child is provided with opportunities to see, hear, manipulate, touch, and feel.

Moreover, more primary school teachers taught in a structured way and used mnemonic devices, whereas more secondary school teachers used the cumulative approach and met students' individual needs. It is also worth noting that primary school teachers used a wider range of mnemonic devices and both groups of participants met students' individual needs in a different way. We believe that this difference again stems from the methodology of teaching younger learners as the primary school teachers used mnemonic devices that are related to multisensory experience.

Among the participants there were teachers with and without experience in teaching dyslexic learners. We assumed that more of the former would use the approaches recommended in teaching dyslexic learners. However, the findings indicate that more teachers with no experience in teaching dyslexic learners used the kinaesthetic/tactile mode and mnemonic devices, and taught in a structured way. Moreover, more teachers who did not have dyslexic students in their observed lesson used auditory, kinaesthetic and tactile modes of multisensory teaching. We therefore concluded that multisensory and structured teaching and the use of mnemonic devices are an integral part of the contemporary EFL teaching methodology and are not unique for the methods that are recommended in teaching dyslexic learners. Yet it is worth noting that more teachers with experience in teaching dyslexic learners, those with longer work experience, and those who had a dyslexic student present in their observed lesson met students' individual needs. More teachers with a dyslexic student present in their lesson also taught in a cumulative and structured way and provided accommodations. These findings thus suggest that the teachers with experience in teaching dyslexic learners and those who have a dyslexic student present in their lessons adopt a more learner-centered approach.

5. Conclusion

The findings of this study indicate that primary and secondary school teachers in Croatia used all the approaches recommended in teaching dyslexic learners as well as provided accommodations and met individual needs of the students. Yet, the practice of primary school teachers differed from those in the secondary school, which is related to the age of the students they teach. The teachers in both phases of education taught a wide range of skills, including grammar, pronunciation, spelling, and vocabulary, using different recommended approaches. We therefore concluded that Croatian EFL teachers' classroom practice is 'dyslexia-friendly', and in this way the teachers create a positive learning atmosphere in a class of students with mixed abilities.

The present study had some limitations. There were only 16 participants and only one lesson was observed. Therefore, future research should involve a larger number of participants from both levels of education and a teacher should be observed over the course of a series of lessons. Future research may also consider a stricter interpretation of multisensory teaching, where the visual, auditory, kinaesthetic and tactical modes are used simultaneously (Kelly & Phillips, 2011). In this study, the modes that constitute multisensory teaching were examined separately.

Moreover, the practice of Croatian EFL primary and secondary school teachers should be further investigated since the findings of this study are not in accordance with the findings of previous research (Fišer & Dumančić, 2014; Kałdonek-Crnjaković & Fišer, 2016), which indicated that Croatian EFL teachers had limited knowledge of dyslexia and recommended methods in teaching dyslexic learners. Therefore, the future research, apart from lesson observation, should examine participants' knowledge about dyslexia in the context of FL learning and teaching and about the use of recommended methods in relation to different language skills and specific needs of the students.

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