Using differentiation to teach English for learners with dyslexia in Finnish upper comprehensive schools

Bachelor's thesis
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Tiivistelmä – Abstract

Lukivaikeutta esiintyy Suomessa kohtalaisen usein. Inkluusion periaatteiden mukaisesti oppilaita, joilla on lukivaikeus, opetetaan yhä enenevässä määrin tavallisissa luokissa. Tämän tutkimuksen tarkoituksena on selvittää, käyttävätkö englannin kielen opettajat eriyttämistä opettaakseen oppilaita, joilla on lukivaikeus. Erityisenä mielenkiinnon kohteena ovat eriyttämisen keinot.

Tutkimus toteutettiin online-kyselytutkimuksena. Tutkimus kohdennettiin yläkoulun opettajiin. Kyselyyn vastasi 15 opettajaa. Täten vastauksia ei valitettavasti voida pitää tilastollisesti luotettavina. Vastaukset analysoitiin sekä määrällisin että laadullisin menetelmin.

Tutkimuksen merkittävimmät tulokset liittyvät opettajankoulutukseen sekä oppimateriaaleihin. Kyselyyn vastanneiden opettajien mukaan eriyttämiseen tai lukivaikeuksiin liittyvä opetus opettajankoulutuksessa ei ole ollut riittävää. Lisäksi valmiiksi eriytettyä oppimateriaalia on tarjolla valitettavan vähän, jolloin opettajat joutuvat käyttämään paljon aikaa materiaalien muokkaukseen. Opetusryhmien ollessa suuria, tällaiseen muokkaamiseen ei ole tarpeeksi resursseja.

Vallitsevan tilanteen kohentamiseksi olisi tarpeellista kehittää opettajankoulutusta siten, että myös aineenopettajille tarjottaisiin pakollisia opintoja eriyttämisestä ja lukivaikeuksien huomioon ottamisesta. Oppimateriaalivalmistajien tulisi jatkossa kiinnittää huomiota valmiiksi eriytetyn materiaalin tarjoamiseen. Nykyinen sähköinen oppimisympäristö ja oppimista tukevien teknisten laitteiden käyttö mahdollistaisi laajemman materiaalin tarjoamisen.

Aihe tarjoaa paljon jatkotutkimuspotentiaalia. Saman tutkimuksen voisi esimerkiksi toteuttaa erilaisin metodein, tai tutkia esimerkiksi millaista eriytettyä materiaalia eri oppikirjakustantajat tarjoavat.

LIST OF TABLES

LIST OF ABBREVIATIONS

ADHD	Attention Deficit Hyperactivity Disorder
EFL	English as a Foreign Language
ICT	Information and Communication Technology
MSL	Multisensory Structured Learning

1 INTRODUCTION

Dyslexia is a neurological condition that according to various studies hinders the ability to learn foreign languages (e.g. Nijakowska 2010, Witzel and Mize 2018). Diagnosing dyslexia is not always easy, and specific definitions can vary as well. According to different estimates approximately 5 to 15 percent of population have this condition (Moilanen 2002). It is therefore safe to assume that every teacher will encounter at least some learners with dyslexia during their career. These learners have also been taken into account when developing the current national core curriculum: it encourages the use of inclusion, i.e. teaching learners with different kinds of learning disabilities in normal classrooms, and differentiation, i.e. modifying tasks according to individual learners' abilities, needs and interests.

Moilanen (2002, 30) emphasises the notion that people learn best when the information can be attached to their own lives, to their needs and interests. Besides being useful, the taught content must also be meaningful. For example, in Nielsen's (2011) interview study dyslexic learners found reading books to be more appealing when the topic was something that they found fascinating. Therefore, when planning differentiation and when searching for useful materials for dyslexic learners, teachers should remember the learners' personal motivators and interests as well. However, differentiation and taking the needs of dyslexic learners into account is demanding and requires training, but not all language teachers have the specific knowledge of the needs of dyslexic learners or are familiar with differentiation methods that research have found to be effective. Moreover, while there are studies on teachers' attitudes and knowledge of dyslexia in the UK (Gwernan-Jones & Burden 2010), in Hungary (Kormos et al. 2009), and in Greece (Rontou 2012), similar studies have not been carried out in Finland.

This study is thus one of the first that aims to gain an overall view of the differentiation methods that English as a foreign language (EFL) teachers in Finnish upper comprehensive schools use for learners with dyslexia and whether these methods are in accordance with research findings. A secondary aim is to determine what Finnish language teachers know of dyslexia and its effects on foreign language. The study was carried out as an online questionnaire, aimed for EFL teachers throughout Finland.

This study is divided into six chapters. Chapters 2 and 3 explain the terms dyslexia and differentiation and links them to the concept of foreign language learning. Previous relevant studies are presented. Chapter 4 presents the research aims and research questions and describes the data collection and analysis methods used for this study. Chapter 5 considers the results compiled from the data. Chapter 6 presents the conclusions of the study and suggests ideas for future research.

2 DYSLEXIA

Moilanen (2002) describes dyslexia as a lifelong, neurological condition that cannot be cured. The symptoms of dyslexia and their severeness vary between individuals, but mostly dyslexia is associated with difficulties in reading and writing. Nijakowska (2010, 70) argues that dyslexic learners, as well as learners with no learning deficits, can be placed on a continuum when regarding their abilities to learn foreign languages. Moilanen also emphasises that dyslexia is not caused by poor intelligence or sensory deficits, such as poor hearing, but it has genetic traits. Kormos and Smith (2012) also limit out the environmental factor, i.e. aspects such as poor exposure to literature at home do not cause dyslexia.

Dyslexia has been found to co-occur often with other disabilities affecting learning, such as attention deficit hyperactivity disorder (ADHD). Kormos and Smith (2012, 64-65) and Nijakowska (2010, 97) argue that dyslexia can cause self-esteem, anxiety, confidence and motivation problems for foreign language learners, as they do not receive as much positive feedback and learning experiences as their non-dyslexic peers.

Commonly occurring difficulties on dyslexic learners are frequent errors in both reading and writing, reading comprehension difficulties, slow writing, inability to memorise what has been said, and general slowness in performing the aforementioned tasks (Moilanen 2002, 10). In addition, some learners with dyslexia have other defects, such as poor motor skills and visual-spatial disabilities.

2.1 Dyslexia and foreign language learning

There is wide consent (e.g. Kormos and Smith 2012; Moilanen 2002; Witzel and Mize 2018) that the dominant background problem for dyslexics in language learning is poor phonetic awareness, i.e. the inability to recognise the sounds that correspond with the letters in a word. With unfamiliar words, dyslexic learners might need to read every letter separately, which is very slow and might also affect the ability to memorise long sentences.

According to Moilanen (2002, 14), poor phonetic awareness can affect auditory sense as well. Dyslexic learners might have difficulties on concentrating to listening, and sounds such as a fan blowing or other learners whispering can be very disturbing, causing a break in concentration. Especially listening to a foreign language can be challenging, because the sounds are unfamiliar. Therefore, auditory information, which traditionally most information in the school context has been, is not ideal for learners with dyslexia.

Spencer (2000) notes that Finnish has one-to-one grapheme-phoneme mappings, e.g. the same letter always represents the same sound and vice versa. That makes reading and writing Finnish consistent and easy. However, Spencer continues remarking that English is very different: one letter can represent several sounds, and one sound can be written with several different letters or letter clusters. Therefore, learning English might pose extra difficulties for dyslexic Finnish learners.

2.2 Teachers' knowledge of and attitude towards dyslexia

According to Lerner (1993, 123), a good rapport between a teacher and a learner is a vital part of ensuring enthusiasm and motivation towards learning. With dyslexic learners, forming such a rapport consists of the teacher being aware of dyslexia. Several studies have been carried out to determine whether teachers understand dyslexia and how it affects learners and to examine the attitudes that teachers have towards learners with dyslexia. Some researchers have studied the subject from the learners' viewpoint to determine what qualities in teachers the dyslexic learners themselves appreciate. The following paragraphs introduce these studies.

Gwernan-Jones and Burden (2010) conducted a survey on the attitudes that elementary teacher trainees in UK had towards dyslexia. The research was partly prompted by the frequently overheard notion from teachers saying that dyslexia is just an excuse for laziness. Altogether 408 teacher trainees answered the survey. The vast majority of these had positive attitude towards dyslexia, and they understood the neurological nature of dyslexia. However, when asked if the teacher trainees thought that the label of dyslexia can be used as an excuse for the learner to stop trying, the answers varied. 30,7% of the respondents agreed with the statement, 23,9% disagreed and 31,8% were neutral. Furthermore, the respondents strongly agreed that teachers need to be offered more training about dyslexia.

Rontou (2012) observed similar needs for better training in her study. She interviewed both dyslexic English as a foreign language learners and their teachers in Greece. Every learner mentioned that they would need extra time during classes to finish exercises and to answer questions. However, the teachers found giving extra time complicated, as the duration of lessons is fixed and there are also other students who might want to advance more quickly. By interviewing the language teachers Rontou found out that they did not have adequate knowledge of dyslexia, nor effective differentiation methods available. They also lacked the confidence to search for differentiated teaching material, as they did not have enough training to do so.

A study conducted by Nielsen (2011) found out that the general teacher trait that the dyslexic learners themselves appreciate the most is the impression that the teacher sees them as individuals with many qualities, dyslexia being just one of them. Learners do not want to be defined through their dyslexia. Furthermore, many of the learners that Nielsen interviewed had negative experiences of teachers treating them badly, for example saying the dyslexic learners were unintelligent because they could not read as fast as their peers. Even years after finishing school, these learners still remembered these negative comments, which affected their self-concept. However, when the learners saw that the teacher understood them, their needs and interests, they had a more positive attitude towards learning and more trust in their own capabilities.

Kormos, Csizér and Sarkadi (2009) interviewed Hungarian foreign language learners with dyslexia to determine the effect that language teachers had on their motivation. With under instruction of a

teacher that the learners considered effective and supportive, the learners had a more positive and enthusiastic attitude towards learning, and they felt they progressed more. The opposite was also true; when the learners had conflicts with their language teachers, their motivation towards learning declined and they found learning languages difficult. The learners that Kormos et al. interviewed valued highly the following: "teacher enthusiasm, supportive attitude, opportunity to learn, appropriate goal setting, relevant and interesting teaching materials, clarity of presentation, appropriate pace of learning and assessment methods that are adjusted to their disability" (Kormos et al. 2009, 133).

It seems that current language teachers are aware of the neurological nature of dyslexia and that it is not e.g. an excuse for laziness (Gwernan-Jones and Burden 2010, 70). It is clear though that EFL teachers need more knowledge of how to accommodate learners with dyslexia. The question of teaching methods is not the only one when proper differentiation for dyslexic learners is discussed, but other mechanisms are critical as well. The importance of good differentiated study materials and even seemingly small elements, such as giving extra time, must not be neglected either. According to Kormos et al. (2009), teachers' attitude towards dyslexia, as well as their knowledge of dyslexia and the language learning problems it may cause, are the most vital qualities of effective EFL teachers. Quite naturally, positive attitude and enough knowledge are also needed for proper differentiation for learners with dyslexia.

3 DIFFERENTIATION

The following section will briefly describe differentiation in general, as well as introduce concepts that should be considered when planning differentiation for learners with dyslexia. The chapter will also present specific differentiation methods that research has found to be effective when teaching learners with dyslexia.

3.1 Differentiation in general

According to current national core curriculum (Finnish national agency for education 2014), differentiation is a way to affect the motivation of the learner. Every learner in a class will have unique set of tasks, ensuring that everyone has adequate challenges, as well as experiences of

success. The core methods of differentiating tasks include altering the broadness or depth of a subject and altering the pace of progression. Differentiation can affect the study materials, working methods, number of tasks, and the time given to perform tasks.

Every learner is an individual with unique strengths, weaknesses and preferred learning methods. Therefore, differentiation serves all learners instead of only those with some learning deficits. Moilanen (2002, 31) suggests that when planning differentiation, teachers should take into account the following aspects: previous knowledge, learning strategies and personal goals of the learner.

Moilanen (2002, 30) emphasises the notion that people learn best when the information can be attached to their own lives, to their needs and interests. Besides being useful, the taught content must also be meaningful. Therefore, when planning differentiation and when searching for useful teaching materials for dyslexic learners, teachers should remember the learners' personal motivators and interests as well. For example, in Nielsen's (2011) interview study dyslexic learners found reading books to be more appealing when the topic was something that they found fascinating.

3.2 Differentiation in accordance with dyslexia

According to Moilanen (2002), the key concept in teaching learners with dyslexia is the use of multiple sensory channels: auditory, visual, tactile and kinaesthetic. Teachers should support their message with methods such as color-coded texts, pictures or speaking aloud written tasks. However, Moilanen also emphasises that different sensory channels should not be stimulated at the same time, i.e. teachers should not speak out at the same time as they are writing down notes. This can become overbearing for dyslexic learners, as they do not know on what to concentrate.

The commonly recommended foreign language teaching method for dyslexic learners is the Multisensory Structured Learning instruction (MSL) (see e.g. Moilanen 2002, Nijakowska 2010, Sparks et al. 1998), which leans heavily on the use of multiple sensory channels mentioned above. Other methods include e.g. using technology aids, individual learning goals, and individual assessment criteria. Dyslexic learners can receive remedial teaching as well, under the instruction of a special education teacher. These methods will be briefly introduced next.

Multisensory Structured Learning (MSL)

Nijakowska (2010, 124-125) describes Multisensory Structured Learning as direct, explicit, highly structured, systematic, cumulative and highly repetitive. Naturally, all instruction is given by stimulating multiple sensory channels. Dyslexic learners acquire a foreign language poorly, so they require explicit and direct instructions. They also benefit greatly when they know the structure of lessons and given tasks, so they can concentrate on the essential instead of figuring out what to do. New information is based on already acquired knowledge. Repetition is needed to ensure that the information is learned and adopted correctly.

Furthermore, Nijakowska (2010, 126) stresses out the importance of frequent, immediate and positive feedback, in order to avoid negative emotions towards learning. Teachers need to emphasise to the learners that they are making progress. Moilanen (2002, 248-289) highlights the significance of giving feedback productively: learners need to be aware of what is criticised and how they can concretely improve their performance. If the learner has not acquired some knowledge in the manner that the teacher has initially taught it, giving feedback in a similar way will not help the learner at all. The chance of re-doing exams and other challenging tasks, possibly together with the teacher, is a vital part of learning. In an interview study by Kormos et al. (2009) students appreciated the basic concepts of MSL instruction, such as repeated opportunities to revise and clear and structured instructions. The students found their anxiety towards learning languages diminish significantly when these aspects were incorporated into teaching.

Sparks, Artzer, Patton et al. (1998) compared MSL instruction to traditional teaching methods for learners who had been deemed as at-risk for foreign language learning difficulties, including learners with various learning deficits. They found that the MSL group improved more in areas of reading comprehension, word recognition and pseudoword reading when compared to the traditional learning group. After two years of MSL instruction, the at-risk learners were at the same proficiency level to not-at-risk learners.

Techonology aids
The use of information and communication technologies (ICT) have vastly increased in Finnish schools during the past years. This is arguably an advantage for learners with dyslexia. Reid (2016,

360) states that ICT such as audio books, text-to-speech software and spell checkers among others can help learners with dyslexia to overcome the difficulties that printed text poses to them. In addition, using ICT facilitates overlearning and repetition, which are key requirements for dyslexic learners.

However, Reid (2016, 363) continues that ICT itself will not cause a difference in teaching, but the available technologies and software need to be appropriately applied. Teachers need to be aware of how to utilise ITC to reach its full potential. As with other teaching materials, also ICT should be differentiated to meet the personal needs and interest of dyslexic learners.

Individual learning goals

Individual learning goals can be divided into two categories: task level, i.e. giving easier or fewer tasks, or curriculum level, i.e. planning an individual curriculum for a certain learner. The national core curriculum (Finnish national agency for education 2014) states that individual learning goals in a curriculum level are a drastic method, which will only be implemented after the learner has received remedial teaching and support from special education teacher without success. When conducting individual tasks, teachers must ensure that the learners will reach the learning goals mentioned in the curriculum.

Kormos et al. (2009) have studied the situation of dyslexic learners in Hungary, where learners can be exempted from foreign language classes rather easily. They argue that exemption is a burden in life, and especially exemption from a foreign language knowledge means that you are excluded from something important. e.g. an opportunity for higher education.

Individual learning goals can also consist of individual assessment criteria. For example, Kormos et al. (2009) discovered that when the spelling errors that learners with dyslexia made were not marked, the learners found learning languages less intimidating and could focus more on the actual subject.

4 PRESENT STUDY

The following section introduces the specific aims and research questions of this study, as well as the used data collection methods and the methods used to analyse the gathered data.

4.1 Aims and research questions

The aim of this study is to gain an overall view of the attitudes that English language teachers have towards dyslexia, and what kind of knowledge they have of it, for example, has the matter been discussed during their studies and do they therefore feel they have adequate skills to teach learners with dyslexia. The study also aims to discover what kind of teaching methods English language teachers use for learners with dyslexia, and whether these methods are in accordance with research findings.

The research questions are:

1. What kind of attitudes and understanding English language teachers have of differentiation?
2. What kind of attitudes and understanding English language teachers have of dyslexia?
3. What kind of differentiation methods English language teachers use in Finnish upper comprehensive schools for learners with dyslexia?

4.2 Data

The data was collected by an online survey that was created on Webropol, an online survey and analysis tool. Initially the survey was posted in a Facebook group aimed at English teachers in Finland on January 21, 2019. The group has c. 3400 members. The link was posted together with a short accompanying note stating the theme and aim of the study. Having not reached a large number of answers, the survey link and an accompanying note were also sent by e-mail to 39 English teachers in upper comprehensive schools throughout Finland on January 30, 2019. A conscious effort was made to ensure that teachers from every part of Finland, even those not active in social media, would answer the survey to get a holistic view of the current situation.

The survey closed on February 10, 2019. Altogether 75 people opened the survey link, 27 started the survey and 15 completed it. The response rate was therefore 27,7% of those who opened the

survey, and 55% of those who started the survey. Bryman (2012, 235) defines response rates between 50-59% as barely acceptable, i.e. the danger of bias is significant.

The respondents were asked to provide background information regarding their age, sex and professional experience as a teacher. Otherwise the survey was anonymous. The first page of the survey included information about privacy, and respondents gave consent for their answers to be used for research purposes by filling the survey.

The survey consisted of 17 questions, of which five were open-ended and the rest were closed. Open-ended questions provide more insight to the topic (Phillips, Aaron, and Phillips 2013) so they were used to answer research questions 1 and 2. Most closed questions were multiple choice questions regarding the education and current teaching methods of the respondents. The questionnaire is attached in the appendix.

A survey was used as a data collection method because it ensured a fairly large number of teachers to participate, giving an opportunity to improve statistical reliability. Given the available resources, an online survey also reduced the danger of bias, e.g. all participant teachers working in the same school. Furthermore, a survey provided enough information, and the depth in answers that an interview might have provided was not needed to answer the research questions.

4.3 Methods of analysis

Both quantitative and qualitative analysis were used to analyse the survey data. Quantitative methods were used to analyse survey questions 1-4, 6-10, 13, 14, and 16. Qualitative methods were used to analyse survey questions 5, 12, 15, and 17. None of the respondents answered the survey question 11.

4.3.1 Quantitative methods

Most of the questions in the questionnaire were multiple choice questions (1-4, 6, 8-10). These were analysed by calculating the percentage of respondents who answered a certain choice. The emphasis on analysing the multiple choice questions was to find overall trends and generalisations

(van Peer, Hakemulder & Zyngier 2012, 107), e.g. have most language teachers received training on how to accommodate learners with dyslexia. The multiple choice questions were also used to gather background information of the respondents, which were again used to further analyse certain answers, e.g. are more experienced teachers more confident with their differentiation skills.

Survey question 7 gave the respondents a choice to evaluate the confidence level of their own differentiation skills on a 0-10 continuum. Graphic rating scales, such as this, give the respondents virtually an infinite amount of possibilities to express their thoughts (van Peer et al. 2012, 110). However, all the respondents in this survey chose integers as their answers. The answers were analysed by calculating the mean values of all respondents, as well as the respondents separated into categories depending on if they had received differentiation training during their studies.

Survey question 13 is a matrix listing different teaching methods. Of these methods the respondents could choose if they had heard of it, knew how to implement it or if they had used the method themselves. Thus, the nature of the question resembled a multiple choice question. The methods were selected based on recommendations given by previous research, as well as personal experience on the use of methods for learners with dyslexia. The purpose of this question was to determine more precisely the methods that teachers use for dyslexic learners, as well as give more detail about their knowledge of dyslexia appropriated teaching methods.

Survey questions 14 and 16 utilised Likert scales. Likert scale is one of the most frequently used tool to determine attitudes (van Peer et al. 2012, 114), so it was used in this questionnaire to determine the attitudes that language teachers have towards differentiation and dyslexia. The used scale ranged from strongly disagree to strongly agree. To facilitate the analysis of the results, the negative and positive answers were calculated together, after which the percentage of respondents agreeing or disagreeing with the statement were calculated to determine the overall attitudes of language teachers.

4.3.2 Qualitative methods

Survey questions 5, 12, 15, and 17 were open-ended questions, and they were analysed by searching commonly appearing themes among the answers. Survey questions 5 and 12 regarded differentiation in practise, e.g. what methods language teachers mostly use when they differentiate materials for learners with dyslexia. The listed methods were generalised, if necessary, e.g. giving extra time was listed as one method in the final results, even though the respondents mentioned it in various settings. All the methods were tabulated and arranged in an order of how commonly they were mentioned.

In survey questions 15 and 17 the respondents were given the opportunity to freely express their thoughts about differentiation and dyslexia. These were intentionally placed as the last questions, and they were directly preceded by various provocative statements to elicit more thorough answers. As the questions enabled the respondents to give very varied and vast answers, the answers were carefully read through multiple times, and prominent themes were tabulated according to whether the theme was discussed in negative or positive voice. Thus, it was possible to determine what issues language teachers mostly have with differentiation and dyslexia, and what points they want to highlight as successful.

5 RESULTS

This chapter represents the results of the study. The first subchapter introduces the respondents. The second subchapter discusses the results of differentiation related questions. The third subchapter discusses the results of dyslexia related questions.

5.1 Respondents

15 people answered the online survey. Of these 14 were female and 1, or 7% was male. The age distribution of the respondents is presented in Table 1 and their professional experience as a teacher is presented in Table 2. There were more older respondents with 9 being over 40 years old, but the professional experience does not correlate with the age distribution directly; a quarter of the respondents have only been working as a teacher from 2 to 5 years. The professional experience

does however vary enough to provide a holistic overview of the current situation in Finnish upper comprehensive schools.

Table 1. The age distribution of the respondents.
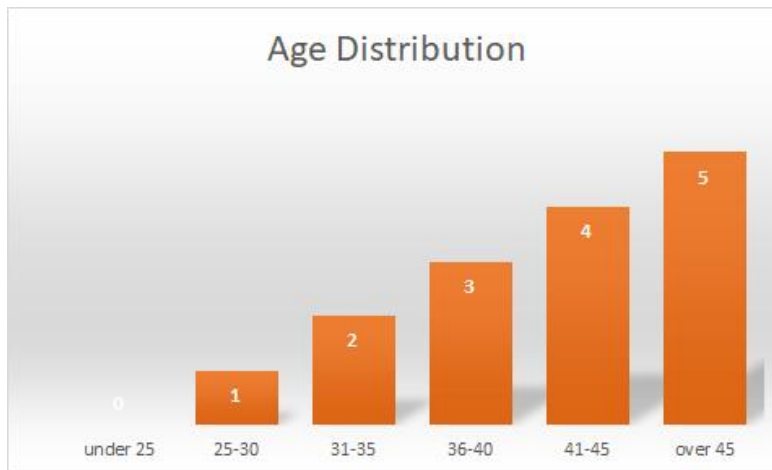
Table 2. The professional experience of the respondents.

5.2 Differentiation

From the 15 respondents, differentiation had not been taught in teacher training to four teachers. One of these teachers had worked as a teacher for 2 to 5 years, one 16 to 20 years and two for more than 20 years. One teacher did not know if they had been taught differentiation. The rest of the respondents, 10 teachers, felt that the differentiation teaching that they had received had not been sufficient.

The lack of proper training showed on the self-reported confidence of the respondents. When asked to rate their confidence on implementing differentiation efficiently on a scale from zero to 10, the mean value for all respondents was only 5.9. The lowest score was three and the highest score was eight (two respondents). When separated by their education, those who were not taught differentiation had a mean value of 6.0, and those who were taught differentiation had a mean value of 5,9. This again suggests that the differentiation training that is offered for future teachers is not sufficient to improve their skills. The confidence level scores of all respondents are presented in Table 3.

Table 3. The confidence level of the teachers on their skills to use differentiation efficiently.
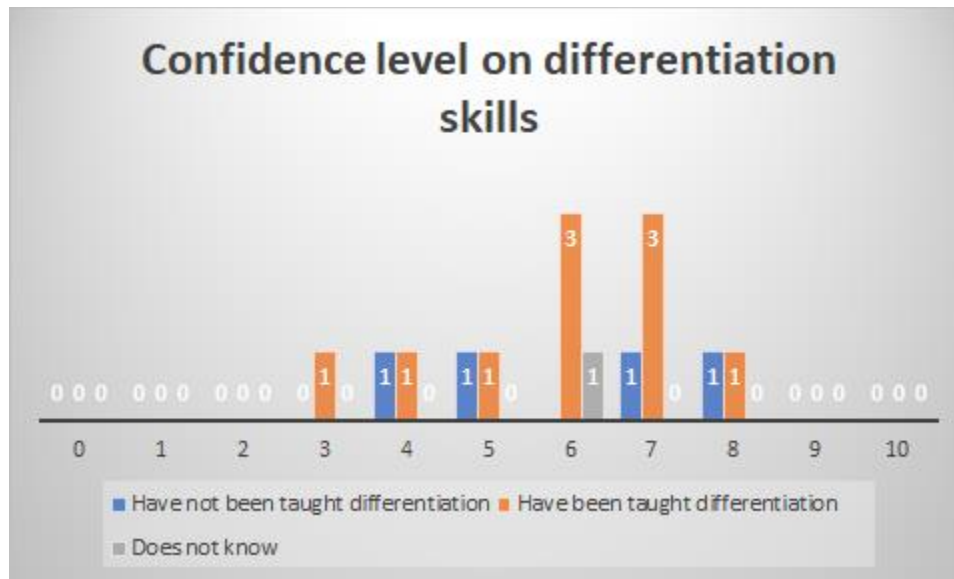
However, all the respondents used differentiation in their classes, 10 regularly and five occasionally. In an open-ended question (Q5) where the teachers could describe the situations where they use differentiation, two mentioned only differentiation for more advanced learners, four only differentiation for learners who are struggling and five both possibilities. One mentioned learners having dyslexia and other learning difficulties specifically. The current national core curriculum demands the use of differentiation in all classes, and to all learners (Finnish national agency for education 2014). Therefore, it would seem that teachers still need to improve their differentiation to include all learners efficiently in their classes.

All the respondents saw differentiation as an efficient, but challenging teaching method. The majority of the respondents thought that there are not enough materials (10 out of 15) or resources (9 out of 15) available for differentiation. These results are in accordance with previous research findings, e.g. EFL teachers in Greece interviewed by Rontou (2012) mentioned the lack of proper materials as a reason for not accommodating dyslexic learners more.

As differentiation is expected from every teacher, more investments are needed from study material providers, as well as from the school system, for the teachers to be able to implement the national core curriculum as intended. Currently teachers do not have enough time to differentiate tasks as much as possible. Some of the reasons for this, according to the respondents (Q15), are large, very heterogenous groups with different individual needs. Time is also needed to search for or to modify materials, as they are not provided by textbook publishers. There is also a clear need to increase education about differentiation in teacher training.

5.3 Dyslexia

The questionnaire revealed that dyslexia is a common condition. 13 respondents currently have learners with dyslexia. Only one respondent, who has worked as a teacher for over 20 years, had never had a learner with dyslexia in their classes.

Unfortunately, teacher training is lacking on dyslexia education. As much as 60% of the respondents had not received any training on how to accommodate learners with dyslexia. The rest had not received enough training on the matter. The professional experience of the respondents did not affect these results; two teachers who had worked only 2 to 5 years had not received any dyslexia training. For example, in the University of Jyväskylä, there are currently no obligatory courses about dyslexia for EFL teachers. English subject studies offer one voluntary course about dyslexia and in pedagogical studies, there is a voluntary opportunity to study special education as a minor. (JYU Englanti 2018, JYU Opettajankoulutus 2017.)

Nevertheless, all but one respondent had taken dyslexia into account in their teaching. The one who did not take dyslexia into account had not received training on it during their studies. According to this respondent they also did not have any learners with dyslexia.

Overall the teachers who accommodate learners with dyslexia use very varied methods. The respondents had the opportunity to list all the methods that they use to accommodate dyslexic learners (Q12). Only four of 14 respondents listed just one method, while others listed several. The methods that had the most mentionings are listed in Table 4, based on their commonness.

Table 4. Methods that teachers use to accommodate learners with dyslexia.

The method	Mentionings (N=14)
Giving extra time	7
Facilitating the material	6
Not marking spelling errors	4
Special education or remedial teaching	4
Technical aid	4

The survey also had a pre-given list of dyslexia accommodation methods (Q13). The list was compiled based on recommendations in various studies (e.g. Moilanen 2002, Nijakowska 2010, Sparks et a. 1998, Kormos et al. 2009). From this list the teachers were asked to note those that they had heard of, those that they knew how to implement correctly, and those that they had used themselves. The answers are presented in Table 5.

Table 5. List of pre-given methods.

The method	Have heard of it	Know how to implement it	Have used it	N
Stimulating multiple sensory channels	5	3	6	14
Giving extra time for exams	-	-	15	15
Giving extra time for homework	-	8	6	14
Giving extra time in class	-	4	10	14
Individual learning goals	-	3	12	15
Individual learning techniques (e.g. Taking an exam orally)	1	5	9	15
Individual materials	1	7	7	15
Remedial teaching	-	2	12	14
Technical aids	3	4	7	14

It is interesting to note that even the teacher who said that they do not take dyslexia into account has used some of these techniques, i.e. giving extra time for exams, individual learning goals and remedial teaching. It could be assumed that this teacher also has learners with learning difficulties, but because of lack of proper education, this teacher is unable to recognise these difficulties deriving from dyslexia.

The use of MSL is low when compared to other methods, even though it is widely considered the most effective accommodation method for learners with dyslexia (e.g. Moilanen 2002, Nijakowska 2010). The lack of differentiation training in teacher education might explain this, as MSL is not as easy to implement as for example giving extra time. In addition, individual materials and

technical aids had low usage scores despite the recommendations that dyslexia research give (e.g. Nielsen 2011, Reid 2016). The lack of resources, mentioned by many respondents, might explain this.

The respondents had varied opinions of dyslexia. Their answers for different dyslexia related arguments on a Likert-scale from 1 to 5 (strongly disagree - strongly agree) are presented in Table 6.

Table 6. Likert-scale answers for arguments about dyslexia.

Argument	1	2	3	4	5
Learners with dyslexia have below average skills	5	4	2	4	-
Learners with dyslexia have low motivation	4	6	1	4	-
Learners with dyslexia should not be included in a regular class	7	5	1	2	-
It is challenging to teach learners with dyslexia	1	1	2	9	2
I have enough capabilities to teach learners with dyslexia	3	7	1	3	1

When agreeing opinions (4 and 5) and disagreeing opinions (1 and 2) are combined, 60% of the respondents disagree with the statement that learners with dyslexia have below average skills, 67% disagree that they have low motivation and 80% disagree that dyslexic learners should be excluded from regular class. Overall, the respondents have fairly positive attitude towards dyslexia. No one strongly agreed with the aforementioned statements.

However, the situation is not so optimistic when teaching of dyslexic learners is concerned. 73% of the respondents agreed that teaching learners with dyslexia is challenging, and 67% do not feel

they have enough capabilities to manage from this task. Arguably, the poor investment in dyslexia in teacher training explains these viewpoints.

6 CONCLUSIONS

Answer to research questions 1 and 2 is that overall Finnish EFL teachers have positive attitudes towards both differentiation and dyslexia. They understand the importance of differentiation, as well as realise that dyslexia does not prevent learning.

However, the training offered on these subjects is not sufficient, which reduces the confidence levels of the teachers. Many felt that they do not have enough capabilities to effectively accommodate learners with dyslexia. It also seems that the school system does not provide enough resources for efficient differentiation. Especially the lack of time and big groups were mentioned as hindering facts.

Another major problem concerning the offering of differentiation is the lack of study materials. Even though the current use of ICT and extra material available in the internet, provided by textbook publishers, could enable targeted tasks for learners with dyslexia, it seems that this opportunity has not been utilised.

The aforementioned hindrances likely lead to the fact that the differentiation methods that research has found to be the most effective for learners with dyslexia are not used largely in Finnish upper comprehensive schools, answering research question 3. Only 40% of the respondents used MSL to teach learners with dyslexia, even though it is widely considered to be the most effective method for them. However, all the teachers had accommodated learners with dyslexia in some way, which is a positive notion. To correct the situation, improvements would be needed from teacher education, textbook publishers and from the school system.

It must be noted though that the sample size in the questionnaire is very poor, and it is not possible to draw statistically reliable results from the answers. The results might not reflect the real situation in upper comprehensive schools. The small sample might for example be composed of teachers,

who are passionate about and conscious of dyslexia, leading to biased results. For example, one respondent mentioned having dyslexia themselves, and others expressed great concerns of the situation. It would therefore be advisable to repeat the study with greater sample size.

Other possibilities for future research are repeating the study with different data collection methods. For example, classroom observations would possibly give different results, because the researcher could examine the dominant situation themselves, instead of relying on the teachers' answers. The teachers might not even be aware of everything they do to accommodate their learners. Observations would also reveal how often different methods are used.

Collecting the data from learners instead of teachers would also provide an interesting viewpoint. The learners could express how they are being treated by the teachers and if they feel that the methods used to teach them are sufficient. Understanding the learners and their needs is vital when conducting differentiation.

As the lack of proper learning materials was mentioned by many respondents, it would also provide an opportunity for further research. One option would be to compare different textbooks and see how they have taken dyslexic learners into account. Another possibility would be to develop a material package for learners with dyslexia.

There remains a large need for future research altogether. The subject is important, as there are a lot of learners with dyslexia, and as the importance of English in the Finnish society is not likely to diminish. Following the guidelines of inclusion, these learners will continue to be taught in regular classrooms and regular teachers should have the possibilities to teach them effectively.

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APPENDIX I

Eriyttäminen ja lukivaikeudet

TIETOSUOJAILMOITUS TUTKIMUKSESTA TUTKIMUKSEEN OSALLISTUVALLE

24.1.2019
Tutkimukseen osallistuminen on vapaaehtoista, eikä tutkittavan ole pakko toimittaa mitään tietoja, tutkimukseen osallistumisen voi keskeyttää.

Tutkimuksen nimi, luonne ja kesto

Tutkimuksen kohteena on lukivaikeuksien huomiointi englannin kielen opetuksessa eriyttämisen keinoin. Kyseessä on kertatutkimus, joka valmistuu keväällä 2019.

Mihin henkilötietojen käsittely perustuu

Henkilötietojen käsittely perustuu EU:n yleiseen tietosuoja-asetukseen, artikla 6, kohta 1: tutkittavan suostumukseen.

Tutkimuksesta vastaavat tahot

Tutkimuksen tekijä: Armi Aalto, Jyväskylän yliopisto
Tutkimuksen ohjaaja: Leila Kääntä, Jyväskylän yliopisto

Tutkimuksen tausta ja tarkoitus

Tämän tutkimuksen tavoitteena on selvittää, minkälaisia eriyttämisen keinoja yläkoulun englannin kielen opettajat käyttävät. Erityisenä huomion kohteena ovat oppilaat joilla on lukivaikeus. Lisäksi on tarkoitus selvittää opettajien käsityksiä ja kokemuksia eriyttämisestä.
Tutkimukseen osallistuvat henkilöt ovat Suomessa toimivia englannin kielen opettajia. Tutkimukseen osallistuvilta kerätään seuraavat henkilötiedot: ikä, sukupuoli ja ammatillinen kokemus vuosissa mitattuna. Erityisiin henkilötietoryhmiin kuuluvia tietoja ei kerätä. Yllämainitut tiedot kerätään kyselyllä.

Tutkimuksen toteuttaminen käytännössä

Tutkimukseen osallistuminen kestää noin 15 minuuttia.
Tutkimukseen sisältyy yhden Webropol-kyselylomakkeen täyttäminen.

Tutkimuksen mahdolliset hyödyt ja haitat tutkittaville

Tutkimus tuottaa tietoa kieltenopettajien käsityksistä ja kokemuksista eriyttämiseen liittyen. Tutkimustulosten perusteella voidaan päätellä, onko opettajien koulutus nykyisellään riittävää vai tulisiko siinä keskittyä enemmän eriyttämisen opettamiseen. Tutkimustulokset kertovat myös, onko kieltenopettajilla riittävät tietotaidot toimia lukivaikeuksista kärsivien oppilaiden kanssa.

Henkilötietojen suojaaminen

Tutkimuksessa kerättyjä tietoja ja tutkimustuloksia käsitellään luottamuksellisesti tietosuojalainsäädännön edellyttämällä tavalla. Tietojasi ei voida tunnistaa tutkimukseen liittyvistä tutkimustuloksista, selvityksistä tai julkaisuista.
Tutkimusaineistoa säilytetään Jyväskylän yliopiston tutkimusaineiston käsittelyä koskevien tietoturvakäytänteiden mukaisesti.

Tutkimustulokset

Tutkimuksesta valmistuu opinnäytetyö.

Tutkittavan oikeudet ja niistä poikkeaminen

Tutkittavalla on oikeus peruuttaa antamansa suostumus, kun henkilötietojen käsittely perustuu suostumukseen. Jos tutkittava peruuttaa suostumuksensa, hänen tietojaan ei käytetä enää tutkimuksessa.
Tutkittavalla on oikeus tehdä valitus Tietosuojavaltuutetun toimistoon, mikäli tutkittava katsoo, että häntä koskevien henkilötietojen käsittelyssä on rikottu voimassa olevaa tietosuojalainsäädäntöä. (lue lisää: http://www.tietosuoja.fi).
Tutkimuksessa ei poiketa muista tietosuojalainsäädännön mukaisista tutkittavan oikeuksista.

Henkilötietojen säilyttäminen ja arkistointi

Tutkimusaineisto säilytetään koodattuna ilman tunnistetietoja yliopiston salasanalla suojatulla serverillä siihen asti kun tulosten todentaminen sitä edellyttää. Tämän jälkeen aineisto hävitetään.

Rekisteröidyn oikeuksien toteuttaminen

Jos sinulla on kysyttävää rekisteröidyn oikeuksista voit olla yhteydessä tutkimuksen tekijään tai hänen ohjaajaansa.

Ikä

Alle 25

25-30

31-35

36-40

41-45

Yli 45

Sukupuoli

Nainen

Mies

Kuinka kauan olet toiminut opettajana

Alle 2 vuotta

2-5 vuotta

6-10 vuotta

11-15 vuotta

16-20 vuotta

Yli 20 vuotta

Käytätkö eriyttämistä oppitunneillasi?

Kyllä

Ei

Ajoittain

Minkälaisissa tilanteissa käytät eriyttämistä?

_____

_____

_____

_____

_____

Opetettiinko sinulle eriyttämistä opintojesi aikana?

      Kyllä

      Ei

      Kyllä, mutta ei riittävästi

      En tiedä

Kuinka itsevarma olet kyvyistäsi käyttää eriyttämistä tehokkaasti?

0

En lainkaan   Erittäin

Onko sinulla oppilaita joilla on lukivaikeus?

      Kyllä

      Ei

      On ollut, mutta ei tällä hetkellä

      En tiedä

Opetettiinko sinulle lukivaikeuksien huomiointia opintojesi aikana?

      Kyllä

      Ei

      Kyllä, mutta ei riittävästi

      En tiedä

Oletko ottanut lukivaikeudet huomioon opetuksessasi?

Kyllä

Ei

Mistä syistä johtuen et ole ottanut lukivaikeuksia huomioon?

_____

_____

_____

_____

_____

Kerro minkälaisia keinoja olet käyttänyt

_____

_____

_____

_____

_____

Eriyttämiskeinoja lukivaikeuksien yhteydessä

1=olen kuullut metodista 2=tiedän miten metodia sovelletaan käytännössä 3=olen käyttänyt metodia

	1	2	3
Eri aistikanavien stimulointi			
Lisäajan antaminen kokeissa			
Lisäajan antaminen kotitehtävissä			
Lisäajan antaminen tunnilla			
Yksilölliset oppimistavoitteet			
Yksilölliset suoritustavat (esim. kokeen tekeminen suullisesti)			
Yksilölliset oppimateriaalit			
Tukiopetus			
Tekniset apuvälineet			

Väitteitä eriyttämisestä

1=täysin eri mieltä 2=osittain eri mieltä 3=en osaa sanoa 4=osittain samaa mieltä 5=täysin samaa mieltä

	1	2	3	4	5
Eriyttäminen on toimiva opetuskeino					
Eriyttämiseen on tarjolla riittävästi resursseja					
Eriyttämiseen on tarjolla riittävästi oppimateriaalia					
Eriyttäminen on haastavaa					

Kerro vapaasti omia mietteitäsi eriyttämisestä

_____

_____

_____

_____

_____

Väitteitä lukivaikeuksista

1=täysin eri mieltä 2=osittain eri mieltä 3=en osaa sanoa 4=osittain samaa mieltä 5=täysin samaa mieltä

	1	2	3	4	5
Oppilaat joilla on lukivaikeus ovat taidoiltaan muiden alapuolella					
Oppilailla joilla on lukivaikeus on heikko motivaatio					
Oppilaiden joilla on lukivaikeus ei tulisi osallistua opetukseen tavallisessa luokassa					
Koen haastavaksi opettaa oppilaita joilla on lukivaikeus					
Koen että minulla on riittävästi valmiuksia kohdata oppilaita joilla on lukivaikeus					

Kerro vapaasti omia mietteitäsi lukivaikeuksista