

UNIVERSITY OF LATVIA

FACULTY OF EDUCATION, PSYCHOLOGY AND ART

TEACHER EDUCATION DEPARTMENT

**STRATEGIES TO DEVELOP STUDENTS' DIGITAL READING
SKILLS IN ENGLISH LESSONS FOR GRADE 7**

**STRATĒGIJAS SKOLĒNU DIGITĀLĀS LASĪŠANAS PRASMJU
ATTĪSTĪBAI ANĢĻU VALODAS STUNDĀS 7. KLASĒ**

DIPLOMA PAPER

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DECLARATION OF ACADEMIC INTEGRITY

I declare that this study is my own and does not contain any unacknowledged work from any source.

A handwritten signature in black ink, appearing to be 'TJ', written in a cursive style.

Signature

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May 30, 2022

ABSTRACT

Reading through the digital medium requires to develop specific digital reading skills such as navigation and self-regulation. Reading strategies help to apply and develop digital reading skills. The aim of the Diploma Paper was to define how the implementation of reading strategies develops digital reading skills in the English language lessons in Grade 7.

The chosen method of research was a case study. The data collection methods were the questionnaire among students, interviews with two teachers, observations of reading sessions, students' graphic organisers and home assignments.

The results indicate that teachers and students have a positive attitude towards digital reading in the English language lessons. However, students require additional help, e.g., the use of technology tools and detailed instructions to implement strategies.

Keywords: digital reading skills, reading strategies, digital reading, technology tools.

ANOTĀCIJA

Lai lasītu digitālajā vidē ir jāattīsta īpašas digitālās lasītprasmes, piemēram, navigācijas prasmes un pašregulācija. Lasīšanas stratēģijas palīdz pielietot un attīstīt digitālās lasīšanas prasmes. Diplomdarba mērķis bija noteikt, kā lasīšanas stratēģiju īstenošana attīsta digitālās lasītprasmes angļu valodas stundās 7. klasē.

Izvēlēta pētījuma metode bija gadījuma izpēte. Datu vākšanas metodes bija skolēnu aptauja, intervijas ar diviem skolotājiem, lasīšanas nodarbību novērojumi, skolēnu grafikas organizatori un mājas uzdevumi.

Rezultāti liecina, ka skolotājiem un skolēniem ir pozitīva attieksme pret digitālo lasīšanu angļu valodas stundās. Tomēr studentiem ir nepieciešama papildu palīdzība, piemēram, tehnoloģiju rīku izmantošanai un detalizēti norādījumi stratēģiju īstenošanai.

Atslēgvārdi: digitālās lasītprasmes, lasīšanas stratēģijas, digitālā lasīšana, tehnoloģiju rīki.

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INTRODUCTION

Students and teachers have been developing their digital reading skills more in recent years. The reasons for that are various digital devices, such as computers, interactive whiteboards, phones, and programmes that can include texts, e.g., Internet browsers, PowerPoint presentations, PDF documents, that are used in lessons to read texts, search for the information, and complete reading exercises. According to the OECD (2021) report about digital reading skills, students who are in the adolescent age group have started to use the Internet more often than in previous years. Thus, they use digital devices more frequently and interact with digital texts more. Different reading materials are available on the Internet; however, it is necessary to assess critically validity of information and be selective in the searching of sources. In accordance with OECD (2021), students need to develop metacognitive skills, such as critical thinking skills and problem-solving skills, and acquire knowledge and apply reading strategies that can optimise reading comprehension.

Regulations Regarding the State Basic Education Standard and Model Basic Education Programmes (2018) support the idea of developing students' digital skills, including digital reading skills. Students need to learn to communicate in different situations and through different communication channels. According to Goodwin et al. (2020), these channels are called mediums and can be printed or digital versions. Therefore, the English language teachers should implement the use of digital devices in the learning process in order to present digital texts and help students to improve their digital reading skills. As stated in the Regulations Regarding the State Basic Education Standard and Model Basic Education Programmes (2018), one of the cross-cutting competencies that students should acquire while studying in school is digital literacy that enables students to use digital devices for various purposes. Reading is also implied, for example, to read and analyse the reliability of sources in the media by using digital devices.

The use of new technologies changed reading behaviours because these technologies enable readers to produce and consume digital texts differently (Chun et al., 2016). Baron (2017) claimed that reading on screen and in print has its differences regarding the reading habits that students have. Their comprehension levels, the ability to focus on one task, and

time spent on reading varies based on what medium is used for reading. According to Baron (2017), students admitted that they are more concentrated while reading in print, thus it requires more time than reading digitally. The author states that the tendency of multitasking during reading on digital devices is related to the habits of using them, which is for quick actions, such as, searching for contact information, shopping, posting on social media platforms. Therefore, this mindset complicates the ability to concentrate on the text. Baron (2017) argued the mindset that is used for reading in print is not completely applicable for reading digitally. Students should acquire a different mindset, in order to read on digital devices. Hence the questions about what it means to read on digital devices, and whether digital reading skills differ from reading skills that are applied when reading on print, need to be examined.

Goodwin et al. (2020) stated that middle school students have different reading behaviours, and they vary not only according to the person's personality, but also what mediums are used to read a text. The authors explored how reading behaviours differ in the specific context, when students read static, linked texts on a touchscreen computer and delivered via paper and compared it to other findings about adolescent reading in different contexts. Goodwin et al. (2020) claimed that traditional reading theories and digital reading have similar processes. However, differences exist in the ways how these processes occur and what tools readers use and how. The authors emphasized that the specific context of the study suggests that reading lengthy texts on screen can be challenging for adolescent students. It was revealed that information highlighting as a traditional behaviour was more beneficial when it was done with digital texts rather than texts on paper because students highlighted more details that are related to the topic when reading digitally.

The **aim** of this research is to explore how the implementation of reading strategies develops digital reading skills in English language lessons in Grade 7.

In order to reach the aim, the following **objectives** are set:

1. To study and analyse literature about digital reading skills and strategies to improve those skills;
2. To conduct interviews with two English language teachers to receive in-depth information about the strategies used with students from Grade 7 to enhance digital reading skills;

3. To carry out a questionnaire among students in Grade 7 to collect attitudes data about digital reading activities and reading strategies they apply;

4. To implement two chosen strategies to improve digital reading skills in Grade 7 during the teaching practice and analyse the results of reading activities and observations made during reading sessions.

During the study the author of the Paper concentrates on the following **research questions**:

1. what reading on screen is;
2. what digital reading skills are;
3. what students' digital behaviours and patterns are;
4. what digital reading strategies are, and how they are applied.

The **method of the research** that was used is a case study. The research sample involves 15 students from Grade 7 and two English language teachers. It was carried out in one of the secondary schools in Riga.

The chosen **methods of data collection** are the interviews with two English language teachers for the purpose of exploring what strategies for improving digital reading skills are frequently used in English lessons. The second method is a questionnaire among students who study in Grade 7. The aim of the questionnaire is to investigate what attitude students have towards reading digitally in English and what strategies they use while reading. The third method of data collection is the implementation of two of the chosen strategies in English lessons, and the analysis of students' work and the author's observation checklists.

Outline of Chapters

Chapter 1 reports on the reading process in the digital environment. It describes digital reading skills that students need to improve and reading behaviours and patterns that are inherent to reading digital texts.

Chapter 2 explains the difference between a skill and a strategy. It describes reading strategies that can be applied when reading through the digital medium in order to improve digital reading skills, and what technology tools might be used with those strategies in addition.

Chapter 3 describes findings of the case study and the analysis of collected data that were gathered during the teaching practice in one of Riga's secondary schools.

1. DIGITAL READING SKILLS

Reading is a basic lifelong skill that people apply throughout life, and that influences a person's place in social life, academic fields, and the job market. In order to describe what digital reading skills are it is necessary to begin with defining the word 'skill' and explain what reading skills are. Skill is an ability to do something well that can be reached through extensive, systematic, and coordinated practice. When students do something automatically, they have improved their skill completely. Reading skills are considered to be receptive or passive skills because students are not producing a language, they receive, comprehend, and interpret it (Afflerbach et al., 2008). According to Cecal (2015), students, who learn a foreign language, need to read frequently because it is a source for vocabulary acquisition, for getting exposed to various grammar structures and use of them, and for exploring cultural elements that can be found in texts. Considering that all the language skills, receptive and productive, are interconnected, the improvement of reading skills can be noticed in the quality and depth of a conversation, in the coherence and cohesion in writing as well.

Reading skills are divided into perceptual or lower-level and cognitive or higher-level comprehension skills. Lower-level reading skills are the foundational skills that include phonological awareness, word decoding, the ability to define words that are in a students' sight vocabulary (high frequency words that are automatically recognized), and the ability to recognize basic features of a text, e.g., grammar structures that link words together. The lower-level skills need to be improved in order to develop complex comprehension skills. The higher-level skills involve the abilities to make connections between ideas in a text and draw conclusions about the meaning of a text, to comprehend new information, and to monitor one's understanding during reading in order to avoid making incorrect inferences (Hogan et al., 2011).

As stated by the OECD (2021), reading is a process in which students engage with texts. They understand, use, evaluate, and reflect on it. OECD (2021) mentioned that the digital world provides easy access to a large quantity of information. The multiple-source texts, that are created by combining texts written by different authors, were used in the OECD Programme for International Student Assessment (PISA) 2018 and presented digitally. These types of texts helped to assess high-level reading skills, for example, reading fluency,

students' ability to evaluate the credibility of information and resolve conflicting information presented in these texts. The use of digital versions of the multiple-source texts enabled students to demonstrate their competence in searching for details in texts by using navigational tools. Besides, reading through the digital medium requires additional reading skills: evaluation of sources' quality and credibility, knowledge construction, and the ability to distinguish facts from opinions. For that reason, teachers' task is to instruct students how to use reading strategies that can help them to set the goal, monitor and adjust their work, and tackle problems by keeping oneself motivated.

Singer and Alexander (2017) claimed that digital reading and reading on print are different processes. The distinctions lie at the contexts of reading on paper and digitally. Digital reading cannot be seen as a reconceptualization of reading in print. In order to read digitally students should develop skills for using digital devices and navigating oneself through texts that are presented in the digital format. However, it should be noted that there is a difference in how people comprehend information when they use different mediums. Even though human brains adapt to the changes, information that comes at a fast pace from different digital services changes the way people read and engage with texts (Ferguson, 2018). Those who read digitally have a tendency to skim through a text rather than read deeply. The difference between these two strategies involves different skills, lower- and higher-level skills. Skimming is browsing through text to get the gist of a text and skipping details in order to create a mental model with a general idea of a text. Deep reading is a thoughtful process during which higher-level cognitive skills are used, e.g., readers gain insights (accurate understanding) from the text, critically analyse it, and reflect on what they have read. During this process a reader is attentive and focuses on details. Thus, people who prefer skimming to deep reading face difficulties with following complex arguments, engaging in in-depth analysis, and forming an objective opinion. Students are finding it difficult to improve reading skills because teachers often misunderstand what reading comprehension is. It consists not only of a set of skills, such as, finding information in the text and making inferences, but also of students' knowledge about a particular topic and vocabulary levels of students. Therefore, it can be difficult for students to use the deep reading strategy, especially in the digital setting, if a teacher not only helps students to improve reading skills but also shares knowledge related to the topic of the text.

Texts that students need to read through the digital medium can be both static and dynamic. Static texts that are printed versions are organised in units or chapters that are continuous and sequential. Dynamic texts that are digital can be viewed separately (one or two windows simultaneously), chunks of texts can be moved and edited. Besides, digital texts often include hyperlinks that connect different texts together. Therefore, navigation through ambiguous information is another necessary skill for students to improve in order to read through the digital medium. Navigation is a key element that enables readers to construct knowledge, thus, to create mental models (Girón-García, 2014). As stated by Sit et al. (2014), it is an ability to find required information in a text quickly and with ease, extract relevant information and desist from surfing irrelevant passages in order to find answers. The improvement of this skill affects the digital reading literacy performance. For this reason, students need to implement efficient navigational strategies in order to construct personal adaptation of a text. According to Naumann and Salmerón (2016), navigation and self-regulation are interdependent in online scenarios. If the self-regulation skills are developed, then students employ better navigation paths. Thus, they get better results in online question-answering tasks related to a particular text. It should be noted that students who have a high level of offline reading comprehension skills navigate through digital texts better. Thus, different navigation strategies can be implemented in digital reading activities.

Besides, one more digital reading skill that students should improve in order to read deeply more often is self-regulation. In accordance with the OECD (2021), students need to learn how to self-regulate during reading. Self-regulation is a skill that enables a person to focus on continuous actions and use Information and Communication Technologies (ICT) in order to gain knowledge, interact and learn more consciously. The improvement of self-regulation affects students' motivation and willingness to use different reading strategies. Thus, self-regulation involves motivation, strategic action, and metacognitive skills and knowledge. Motivation for a self-regulated student is a desire to actively participate in the learning process, to put effort in the work, and be determined. Strategic action implies that students intentionally use techniques and strategies to learn. Metacognitive skills and knowledge include students' abilities to organise, monitor and evaluate work, students' self-awareness, and structured knowledge. The self-regulated student knows where to find and how to use appropriate resources, tools, strategies in order to achieve a goal (Cleary, 2018).

Cleary referred to another author, Barry Zimmerman, and described the feedback loop or feedback model that Zimmerman designed in order to teach self-regulation. This feedback model consists of three phases and is needed to gather feedback and use it to evaluate oneself and improve academic performance.

Zimmerman's feedback loop begins with the forethought phase that requires goal setting, planning of work, analysis of the tasks (difficulty of tasks). It also includes motivational beliefs that promote goal-directed behaviour, for example, expected learning outcomes, interest in tasks. The first stage enables students to understand what is expected from them when completing tasks and which strategy and tool would be best to use. The second phase that is titled as performance phase is dedicated to the chosen strategies and tactics that are applied during the learning process. Students motivate themselves, attempt to manage their emotions, and monitor the learning process (what the achievements are, and what obstacles he/she faced) with the help of teachers' feedback as an addition. The self-reflection phase includes students' self-evaluation, reasons why they performed in a particular way, emotional reactions, and decisions on further improvement. The implementation of the feedback loop affects students' attitude towards learning in the future. Ariza and Suárez Sánchez (2013) revealed that the correspondence between the self-regulation skill and digital reading exists. As reported by authors, participants developed language proficiency and gained insights about their self-regulation skills by incorporating ICT tools with metacognitive control strategies and activities in order to learn a foreign language. It was revealed that ICT positively affects the development of time management skills and helps students to stay motivated. They learnt that study routines are imperative in order to stay focused on tasks. Furthermore, students became more self-aware about the improvement of their language skills.

Taking everything into consideration, reading is a complex process, and digital reading skills can be divided into two groups: lower-level and higher-level comprehension skills. Besides, reading in the digital environment requires the improvement of additional skills that are not applied when reading printed versions of texts. These skills are navigation, self-regulation, the abilities to evaluate trustworthiness of texts and organise ideas from them. Digital texts are dynamic, non-linear; therefore, it is necessary for students to monitor the reading process and be motivated to read in order to stay focused. The implementation of

appropriate reading strategies should be provided in order to improve these digital reading skills.

1.1 READING COMPREHENSION

Reading comprehension requires many cognitive skills and abilities in order to process and understand texts. Reading comprehension depends on language understanding, how much the learners' vocabulary and grammar are improved. A learner should combine the meaning of words in a sentence into a meaningful whole. Consequently, an appropriate mental model and a relevant framework is needed. Mental model is a delineation of information a learner has read. The suitable framework and mental model enable readers to read texts faster, understand and remember them easier (Oakhill et al., 2014). Mental models are also called mental representations or cognitive structures that people construct in their minds based on the prior knowledge, perceptions, and personal experience. These structures are the basis of reasoning and decision making, they help to discourse on a text. These representations are necessary to create in order to explore and understand the real world and to get an example about how to act in different situations and interact with others. The essence of each mental model is the representation of a real or imaginary world, and it consists of various types of information about a text. It includes details about the time and place where an event from the text happened, types of entities, e.g., people, animals, objects, ideas, and properties that are associated with entities, such as, emotions, physical characteristics. Within the appropriate framework the content of a reading source can be filtered and stored (Jones et al., 2011).

The process of reading can be described in a simple way based on the concept that is called "The Simple View of Reading" (Gough & Tunmer, 1986, as cited in Oakhill et al., 2014). Word decoding and language comprehension are main elements of reading. Word decoding means that a person can read each word in a text. How well a reader can decode each letter and synthesize them into words determines the level of reading comprehension. Language comprehension refers to readers' ability to comprehend texts and how words are put in sentences. Both of these skills should be improved in readers, who begin to learn how to read. These skills form the basis for developing other reading skills. Word decoding might

be observed as a time-limited and automatic process because this skill is developed during the early stages of learning how to read. This skill can be considered automatic if a person recognizes a large amount of words by using a small amount of their cognitive and attention resources. Thus, a reader is accurate and fluent when reading a text. Language comprehension is a skill that people improve constantly (Oakhill et al., 2014). Language comprehension depends on the person's vocabulary and knowledge. However, it is language comprehension that determines the level of reading skills because the ability to memorise and other metacognitive skills, such as attention, visual processing, should be applied.

According to Hogan et al. (2011), reading is a process that involves frequent guessing of the ideas and meaning of texts. Readers need to activate their schema in order to process new information from the text with the knowledge that we already possess. Teachers should instruct students to read a text by dividing it into paragraphs or read it as a whole. Consequently, reading becomes a productive and efficient process. If students have a tendency to read a text sentence by sentence, they find the meaning in each sentence, but it is difficult for them to sum up the whole reading passage. Hogan et al. (2011) advised that students should start from reading texts with general information and then move towards texts that are related to more specific topics and contain details about them and more complicated information in them. By following the considerations to develop reading comprehension mentioned above, students become aware about the organisation of a text (general structure, number of paragraphs), learn to notice, and analyse additional information, such as, titles, pictures, diagrams. They develop their logical skills because they learn to anticipate what kind of information they can find in the text. Besides, readers gain confidence when they read texts of a global kind because the majority of them are familiar with the topic. Then it is easier for them to start reading authentic texts with specific terminology and details.

Hogan et al. (2011) offered to use the following approach for improving reading comprehension. Firstly, students inspect the layout of the reading passage (title, pictures, length), then predict what the text is going to be about. After that skim the text and find confirmation or contradictions to the student's predictions. A student makes further hypotheses and reads the text for the second time searching for details. Reading comprehension should be improved simultaneously with other language skills. It is needed

to connect reading and writing, listening, or speaking because people usually write, discuss, or link to something that they have heard in real life texts that they have read. Thus, reading comprehension activities should be produced for improving reading and one more language skill.

To summarize, reading comprehension includes word decoding and language comprehension that enable a person to read texts and create mental models that consist of the main ideas of those texts, not the exact words and phrases. Reading comprehension is necessary especially in order to learn from the text, do tasks that are related to the text, and for enjoyment as well. In order to improve reading comprehension, students need to start reading texts with global ideas in which a major part of them can find some familiar information. Students need to learn how to examine additional details related to a text, e.g., title, pictures. Thus, readers comprehend texts better because of made predictions and pre-existing knowledge about the text's topic that was activated.

1.2 SOURCES FOR READING AND READING ENVIRONMENTS

Reading sources are various, for example, literary texts (novels, diaries, tales), poems, letters, magazines, essays, advertisements, instructions. As stated by Berne and Degener (2012), there are many reading sources, e.g., digital versions of news outlets, magazines, textbooks, that are appropriate for adolescents, who are study participants of this Diploma Paper. However, printed and digital versions of texts are presented to readers differently. Digital texts create an interactive environment in which students are able to navigate through a text in various ways. In addition, digital texts include hypertexts (texts that have an inserted link to another source), animated symbols, icons, supplementary audio, and video materials. Digital texts are divided into single-source items and multiple-text units. Single-source item is a short text on one page that does not require much navigation application when reading on a digital device. These types of texts are written by one author or one group of authors, a definite time of publication and number of references. Besides, single-source texts help to assess lower-level reading skills.

According to the OECD (2021), scenarios of texts that are included in PISA are different contexts from the real word in which students would read. These scenarios are

related to, for example, students' personal goals, academic reading. Multiple-text units that have these scenarios enable students to engage with texts and reading tasks. Multiple-text units are texts presented in PISA that consist of thematically related texts written by different authors and at different times, with hidden links and not the same titles. Besides, a multiple-text unit and its scenario helps to assess the higher-level reading skills, e.g., evaluating the source, finding information across multiple texts in order to support or confirm an idea. This type of source for reading provides students with the opportunity to gain extensive knowledge on the topic. After reading the first text students comprehend the second and third easier because they have background knowledge that was acquired when reading the first unit. As a result, students can evaluate presented information, participate in thoughtful discussions about the particular topic, and write fluently about it as well because information from multiple sources is synthesised.

However, it is noteworthy that teachers should teach students how to interact with multiple-text units. First of all, students need to set a specific (not broad) purpose for reading that can be in the form of questions, for example, in order to create a guide for students to follow. Therefore, they will read the texts more attentively and distinguish necessary information. Besides, it is advised to include short texts in multiple-text units or closely examine only specific excerpts because when reading several long texts, students tend to generalise because of many details. Since reading is a complicated process, some students seek support from teachers in order to read multiple-text units. Thus, it would be beneficial to create a model, such as a table, in which students could easily analyse and compare texts, and give students clear instructions about how to use the model. Consequently, students will be capable of discussing texts and evaluating those. Besides, these reading models help readers to review their notes and check how well they understood the texts (Cummins, 2017).

Nonetheless, according to Goodwin et al. (2020), digital devices provide different reading environments. The first type is a static digital environment that consists of bound texts without any additional materials, e.g., animations, hyperlinks. The second type is a more open digital environment, such as video games, social media platforms, and online searches. It is a complex reading environment that involves hyperlinks, audio and video materials. They can be distinguished by the content, length, and complexity of vocabulary and grammar structures. Furthermore, Kuzmičová et al. (2020) indicated the technological affordances of

devices readers use. Digital texts become available for readers in different times, e-book readers that offer digital texts include file synchronization, which enables readers to use different devices to read a particular text. Besides, they provide various software in which a reader can change the colour and size of a text, the background colour, and listen to the correct pronunciation of words. The layout of a text influences reading experiences, and readers' attention and comprehension. Thus, it can be beneficial for readers who are learning a foreign language and improve their reading skills.

To conclude, sources for reading activities are various and consist of single-item texts and multiple-text units, and different environments, static and open or dynamic reading environments that help to assess students' lower- and higher-level reading skills. If students read multiple-text units more frequently, then a teacher should instruct them how to do it productively and provide appropriate texts and models for monitoring the process. It should be considered that reading materials should be appropriate for students. They should match the level of their cognitive development, language proficiency, and pre-existing life experience. Besides, devices and e-book readers that are used for reading digitally offer readers opportunities to change settings and devices in order to make reading more available and inclusive to readers with different needs. Students' reading behaviours in which they engage and interact with a text differ according to the medium. The next subchapters are dedicated to the exploration of digital reading behaviours and patterns of reading in order to determine which strategies can be used to improve digital reading skills.

1.3 STUDENTS' DIGITAL READING BEHAVIOURS

When reading digital texts more complex cognitive procedures are involved. Readers should not only comprehend a presented text on the screen, but also the acquired ICT skills, e.g., the use of a computer mouse, scrolling down the page, the use of search engines, skimming through hyperlinks. Open online environment provides readers with the access to complex texts to investigate. Therefore, it is necessary for teachers to demonstrate and then to model appropriate reading behaviours. A reading behaviour is a way a reader acts when engaging with a text. Reading behaviours that are displayed and can be observed provide understanding about how a person receives and absorbs new information. Digital footprints

that students leave when searching for sources and reading them demonstrated that the digital environment has been changing reading behaviours (Nicholas & Clark, 2012).

Baron (2017) emphasised that the digital medium influenced students to multitask when reading digital texts, therefore they did not give close attention to the text. The functions in digital devices that are offered for users, e.g., to open multiple tabs in a browser, to scroll or turn pages, to use social media platforms, decrease reader's concentration, and it gets complicated to engage in in-depth reading. However, Baron (2017) expressed the opinion that digital technologies that enable readers to access texts with ease changed readers' mind-set about reading. Eventually, reading can become the process of identifying required information and reading only relevant fragments of a text.

On the contrary, Goodwin et al. (2020) pointed out in-the-moment reading behaviours that students display when reading digital texts. It was proved that students implement reading behaviours such as highlighting and annotating differently depending on the medium because tools for monitoring reading experiences differ in the digital environment and on print. For example, students faced difficulties with using tools for highlighting particular excerpts in a digital text rather than a text on print. The reasons for that could be the lack of experience in using those tools, and the application of reading behaviours that vary because of the digital context. However, the study results showed that adolescents were more strategic when reading in open online contexts and texts with hyperlinks. Students were more attentive in order to read for comprehension. It should be noted that the result of the studies may differ because of the chosen texts. The results of this study indicated that lengthy texts are more complicated for students to read through the digital medium. In-the-moment reading behaviours are typical to active readers who engage with the text during reading. Slater (2020) advised teachers to teach students to read the text and think about it simultaneously. This means that readers draw attention to parts of the text that are unclear, concerning, or are of rising interest to explore. Therefore, it results in students improving their comprehension and motivation to read.

Goodwin et al. (2020) emphasized that strategic reading behaviours are more beneficial when reading texts digitally. These types of behaviours depend on comprehension strategies that are based on the conditional knowledge about why and when to use a reading strategy. Almasi and Fullerton (2012) claimed that to be strategic means to choose an action

consciously in order to achieve a specific goal. Students who have a reading purpose and adjust the purpose by selecting a reading strategy for reading tasks are called strategic readers. The main detail of strategic reading behaviour is cognitive monitoring. When a reader faces a difficulty in achieving a goal, e.g., to complete the reading comprehension tasks, he or she enacts a reading strategy to solve the problem. A strategic reader spends more time on reading a text because it involves conscious decision making. Besides, a strategic reader should be motivated and interested in choosing and applying an appropriate reading strategy.

Nicholas and Clark (2012) revealed that the more frequently displayed digital reading behaviours are the following: some readers view only the first pages and then never visit the website again, they admit downloading available texts, but not reading them, they visit a page only for a few minutes (maximum for 15 minutes), which takes much less time when comparing to places where printed texts are available, e.g., a library. Digital readers prefer short texts. If the text is long, readers have a tendency to read the abstract or summary of it. Besides, the incorporation of reading digital texts in the learning process requires both lateral and vertical reading. Lateral or horizontal reading is a process during which a reader is gaining information as he or she is reading multiple texts and evaluating the sources' credibility by checking the facts presented in it, and by investigating information about these sources in a broader web. Vertical reading is a process during which a reader is gathering information from one source and evaluating the source's trustworthiness by staying only on the website. This process does not involve the deep reading experience and does not provide much reliable information. These changes were caused by the large amount of digital reading materials available and tendencies to move rapidly through the sources.

Nicholas and Clark (2012) insisted that children consume more information online and do it rapidly. However, they are interested in reading snippets of information rather than engaging in in-depth reading. According to Nicholas and Clark (2012), they are able to search for information online quickly, nonetheless they are not displaying assertive behaviour about their answers. The reasons for the uncertainty are the fact that they visited a small number of webpages and made fewer searches in order to answer questions. Furthermore, they were apt to use the copy and paste functions, which indicated that they are not reading deeply, but they displayed the fragmented reading behaviour. When reading through the digital medium,

students also exhibit non-linear reading behaviour. This means that they go from page to page, from one source to the other because the digital environment provides readers with flexibility in choosing sources and the order of exploring them by activating links. It should be noted that this opportunity of creating the order independently can lead to disorientation because of absence of logical connection between chosen texts.

The other digital reading behaviour is the social annotation that is provided by many websites and apps such as Google docs, Annotation Studio. Students use one website or app in order to annotate the specific reading source together. They learn to extract the main information from the text by reading it attentively, evaluate and summarize the text, formulate and share knowledge, therefore, they are learning from each other and extending their knowledge on a topic. Students are able to improve their digital literacy skills and social skills. Furthermore, by collaboratively annotating a digital text students learn how to express their opinion and ideas in a respectful manner and by using appropriate language. This is an essential digital literacy skill that students need to improve (Lamb & Parrott, 2019). Although it should be noted that a teacher should give clear instructions about how to annotate a text and how to use annotations. Annotations can be done in different ways, e.g., students create a list of key terms, share an opinion, find essential passages, share an opinion. Afterwards, these annotations can be used, for example, for highlighting key ideas, providing background information on the topic, asking questions, and answering them to enhance knowledge.

In summary, digital reading behaviours display the change of readers' attitude towards reading. Even though the reviewed reports and articles claimed that students do not engage in in-depth reading experiences when reading digitally, they have become more strategic. Readers are able to find required information fast, decide upon the order of exploring and reading digital sources, and engage with the text in a collaborative way. Readers have a possibility to use different digital tools in order to interact with a text. Digital readers are more independent; however, they are still in need of learning about reading strategies and their use in order to gain knowledge from reading.

1.4 PATTERNS OF READING DIGITAL TEXTS

One digital text can be presented differently on various digital devices because of chosen software and size of devices. The differences are the font size, number and size of pages, the placement of additional visual information such as pictures, diagrams, the background colour of pages, and how they are arranged (a reader needs to scroll down or turn pages). According to the OECD (2021) report, the time spent using digital devices during the learning process and students' reading performance had a negative correlation in the majority of countries that participated in PISA tests. However, it was assumed that time affects reading performance less than the way digital devices are used. Therefore, it is necessary for teachers to create activities and give instructions that might take less time for using a device but would improve reading performance. An example of such activity is browsing the Internet for finding information about a topic. Nonetheless, chosen texts for reading activities can be scanned by students in different patterns, and affect reading comprehension.

As it was stated before, when reading through digital medium readers prefer to read shorter texts, and search for specific information in the text rather than engaging in in-depth reading experiences. As claimed by O'Rourke (2012), digital reading comprises the sequence of alternating saccades, which are fast eye movements. Saccades last between one-hundredth and one-tenth of a second during which the image is blurred, and people see only during fixations. Therefore, when a person reads a digital text, he or she sees and remembers elements that received fixations (Nielsen & Pernice, 2010). Besides, digital reading can be characterised as fragmented reading when readers tend to browse or scan texts. They do it by using particular patterns that are inherent to digital reading. These patterns were discovered during the eye tracking studies and viewed as heat maps (represent multiple readers' fixations and duration of them on the page) and gaze plots (blue dots that represent one reader's gaze, each fixation on the page). Pernice (2019) distinguished four main digital reading patterns that depend on the purpose of reading, the page content and layout, and readers' early experience assumptions about the Internet, websites, or authors.

F-pattern is a pattern of scanning a page by concentrating at the top and the left side of the page. Readers start to read the first line in the horizontal movement (left side in left-to-right languages); thus, they get most of the information from the beginning of the text because

they scan the right side of the page as well. Then the gaze moves down several lines and readers read in the horizontal movement again but cover a shorter area of content. Afterwards a reader scans the left side of the text in the vertical movement. This pattern is widely applied because readers are apt to complete activities or find necessary information as fast as possible and with less effort. Moreover, a reader might not be interested in a text and scan it fast in order to move to the next source. Besides, if there is a lack of text formatting, then the text will be scanned in the F-pattern. Therefore, a teacher should choose the formatted text or change the layout before giving students to read it. Consequently, students can gain more knowledge by choosing the other pattern.

The other scanning pattern that is used when reading digital texts is called the spotted pattern. It is characterised by focusing on specific words or chunks of words. It might seem that readers are looking randomly at different parts of the text, but it was concluded that readers are looking at items that they are interested in or consider essential in order to complete a given task. Furthermore, readers notice words that have different formatting such as, bolded words, highlighted links, bulleted lists. Other elements that attract readers' attention are numbers written as numerals, words in all capital letters, symbols (e.g., logo), quotation marks. Therefore, students tend to visit pages and apply the spotted pattern when they identify a page as a source that contains relevant information.

Besides, the other digital reading pattern is the layer-cake scanning pattern that involves gaze fixations on headings and subheadings. This pattern is used with well-structured texts that consist of particular headings with short passages that are visibly divided. Eye tracking heatmap or gaze plot displays this pattern as a series of horizontal lines and blank spaces between them. The advantage of this pattern is that it enables readers to engage in intensive reading because after finding the heading that they consider essential to read, they read the text below attentively. The fourth pattern is called the commitment pattern. This pattern resembles more the traditional process of extensive reading rather than scanning. Readers fixate on the vast majority of words and are attentive. The commitment pattern is applied when a person is interested in the content or is motivated to read and comprehend it. The use of this pattern is supported by the reader's trust in the source and belief that this source is the most valuable. Although readers who use this pattern spend more time on reading the text, their comprehension of the text is better than when using other digital

reading patterns. However, it should be considered that the text should be formatted, which means that it should be divided into chunks of text with headings.

To summarize, if students use digital devices during reading sessions in lessons, then it should be aimed at the improvement of digital reading skills. Teachers have an opportunity to teach students about different patterns and to be aware of them when they scan the text. Scanning patterns that occur during digital reading differ in their helpfulness. The F-pattern is considered to be less efficient because of the reader's limited engagement with a text. The spotted pattern also does not enable students to gain in-depth information. The layer-cake and commitment patterns are the most efficient because students engage in reading more and can better understand the particular concept of the topic they are investigating.

It can be concluded that the first chapter of the Paper is dedicated to the digital reading process. Digital reading skills that students need to improve are divided into perceptual and cognitive. Some of these skills are also applied when reading printed texts. However, skills such as navigation, self-regulation, the ability to evaluate trustworthiness and quality of the source and to distinguish fact from opinions are inherent to digital reading skills. The reasons for that are the large amount of available sources in the digital environments, types of these sources, especially multiple-source texts, the flexibility that readers gain in the digital environments. The development and improvement of the digital reading skills is also affected by the reading behaviours and patterns that students display when reading digitally. Teachers' aim should be to make students aware of the digital reading behaviours and patterns in order to promote self-regulation and navigation skills. Besides, teachers need to choose various texts for students to read but take into consideration the formatting of them and appropriate level for students to comprehend.

2. DIGITAL READING STRATEGIES

During reading sessions students develop different reading skills. Digital reading strategies are strategies that are implemented when reading through the digital medium. These strategies help students to become skilled readers. Besides, students perceive printed and digital texts differently. According to Girón-García (2014), if they read digital texts, they need to apply reading strategies to improve digital reading skills in order to comprehend and engage with texts. The development of skills is divided into four stages. The first stage is the unconscious incompetence stage, when a person is incompetent and unaware of it. When a person becomes aware of how much he or she needs to learn and is able to do something but not proficiently, the person reaches the conscious incompetence stage. The third stage is called conscious competence, when a learner is applying the skill with effort. The unconscious competence stage is characterised as automated and unconscious application of a skill (Getha-Taylor et al., 2013). On the contrary, Afflerbach et al. (2008) stated that reading strategies are conscious and intentional attempts to control and adjust the reader's actions in order to achieve a goal.

Park & Kim (2011) categorized computer-based text reading strategies that English language learners implement into five groups. The first group of strategies is called accessing computer-based texts that involve accessing web pages and hypermedia (nonlinear hypertext with audio, video, graphics, hyperlinks), e.g., typing a web address and keywords into a search engine, and using references, e.g., consulting other websites and dictionaries. The second group refers to the use of computer literacy. When reading a text students scroll up and down the page, move back and forth between several sources, and use digital devices and computer skills. The third group is labelled making critical decisions. It includes setting the reading purpose, previewing sources to predict the content, evaluating texts, and deciding what to read more carefully. Dialogic connection is the fourth group that consists of interactive strategies such as dialoguing, making a connection, and sharing an information source. Students tend to discuss texts with other students, with teachers and parents, and with themselves. Students engage with real people and virtual versions of them, for example, an author's recorded audio or video that is an additional material that is included in the text. These strategies helped students to monitor their understanding of texts, connect ideas from

the text with the real world and their prior knowledge and experience. Active participation in computer-based text reading activities is the last group of strategies that are applied in the digital medium. This group involves adjusting the reading pattern, monitoring comprehension, inferring from the text, and confirming a prediction. Students adjust their reading patterns by reading a text aloud or silently, slow or fast; it depends on the level of text difficulty. Readers can monitor their comprehension by asking oneself questions about the meaning of words or sentences. Furthermore, they make assumptions about the text and confirm their predictions by overviewing a text and illustrations in it. The implementation of these strategies makes the reading process more dynamic and engaging, which as a result can boost students' motivation to do not only intensive but also extensive reading.

Almasi & Fullerton (2012) divided strategic processes in reading into less cognitive processing with less executive control that helps in specific situations and more cognitive processing with greater executive control that helps in various situations. Strategies of less cognitive processing are called task-limited or heuristic. Task-limited strategies require lower-level skills and enable students to access relevant information in a text. For example, to read the title and explore text's outline and visual information (e.g., pictures), use mnemonics to remember particular information. However, there is no tendency for students to use these strategies in other similar situations. Domain-specific strategies involve strategies that are used in particular content areas (Dinsmore, 2017). Domain-specific reading strategies involve, e.g., exploring the structure of the text. Task-limited strategies and domain-specific strategies are considered to be less generalizable and require lower-level skills.

Almasi & Fullerton (2012) emphasised that strategies that belong to the more cognitive processing are goal-limited and general control strategies. Goal-limited strategies depend on a reader's goal that needs to be achieved and help to understand the text better. The examples of goal-limited strategy are to summarize a text while reading, to highlight main ideas. General control strategies include planning, checking, evaluating, monitoring, and requires more cognitive processing. These strategies can be applied in various content areas, e.g., a student can plan to write a paragraph and plan to conduct an experiment. These strategies are more generalizable; therefore, students are able to apply them in other areas as well. The use of reading strategies requires introspection. In other words, examination, analysis, and

discussion because of students' intentional choice of implementing particular strategy during reading.

Students who are using these strategies can discourse on a text, evaluate information in it, and organise the ideas from the text in order to recall what they have read. However, teachers should explain and teach how to implement reading strategies. Strategy training, when a teacher demonstrates how to implement a strategy and why, and sufficient practice are necessary in order to become digitally literate which means to read accurately, fluently, and with ease. Brun-Mercer (2019) emphasized that strategy training and practice should be scaffolded. In other words, the learning process is divided into chunks, and each chunk has its structure to follow. Thus, students learn to use digital reading strategies with guidance at first but gradually become more autonomous. When a particular reading strategy and skill complement one another, it increases students' self-efficacy, motivation, and interest in reading. As a result, students are able to analyse different texts, consider possible strategies that can be implemented, and choose a strategy in order to complete various reading tasks efficiently and reach the goal.

Sullivan et al. (2011) implemented the think-aloud strategy in order to monitor what reading strategies students are using when reading digital texts. The use of this strategy in the classroom can help students who are struggling with reading activities to become aware of how to be a strategic reader. Sullivan et al. (2011) divided reading strategies into two main groups: navigation and comprehension strategies. Navigation strategies involve visiting sources that have relevant information, deciding how much time to spend to explore a source, transitioning from one source to the other. Comprehension strategies include the application of prior knowledge; checking the learning purpose while navigating or reading; summarizing the content; making inferences by using ideas from the text or prior knowledge on the topic. Navigation strategies help students to find sources with useful and reliable information. The implementation of comprehension strategies affects students' understanding of a text.

Dinsmore (2017) categorized reading strategies into two groups: surface-level and evaluative strategies. Evaluative strategies include evaluation of the quality, e.g., how clearly an author stated his or her ideas, and evaluation of the importance of a text, e.g., to find main information in the text and ignore the irrelevant parts of the text. Surface-level reading strategies improve lower-level comprehension skills. This group of strategies involves

reading aloud in order to perceive the intended meaning of a sentence; rereading a fragment or the whole text to enhance one's understanding. Besides, the author divided skimming into non-strategic, when a reader reads random parts of the text, and strategic, when a person reads those parts of the text that supposedly have the most relevant information. The other strategy is assuming the meaning of unknown words based on the context of a sentence or other words that are in the phrase.

Moreover, the other strategies that Dinsmore (2017) specified as word- or fragment-oriented strategies that also are domain-general, which means that these strategies can be implemented in various domains, e.g., reading, writing, mathematics. These strategies are underlining and using a text feature and are necessary in order to clarify and highlight the essential ideas presented in the text. Aside from strategies that are used to enhance comprehension, students sometimes need to remember and recall a text. Therefore, students can apply the strategy called rehearsal when a reader repeats parts of the text a few times. The other strategies are local and global restatements. The first one refers to the repeating or paraphrasing small parts of a text, a sentence or paragraph. The second one means to repeat or paraphrase large parts of a text, e.g., chapters. The last two strategies are aimed at synthesizing different parts of texts. Making connections to prior text is a strategy that enables a reader to refer back to what one is reading. Predicting the main point of a text which can be done by exploring text organisation. These strategies are detailed, but at the same time are easy to explain, understand, and observe.

It should be noted that instructional activities for reading that are segments that involve instructions for students and teachers about how to interact with a text, and digital tools such as graphic organisers (e.g., story maps, diagrams) are not considered as reading strategies because students are not choosing how to engage with a text deliberately (Almasi & Fullerton, 2012). Nonetheless, digital tools help to implement reading strategies in the digital medium because these texts are nonlinear. Jiang (2012) stated that discourse structure graphic organisers are digital tools that facilitate the use of digital reading strategies because they help to follow the ideas presented in texts consistently and understand them, to investigate the organisation and structures of texts.

It can be concluded that a strategy is a deliberately chosen action in order to achieve a particular goal, and in order to learn how to implement it, students need a sufficient amount

of practice and guidance at the beginning. A strategic and skilled reader is the one who is flexible and able to adapt and choose a strategy in order to overcome any challenges when reading. However, it should be noted that the authors mentioned in this chapter categorized reading strategies differently. Instructional activities and various technology tools can be used additionally in order to promote the implementation of reading strategies used in the digital medium. As stated in OECD (2021) report, reading digitally is the process during which a student should comprehend the text, use it to discourse on the topic, evaluate its credibility, reflect on the text, apply the navigation and self-regulation skills. Therefore, the author of this Diploma Paper investigated digital reading strategies that improve these particular skills. The next subchapters involve detailed information about the strategies and their possible implementation.

2.1 STRATEGIES TO IMPROVE DIGITAL READING SKILLS

When reading texts through the digital medium students still apply some of the strategies that are used with printed texts. However, texts in the digital medium have new text-based genres that are texts with visual materials (pictures, videos) and audio, hyperlinks, therefore new and modified reading strategies need to be applied as well. The process of demonstrating and teaching how to use new digital reading strategies can be difficult because of lack of time to provide individual support to students, the difference of levels of reading skills that students acquire. Sevensma (2014) advised to implement online reading strategies that can be beneficial for struggling readers because the use of complicated strategies can lower their motivation and not bring any advantages to the process. Sevensma (2014) emphasized that in order to improve digital reading skills a teacher should start with practising reading strategies that can be used in both printed and digital mediums. The examples of these strategies are making predictions, questioning, evaluating, summarizing. This helps to generalize and transfer these strategies, thus struggling readers adapt to digital texts easier.

Besides, activities during which students collaborate can help to practise new reading strategies. One of the strategies that can be used by students in small groups with technology tools such as Google docs, Microsoft Word, is called headings and highlight strategy that

enables students to use both lower-level and higher-level comprehension skills. At the beginning students should read and highlight unknown words, in other words to decode a text. Then in pairs or small groups students find and highlight the key ideas of each section of a text and formulate a heading for them. After that the headings are compared, and students need to choose the most appropriate ones by referring back to the previously highlighted ideas. Therefore, students practise to analyse, summarise, evaluate the text, reflect on it, and provide support to each other simultaneously. Besides, this strategy helps struggling readers to work with digital texts because it resembles the use of the strategy with printed texts (Schwartz, 2016).

Navigation skill is one of the necessary skills that students need to apply to read these texts. According to Salmerón and García (2011), cohesive hyperlink and the initial overview processing strategies are navigational strategies that should be improved in order to read multiple-source texts. Cohesive hyperlink strategy refers to the order in which readers' open hyperlinks while reading a hypertext. Salmerón and García (2011) revealed that adolescent learners are able to strategically adapt their navigation when they have a clear reading purpose, thus linking different text's episodes together logically. Readers who are opening links that are related to one another conceptually, comprehend texts better. Initial overview processing strategy is described as a paused reading of the text's overview that includes sections of a text and their organisation before starting to read deeply. Students who are exploring the overview attentively can use this information as a schema to organise and consolidate main ideas from the text. Salmerón and García (2011) claimed that the cohesive hyperlink strategy has a positive correlation with reading skills. In other words, students who improve their reading skills can navigate through links that are interconnected, therefore they comprehend information better. The reason for that might be because basic reading skills enable a reader to identify key points in the sections.

Brun-Mercer (2019) suggested exploring three reading strategies that are necessary to implement in order to improve digital reading skills and read digital texts. The first strategy that should be explored is to stay focused on the purpose. Digital environment gives access to a large amount of different sources; therefore, students need to identify the purpose for reading clearly, choose terms before they start exploring different sources, and stay focused on the text without directing attention to distracting information e.g., advertisements, links.

Thus, the strategy consists of three elements which are the particular purpose, e.g., topic, and terms that help to find appropriate sources; evaluation of sources so as to find the most relevant; focusing on reading one text and ignoring distractions. This strategy enables students to find the appropriate source and read it deeply, not only skimming texts.

The second strategy is determination of credibility of sources. Trustworthiness of printed sources are generally checked before publishing, on the contrary, not all online sources are credible. Therefore, students need to learn how to evaluate the credibility of a source. Students need to check the date of publication (whether it is indicated, recent or not), the publisher and author (whether they are indicated, reliable or not), the quality of information (whether it includes facts and is verifiable). Besides, the domain of the source needs to be considered. Readers often assign credibility to domains that end with .gov, .edu, and less to domains that end with .com. In order to practise this strategy, a teacher should present various texts, credible and less-credible, and teach how to use worksheets for evaluating the source.

The third strategy is the organisation and synthesis of information. Digital reading is a non-linear process which means that readers decide what text to read and in what order independently, unlike when reading texts on print. There is a possibility for readers to lose the logic and the flow of ideas because of this flexibility and how fast they go from one source to the next one. Thus, it is necessary to learn how to arrange and consolidate ideas from several sources coherently. The strategy implies that students should record the title of each source, key ideas from sources, any questions that require further research, students' comments about the text, and the summary of previous elements. Brun-Mercer (2019) suggested using graphic organisers with this strategy. They help to organise key information in a clear way, therefore, to comprehend, remember, and recall it with ease.

To conclude, digital reading strategies are various. Thus, it is necessary to choose strategies that help to improve particular reading skills that need to be improved. Besides, it should be noted that practising to apply reading strategies is a complicated process that requires guidance and support from the teacher at the beginning. Even though some reading strategies that are used with printed texts are implemented in digital reading, they are necessary to apply jointly in order to understand texts and help struggling students to start working in the digital medium. Moreover, practising to use a small number of strategies

during one reading session is more beneficial than implementing many of them. Otherwise, students can get lost in the process and lose motivation and interest. Cohesive hyperlink strategy and the strategy to stay focused on the reading purpose help to improve the navigation skill that is essential for reading digital texts. The strategies for checking trustworthiness of a text and organising ideas from texts are helpful for reading multiple-source texts and thinking logically and critically about information presented in different sources.

2.2 STRATEGIES TO IMPROVE SELF-REGULATION

Self-regulation is one of the skills that students need to improve for reading digital texts because students need to learn how to control and slow themselves down in order to not get lost in the extensive amount of sources and do deep reading when the reliable and appropriate source is found. Besides, reading implies that a reader self-regulates one's goals and the use of tools. Self-regulation helps students to persevere or adapt when facing challenges. Therefore, strategies to improve self-regulation are needed because students receive more autonomy when reading through the digital medium. Parrish (2018) advised to begin improving self-regulation by applying scaffolding strategies.

According to Alber (2014), scaffolding is an instructional method that teachers use to provide support to students and teach how to tackle a challenge by breaking-up new concepts into chunks and providing a strategy or tool for each chunk in order to increase understanding. One of the scaffolding strategies that can be used when students read digital texts is called 'think alouds'. This strategy allows a teacher to demonstrate how to model one's thought process. For example, a teacher can explain how to evaluate the trustworthiness of sources in order to find the appropriate one. Besides, a teacher can demonstrate challenges that students might face during reading and what strategies to use in order to tackle them. Thus, students are aware of possible difficulties and can self-regulate their actions. Furthermore, structured discussions before and after reading help students to articulate their learning and verbalise their thoughts and conclusions after reading. Parrish (2018) emphasized that discussion and reflection are needed in order to improve self-regulation. Students, who analyse their emotions and actions after they face a problem and solve it,

become more mindful, monitor their work, evaluate oneself objectively, and learn how to become independent learners. Besides, Roberts et al. (2019) recommended setting student-friendly goals that are described explicitly in order to encourage students to become independent and self-regulated learners. These goals should be achievable and aligned with the duration of the reading session, appropriate for the cognitive development of students (their age group), measurable and observable. Each goal describes the student's action when he or she faces a particular difficulty (use a learner-friendly language).

Bell (2017) claimed that self-regulation in learning involves three types of processes: affective (feelings), cognitive (thoughts), and behavioural (interactions). Learners should plan and monitor their actions, analyse their work, and make conclusions about it by providing feedback. These processes require the application of the self-regulation skill, for this reason strategies to improve this skill should be implemented in the learning process. Bell (2017) divided these strategies into three broad groups. The first group is prompting strategies that stimulate self-regulatory efforts that are aimed at achieving a learning goal. Metacognitive prompts are questions about self-regulatory activities (e.g., set a goal, monitor the progress, choosing appropriate learning strategies) and specific processes that are inherent to particular learning contexts (e.g., online reading environment) that learners should answer. Bannert et al. (2015) claimed that metacognitive prompts used with hypermedia that students arranged according to their order and time resulted in more systematic navigation in the digital environment. Besides, students achieved higher levels of transfer performance, in other words students' performance in subsequent learning situations was better. However, Bell (2017) insisted that when using metacognitive prompts to improve self-regulation several factors should be considered. The chosen activities, the duration of prompts implementation, the frequency of using them (how often students were exposed to these prompts during learning). The repeated exposure to metacognitive prompts throughout the process leads to the improvement of the self-regulation skill.

The second group includes guiding strategies that help to increase the use of the self-regulation skill. The aim of guiding strategies is to modify the focus and quality of the self-regulatory activities. These strategies provide information about how to devote one's attention and allocate one's effort. As a result, students learn how to make strategic learning decisions. Guiding strategies improve students' self-monitoring, self-evaluation, and

strategic performance (e.g., reading texts that are relevant to the topic). The third group is cultivating strategies. They are aimed at promoting students' capacity and capability in order to master the self-regulation skill. These strategies are implemented before students start completing tasks so as to prepare them to apply the self-regulation skill during work. The examples of cultivating strategies are informing learners about the implementation of metacognitive prompts, using the self-questioning strategy to check the understanding of a text students are reading and to keep them motivated to explore sources further. These three groups of strategies that improve self-regulation help students to become conscious and attentive readers that can control their actions in the digital environment with various reading sources to explore.

To summarize, self-regulation is necessary to improve in order to read in the digital environment because after skimming many sources and finding the sources with the relevant and appropriate information, students need to evaluate the sources and read those sources attentively. Self-regulation enables students to monitor their work, be aware of any difficulties they face, and be independent learners. As a result, they are capable of solving problems by choosing and applying appropriate strategies, provide objective feedback on their work. A teacher can choose several prompting, guiding, and cultivating strategies described by Bell (2017) and support self-regulated learning and guide students to self-direct their learning in the future.

2.3 TECHNOLOGY TOOLS TO USE WITH DIGITAL READING STRATEGIES

Students who read through the digital medium need to acquire the digital reading skills as well as the ICT skills. This Diploma Paper focused on digital reading skills only and strategies to improve them. However, it is essential to investigate what technology tools can be used with digital reading strategies because these tools provide additional assistance to improve reading comprehension and fluency. Many tools such as graphic organisers help students to create clear mental models and synthesize ideas after reading multiple sources.

Teachers can use technology tools with digital texts in order to select specific parts of the source for practice, change the layout of texts, and modify texts according to students' needs.

Biancarosa and Griffiths (2012) claimed that innovative technology tools are likely to be beneficial for developing not only lower-level, but also higher-level reading skills, and increase the use of reading strategies. The example of an innovative technology tool is a pedagogical agent or instructional agent. According to Cook (n.d.), pedagogical agents are animated on-screen avatars that respond to students' work with digital text by expressing emotional feedback with gestures or computerized or human voice comments. They bring cognitive and emotional benefits to the learning process. Regarding reading digital texts, it improves vocabulary and comprehension, and promotes the use of reading strategies. These agents provide clear and immediate feedback to each student which helps both students and teachers because it is a well-timed individualized support to students that acquire skills differently (difference in time and speed) (Biancarosa & Griffiths, 2012). Pedagogical agents can have different appearances on the screen, e.g., their gender, ethnicity, politeness, and formality in comments can differ. Besides, their role also varies, these agents can be a coach, expert, or virtual teammate. Pedagogical agents are beneficial because they direct students' attention to relevant information by expressing comments, using gestures, facial expressions, or on-screen comments. They act in an interactive manner and provide expertise in a topic. Therefore, this kind of tool can be used as a supporting material for implementing digital reading strategies, e.g., by providing additional guidance with comments.

According to Serafini and Youngs (2013), digital resources such as PowerPoint, Google slides, and Prezi that enable students to summarize and present ideas from sources in multimodal presentations enhance understanding by using more than one mode, e.g., reading and speaking. The use of these resources improves students' abilities to navigate and evaluate the trustworthiness of a source because they need to plan, organise, and present reliable information. Besides, students learn to summarize and interpret ideas from texts; therefore, they are engaged in the reading process and stay mindful during the process. Moreover, students might use digital software programmes, e.g., online storyboard creators, in order to provide additional visual or audio materials to improve comprehension and monitor one's learning process.

Furthermore, assistive technology tools can help struggling readers to engage in reading. These tools provide audio versions of texts which contribute to the improvement of word decoding, comprehension, and fluency. The examples of assistive technology tools are audio books, speech synthesis/screen reading system (when a digital version of a text is read aloud by a text-to-speech software), tape recorders. These tools might be used to practise reading at a different speed, to decode unknown words. Tape recorders can also be used by students who learn easier by using the auditory learning style (Stanberry & Raskind, 2009). It should be noted that the reading-while-listening procedure is helpful for learning a foreign language. In other words, students read a text while listening to an audio recording with a fluent reading of the same text. It is a listening support for students to focus on the reading process and improve comprehension (Tragant & Vallbona, 2018).

Graphic organisers are the other technology tools to use when implementing digital reading strategies. Graphic organisers are graphs or diagrams that consist of block diagrams connected by arrows, which represent relations of ideas in a text (Qi & Jiang, 2021). According to Jiang and Grabe (2007), graphic organisers are used for different reading purposes. Some of them are used for listing and sorting information. The others in addition require to represent the discourse structures of a text (how a text is organized) which are considered to be more efficient because students can work with recurring text patterns in order to recognize them easily. The graphic organisers that students can construct or modify make students fully understand ideas from a text. It should be noted that they need to be direct and explicit, so that students would be able to use them with reading strategies and aim at improving reading skills. Besides, they can be used prior to reading as well. When a graphic organizer is used before students read a text, they are able to set a goal and make predictions about the text. In addition, students are able to refer back to them because the text and organizer are easily accessible. The examples of graphic organisers that reflect text structures are comparison and contrast; cause and effect; problem-solution; description; classification (Jiang & Grabe, 2007). Thus, graphic organisers can be implemented in the reading process in order to process a large amount of information, highlight main ideas and necessary details, and comprehend more complex reading sources. The use of these organisers increases students' motivation to read and discuss texts and reduces the off-task time. However, the use of graphic organisers requires a long-term, consistent exposure, and

clear instructions from a teacher in order to have a positive impact on reading (Qi & Jiang, 2021).

To conclude, digital reading strategies can be demonstrated and practised with the implementation of technology tools that help to improve reading skills. Pedagogical agents are tools that make the reading process more interactive and provide additional and individual support to students based on their proficiency level in reading and needs. Digital resources assist students in evaluating sources and highlighting essential information. Besides, students monitor their understanding and can use the self-questioning strategy to learn how to summarize and interpret ideas. Assistive technology tools provide additional support to students who are struggling with reading and have a low level of motivation for reading. These tools improve comprehension and self-regulation because students become aware of their progress in word decoding and fluency. Graphic organisers promote meaningful learning during which students apply different reading strategies. They need to explore the organisation of a text, navigate on the source, monitor their understanding, and evaluate information. However, graphic organisers enable students to do this with ease because they visualize information explicitly. It is advantageous to use technology tools when reading digital texts because they help students to manage to engage with various reading sources.

All things considered, the second chapter explored how digital reading strategies can be categorized and implemented in the reading process. It is necessary to distinguish a strategy from a skill. Reading strategy is a conscious attempt to reach a specific goal during the reading process. In order to teach students to apply digital reading strategies, a teacher should demonstrate at first, and then provide practice and support. It is advised to teach a small number of strategies during one reading session, so that students have time to practise and consciously apply those strategies. Digital reading strategies described above are helpful to improve reading skills that students need in order to read through the digital medium. Cohesive hyperlink, the initial overview processing strategies, and the strategy to stay focused on the reading purpose help students to navigate through multiple texts logically because they need to focus on the particular terms and texts organisation. The strategies for checking credibility of a source and organising and synthesising ideas from texts help students to evaluate information presented in the digital environment and improve their reading comprehension. Prompting, guiding, and cultivating strategies enable students to

improve their self-regulation, thus, to be mindful when searching for reliable sources and reading them. Technology tools are not strategies, but they provide additional support to students, especially struggling students. These tools can guide students, improve comprehension and fluency, organise ideas and analyse texts.

3. CASE STUDY ON STRATEGIES TO DEVELOP STUDENTS' DIGITAL READING SKILLS IN ENGLISH LESSONS IN GRADE 7

As theoretical findings on digital reading skills indicate, when reading a text in the digital environment students use lower-level and higher-level comprehension skills. Some of the reading skills that are used when reading printed texts are applied in the digital reading environment as well. However, there are several specific skills that are demonstrated when reading a digital text. These skills are navigation, self-regulation, the abilities to evaluate trustworthiness of a text, organise ideas from a text. Students' reading behaviour when they read a digital text have become more strategic, students have become more attentive to details such as parts of the text that are unclear or raise questions about particular ideas from the text. However, the length of texts and vocabulary and sentence complexity may affect students' comprehension of a text. The theoretical findings on strategies to develop digital reading skills show that students learn to use strategies better when applying a small number of them during one reading session. Students require a guidance and help from a teacher when practising implementing strategies. Besides, a teacher should choose what strategies students can apply when reading a particular digital text, and whether a technology tool can be used to provide additional help, e.g., organise ideas from the text by using a graphic organiser, and facilitate the reading process.

The author of the Diploma Paper chose to conduct a case study, in order to validate the findings about the strategies that students use to develop digital reading skills. The combination of the quantitative and qualitative research methods was applied for the purpose of the study. The chosen research sample involved 15 students from Grade 7, and two English language teachers. One of the teachers was the author's school mentor during the teaching practice in one of secondary schools in Riga. During the teaching practice the author of the Diploma Paper conducted reading sessions. During the reading sessions students practised implementing several strategies to develop digital reading skills by reading digital texts. Besides, additional technology tools were used during and after the reading sessions. Furthermore, the author created observation checklists to make observations of students' work and analyse it. The analysis of the checklists is carried out with the aim of investigating students' attitude towards the application of strategies when reading digital texts.

The aim of the empirical research was to examine the opinions about digital reading and strategies that students implement to develop digital reading skills. Besides, the empirical research was aimed at exploring the process of students using several strategies during reading sessions to develop particular reading skills that are applied when reading a digital text. To achieve the aim the following objectives were fulfilled. Students were offered to complete the questionnaire that was sent through the school mentor via e-mail. The aim of the questionnaire was to determine students' attitude towards reading digital texts and the use of technology for reading. Two interviews with English language teachers were conducted. The aim of the interviews was to receive the authoritative opinions about reading digital texts, what digital skills students can develop during reading sessions in the classroom, and what strategies students implement that are the most helpful for developing digital reading skills. During the teaching practice the author of the Paper selected and edited (if necessary) texts for students based on their level of English language proficiency and organised reading sessions that were observed by the school mentor, and the author made observations of students' work as well. Besides, the platform to annotate digital texts was chosen, and the graphic organiser was created to provide additional help to students to implement goal-oriented strategy and one of the metacognitive prompts to develop the self-regulation skill.

3.1 DATA ANALYSIS OF THE QUESTIONNAIRE CARRIED OUT AMONG STUDENTS IN GRADE 7

Students' opinion and attitude on digital reading in the English language lessons were determined by the questionnaire. It was created and conducted in Google Forms and consisted of twenty-four questions, the significant part of which, were Likert scale questions (see Appendix 1). The questionnaire was written in students' native language in order to collect more accurate data. The question about students' age was not included because only students from Grade 7 completed the questionnaire. Besides, the question about their gender was not included as well because the analysis of differences in developing digital reading skills between different genders was not the aim of this Paper. Fifteen students from Grade 7 were respondents to the questionnaire.

The first question concerned students' opinion about their reading skills. The multiple choice answers were based on the self-assessment grid of language proficiency levels from A1 (Elementary) to B1 (Intermediate) available on the European Language Portfolio website. The grid explained the levels of proficiency described in the Common European Framework of Reference for Languages (Council of Europe, 2022). From Table 3.1.1 it can be concluded that more than two fifths of respondents believed that they were good at understanding texts that consisted of high-frequency words and the description of feelings, events and wishes. Five respondents agreed with the statement that they could find specific information in simple materials such as advertisements, menus, timetables, and understand short simple personal letters. Two respondents stated that they could read short and simple texts. One respondent agreed that he or she could understand familiar words and simple sentences when reading.

Table 3.1.1. Students' Reading Levels

Reading levels		
	Count	%
I can understand texts that consist of high-frequency words and the description of feelings, events and wishes.	7	47%
I can find specific information in simple materials such as advertisements, menus, timetables, and understand short simple personal letters.	5	33%
I can can read short and simple texts.	2	13%
I can understand familiar words and simple sentences.	1	7%
Total	15	100%

Figure 3.1.1 illustrates respondents' attitudes towards reading in English. The question had four variants of answers. However, the answer 'Do not like' is not illustrated in Figure 3.1.1 because none of the respondents agreed with the statement. Four students agreed with the statement that they liked reading in English to a great extent. A majority of respondents stated that they liked to read in English to some extent. A minority of students had neither a positive nor a negative attitude towards reading in English. According to the results, a major part of students had a positive attitude towards reading in English.

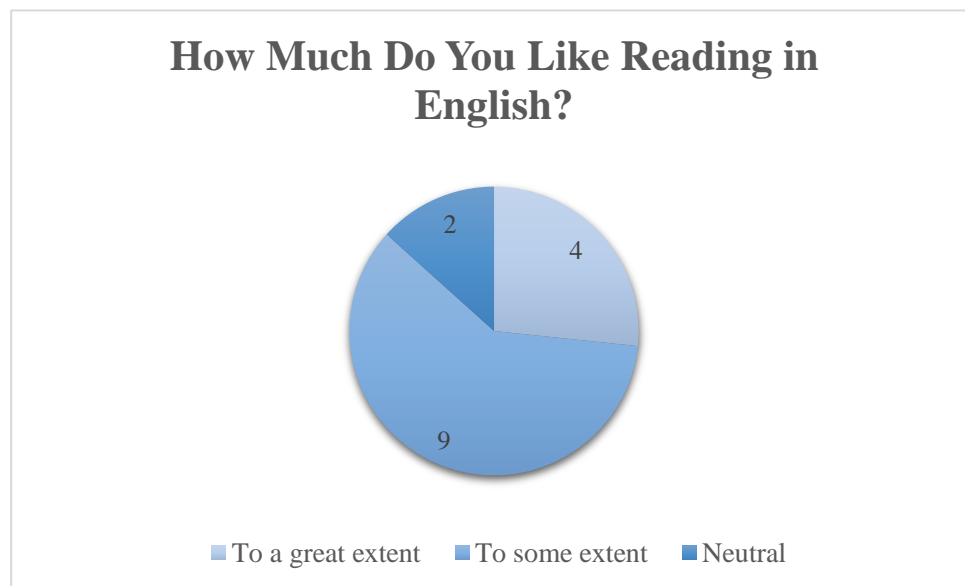


Figure 3.1.1. Students' Opinion on Reading in English

The following questions about how often students read in English in lessons and at home. The questions were formulated in Likert scale, ranging from 5 – always to 1 – never. However, the answers ‘always’ and ‘never’ were not chosen, therefore are not illustrated on Figure 3.1.2. According to results presented in Figure 3.1.2, a major part of students often read in English in lessons and at home. A minor part of students sometimes read at home, and sometimes in school. A small number of respondents stated that they rarely read in English at home. One student believed that he or she rarely read in lessons. The results indicate that a majority of students often practise reading in English both in school and at home. Besides, there is a small part of students who seldom read in English at home.

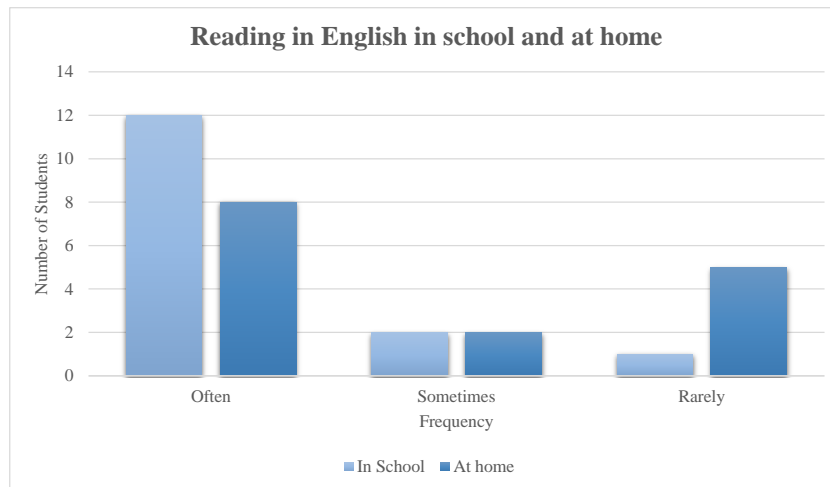


Figure 3.1.2. The Frequency of Reading in English in School and at Home

When analysing the data received from the questionnaire, the author of the Paper decided to examine the connection between students’ attitude towards reading in English and their attitude towards digital reading in English in lessons and as home assignments. From Figure 3.1.3 it can be concluded that students, who like to read in English to a great extent, had a good attitude towards reading digital texts in English language lessons and had them as home assignments. Four students, who like reading in English to some extent, had the good attitude, which means that a major part of respondents supported reading sessions with digital texts. However, seven respondents had an acceptable attitude towards digital reading. The results indicate that there is no significant difference and the overall attitude towards digital reading in English in lessons and as home assignments is positive.

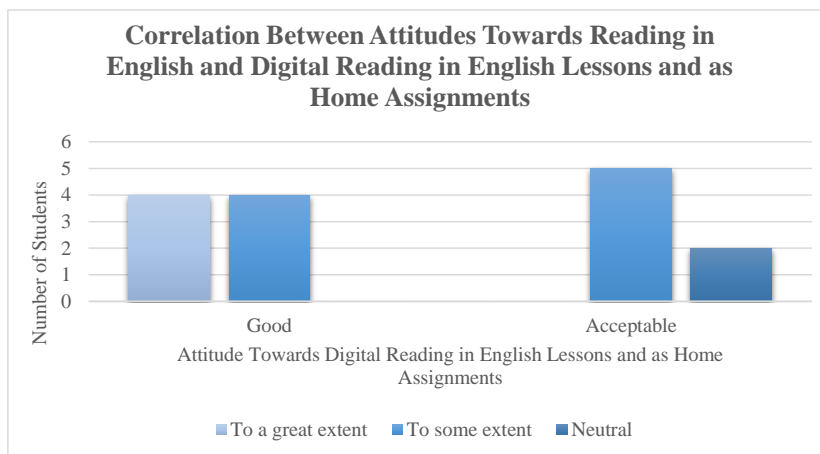


Figure 3.1.3. Correlation Between Attitudes Towards Reading in English and Digital Reading in English Lessons and as Home Assignments

The next question concerned the devices that are available to students in order to read digital texts and how frequently students use these devices for reading practice (classroom tasks, homework, outside class study). According to the results presented in Figure 3.1.4, all respondents use smartphones to read, however the frequency differs. Four respondents always use their smartphone for reading, seven respondents do it often. Besides, laptops are available for students for reading purposes. Seven respondents sometimes use a laptop for reading, a small number of students use it often and rarely. Only one student always uses a desktop computer to read. A small number of respondents chose the answers ‘often’, ‘sometimes’ and ‘rarely’, when asked about the use of desktop computers for reading. Almost half of the respondents never use desktop computers to read. Figure 3.1.4 shows that none of the respondents use an e-book (electronic book) to read. Besides, more than half students never use a tablet to practise reading. It can be concluded that smartphones, laptops, and desktop computers are most frequently used by respondents for reading purposes.

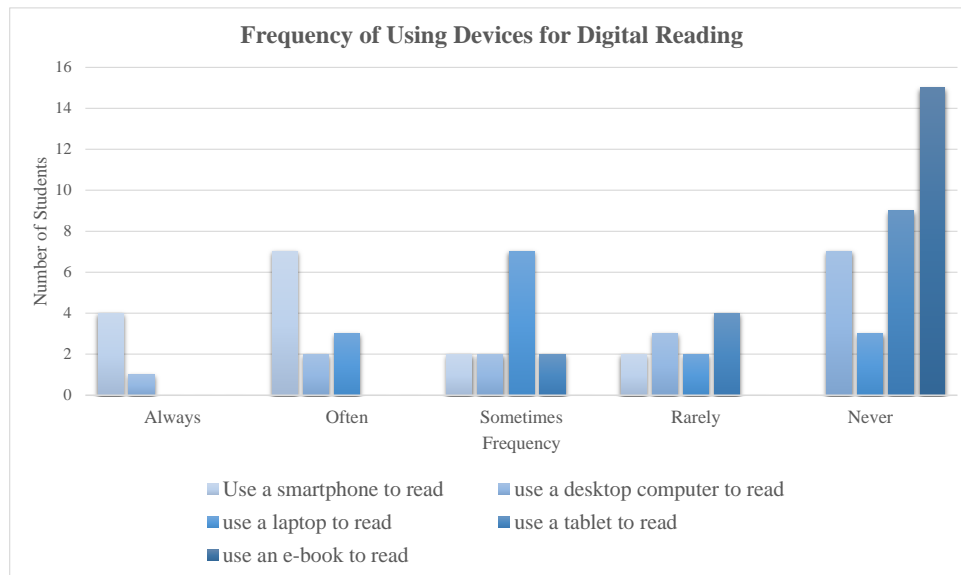


Figure 3.1.4. Frequency of Using Devices for Digital Reading

Figure 3.1.5 shows the connection between students' assessment of their reading levels and their attitude towards digital texts that include visuals such as images, videos. According to the results, students who could understand texts that consist of high-frequency words and the description of feelings, events and wishes, had different opinion about the statement 'I feel distracted by the visuals (images, videos) in a digital text.' Three respondents agreed with the statement. However, four respondents disagreed and strongly disagreed with it. Therefore, it can be concluded that visuals do not distract those students. Opinions of students who could find specific information in simple materials such as advertisements, menus, timetables, and understand short simple personal letters, divided. Two of the respondents agreed (and strongly agreed) that visuals in the digital texts distract them. However, three of respondents did not think that visuals in the digital texts are distractions. Two students who could read short and simple texts and one respondent who could understand familiar words and simple sentences believed that visuals in digital texts do not distract them.

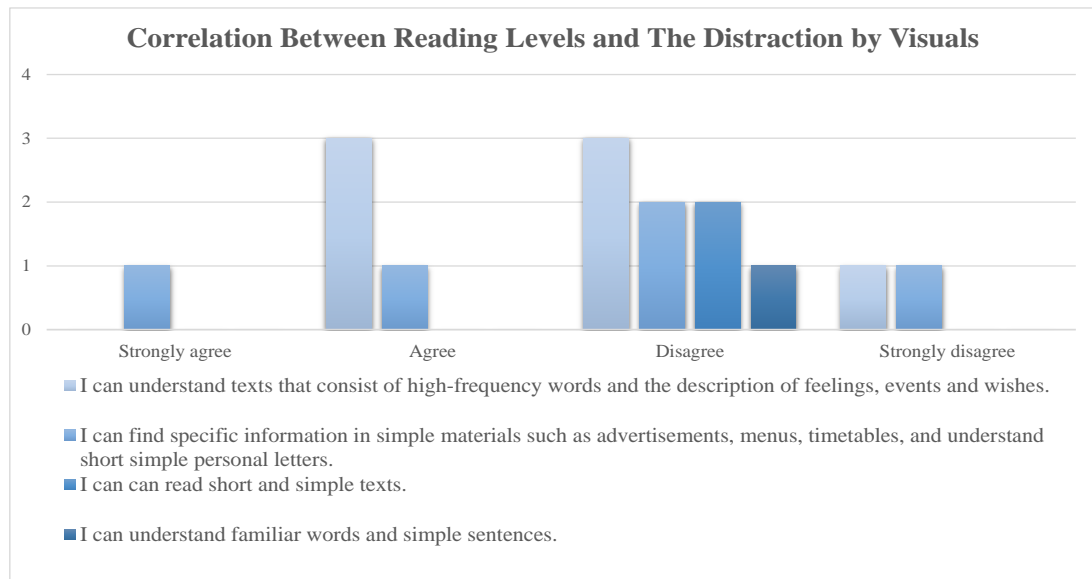


Figure 3.1.5. Correlation Between Reading Levels and the Distraction by Visuals

Figure 3.1.6 illustrates the connection between reading levels and the statement ‘I feel distracted by the links in a digital text (want to click on them and read another text).’ According to the results, a majority of respondents disagreed and strongly disagreed with the statement that links in digital texts distract students when reading. The most students from this group were the ones who could understand texts with high-frequency words and description of events, wishes and feelings and the ones who could find specific information in simple materials such as menus, advertisements, timetables, and understand short simple personal letters. However, seven respondents strongly agreed and agreed with the statement that links in digital texts distract them, and they want to click on them and read the next text. Respondents who agreed (and strongly agreed) with the statement had different reading levels, however, the majority of them were the ones who had higher reading level.

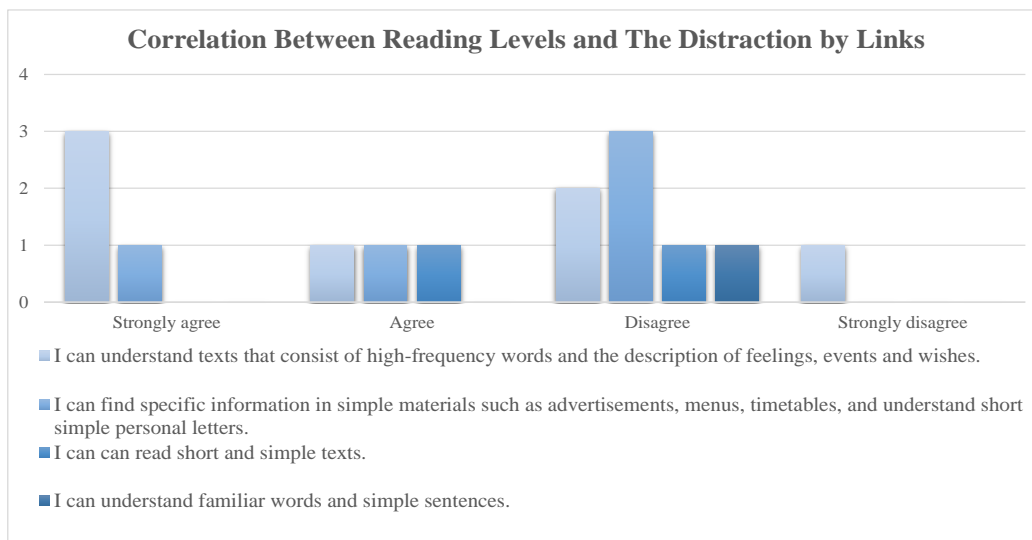


Figure 3.1.6. Correlation Between Reading Levels and the Distraction by Links

Figure 3.1.7 illustrates the connection between students’ attitude towards reading and their opinion about the statement about digital reading ‘I think it is convenient.’ The answers to the statement ‘I think it is convenient’ were formulated in Likert scale from 5 – strongly agree to 1 – strongly disagree. However, none of the respondents strongly disagreed with this statement; therefore, this answer is not presented in Figure 3.1.7. A major part of respondents who liked reading in English to some extent and to a great extent agreed (and strongly agreed) with the statement that reading in the digital environment is convenient. Only one respondent who had a neutral attitude towards reading in English disagreed with the statement. It can be concluded that students had a positive opinion about digital reading.

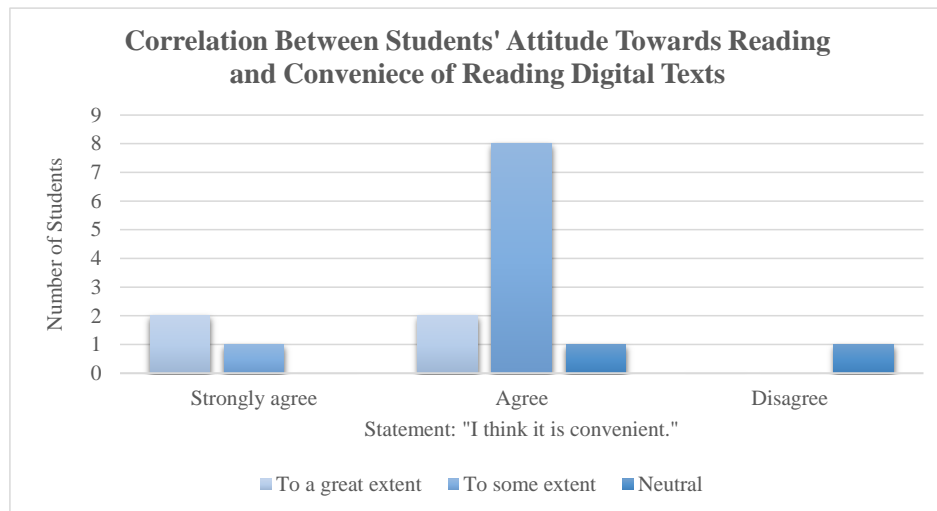


Figure 3.1.7. Correlation Between Students’ Attitude Towards Reading and Convenience of Reading Digital Texts

Considering all of the results, a major part of respondents liked to read in English, and they often read in English in school and at home. Respondents had a positive attitude towards digital reading and thought that it is convenient to read in the digital environment. Students used smartphones and laptops for reading digital texts more frequently than other devices that were mentioned in the questionnaire. Besides, students considered reading digital texts in English in lessons and as home assignments as good or acceptable, thus, they had the positive attitude towards practising reading through the digital medium. A majority of students believed that visuals such as images and videos do not distract them when they read digital texts. However, there were no major difference in the number of students who agreed and disagreed with the statement that links in digital texts distract them. It can be concluded that students were interested in developing digital reading skills. However, it is a necessity to provide them with support in order to have positive results. Teachers need to instruct students how to implement useful reading strategies and use additional materials such as technology tools to develop and improve digital reading skills.

3.2 DATA ANALYSIS OF THE INTERVIEWS WITH TWO ENGLISH LANGUAGE TEACHERS

The author of the Paper conducted interviews with two English language teachers. Teachers wished to remain anonymous. One of the teachers was the author's mentor during the teaching practice in one of secondary schools in Riga. The other teacher works as an English language teacher and as a computer science teacher. The interviewees were chosen based on their frequent use of technology during English lessons and the fact that they have been teaching English language to Grade 7 in school for at least one year. The interview consisted of fifteen questions regarding teaching reading in Grade 7, implementation of reading strategies, and digital texts (see Appendix 2). The first question disclosed general information about the interviewees. The first interviewee said that she had taught Grade 7 for four years. The second interviewee said that he had taught Grade 7 for over a year.

The first interviewee was the school mentor. She stated that she used ICT every day. The purposes of using ICT were to attract students' attention and to improve the quality of lessons. When asked about reading sessions students usually had during lessons, the interviewee acknowledged that students usually had reading as home assignments. The students completed all tasks mostly related to the text, as well as there were exercises to demonstrate and improve their creativity. The next question was asked in order to receive teacher's opinion about students' attitude towards reading printed and digital texts. The interviewee observed that there was no significant difference in students' attitude towards reading sessions with printed texts or digital texts.

During the teaching practice the school mentor mentioned that she still had to conduct online lessons. Therefore, the author of the Paper asked about the ways students practised reading during online lessons. The interviewee said that she used "Zoom" programme to conduct lessons. During reading sessions, she had shared the screen with students. They had to read texts one by one aloud, and they seldom had to read in silence. Then they completed exercises related to texts. The teacher explained that students who had online lessons completed reading exercises by dividing them into pairs or groups. They worked in breakout rooms (option in Zoom, when students are working in pairs or groups in separate sessions), were discussing and completing all tasks.

The interviewee admitted that she had a positive attitude towards digital reading. She believed that teachers should educate students to evaluate and select reliable reading sources in English. The teacher mentioned that she preferred to use online sources and platforms that are recommended by Oxford University Press. When asked to give examples of the sources or platforms, the interviewee replied that she usually used the Oxford University Press website. Besides, she recommended the British Council website because reading sources for different language proficiency levels could be found there. The interviewee said that she had often used digital texts to improve students' reading skills in face-to-face lessons. However, the teacher admitted that in order to choose particular strategies that students could implement she used the instructions that are provided in Student's Books.

According to the interviewee, when students were reading digital texts during face-to-face lessons, they improved the following skills: identifying the main idea, decoding, distinguishing facts from opinions, make connections, summarising, questioning. When asked about the strategies that the teacher would prefer for students to practise in order to improve digital reading skills, the teacher stated that she found the following strategies helpful: activating prior knowledge, predicting, searching and selecting, inferring, summarizing, visualising. However, the interviewee believed that retelling was not a helpful reading strategy. It did not develop students' creativity and did not improve the ability to summarize.

The second interviewee worked as an English language teacher and a computer science teacher and expressed his opinion and shared insights about reading in the digital environment. The interviewee explained that he used ICT regularly. The aim of using was to enhance the learning process by integrating ICT mainly as a learning aid and to read graded reader books (to practise extensive reading). The interviewee observed that when students read digital texts, they tended to get distracted. Therefore, he used printed materials more often. The interviewee did not conduct online lessons anymore, therefore, the author of the Paper asked how students had read during online lessons. The teacher explained that he searched for reading materials that are available on the Internet and selected appropriate texts. However, the teacher expressed his concern about the students' academic performance because there was a significant decline in it. Students had not participated in online lessons and had not done assignments properly and were not much active during online lessons.

When asked about the teacher's opinion about digital reading, the interviewee said that he had a positive attitude towards digital reading. He believed that it was convenient to read texts in the digital environment. The teacher mentioned that he used online sources and platforms in lessons to conduct reading sessions with digital texts. The interviewee noted that the platform "Learn English" from the British Council offered texts and reading exercises to practise intensive reading and graded reader texts as well, which the teacher found useful. As it was mentioned above the teacher preferred to give students printed texts to read. He explained that digital texts were used in the face-to-face lessons only when it was necessary.

When asked about specific strategies that the teacher uses before reading, the interviewee explained that he used different strategies with students because their language proficiency level varied. As an example, the interviewee mentioned story maps, predicting, and retelling strategies. According to the interviewee, when students had reading sessions with digital texts, they had improved decoding, comprehension skills and their fluency. The teacher acknowledged that he preferred to implement story maps with the purpose that students enhance digital reading skills. The reason for that was the opportunity to convert story maps into the digital format with ease by using apps such as "Photoshop" or "GIMP". When asked about the strategies that the teacher does not consider as helpful for students, the teacher believed that making illustrations was not as helpful as story maps.

In summary, both teachers integrate ICT in their lessons to enhance the learning process and to raise students' interest in topics of lessons. Both interviewees have organised reading sessions and used digital texts, and they have a positive attitude towards digital reading. However, one of the teachers often uses digital texts in English lessons, another teacher thinks that students get distracted when they read digital texts, therefore prefers to give printed texts for reading. The interviewees organised reading sessions with digital texts that can be found on the "Learn English" platform from the British Council. They mentioned that texts from the platform are appropriate for students who are learning the English language because texts can be selected based on the language proficiency level.

Both interviewees stated that when students read digital texts, they improve decoding skills and comprehension skills such as summarising and distinguishing facts from opinion. However, the strategies that teachers consider helpful for students to implement in order to develop digital reading skills differ. The first interviewee believes that using prior

knowledge, predicting, inferring, searching and selecting, visualising, summarizing can improve students' work with digital texts. On the other hand, retelling cannot help students to develop digital reading skills. On the contrary, the second interviewee thinks that retelling is a helpful strategy as well as the use of story maps and predicting. The second teacher believes that making illustrations is not as useful as story maps are.

After analysing two interviews the author of the Diploma Paper made several conclusions. Both teachers had used the terms 'skill' and 'strategy' interchangeably. The reason for that can be the similarities in terms' definitions. Besides, teachers mentioned several reading skills that can be considered digital reading skills as well, but they do not focus on the skills that can be developed only in the digital environment. Nevertheless, based on the theoretical chapters, the adaptation to the digital environment, especially for students who are struggling readers, should include reading skills that can be used while reading in both mediums (paper and digital). Last but not least, the teachers do not use various sources in order to find different digital texts and integrate digital reading in their lessons.

3.3 DATA ANALYSIS OF OBSERVATIONS AND STUDENTS' ANNOTATIONS

During the teaching practice the author of the Paper selected texts that could be read through the digital medium for the reading sessions. The author of the Paper chose two reading strategies for students to implement in order to develop self-regulation that is one type of digital reading skills. Based on the theoretical chapters, students applied the goal-limited strategy which is highlighting or underlying ideas in order to monitor one's understanding and organise ideas. The second strategy is one of the metacognitive prompts, which is monitoring comprehension while reading a text. The author of the Paper decided to encourage students to use graphic organisers to provide additional support for implementing the strategies. During reading sessions students read digital texts and completed a graphic organiser. The graphic organiser should include the following information: titles of sources, main ideas, questions that require further research, students' opinion about texts, and the summary of previous parts of the organiser. However, it should be noted that the graphic

organisers were not created in the digital environment because of the lack of devices available during lessons. Besides, students received other digital texts as home assignments to continue developing digital reading skills. Graphic organisers and home assignments helped to monitor students' progress.

The author chose to use a digital learning platform to conduct digital reading sessions in lessons and to send and check students' home assignments. The platform that was used is called "Kami". It provides teachers and students with tools such as highlight, underline, text box, and comment, to annotate digital texts and share one's annotations. This platform was chosen because it provided students with opportunity not to register and pay for the use of the platform and to annotate texts. Figure 3.3.1 demonstrates the platform and its available tools in order to read and annotate the text. A user can highlight necessary information and change colours of the highlighter with ease in order to navigate through pages and highlighted information with ease. Besides, there are visible comments on the screenshot that the author of the Paper left for students before sharing the document. Comment is a helpful tool to provide students with instructions or additional explanations. Comments are visible for users the moment they open a document and can be detected by the colourful dot on the document as well. The available tools are easy to use because they are available on the left side of the screen. A user should click on the tool that need to be used in order to activate it.

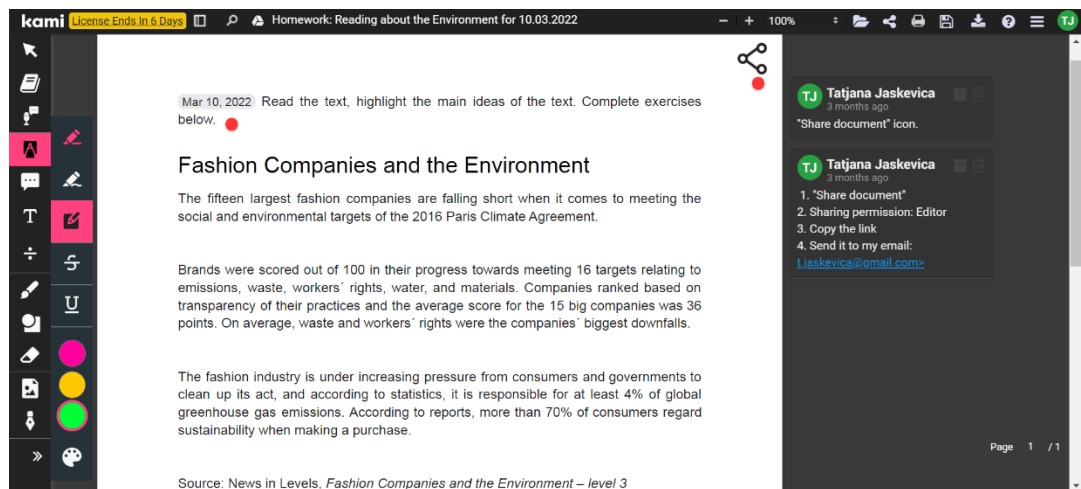


Figure 3.3.1. The Screenshot of the Platform “Kami”, Its Available Tools for Annotation

Besides, the author selected texts that were appropriate for students' language proficiency level. Texts were chosen from the platform "Learn English" from the British Council, from the websites "newsinlevels.com" and "readworks.org". These sources were chosen because they provided with digital texts for various topics. These texts were divided into reading levels, which helped to choose texts with appropriate vocabulary and grammar structures. However, some of the texts were edited by making them shorter or dividing into paragraphs. According to the theoretical subchapter about the reading patterns of digital texts, some texts were divided into short passages in order to facilitate the reading process. Furthermore, observation checklists were created and used during reading sessions when the author had the teaching practice (see Appendix 3). The following criteria were included for the observations: whether the aim of the reading session was determined; what strategies a teacher and students implemented; whether a technology tool was used; time allocation of the reading session and students' and teacher's talk time; additional comments about the reading session. The author of the Paper monitored students' work during reading sessions and made notes. Besides, the school mentor observed reading sessions and provided her feedback on them. Comments in the observation checklists included notes of the author and feedback from the mentor. The observation checklists were used to observe what strategies students implemented, the process of implementation, and whether they completed tasks, thus demonstrating their comprehension of texts.

The aim of the first reading session was to introduce students to the platform "Kami", explain to them the strategies they had to implement and what skills they had to develop. During the first reading session the author of the Paper implemented the strategy "think alouds" in order to instruct students why they would read digital texts and how to read and annotate those texts. This strategy was chosen because the only devices that were available in lessons were the teacher's desktop computer and a projector with a white screen. Therefore, the ways how students could practise reading in the digital environment were limited. The author opened the document with selected text in the platform "Kami". Students could read the text on the white screen. The whole class and the author discussed what they had to do during the reading session, then students read the text aloud (students were chosen randomly to read a particular part of the text). The whole class and the teacher read each task and the teacher showed and explained how each strategy should be implemented. Afterwards,

students read the text independently and applied the strategies. The application was demonstrated by students' highlighted parts of the text (the teacher was told what to highlight) and their notes in graphic organisers. Based on the first observation checklist, the author explained in detail how reading sessions would be organised and what students need to do during those sessions. Students worked all together and implemented goal-oriented strategy by annotating the text and the metacognitive prompt by filling in graphic organisers.

According to students' notes about the first digital text (see Appendix 4), it can be concluded that they needed more time to complete the organiser and they might have questions about it because a major part of students managed to write the title of the text and the key idea. To conclude, the students understood how to annotate the text in the platform "Kami", thus, to implement the goal-oriented strategy but required more assistance and time in order to complete graphic organisers and demonstrate their understanding, consequently, to implement the metacognitive prompt. In addition, students' home assignments demonstrated that they implemented successfully two strategies (see Appendix 5). They found the main idea of the text and highlighted or underlined it, thus, they demonstrated the implementation of the goal-oriented strategy. Furthermore, students answered questions that checked their comprehension of the text, therefore, they applied the metacognitive prompt, when they monitored their understanding.

During the following reading session students were divided into groups in order to read and work with the text. The aim of the reading session was to continue implementing goal-oriented strategy and metacognitive prompt to develop self-regulation. The selected text was opened in the platform "Kami" and demonstrated on the white screen. During this session students worked more independently, the author applied the strategy "think alouds" to explain how to annotate the text and in more detail how to complete the graphic organiser. Then students worked in groups and continued developing their self-regulation. After discussions about the text and the particular task each group had to highlight, for example, the main idea, supporting arguments; students showed the implementation of the goal-oriented strategy. One student from each group highlighted parts of the text that included required information, according to the task each group had to accomplish. Moreover, students implemented the metacognitive prompt by monitoring their understanding of the text, when they explained the parts of the text that they highlighted as groups. In addition, graphic

organisers demonstrated the implementation of strategies, consequently, the development of the self-monitoring skill because a major part of students completed their organisers during the reading session (see Appendix 4).

According to the checklist (see Appendix 6), students worked in groups in order to discuss and annotate the text. During the group work students helped each other to implement reading strategies apart from help that the teacher provided. Besides, a major part of them managed to fill in graphic organisers because of the fact that students annotated the text and necessary information was highlighted on the screen. Overall, they were engaged in the process, discussed the text, and annotated it with ease. Based on the observation, the font size should be bigger if students read the digital text from the white screen or whiteboard, or the teacher should zoom in the document. Just as the organisation of the text, the font size should also be considered. Especially if there is no device available for each student in lessons in order to change settings to suit the needs of each student. It can be concluded that the reading session was successful because the students demonstrated the application of both strategies and a majority of them completed their graphic organisers. Based on the following home assignments (see Appendix 7), students could apply both strategies independently. Annotation of the text helped them to improve understanding and organise ideas from the text. Nevertheless, students needed more practice and reading exercises that checked understanding of vocabulary in order to evaluate information better.

It may be concluded that students were inspired to read in the digital environment and use platforms to work with digital texts. The goal-oriented strategy and monitoring comprehension strategy were implemented by students during reading sessions in lessons and while reading independently. Students developed their self-regulation skills. They developed their ability to organise and monitor their work, and to use technology tools for reading through the digital medium. It could be deduced from their graphic organisers and home assignments. Although, they still needed more practise in applying these strategies in order to continue developing self-regulation skills. The use of the graphic organiser helped students to organise ideas from the text and understand the ideas better. Moreover, the author concludes that in case there is no chance to provide each student with a device in order to practise digital reading, it is better to organise the group work, thus students are able to support each other.

CONCLUSION

Reading not only printed but also digital texts is becoming a part of the process of learning a foreign language in schools. The purpose of ICT is to improve the learning process, engage students, and also to support the development of language skills. Digital world is an open environment that enables students to explore various reading sources that are dynamic and non-linear. The organisation of digital texts affects the way students explore them. They might use particular patterns such as the F-pattern, the layer-cake scanning patterns (Pernice, 2019). Students are reading more attentively if a text is not lengthy and divided into passages, sometimes with titles for each passage. When a teacher selects sources for reading, he or she should find sources that match the level of students' language proficiency, their cognitive development and pre-existing knowledge. Moreover, students reading behaviour when they read digital texts also differs. According to the theoretical chapters, students became more strategic when they read through the digital medium. They tend to search for relevant information in texts and read only particular passages.

When students practise reading, they develop reading skills that can be divided into lower-level and higher-level comprehension skills. Students develop particular reading skills that can be implemented when reading printed and digital texts, for example, decoding skills, the ability to draw conclusions about a text. However, there are reading skills that are necessary to develop in order to read through the digital medium. These skills are self-regulation, navigation, the ability to organise ideas from texts, the ability to evaluate trustworthiness of texts. Self-regulation skills are necessary in order to focus on continuous actions and stay motivated. Students who develop self-regulation skills are able to find appropriate sources, tools, and strategies in order to achieve a goal. They are aware of the learning process which is necessary when searching and reading digital reading sources that often include additional visuals materials and links. Navigation skills should be improved in order to navigate through the open online environment and multiple-text units that include several related texts. Navigation is an ability to find required information in a text with ease, gather relevant information and stop from surfing irrelevant passages in order to find answers. Skills that enable students to organise and synthesise ideas from texts and evaluate the reliability of sources are necessary to develop because students begin thinking logically

and critically about information presented in various digital sources that can be biased or spread unreliable information.

Students need frequent practise to develop and improve skills. Therefore, they can implement reading strategies in order to facilitate the process. Reading strategy is a conscious effort to reach a particular goal during the reading process. Based on the presented findings in the theoretical chapters, there is a large amount of reading strategies, and they are divided into categories. However, different authors chose to categorize those strategies differently. Besides, several authors advised to use technology tools to provide additional help to students. During the case study the author of the Paper chose two strategies that students would implement in order to develop self-regulation skills which are the goal-oriented strategy and the strategy of monitoring comprehension. During reading sessions in lessons and reading home assignments students read digital texts, implemented the strategies, and completed the graphic organiser. The graphic organiser helped students to monitor their progress and demonstrate their application of strategies. According to the results of the questionnaire conducted among students from Grade 7, students have the positive attitude towards digital reading in lessons and practise intensive reading by receiving digital texts as home assignments. A major part of students believe that it is a convenient way of reading. Based on the analysis of the interviews with two English language teachers, they have the positive opinion about digital reading and agrees with students that it is a convenient way of reading. It may be concluded that students often develop reading skills that can be applied while reading both printed and digital texts. However, none of the teachers mentioned digital reading skills that they might aim to develop in students. One of the interviewees mentioned that story maps are useful for students to improve their comprehension. It can be inferred that the use of additional tools can help students to develop reading skills.

Nevertheless, students require additional support and detailed explanation of the process from teachers. The use of instructional and scaffolding strategies by teachers might positively affect students' development of language skills and create a productive learning process. Besides, teachers should give close attention to the reading sources they select and whether the editing of the text is needed. The more they are aware of what they are doing and what is the reason for doing so, the more they will be engaged in the process of developing particular skills. As a result, student can become strategic and skilled digital readers who are

able to adapt and choose a strategy in order to cope with any challenges when reading in the digital environment. To sum up, the aim of the Diploma Paper has been achieved. All research questions have been answered. However, the empirical results presented in this research should be considered in the light of some limitations. During the reading sessions in lessons, devices for reading and working with the text were not available for each student. The only devices that were available in the classroom were the desktop computer, projector, and white screen. Therefore, it was impossible to check each student's process of implementation of the reading strategies. As a consequence, the implications for further research are to provide each student with a device that can be used during reading sessions in lessons in order to receive more accurate information about the application of particular reading strategies.

THESES

1. Reading through the digital medium requires additional reading skills, navigation, evaluation of sources, self-regulation, organisation of ideas that are not applied when reading printed texts.
2. The use of technology tools, e.g., graphic organisers, helps students to apply reading strategies to develop digital reading skills.
3. The implementation of reading strategies during digital reading helps students to develop digital reading skills.
4. The organisation of a text, e.g., paragraph divisions, size of the font, in the digital environment affects what pattern students use to scan and read a text and their comprehension of a text.
5. Students require assistance and clear and detailed instructions from a teacher when learning to implement a specific reading strategy.
6. It is helpful for teachers to use scaffolding strategies in order to instruct students how reading strategies should be applied.
7. Students implement prompting, guiding, cultivating strategies and goal-oriented strategy in order to develop their self-regulation.
8. A strategic reader is a person who applies consciously and intentionally the most helpful strategy to achieve a particular goal when reading.
9. A skilled reader is a person who decodes words, monitors one's comprehension, evaluates ideas from texts and organises them with ease.

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APPENDICES

Appendix No. 1

Questionnaire to Students

1. How good do you think you are at reading?

- I can understand texts that consist of high-frequency words and the description of feelings, events and wishes.
- I can find specific information in simple materials such as advertisements, menus, timetables, and understand short simple personal letters.
- I can read short and simple texts.
- I can understand familiar words and simple sentences.

2. How much do you like reading?

- To a great extent
- To some extent
- Neutral
- Do not like

4. How often do you read in English in school?

- Always
- Often
- Sometimes
- Rarely
- Never

5. How often do you read in English at home?

- Always
- Often
- Sometimes

- Rarely
- Never

6. Please select how frequently do you use the following devices for reading practice (classroom tasks, homework, outside class study).

	Always	Often	Sometimes	Rarely	Never
Smartphone					
Desktop computer					
Laptop computer					
Tablet					
E-book (electronic book)					

7. Please select how much do you agree with the following statements about reading in English lessons.

	Strongly Agree	Agree	Disagree	Strongly Disagree
I like to read printed texts (books, printouts, etc.).				
I always read silently on my own.				
Other classmates and I always read aloud.				
Teacher always explains what the goal of each reading exercise is.				
Teacher encourages us to discuss texts that we read.				
Teacher often gives us digital texts to read.				
I like to read texts from devices.				

8. What do you think about digital reading?

	Strongly Agree	Agree	Disagree	Strongly Disagree
I think it is convenient.				
I focus on the text more when reading digitally.				
I feel confused.				
It is convenient for me to annotate a text (leave notes, highlight text, etc.).				
I feel distracted by the visuals (images, videos) in a digital text.				
I feel distracted by the links in a digital text (want to click on them and read another text).				

8. How do you feel about digital reading in English lessons and in the form of homework?

- Good
- Acceptable
- Poor

The Interview with the First Teacher.

1. How long have you been teaching English language for Form 7?

GZ: I have been teaching Grade 7 for 4 years.

2. How frequently do you use ICT (technologies) in lessons?

GZ: I use ICT in my lessons every day.

3. For what purposes do you use ICT?

GZ: I usually use ICT to attract students ' attention and to improve the quality of the lesson.

4. How do students usually practise reading?

GZ: As a rule, they have reading as a home assignment. The students complete all tasks mostly connected with the plot of the story, as well as there are some exercises providing their creativity.

5. Do students prefer to read printed texts or digital texts?

GZ: There is no difference for them.

6.1 If you still have online lessons, how do students read during the online lessons?

GZ: The teacher shares screen. The students read the text, do all exercises following reading strategies.

6.2 If you do not have online lessons anymore, how did students read during the online lessons?

7. How do or did they complete reading exercises during the online lessons?

GZ: The students are divided into pairs or groups. They work in breakout rooms, discussing all tasks.

8. What is your attitude towards digital reading?

GZ: Positive one. I think that it is necessary for students to select and evaluate sources of information in English language in the digital world.

9. Have you ever used any platforms or online sources to practise digital reading skills?

GZ: I have used some of the online sources. The most preferable ones are recommended by Oxford University Press.

10. Please name these platforms or sources.

GZ: I believe that the British Council website is useful and has texts that are appropriate for each language proficiency level, and as I have said Oxford University Press.

11. Have you ever used digital texts to practise reading during face-to-face lessons?

GZ: I often use digital texts.

12. How do you instruct students before reading practices? Do you use a specific strategy?

GZ: Fortunately, all instructions are properly described in a Student Book as Reading Strategies.

13. What reading skills do they improve?

GZ: Identifying the main idea, defining words, distinguishing facts from opinions, make connections, summarization, questioning.

14. What strategies would you rather use with the purpose that students improve digital reading skills?

GZ: Using prior knowledge, predicting, inferring, searching-selecting, summarizing, visualising.

15. What strategies do you not find helpful? Why?

GZ: Retelling. From my point of view, it does not develop their creativity and the ability to make summaries. I strongly believe that only by teaching skimming, scanning, and reading for details we help students to be successful learners.

The Interview with the Second Teacher.

1. How long have you been teaching English language for Form 7?

IB: I've been teaching English for over a year now.

2. How frequently do you use ICT (technologies) in lessons?

IB: I use ICT regularly, almost every lesson to some capacity.

3. For what purposes do you use ICT?

IB: I use it mainly as a learning aid to enhance lessons.

4. How do students usually practise reading?

IB: We do some graded reading during the classes.

5. Do students prefer to read printed texts or digital texts?

IB: Students tend to be distracted by other things when reading digital texts, so we try to print out the materials.

6.1 If you still have online lessons, how do students read during the online lessons?

6.2 If you do not have online lessons anymore, how did students read during the online lessons?

IB: Everything was available online. I searched for reading materials and selected sources that were appropriate for students' levels of English.

7. How do or did they complete reading exercises during the online lessons?

IB: Their academic performance dropped significantly, as some of the students weren't participating/doing assignments properly.

8. What is your attitude towards digital reading?

IB: Positive, it's a convenient way to read.

9. Have you ever used any platforms or online sources to practise digital reading skills?

IB: Yes, I have.

10. Please name these platforms or sources.

IB: British Council "Learn English" platform features activities with graded reading, which I find very useful.

11. Have you ever used digital texts to practise reading during face-to-face lessons?

IB: Only when it's absolutely necessary.

12. How do you instruct students before reading practices? Do you use a specific strategy?

IB: Due to the fact that language level for a 7th grader varies, I use different strategies, such as story maps, predicting and retelling.

13. What reading skills do they improve?

IB: Fluency, comprehension, decoding skills.

14. What strategies would you rather use with the purpose that students improve digital reading skills?

IB: I feel like story maps can be converted into a digital format rather easily by using apps such as Photoshop/GIMP/etc.

15. What strategies do you not find helpful? Why?

IB: Making illustrations/visualizing doesn't seem to work as well as story maps.

Appendix No. 3

The Observation Checklist of the Digital Reading Session

Educational institution: One of Riga's secondary schools.

Grade: 7.e Students: 12

Teacher: Tatjana Jaskeviča

Topic of the lesson: Our planet

Observation checklist

1. Overall information:

Criteria	Assessment		
	It is defined and achievable	Partially defined and / or partially achievable	Not defined and / or not achievable
Goal of the reading session	✓		
	Teacher	Students	
Strategies that are applied	Think aloud strategy	Goal-oriented strategy (highlight), monitoring comprehension	
Tools that are used		Graphic organiser	
	Fit in class time	Does not fit in class time	Proportions (students, teacher)
Time allocation		✓	Teacher > Students
<p>Comments:</p> <p>Available ICT: a desktop computer, projector, white screen.</p> <p>During the first reading session the teacher explained why students will read digital texts and how they will do it. The teacher demonstrated how to use the platform "Kami" to open a text and annotate it. While the teacher was demonstrating, she explained each step. Students were asking clarifying questions, and teacher made sure that students understood the process. Then students read the text all together aloud. Teacher asked students randomly to read the paragraphs. Then they completed the exercises after reading the text. After reading the text for the first time, students asked to skim the text again. They highlighted the main idea (one of the students read the sentence, the class discussed, then the teacher highlighted it) and started to fill in graphic organisers. However, students did not manage to fill in their graphic organisers on time. Overall, students were interested to try using the platform "Kami" and read in the digital environment.</p>			

Appendix No. 4

The Graphic Organisers of Students from Grade 7

The title of a source	Key ideas	Questions i still have to the further research	My comments about the text	Summary of previous elements.
<p>Global warming</p> <p>Most people do not take global warming seriously enough.</p>	<p>We have cut down over 50% of the earth rainforests in the last 100 years</p> <p>Global warming is probably the most serious threat we face, and we should all be worried about it</p> <p>However, the majority of people believe the evidence and do whatever they can to combat climate change</p>	<p>Why are we not doing more?</p> <p>Why don't we do more?</p> <p>Why is it so bad?</p>	<p>In my opinion people who doesn't recycle is the people who doesn't care about our planet.</p>	<p>The text is about global warming</p> <p>it that hard to recycle?</p> <p>is</p>



The little of a source	Key idea ideas	Questions I still have for the further research	My comments about the text	Summary of pertinent elements
Global warming	Global warming is probably the most serious threat we face and we should all be worried about it	Why we have a global warming	I think global warming is not people guilt, I believe	"Global warming" probably the most serious threat we face and we should all be worried about it. Why we have a global warming? I think global warming is not people guilt.

The title of a source

Key ideas

Questions I still have
the further research

My comments about the text

Global Warming
Do you agree?

To notal people about
a world problem.
Never believe the masses
of people because the opinion
and do not believe they
can to correct climate change.

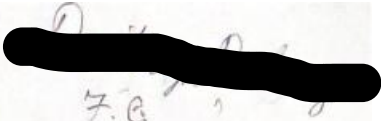
How I can help
to stop global warming?

I think that the global warming
is really big problem.



11/1/19
[Redacted]
[Redacted]

Graphic Organizer



7. C

The title of a source
~~global warming~~
Most people do not
take global warming
seriously enough
Do you agree?

key ideas
Global warming research
is probably the most
threat we face
We have
cut down on
50% of the
Earth's rainforest
in the past 20 years

Questions I still
have for further
research
How
we can
reduce pollution
smaller? What about
still trying to
the other
research?

My
comments
about the
text
I think
it's right,
recycle bins
politicians.

I believe,
what we can
recycle more.
I don't think that there is
we can recycle all
rubbish.

Summary
of previous
elements
~~I don't
agree~~

This text
was about
fighting
with pollution
about global
warming
I don't know
this text
that better
to be
and
better to
recycle all
dangerous
for earth
things,

I think, we can
save Earth
from pollution,
but we can't
recycle all rubbish.

<p>The title of a source</p>	<p>Key ideas</p>	<p>Questions I still have for the further research</p>	<p>My comments about the text</p>	<p>Summary of previous events</p>
<p>Global Warming Most people do not have global warming seriously enough. Do you agree?</p>	<p>Global warming is probably the most serious threat we face. Nevertheless, the majority of people believe the evidence and do whatever they can to combat climate change.</p>	<p>Why people think that this is normal for temperature of the earth to go up and down?</p>	<p>Please that we can heat global warming</p>	<p>(Most people do not have global warming seriously enough. Do you agree?) The text is about prevent global warming and I believe that we can heat global warming</p>

The title of a source	Key ideas	Questions I still have for the further research	My comments about the text	Summary of previous elements
<p>Global warming</p> <hr/> <p>Most people do not take global warming seriously enough</p>	<p>Global warming is probably the most serious threat we face. Nevertheless, the majority of people...</p>	<p>Why do people don't believe that humans need to alter their behaviour?</p>	<p>I think we need more recycling.</p>	<p>The text: Most people do not take global warming seriously enough. is about probably the most serious threat we face and we should all be worried about it. My question is why do people don't believe that humans need to alter their behaviour? And I think we need more recycling.</p>

the title of a source	Key ideas	Questions I still have for the further research	My comments about the text	Summary of previous elements
Global warming	We have cut down over 50% of the earth	-	-	-
Global warming Most people do not take global warming seriously enough	Global warming is probably the most serious threat we face, and we should all be worried about it. Nevertheless the majority of people believe the evidence and do whatever they can to combat climate change.	Why is that normal for the temperature of the earth to go up and down? What is a green lifestyle?	I think people should keep the planet clean green lifestyle	I think "Most people do not take global warming seriously enough" about Global warming. I still have a question, What is a green life style? My comments, I think the people, should keep the planet clean.

The title of a source	Key ideas	Questions I still have, for the further research	My comments about the text	Summary or previous elements
Global warming	Global warming is probably the most serious threat we face and we should do			
<p>Key ideas</p> <p>They don't believe that humans are causing global warming that humans need to live</p>	<p>A green lifestyle this is when people live in eco made cars have big the rules of eco.</p> <p>Key ideas - Global warming is probably the most problems of people.</p> <p>My question is - What is a green lifestyle.</p> <p>My comments about text -</p>			

The title of a source	Key ideas	Questions I still have for further research	My comments about the text	Summary of previous elements
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Global warming is probably the most serious threat we face, and we should be worried about it.

Other people may just be too selfish to lead a green lifestyle.

I think for the temperature of the Earth to go up and down, it is normal.



Graphic Organizer

(The title of a source)

Global Warming,

Most people do not take global warming seriously enough. Do you agree?

(Key ideas)

We have cut down over 50% of the Earth's rainforests in the last 60 years.

Global warming is probably the most threat we face.

(Questions I still have for the further research)

How we can make pollution smaller?

(My comments about the text)

In my opinion, it's right to recycle bins, but to believe it's so hard for some people.

(Summary of previous elements)

I learnt something new for me about pollution, people and also our world. Having said that I meant that I expect people to ~~that~~ receive pollution and helping help world safe our planet

This text about our planet and our problems pollution.

Phrase verbs

Heatings up

(Temperature is rising up)

give off

(they are giving something when they giving something to us)



Mar 10, 2022 Read the text, highlight the main ideas of the text. Complete exercises below.

Fashion Companies and the Environment

The fifteen largest fashion companies are falling short when it comes to meeting the social and environmental targets of the 2016 Paris Climate Agreement.

Brands were scored out of 100 in their progress towards meeting 16 targets relating to emissions, waste, workers' rights, water, and materials. Companies ranked based on transparency of their practices and the average score for the 15 big companies was 36 points. On average, waste and workers' rights were the companies' biggest downfalls.

The fashion industry is under increasing pressure from consumers and governments to clean up its act, and according to statistics, it is responsible for at least 4% of global greenhouse gas emissions. According to reports, more than 70% of consumers regard sustainability when making a purchase.

Source: News in Levels, *Fashion Companies and the Environment – level 3*

Exercise 1 Answer questions in 1-2 sentences.



1. What standards have fashion companies failed to achieve according to the Paris Climate Agreement?

Answer: failed to achieve social and environmental goals

2. What are the reasons for those companies' downfall?

Answer: not environmentally friendly products

3. Why have consumers and governments demand fashion companies to change?

Answer: i don't know

Exercise 2 Answer the question in 5-6 sentences.



Should fashion companies be more sustainable? Why?

i think yes . sustainable facion , more expensive and high quality . brands focus on quality fabrics.



Mar 10, 2022 Read the text, highlight the main ideas of the text. Complete exercises below.

Fashion Companies and the Environment

The fifteen largest fashion companies are falling short when it comes to meeting the social and environmental targets of the 2016 Paris Climate Agreement.

Brands were scored out of 100 in their progress towards meeting 16 targets relating to emissions, waste, workers' rights, water, and materials. Companies ranked based on transparency of their practices and the average score for the 15 big companies was 36 points. On average, waste and workers' rights were the companies' biggest downfalls.

The fashion industry is under increasing pressure from consumers and governments to clean up its act, and according to statistics, it is responsible for at least 4% of global greenhouse gas emissions. According to reports, more than 70% of consumers regard sustainability when making a purchase.

Source: News in Levels, *Fashion Companies and the Environment – level 3*

Exercise 1 Answer questions in 1-2 sentences.

1. What standards have fashion companies failed to achieve according to the Paris Climate Agreement?

Answer: the biggest disadvantages of companies were waste and workers' rights.

2. What are the reasons for those companies' downfall?

Answer: growing pressure from consumers and government


3. Why have consumers and governments demand fashion companies to change?

Answer: they demand to clean up their actions

Exercise 2 Answer the question in 5-6 sentences.

Should fashion companies be more sustainable? Why?

It seems to me that companies should be more sustainable. Because recently our planet has been suffering because of all kinds of gases, chemicals, waste. And because we pollute nature, animals, trees, and other living beings suffer. And I would really like everything to be fine in the future as less waste and then nature will feel great.

Mar 10, 2022 Read the text, highlight the main ideas of the text. Complete exercises below. 

Fashion Companies and the Environment

The fifteen largest fashion companies are falling short when it comes to meeting the social and environmental targets of the 2016 Paris Climate Agreement.

Brands were scored out of 100 in their progress towards meeting 16 targets relating to emissions, waste, workers' rights, water, and materials. Companies ranked based on transparency of their practices and the average score for the 15 big companies was 36 points. On average, waste and workers' rights were the companies' biggest downfalls.

The fashion industry is under increasing pressure from consumers and governments to clean up its act, and according to statistics, it is responsible for at least 4% of global greenhouse gas emissions. According to reports, more than 70% of consumers regard sustainability when making a purchase.

Source: News in Levels, *Fashion Companies and the Environment – level 3*

Exercise 1 Answer questions in 1-2 sentences.

1. What standards have fashion companies failed to achieve according to the Paris Climate Agreement?

Answer: Waste and workers rights were the companies biggest downfalls.

2. What are the reasons for those companies' downfall?

Answer: Consumers regard sustainability when making a purchase.

3. Why have consumers and governments demand fashion companies to change?

Answer: Because it is responsible for at least 4% of global greenhouse gas emissions and it contributes to climate change.

Exercise 2 Answer the question in 5-6 sentences.

Should fashion companies be more sustainable? Why?

I think yes. Because it contributes to less pollution and makes our land cleaner. I think so because over the years the climate has changed due to pollution in the environment. Pollution not only harms our health, but also contributes to the extinction of animals on our planet.

Appendix No. 6

The Observation Checklist of Another Digital Reading Session

Educational institution: One of Riga's secondary schools.

Grade: 7.e Students: 15

Teacher: Tatjana Jaskeviča

Topic of the lesson: Our planet

Observation checklist (2)

1. Overall information:

Criteria	Assessment		
	It is defined and achievable	Partially defined and / or partially achievable	Not defined and / or not achievable
Goal of the reading session	✓		
	Teacher	Students	
Strategies that are applied	Think aloud strategy when a student asked for clarification	Monitoring comprehension, Goal-oriented strategy (highlight)	
Tools that are used		Graphic organiser	
	Fit in class time	Does not fit in class time	Proportions (students, teacher)
Time allocation	✓		Teacher < Students
<p>Comments: Available ICT: a desktop computer, projector, white screen.</p> <p>During the reading session students were divided into small groups. Each group received a task. One of the groups had to find the main idea of the text, the second group had to find arguments that support the main idea, the third group had to find opposing arguments, the fourth group had to find the counter-argument. Students read the text aloud; the teacher asked randomly students to read several sentences each. Then groups discussed the text while the teacher was monitoring and provided help when necessary. Then students found necessary information in the text, and one person from each group had to come to the computer and highlight particular sentences. Then the whole class discussed what was highlighted. Following this, students filled in graphic organisers. In summary, students were more active during this reading session (wanted to discuss the text, annotate it, asked questions) and helped each other to apply reading strategies. Students did not have any difficulties in using the platform "Kami". However, the teacher needed to zoom in the text because the size of the font was small, and students who were sitting in the back could not see the text very well. A majority of students filled in their graphic organisers because all the necessary information was highlighted on the screen. The teacher asked students to read one part of their graphic organiser and share the question that each student had after reading the text.</p>			

Appendix No. 7

The Second Home Assignment

Write your name here: Anna

Mar 17, 2022 Read the text. Highlight the main ideas. Complete exercises below.

Climate change: why does 1.5°C matter?

The planet's climate has constantly been changing over thousands of years. The global average temperature today is about 15°C. Scientists are worried that the planet is warming faster than ever before. The 20 warmest years on record have been in the past 22 years, according to the World Meteorological Organization. If this trend continues, temperatures may rise by 3–5°C by 2100.

Scientists say we should try and stop this trend and not allow the average global temperature to rise more than 1.5°. But even a 2°C rise would be bad for us all. Now, half a degree doesn't sound like much – but it could make a big difference to the planet.

A 2°C rise would mean that all the coral reefs would disappear, but a 1.5°C rise means that there would still be some. Also, 18 percent of the insects on Earth will disappear if the temperature goes up by 2°C, compared to 6 per cent disappearing at 1.5°C. Thirty-seven per cent of people will be affected by dangerous heat waves at 2°C. That's twice the number compared to at a 1.5°C rise. Whether it's coral reefs, crops, floods or the survival of species, scientists say everyone and everything is far better off in a world that limits the rise to 1.5°C.

So, what can we do? Scientists say that carbon will have to be sucked out of the air by machines and stored underground and that these devices exist already. They also say that billions of trees will have to be planted. People should buy less meat. Of all the foods we eat, beef has the biggest impact on climate change because it produces a high amount of greenhouse gases. Also, someone suggested not buying new clothes too often, because the fashion industry is a major source of the greenhouse gases that

are overheating the planet. And, of course, using transport that doesn't burn fossil fuels, like electric cars. It's even better to walk or ride a bike.

Source: BBC, *Climate change: why does 1.5°C matter?* Retrieved from <https://learnenglishteens.britishcouncil.org/study-break/video-zone/climate-change-why-does-15degc-matter>

Exercise 1. Answer questions about the text.

1. What is the key idea of the text? the global temperature today is about 15C . Scientists are worried that the planet is warming faster than ever before
2. Give three arguments that support the main idea of the text. because it is important for our planet and for us
3. Do you have any questions after reading the text? no

Exercise 2. Answer the question in 7-8 sentences.

Is it important to follow pieces of advice from scientists to combat climate change?
Follow the "Writing strategy" (Student's book, p. 49) to answer.

i think that you need to follow the advice of scientists. As it will affect our life on earth . I think that scientists do not wish bad . If things get worse , i will try to follow the advice .

Write your name here:



Mar 17, 2022 Read the text. Highlight the main ideas. Complete exercises below.

Climate change: why does 1.5°C matter?



The planet's climate has constantly been changing over thousands of years. The global average temperature today is about 15°C. Scientists are worried that the planet is warming faster than ever before. The 20 warmest years on record have been in the past 22 years, according to the World Meteorological Organization. If this trend continues, temperatures may rise by 3–5°C by 2100.

Scientists say we should try and stop this trend and not allow the average global temperature to rise more than 1.5°. But even a 2°C rise would be bad for us all. **Now, half a degree doesn't sound like much – but it could make a big difference to the planet.**

A 2°C rise would mean that all the coral reefs would disappear, but a 1.5°C rise means that there would still be some. Also, 18 percent of the insects on Earth will disappear if the temperature goes up by 2°C, compared to 6 per cent disappearing at 1.5°C. Thirty-seven per cent of people will be affected by dangerous heat waves at 2°C. That's twice the number compared to at a 1.5°C rise. **Whether it's coral reefs, crops, floods or the survival of species, scientists say everyone and everything is far better off in a world that limits the rise to 1.5°C.**

So, what can we do? Scientists say that carbon will have to be sucked out of the air by machines and stored underground and that these devices exist already. They also say that billions of trees will have to be planted. People should buy less meat. Of all the foods we eat, beef has the biggest impact on climate change because it produces a high amount of greenhouse gases. Also, someone suggested not buying new clothes too often, because the fashion industry is a major source of the greenhouse gases that

are overheating the planet. And, of course, using transport that doesn't burn fossil fuels, like electric cars. It's even better to walk or ride a bike.

Source: BBC, *Climate change: why does 1.5°C matter?* Retrieved from <https://learnenglishteens.britishcouncil.org/study-break/video-zone/climate-change-why-does-15degc-matter>

Exercise 1. Answer questions about the text.



1. What is the key idea of the text?

2. Give three arguments that support the main idea of the text.

3. Do you have any questions after reading the text?

How can we prevent this global catastrophe?

Exercise 2. Answer the question in 7-8 sentences.



Is it important to follow pieces of advice from scientists to combat climate change?

Follow the "Writing strategy" (Student's book, p. 49) to answer.

I think yes, because if everything continues like this, many animals will disappear, and as we know, without one type of animal, a squeaky chick will break. Also, people with lung diseases will begin to die due to a small amount of air, and, in general, tsunamis will begin and flood, almost all beaches will turn out to be oceans, thereby claiming the lives of millions of people and animals.

Diplomdarbs „Stratēģijas skolēnu digitālās lasīšanas prasmju attīstībai angļu valodas stundās 7. klasē” izstrādāts Latvijas Universitātes Pedagoģijas, psiholoģijas un mākslas fakultātē.

Ar savu parakstu apliecinu, ka pētījums veikts patstāvīgi un izmantoti tikai tajā norādītie informācijas avoti.

Autors: Tatjana Jaskeviča

(vārds, uzvārds)

Rekomendēju darbu aizstāvēšanai

Darba zinātniskais vadītāja: M. izgl. zin. Anita Auziņa

(zinātniskais grāds, vārds, uzvārds)

ŠIS DARBS PARAKSTĪTS AR DROŠU ELEKTRONISKO PARAKSTU UN
SATUR LAIKA ZĪMOGU.