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Abstract

This study aimed at exploring the use of Google Docs in English writing lessons in a Norwegian primary school. Thirty-four pupils of Grade 5 and their English teacher participated in the research.

Three questions were addressed by this study. RQ1: What practices and perspectives characterize the use of Google Docs in learning English writing in Grade 5 children in Norway? RQ2: What practices and perspectives characterize the use of Google Docs in teaching English writing to Grade 5 children in Norway? RQ3: How does Google Docs influence teaching learning outcomes of English writing in Grade 5 children?

The research was performed in a Norwegian primary school and the data was collected using mixed methods research. Qualitative methods were used in the form of teacher interviews and three lesson observations, and the quantitative methods used in the research were pupils' questionnaire and the text analysis.

The results showed that the pupils found it interesting and helpful to use Google Docs in their English writing lessons. The teacher also found it motivating for the pupils to writing on Google Docs in the English writing lessons. Furthermore, the pupils also used Google Docs as a collaborative tool in English writing lessons. It was seen in the findings that the pupils also used the features of using colorful fonts; images, colorful highlighting, and Google translate in their texts.

The study discusses a number of broader issues that emerge from these results. These include the importance for teachers of a sound theoretical knowledge of teaching writing and instructional technologies, the role of translation in teaching foreign language writing, and the value of collaborative writing tasks. The study also has implications for the pre- and in-service training of primary school language teacher.

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1. Introduction

1.1 Overview

This study aims to investigate the use of Google Docs in aiding English writing at a Norwegian primary school. This study also explores the way Google Docs foster pedagogic approaches in English teachers. This chapter highlighted the popularity of Google Apps, especially Google Docs, in teaching-learning approaches across primary school settings in Norway. Moreover, the chapter also included the problem statement, research questions, methods of data collection and outline of the thesis are also addressed in the chapter.

1.2 The present study

The present thesis is a study of using Google Docs in English writing sessions. This study investigated the ways primary school children in Norway use Google Docs for writing English. The study further explored the beneficial and detrimental effects of Google Docs as a writing tool in teaching-learning in primary school settings. Host (2019) argues that new digital technologies are increasingly used for teaching and learning purposes in school settings because they enable students to learn more enthusiastically and provide opportunities for expression through sounds, images, and different creative applications.

Hyland (2019) is of the view that most teachers have integrated new and digital technologies as teaching aids. The integration of technology in writing enables students to improve their writing skills and in collaborating with others. Previous studies have mostly explored the use of Google Docs in aiding collaborative writing, especially in higher education. Similarly, the extant literature also reflects the benefits of this popular Google app in aiding the learning of Modern Greek literature. Building on these notions, it seems that Google Docs aid collaborative thinking and translating thoughts in higher education. However, there are gaps in literature regarding the ways Google Docs aids teaching-learning in primary school children in EFL nations such as Norway. This study would explore the way Google Docs aids writing and learning English from linguistic perspectives.

This research was conducted across primary school students in a Norwegian school. Thirty-four pupils belonging to grade 5 as well as their English teacher participated in the study. The topic of the thesis was selected to gain in-depth knowledge the way Google Docs aid English writing in EFL pupils. As the researcher hails from a South Asian country where the use of technology in learning is not prioritized because of the lack of resources, the study would help to identify the usefulness of Google apps from an unbiased perspective. The use of technology is prioritized in Norway that is why it was a great opportunity for the researcher to find out that how technology is used in writing lessons in Norwegian classrooms. There are also good theoretical reasons for examining this topic, which would be discussed in Chapter 2. The theoretical framework could be applicable for identifying gaps in English writing in EFL students and technology-aided pedagogic approaches that could help to overcome them.

1.3 Background

Language and grammatical knowledge are essential in preparing learners for future professional and educational goals (Khalil 2018). According to Saeedi & Biri (2016), technology has considerable effects and the potential to make learning and teaching easier. The role of information and communication technology (ICT), especially web-based tools for teaching-learning are well acknowledged in this digital era. One such online media tool utilized in English classes in Google Docs. Google Docs is an online word processing application that shows promising results in collaborative learning. Google Docs is also showing promise in enhancing English learning and writing. As a web-based word processor service that Google provide for free, it includes other functions such as form, presentation, spreadsheets, and data storage (Suwantarathip & Wichadee 2014).

In accordance with the English Subject Curriculum in the *Knowledge Promotion 2020* (LK20), the new English curriculum in Norway came into discipline on 1.8.2020. According to the referred curriculum, pupils at the primary level have two hours of English lesson per week and in total, they have 228 hours in a year at grade 5 level. The emphasis on English across various academic curricula around the globe is justified because it is the major language for communication regardless of cultural boundaries. The use of digital technology is emphasized to develop linguistic capabilities in *Knowledge Promotion (LK20).Knowledge Promotion 2020* (LK20) also suggests

that technology helps children to think critically, and that is why the use of technology in language learning is important. Language learning involves the understanding of the linguistic patterns such as phonemes, vocabulary, and sentence structures.

Often such learning would be confounded by the linguistic, geographical, and cultural background of the pupils which would predispose them to unintentional errors in grammar or literary genres in English. When pupils write a text, they plan, design, and process the text by means of using different strategies. Integration of technology is the most important thing pupils can do to explore English while writing texts.

According to the *Knowledge Promotion 2020* (LK20), in English, the interdisciplinary theme of public health, democracy and citizenship is emphasized. It can lead to laying the foundation for pupils' understanding of new perspective and expressing their thoughts. It can also open the doors for unlocking the cultural boundaries and let the pupils comprehend other cultures as well. Apart from being the most popular language of communication, English has a significant appeal as literary genre text in terms of graphical, formal, and informal language. English fosters creativity and innovation because learners are able to access a variety of text and information to kindle their thoughts, despite one might not be a native English speaker.

Although English curriculum at the primary level also emphasizes the use of dictionaries, digital resources, and writing simple text, the use of technology such as Google Docs cannot be undermined because of their ability to guide structuring of sentences. Different pedagogic approaches are adapted to enhance the effectiveness of teaching-learning of English. However, most of these approaches are either non-standardized or depend on the skills and knowledge of teachers and learners. Hence, there is a need for technology-based pedagogic tools such as Google Docs in ensuring teaching-learning of English.

Google Docs provides a new experience in learning English writing. The pupils can upload their writing and create a new document on Google Docs. Pupils can also use Google Docs as a collaborative tool. They can share it with other pupils and teachers and can work collaboratively on the same document (Afdaliah, Uswatunnisa & Marliana, 2019). Google Docs has several features, and it is available on all devices. Since it is a word processor, it can be used to share and collaborate with others on the same document. Once teacher designs a task for the students, it is easier for the students to get access of the task embedded in their writable assignment and they can work together on the same document (Gavin, 2019). Google Docs has several writing features e.g.,

Smart Spell Checker with Grammar Support and integrated reference tools. The research tool allows to do research while writing and can be used in different Google services such as images, quotes, dictionary, spell checker and Google Scholar from the document (Ambrose & Palpanathan, 2017).

Google Docs facilitates online document creation, editing, and storage (Thompson, 2008). However, just as it proves beneficial to English writing lessons in terms of improved writing and vocabulary development, the collaborative editing potential its educators should note its associated limitations such as formatting incompatibility and complication. Hyland (2019) claims digital technologies are very helpful for English writing. These technologies provide a stimulating learning environment and can improve L2 learners' motivation and confidence about writing. However, most teachers and students lack the requisite knowledge to use Google Docs effectively in the teaching-learning process.

The benefits of Google Docs are perceived differently according to the academic level of the students, the way it is related with the academic interest of the students, the background ICT skills of students, and the background ICT pedagogic skills of the teachers. However, it is difficult to understand the academic needs of students belonging to year 5 of primary school, especially those belonging from EFL nations (such as Norway), related to the utilitarian aspects of Google Docs in English writing.

Similarly, it is also necessary to understand the pedagogic needs of English teachers at Norwegian schools from the perspective of Google Docs as web-based ICT tool. Previous studies have adopted either a quantitative or a qualitative approach to explore the utilitarian effects of Google Docs across teachers and students. However, such studies were unable to portray the latent relationship between different subjective responses (with each other) as well as those with quantitative variables. From this perspective, the present study was conducted as a mixed methodology study to identify such relationships. Therefore, the background that was considered for this study was justified and appropriate.

1.4 Significance of the study

Writing is an important element in teaching English, and the Norwegian curriculum also encourages teachers to use technology and develop pupils' digital skills. Teachers in Norway have wide access to technology, and it is interesting to learn more about how it is used in the teaching

of writing. The study will provide insights into how teachers use Google Docs and their reasons for doing so; it will also explore pupils' views about writing in English using Google Docs. The study would also identify the features in Google Docs and the ways they are used by students to enhance their English learning and writing skills. The results of the study will have implications for the ways in which Google Docs can be used by teachers to effectively support the learning of English. Therefore, the present study would help to understand the perceptions of students and teachers on the attributes and features of Google Docs that would enhance English learning and writing skills in the academia of EFL countries.

The findings might prompt the creators of Google Docs to redesign certain features in it that could further aid its utilitarian value to the end-users. Such assumptions are grounded in the methodology because the study incorporated mixed-method approach that provided *big data* in the form of qualitative responses. On the contrary, the quantitative data analysis enhanced the reliability and reproducibility of the qualitative data. Moreover, the evidence suggests that the utilitarian value of Google Docs in primary education has remained relatively unexplored, while in higher education, it has provided contradictory results in terms of academic performance. Therefore, it remains unclear whether the features in Google Docs are insufficient in aiding teaching learning of English, especially in learners belonging from EFL or ESL nations or the way the use of it is portrayed to the end-users, including teachers and students.

The study could provide further insights into the ways through which Google Docs might develop dependency on technology tools in aiding learning-teaching of English, especially in students. Finally, the study would provide invaluable insights regarding the utilitarian value of Google Docs in the primary school academic curriculum of EFL nations.

1.5 Research questions

The present study would explore three research questions. The research questions are as follows:

RQ1: What practices and perspectives characterize the use of Google Docs in learning of English in primary school children in Norway?

RQ2: What practices and perspectives characterize the use of Google Docs in teaching English to primary school children in Norway?

RQ3: : How does Google Docs influence teaching learning outcomes of English writing in Grade 5 children In Norway?

1.6 Methods

In this study, both qualitative and quantitative methods were used. Qualitative methods took the form of semi-structured interviews, lesson observations, while quantitative data were collected through a questionnaire and text analysis was also done in the form of qualitative analysis. Two Grade 5 classes and their teacher took part in the study. Thus, two interviews were conducted with the English teacher. The first interview was conducted at the start of the project and the second interview was conducted at the end. The purpose of the interviews was to understand what value the teacher gives to use of Google Docs in English lessons. The questionnaire was a key source of data collection from the pupils. The purpose of the questionnaire was to understand how the pupils felt about writing in English using Google Docs. Specific issues such as whether they preferred to work alone or collaboratively were also examined. Six English writing lessons of grade 5 (three each for 5A and 5B) were also observed. During the observations, the focus was on how the teacher and pupils used Google Docs for English writing. The writing tasks of the participants were also analyzed. This provided insight into the quality of the writing they produced and the use of features (such as images or the colored fonts) that were accessed from Google Docs.

1.7 Outline of the thesis

This thesis consists of six chapters. Following this first chapter, Chapter 2 reviews the literature related to the study, with a focus on digital writing, second language writing and the importance of using Google Docs. Third chapter describes the methodology of the study – the participating sample and how data were collected and analyzed. Chapter 4 presents the findings of study and discussed different kinds of data collected. Chapter 5 discusses the findings in relation to the research questions and existing literature. The last chapter presents the conclusion and discusses some implications of this study for practice and further research.

2. Literature Review

2.1 Introduction

This chapter presents an overview of theory and research relevant to the present study. Section 2.2 presents the importance of the use of technology is in the educational system and theories governing digital writing. Section 2.3 discusses theories of learning and section 2.4 explores the concept of writing. Section 2.5 presents second language writing, approaches to teaching second language writing. Section 2.6 describes second-language writers and section 2.7 analyses computer-assisted writing and its uses in the classroom. In section 2.8, the use of Google Docs and collaborative writing is discussed.

2.2 Technology in education

In this modern era, technology is seen everywhere in education. Technology includes the use of machinery for applying the knowledge to practical purposes, and it could be used in the form of software, hardware as well as internet. In developed countries, public schools are using technology to enhance the level of learning among students (Herold, 2016). Costley (2014) argues that technology has also become highly significant in the education system because pupils are more engaged and focused on their learning using technology. It opens many doors for pupils to learn effectively and it increases the chances of better learning in a friendly environment.

Cristen (2009) as cited in Costley 82014) argues that policymakers and educationists are focusing on updating the educational system by integrating technology. It is their preference to integrate technology in the educational system. Pupils are aware of using digital tools now because they are exposed to their use in daily routine in the form of texting, browsing, and games. Thus, it would be beneficial for the students to educate in an advanced way. According to Courville (2011), the ultimate role of technology is to facilitate the enhancement of knowledge and skills by increasing effectiveness and efficiency. Efficiency can be well-defined as quickness in obtaining knowledge, whereas effectiveness is directly linked with the operationally mastered knowledge. Both can be achieved easily, while incorporating technology, since it removes physical barriers. The removal of physical barriers not only allows a student to master skills and knowledge in their

academics but also it helps teachers to achieve their professional development goals and to assist them in grasping ideas to nourish the learning and teaching process.

Norwegian educational reform has made it mandatory to use digital technology in all the schools at all levels because it aims to develop critical thinking and makes the pupils smart learners (Madsen, Archard, &Thorvaldsen, 2018). The program for Digital Kompetanse (2004-2008) of the Norwegian Education and Research Department emphasized the use of technology for learning in primary and secondary schools. Knowledge Promotion (Lk20) also emphasizes the use of technology in Norwegian educational system so that they learners can learn and gain the knowledge smartly.

2.2.1   Theories Governing Digital Learning

The popular understanding of learning during the first half of the 20th century was to characterize and leverage a system of behavioral responses to physical stimuli as put forward by behaviorist linguists such as Thorndike in 1921 holds equally true in the present. This is the reason why innovative pedagogic approaches have come to existence, and the central theme of such approaches is to engage the students in the teaching-learning curve through multimodal stimuli among which technology is a major one. Different theories really to digital learning are shaping up pedagogic approaches. Digital learning is a form of instructional practice learning that utilize technology to strengthen the learning experience of students (Lynch, 2018). For example, the RAT (replacement, application, and transformation) model developed by Joan Hughes contemplated teachers should have an accurate assessment of the use of technology in the classroom. Replacement means that technology would not change the accepted instructional practices but would only act as different means to promote such practices. Amplification refers to the extension of efficiency, effectiveness, and productivity of the instruction practices(Lynch, 2018). Finally, transformation is the modification of different qualities of instruction that aid learning through innovation and active engagement.

On the other hand, the online collaborative learning model as developed by Linda Harasim ensures that the internet and connectivity could provide a learning environment through collaboration and research. Connectivism is another learning model developed by George Siemens, who is also known as the learning theorist of the digital age. The connectivism theory of digital

learning acknowledges that learning derives from forming connection while also nurturing the idea that it is no longer an internal process (Lynch, 2018). Rather, learning and writing come from the collaboration and presentation of ideas to others. The theories of digital learning indicate that Google Docs could foster pedagogic approaches as well as act as self-learning tool through collaboration and connectivity. It is for this reason that the collaborative potential of Google Docs is well recognized. However, the RAT model seems more appropriate for evaluating the effectiveness of Google Docs in increasing lexical and semantic skills.

These findings indicate that different theories pertinent to digital learning justified the area of this present research. On the other hand, the TRAPCK framework (technological, pedagogical, and content knowledge framework) emphasizes the degree of knowledge and skills that should be imbibed by teachers for using digital learning tools by their students (Lynch, 2018). Therefore, connectivism and collaborative learning of English by EFL learners through Google Docs might not be restricted to the design and content of the referred application but also the skill of their teacher who is using the same as a mode of instruction practice in the teaching-learning curriculum of English. Putting together the learning philosophy of active engagement through physical stimuli, digital learning approaches might be robust physical stimuli in ensuring active engagement of students in their learning process.

2.2.2 Technology in foreign language learning

According to Altun (2015), it is undoubtedly important for teachers and pupils to use technology in learning a foreign language. In this era, there is a high tendency amongst teachers to utilize technological tools to assist language learning in classrooms. In the past decade, technology has become an integral part of human life in the form of smart phones, Wi-Fi system of the internet, and computers. It has been used for shopping, media, personal communication, business communication and education. In the same manner, it is used for language learning as it tends to broaden the horizon of interaction and communication by providing better opportunities for language usage. As the new generation of teachers and pupils is already accustomed to technology in terms of its usage and control, they can be easily engaged with new technological tools to learn the target language in this regard. This enhances motivation by removing the old traditional methods of language learning as well as it brings valuable resources of language learning for

teachers and students. Efficient language teachers make language learning possible in natural environments where students can connect to real life experiences.

Chapelle (2003) argues that it is a common thought that if someone wants to learn English as a second language, he or she should visit the places where English is spoken. But as not everyone has access to such places, technology bonds together people who can communicate together for learning languages. There are many websites available that are helpful for second language learners, providing them linguistic opportunities. Technology has bridged the gap in learning English from those who are native to the language. Such approaches are essential because English is not only a language for written communication but verbal communication too. Therefore, it is necessary the way English is spoken in terms of lexical and semantic attributes.

There have been many recent developments in the use of technology. Researchers have shown their interest in the field of technology.

Zhao (2003) did a meta-analysis of the previous technological studies. The result of the study indicates that the use of technology is as effective as teacher-based language instruction. So, here we see different aspects and results of different studies. Lin & Yang (2011) conducted a study on foreign language learners to check the benefits of using Wiki technology. Students were asked to write a Wiki page and read the work of fellow students. They also commented on fellow students' written work. Later, students were asked about their experiences of using technology in EFL class. They were of the view that receiving immediate feedback from the teacher was helpful for the students. They also argued that using technology in writing activities helped them improve syntactic knowledge, vocabulary, and sentence construction.

2.3. Theories of learning

There are different learning theories proposed by different theories. Two learning theories, related to this study, have been discussed below which are exclusive and can be used to understand better how the pupils learn.

2.3.1 Cognitive learning theory

Cognitive learning theory is a theoretical framework that explains how people learn by observing, storing, and processing information. This type of learning emphasizes the role of mental processes in understanding and retaining new information. Cognitive learning theory has been used extensively to improve teaching methods and educational practices. Similarly, cognitive strategies such as metacognition (thinking about one's thinking) have improved learning and memory (Yilmaz 2011).

2.3.2 Collaborative learning theory

Collaborative learning theory emphasizes on the learning environment where learning. The idea of collaboration is derived from Vygotsky's (1934) idea of Zone of Proximal Development and Sociocultural theory. In collaborative learning, learners rely on one another and share their knowledge to complete the task. Unlike the traditional individual learning, the collaborative learning groups work together on a same task, and it results in the better understanding and good outcome of the task. Integrating technology in online collaborative learning plays an important role in learning. There are different collaborative tools that provide the document collaboration e.g., Google docs and Sheets. This theory is related to our study because pupils did online collaborative learning while writing on Google Docs. (Laal & Laal 2012)

Despite their different emphases, cognitive and collaborative learning theories share a common goal: to explain how people learn comprehensively. By understanding the learning mechanisms, educators can develop more effective teaching methods and educational practices. In addition, by understanding how people learn, individuals can better adapt to their own learning needs and styles.

2.4. The concept of Writing

Writing is the presentation of the information that is stored in our brains in the form of ideas. The result of the organization of these ideas into words is writing. (Günes as cited in Bulut 2017). One way of looking at the fundamental concept of writing is to consider it a skill that must be developed and taught to others. This means that to learn how to write effectively, students must be exposed to various writing tasks and activities (Gevers, 2018).

Furthermore, they must be provided with opportunities to practice writing to improve their writing capabilities. An alternative approach to thinking about the fundamental concept of writing is to consider it a mode of communication. Clarity and precision are required to effectively communicate ideas in effective writing, which means; that as a result, pupils must learn how to structure their writing clearly and easy to understand for their intended audience. For the most part, the fundamental concept of writing can be viewed in various ways (Gevers, 2018). But at the end of the day, it is a skill that must be developed and practiced to be mastered. A clear and precise communication style is also required for this type of communication.

2.5. Second language writing

Second language writing is a process of constructing meaning in a second language through written symbols. It involves using various linguistic and cognitive strategies to generate, organize, and express ideas in a second language. Good writing for primary school L2 students requires developing both linguistic and cognitive skills (Gevers, 2018). Linguistic skills involve the ability to produce and understand spoken and written language.

To write well, L2 pupils must be able to control their grammar and vocabulary. They must be able to select words that accurately convey their meaning, and they must be able to arrange them in correct grammatical order. In addition, they must be aware of the conventions of spelling, punctuation, and capitalization. Cognitive skills involve thinking about language and using it effectively (Pae, 2019).

L2 pupils must be able to generate ideas, make plans, and organize their thoughts. They must be able to pay attention to detail and edit their work for clarity and conciseness. In addition, they must be able to monitor their progress and evaluate their writing. Good writing for primary school L2 pupils requires developing both linguistic and cognitive skills. L2 students must be able to control their grammar and vocabulary, and they must be aware of the conventions of spelling, punctuation, and capitalization. In addition, they must be able to generate ideas, make plans, and organize their thoughts (Pae, 2019). They must also be able to monitor their progress and evaluate their writing.

Hinkel (2006) has suggested that second language learners should be taught grammar in an explicit manner in order to have a command of language. In this regard, knowledge of a lexicon is required that contributes to vocabulary learning. Furthermore, Warschauer (2010) highlights the importance of computers in teaching writing to second language learners. He quoted that in computer-assisted classrooms, students were more engrossed in learning English, and they were also more focused than those who were learning in traditional classrooms. Kutlu (2012) stated that the usage of technology in the classroom that to develop students 'writing process through usage of technology, the teachers also need to adapt to new roles, and they have to come in all prepared in this changing era of technology.

2.5.1 Integration of technology in writing

Pupils seem to be more engaged when writing digitally on computers and are less interested in traditional formal writing. Hence, it is important to combine digital technology with formal writing. Moreover, the importance of writing English accurately and appropriately cannot be ignored as it is taught internationally, apart from its use as a literary genre. Teaching English writing is important to address the needs for communication and expression ins students, especially L2 learners (Alanazi, 2013). The use of online technology helps in writing process by engaging such group interactions which are diverse in the form of cognitive and emotional aspects. Furthermore, this provides a social and technological learning environment which mediates such a writing process which is based on multicultural communities of practice (Woodrich & Fan, 2017).

A study was done on ESP students. Six ESP Students were part of the research. Different computer-assisted methods were used to teach them English. Students were introduced to the technology; first they were taught how to write an email on a paper, after a month, they were taught to write an email through tutorial videos. Pre and post writing results were checked. The results of the study demonstrated that the use of technology helped students in improving their writing (Kutlu, 2012).

Hyland (2019) is one of the famous linguists in the world, and he has done remarkable work in the field of applied linguistics and second language writing. He is of the view that many teachers have embraced the use of new technologies in the classroom as it enhances students' learning. Furthermore, digital writing involves composing on computers and incorporating images. Writing

on computers involves editing, drafting and revising the text at the same time. Changes can be made easily to the text, and students get facilitated easier to avoid grammar errors, use of vocabulary etc. Some students are visual learners, and they like to incorporate images in their assignments and writing tasks.

Warschauer (2002) highlighted the shift from teacher-centered to student-centered learning, and the use of digital tools in aiding such dynamics. Students use digital communication with their teachers and fellow students. They use emails, blogging, text messages and the use of social media platforms. However, technology is not a method of learning. Rather, it aids and establishes different methods of learning and students' writing behavior is improved with the use of technology. Al-Wasay (2020) did a meta-analysis on 18 previous studies. The result of the analysis suggests that technology has positive impacts on students' writings. The results of the analysis also suggest that most research was done on two stages of writing i.e., drafting and editing. Other stages of writing were not much focused in the research. Moreover, most of the research was done on university and college-level students and there was less focus on research among primary- and middle-level students.

2.5.2 Uses of digital tools in second language writing

With the increased use of digital technology in a learning environment, the process of writing has also been digitalized. Schcolnik (2018) stated that people who are more inclined toward digitalization are more comfortable using technological tools. About three decades ago, the writing process was totally different from what it has become now. Before the digital revolution, teachers used to spend uncountable hours in the libraries to get the related literature. Now Google Scholar is there to help the researchers in finding relevant databases to their research fields and in providing focused studies in just a simple one-click manner. Instead of writing all references manually, now Endnote can generate bibliographical entries automatically in no time. Online dictionaries and Google Translate in particular, have made writing in a second language is possible through machine translation.

Digital tools help students in second language writing. Schcolnik (2018) did a study to investigate the use of digital tools by writers, instructors, and researchers. The findings of the study show that some writing professionals use digital tools all the time. Others use digital tools

sometimes to get assistance in writing. The study also suggests that the writers have their writing toolkit according to their preferences, and they use it according to their choice to enhance their writing. Steel & Levy (2013) conducted a study on 587 EFL students in Queensland University, Australia. The aim of the study was to investigate the use of digital tools by students in EFL learning. It was found that the students were well aware of the benefits of using technology in learning. They used many digital tools in writing. Online dictionaries and translation software were mostly (82-85%) used by the students.

2.5.3 The role of translation in second language writing

Translation is a replacement of words from one language to another language. Awadalbari (2015) argues that for translating a text from one language to another language, learners should have a good grasp on styles of writing. Moreover, he says that the use of dictionaries is a technical skill, and all the students do not know the strategy of using translating tools because different words have multiple contextual meanings. Thus, the meanings of the words are changed according to different contextual meanings. So, the pupils should know the strategy of using monolingual and bilingual dictionaries first.

Razmjou (2004) is of the view that collaborative work leads to the better use of translating tools. Although, there are chances of pupils making mistakes in translating patterns but collaborative work and work with peers keep the learners alert during the tasks. In a study, Steel &Levy (2013) investigated the use of online tools of second language writers and argued that the use of online dictionaries was excessively used by the learners and called it the highest-ranked online tool. Moreover, it was argued in the study that the use of online dictionaries enhances pupils' learning, but the excessive use of translating tool, may hinder the pupils' actual learning capabilities. This is one of the issues that the present study explored related to the over dependency on Google Docs.

2.5.4 Approaches to teaching second language writing

According to Hyland (2019), different approaches to teaching second language writing are used by the teachers for the learners. Each approach for teaching a second language is unique in its own

way and has its unique features. Some teachers use these approaches separately, while some integrate different approaches for teaching second language writing. These six different approaches to teaching second language writing are briefly explained by Hyland (2019) as follows:

a- Structural Approach

This approach for teaching second language writing focuses on the structure of the language and the formal units of the texts. According to this approach, writing is the representation of the writers' linguistic and lexical knowledge, and the second language writers usually learn to write in the target language following this pattern. Moreover, Hyland (2019) explains that the development of second language writing follows a specific pattern. It is a four-stage pattern that involves a) Familiarization b) Controlled writing c) Guided writing and d) Free writing. Second language learners first learn the grammar and vocabulary, then they learn about the fixed patterns for writing and then they can write freely according to their knowledge and demands of writing.

a. Functional Approach

The functional approach to writing relates with the structures of the language to the meaning. It relates the description and narration of the texts to convey the meaning of the texts. The functional approach is inspired by the structural approach, for example, the use of paragraphs.

b. Expressive Approach

The expressive approach to writing emphasizes the role of the writer, rather than the structure of the language. Theorists, such as Elbow (1998) and Murray (2003), also focused on the orientation of the writer to make them expressive enough in the target language so that the personal experiences and views of second language writers could be achieved, regardless of the social and cultural barriers (Hyland 2019).

c. Process Writing Approach

The model of the process writing approach presents the framework of writing as 'planning-writing-reviewing,' and the role of the teacher in this approach is a facilitator through the writing stage (Hyland, 2019). Atkinson (2018) mentioned that writing is a multistage process that involves different stages in writing. Process approach of writing involves different stages, for example, brainstorming, pre-writing, drafting, editing, and revising. Therefore, it could be assumed that Google Docs have the elements of the process writing approach with the added advantage of collaboration. Durga & Rao (2018) argue that the process approach involves different stages of writing. Starting from the pre-writing and leading to the feedback, this approach involves the use

different cognitive skills of the writer. They further say that writing is an important skill in language learning.

Sun & Feng (2009) are of the view that writing is an important skill in second language learning. They claim that the teachers are now using the process approach to writing in the class. It has now been applied by many teachers in the class. They did an experimental study on two groups of students. They were being taught by two different models of teaching writing. The students who were taught in the process approach writing group, some of the students, who were generally good in studies, they performed better. The findings of the study suggest that the process writing is being taught in different teaching models at different levels and best possible results be gathered with this approach.

d. Focus on Content

The fifth approach to teaching second language writing focuses on the content of the language. A set of topics are prepared for the pupils, and it allows the pupils to gain some knowledge of the topics so that they become able to write meaningfully according to the content of the topics (Hyland 2019).

e. Genre Approach

The sixth approach to teaching writing, according to Hyland (2019), is the genre approach. This approach to teaching writing looks beyond the content and grammatical structures of the language in writing texts, rather it focuses to achieve something through writing. Unlike the structural approach, where the focus is on the linguistics patterns, teachers of the genre approach focus on texts and their specific contexts.

2.6. Second language writers

Hyland (2019) defines second language writers as those who write in other than their native language. Moreover, he says that second language writers have many characteristics that make them unique in their writings and there are many factors that make second language writers different from L1 writers. Second language writers come from different educational and cultural backgrounds. Although they have difficulty in expressing their ideas because of the lack and difficulty of using vocabulary in their writings, L2 learners are distinctive because of their bilingual and bicultural background.

Ivanic (1998) as cite in Hyland (2019) argues that writing shows the identity and uniqueness of the writers. A piece of writing shows the preferences, background, cultural influences, lexical and syntactic knowledge of the writer. There are different cognitive factors and processes that are involved in writing but there are also some cultural and social identities which are demonstrated in writing. Incorporating English writing skills in L2 learners would contribute to the development of literary works that are more cross-cultural.

2.6.1. Students' attitudes and perspectives towards second language writing

Writing has always been viewed a challenging attribute of language learning irrespective of lingual background, age, and academic level. It is even more challenging to write in English among EFL learners because of the fear of making grammatical, semantic, and lexical mistakes. Most of these students fail to meet the expectations of the instructors both in terms of communication and linguistics. Therefore, developing competence in writing in English not only aids student a platform to communicate uniformly with the world but also develop their learning skills related to grammar and literary genres in English. Bulut (2017).

With regards to writing in English is a challenge for EFL learners due to diverse demographics, different learning methodologies, and writing skills of their English instructors along with their background and experience, lived experience, and different insights and attitude toward writing differential insights. Although pupils may have different attitudes and perspectives towards second language writing, it is essential to note that they can still be successful in this area. There are several factors that contribute to success in second language writing, such as a student's prior knowledge and experiences, motivation, and their attitudes. (Piazza & Siebart, 2008)

With regards to pupils' attitudes, it is important to note that they can either be positive or negative. A positive attitude towards second language writing indicates that the student believes that they can be successful in this area. On the other hand, a negative attitude may lead the pupil to believe that they cannot write well in a second language (Chen & Yu, 2019). Despite the fact that a positive attitude is more likely to lead to success, it is important to note that students with a negative attitude can still be successful if they are willing to put in the effort.

It is also important to consider the pupils' motivation when looking at success in second language writing. Pupils who are highly motivated to learn and improve their writing skills are

more likely to be successful than those who are not as motivated. Additionally, pupils who have a specific purpose or goal for their writing are more likely to be successful than those who do not. Finally, prior knowledge and experiences can also play a role in a pupil's success in second language writing. Pupils who have had positive experiences with writing in their first language are more likely to approach second language writing with a positive attitude and be successful (Chen & Yu, 2019). Additionally, pupils who have had negative experiences with writing in their first language may be more likely to approach second language writing with a negative attitude and be less successful.

There are several factors that contribute to success in second language writing. These include a pupil's attitudes, motivation, and prior knowledge and experiences. While a positive attitude is more likely to lead to success, it is important to note that pupils with a negative attitude can still be successful if they are willing to put in the effort (Chen & Yu, 2019). Additionally, highly motivated pupils who have specific goals for their writing are more likely to be successful than those who do not. Finally, students who have had positive experiences with writing in their first language are more likely to approach second language writing with a positive attitude and be successful.

A study was done to see the perspectives and motivation level of the pupils and it was explored that the methods of instruction and motivation impacts in the development of literary skills among the pupils (Nolen, 2007). One study involving EFL learners enrolled in four writing courses in an educational institution in Palestine showed that the participants had a positive attitude towards writing. The positive attitude was primarily mediated by the writing courses in which they were enrolled, the textbooks and the teaching methods used, and their perceived writing skills and strategies (Jabali, 2018). The Jabali (2018) study showed the importance of pedagogic approaches, teaching-learning resources, and lived experience in language in motivating students to write in English. From this study, it could be assumed that Google Docs could be an effective teaching-learning resource that would motivate students to write in English provided their teacher highlights the way to use technology and the importance of writing in English enhanced their communication and linguistic skills. Although the Jabali (2018) study was conducted across university pupils, the attitude toward writing in English by EFL learners could hold valid for lower academic levels too. In this regard, Hall (2013) explored the English writing skills and attitude toward writing in English

across elementary school children. The author examined the writing experiences that motivated or discouraged to write in English and their impact on positive and negative attitudes toward writing.

Hall & Axelrod (2013) conducted focused group interviews with pupils of various grades in the elementary school curriculum to understand writing experiences of pupils. The study showed that the writing related to the topic of choice and the reward of publishing and sharing their work positively influenced their writing, while negative attitudes stemmed from assigned writing tasks and critical feedback from adults. These attributes were moderated by gender and previous writing experiences (rewards led to positive attitudes and criticism led to negative attitudes). Maturity through grade levels also invoked positive attitudes toward English writing. Moreover, more was the experience with writing; the more was the positive attitude toward writing. The findings of the Hall &Axelrod (2013) study could be used to develop curricula in English at all grades of primary school to 12th grade and also act as a roadmap for the professional development of teachers who are entrusted with teaching English.

Although the Hall & Axelrod (2013) study did not explore the mediating effects of technology in aiding writing in English, the subjective responses of the students showed that technology could invoke positive attitude for writing in English because technology such as Google Docs provided an opportunity to share, publish, and showcase their writing skills, which might motivate them to write in English. Interestingly, the apprehensions related to grammatical, lexical, and semantic skills that discouraged writing in English among pupils hailing from higher education were not evident in pupils belonging to the primary school level. From this perspective, it might be a misnomer to consider the utility of Google Docs in developing grammatical, lexical, and semantic skills, but it should also be noted that the respective skills are not jeopardized or remain unlearned by the introduction of Google Docs in the academics of primary school children.

2.6.2. Teachers′ attitudes and perspectives towards second language writing

The teaching of second language writing has been the subject of extensive research, with a particular emphasis on the attitudes and perspectives of teachers. While some teachers may approach second language writing with openness and enthusiasm, others may view it with suspicion or hostility, depending on their background and experience (Chen & Yu, 2019). The vast majority of research, on the other hand, suggests that teachers' attitudes and perspectives play a significant role in shaping their students' experiences of writing in a foreign language in the classroom. Gustilo

(2020) investigated the teachers' attitudes in his study and recommended to use the digital technology in second language learning. But Paker & Erarslan (2015) suggested that the use of pedagogical approaches also play an important role in addition to the teacher' attitude towards teaching.

Teaching second language writing as a means for pupils to develop their linguistic and cultural competence is particularly beneficial for teachers who want to create a positive learning environment that encourages pupils to take risks and experiment with new ways of using language (Chen & Yu, 2019). Teachers who approach second language writing from a deficit perspective, on the other hand, are more likely to place unrealistic demands on their pupils and to place more emphasis on surface-level errors than on the overall meaning and purpose of the text. Accordingly, future teachers must be given opportunities to examine their own attitudes and perspectives toward second language writing in teacher education programs in order to be aware of how these attitudes and perspectives might impact their teaching.

Teachers attitude toward English writing teaching was evident from a study by Tanveer et al.(2018) who highlighted the importance of problem-based learning (PBL) workshops related to teaching English writing is important in the development of pedagogic skills. Approximately, 78% of the participants felt the need for in-service training with modern tools that would aid pedagogic skills in teaching English writing. The study was conducted in an EFL nation, which vibrates the context of our present study. However, the study did not reflect the attitude of students toward English writing in EFL nations. Udu et al. (2021) conducted a study to evaluate the attitudes of teachers (n=38) and students (n=492) toward reading and writing in English. The subjective responses of the participants were obtained on English language teachers' attitude scale and English language pupils attitude scale, both of which are modifications of the Likert scale.

The reading and writing skills of the respective stakeholders were evaluated through a standardized test score (reading and writing achievement test). Multiple regression analysis was conducted to report the findings. The study showed that both teachers and pupils have positive attitudes reading and writing English, and the extent of the referred positive attitude was significantly correlated with the RWAT scores. These findings suggest that teaching and learning resources with or without technology should develop a positive attitude among teachers and students for facilitating English writing.

2.7. Computer-Assisted Writing

Writing is an important skill for communicating with others. Furthermore, writing is the expression of the writer's thoughts and his imagined world. Students learn to write from the beginning of their school life and use it for pen-picturing their ideas and reflections (Al-Wasay 2020). Computer-Assisted writing promotes higher-level learning in a motivated and engaged manner and students are digital platforms that could allow students to engage more in writing activities (Alanazi, 2013). Computer-Assisted writing gives students a different platform for writing. Hyland (2019) argues that most students and teachers find it very helpful for English writing. Evidence suggests that the use of new technologies provides a stimulating learning and communication environment and can improve L2 students' motivation and confidence in writing. In a study, Hirvela (2005) explains that writing on computers is turning into an important tool for learning. Ambrosa & Palpanathan (2017) investigated the effectiveness of Computer Assisted Language Learning which helped students to improve their writing.

2.7.1. Computer-Assisted writing in class

A study was done in an EFL classroom to investigate the usefulness of computer assisted-writing instruction in 44 Iranian students in an EFL class. The control group was taught with traditional teaching methods, while the experimental group was given computer-assisted instructions. Results of this study suggest that the experimental group performed better (Zaini & Mazdayasnab 2014). A qualitative study was done on 13 ESL students. They were enrolled in a computer-assisted course (WebCT). During the course, the students were able to give feedback on peers' work as well. Following the process writing approach, this interactive strategy helped them in learning English as a second language. Moreover, the study suggests that a computer-assisted learning environment in helped in learning a second language, and students can learn in an advanced and beneficial way (Ghandoura, 2012). This study highlighted the importance of collaborative learning in classroom teaching.

2.7.2. Advantages of computer assisted writing

There are several advantages of computer-assisted writing. Some studies, such as Ambrosa, Palpanathan (2017), Ghandoura (2012), Alanazi (2013) and Graham (2013), showed the impact and usefulness of computer-assisted writing in the learning environment. Writing on computers helps students in enhancing their writing skills. When students write digitally on computers, they do not have to make several drafts of the writing; rather, they can edit it on the computers on the same draft. They claimed that the quality of the writing is better when writing on the computers. The impact of computer-assisted learning was investigated by Madayasna & Zaini (2014). The students used word processing software in class. Results of the study showed that learners got automatic feedback during their writing tasks. The immediate feedback helped them in enhancing their writing skills. Furthermore, word processing software also assisted students in editing, revising, and correcting spelling errors.

2.7.3 Types of computer-assisted writing

There are different writing tools and software which are used in writing classes. Since technology has taken over the world of learning, we see that many English language learning tools are now used for learning purposes. Some of them are described below

● Microsoft word processor

It is a computer program that is used for writing. It is considered one of the leading writing software. When the students write on a word processor, they can edit and save the text immediately. In a study, EFL students' views about computer-aided learning were examined. The students were divided into two groups: the experimental group and the control group. Students who were in the experimental group used a word processor as a writing tool. It was concluded that students who used a word processor as a writing tool performed better in the writing test (AbuSeileek, 2006).

● Google classroom

Google Classroom is an innovative tool for learning in the EFL classroom. Teachers use it in the classroom for writing activities. Teachers design the writing tasks on Google classroom to make them inventive and interesting for the students. Google Classroom helps students in improving their writing skills. Students show more engagement when they learn different skills digitally using Google classroom (Albashtawi, Bataineh 2020)

- Grammarly

It is an extensively used writing tool for writing. When students write on Grammarly, this tool not only corrects the mistakes but also assists the students in choosing appropriate vocabulary and correct tense structures. If students are working on any assignment, they can get assistance from this writing tool for correcting the syntactic mistakes.

- Smartboard

The use of a smart board in the English classroom plays a vital role in the modern teaching curriculum. It is an electronic whiteboard that is used to meet the latest technological trends in learning. The use of visuals and interactive modes of learning enhance students' learning experiences (Cox, 2019).

Teachers design writing activities in such a way that it involves more students' interaction and engagement in the class. Teachers use it for warming up and brainstorming sessions. Specific pens are used for writing on the smart boards. Students are keen to learn using this technology in the class. For example, students could show a picture of the human body on a board and ask the students to write the parts of the body on the smartboard using a smart pen. The display of the large picture could grab students' interaction more actively.

- Email

Emails are also used for writing purposes in the classroom. It is an interactive model of communication between teachers and students. Students are usually given tasks of writing emails in EFL class. The advantages of email are that the student could write and send it to the teacher from anywhere. It is usually student-centered; students could write accordingly to their own comfort zone. Writing activities could be designed for the students to develop an interest in writing. For example, the teacher could ask the student to write on a given topic and send it to their fellow students. Students could also be asked to send their emails to the groups. The teacher could also engage students by sending them an email and asking them to find the mistakes in the email. By using their cognitive abilities, their writing skills could be developed rapidly.

- Blogging

It is an important tool of learning for English language learners. Teachers usually ask their students to write on blogs. It is a good platform to share one's thoughts with several people. Teachers ask their students to write on blogs, and other students could share their thoughts and comment on others' writings. Pictures and videos could also be shared to make them attractive to other students (Alrubail, 2015).

● Social media platforms

The use of social media has increased over the last decade. Many people are using it in their daily routine lives. It has also been used as a tool for learning. We see that there are many applications like Facebook and Twitter that could be used for writing purposes. A dedicated group could be made and used for the designated writing topics. It could be visible to the public or group members. For example, Twitter is beneficial for L2 writers. The limited word limit for writing makes it writing to the point about the topic (Hyland, 2019)

2.8. Google Docs

Google Docs is the word processor software offered by Google within its Google Drive service. Google Docs encompasses web-based applications for word processing, spreadsheet work, and presentations. These tools allow users to create, share, and publish basic files (Judd et al., 2009). Google Docs provides a new experience in learning English. The students can upload their writing from Microsoft Office or create it from the scratch. They can share it with other students and teachers and let them be a part of their work (Afdaliah et al., 2019).

Different studies have shown the technological impact of the writing. For example, Suwantarathip & Wichadee (2014) observed the influence Google Docs might have on Thai university students' writing and on group interactions they have during work. Their quantitative study revealed that the students who wrote critiques on each other's work by using Google Docs not only achieved a higher level of understanding of the writing process but also did well in general on their post-tests taken individually as compared to those students who worked using face-to-face interaction.

The study reveals that Google Docs usage increases the writing capability of pupils in groups as well as at the individual level. It surely improves the productivity of pupils in writing generally.

Other researchers also focus on understanding the association between the comfort of students and usage of technology as anxiety while writing can persist in second language learners, and it can lead to affect their competency in learning English. If students would not feel comfortable, they will not be able to write effectively. In this regard, Suwantarathip & Wichadee (2014) witnessed those students who were using Google Docs as their means of writing were more confident as compared to those who were not using Google Docs. This shows that Google Docs can be of great value for making students write effectively and with great motivation.

Google Docs is a real-time communication tool. It allows its users to create a file while keeping all of their records saved and with the facility to trace history. Google Docs is available on all devices. Since it is a word processor, one can share and collaborate with others on the same document. Once a teacher sets a task for the students, it is easier for the students to get access to the task embedded in their writable assignment (Gavin, 2019). One of the major features of Google Docs is collaborative writing, as it helps to learn interactively. Students need to make an account on Google Docs via G-mail account, and then they are able to share their docs with fellow students (Perron & Sellers, 2011).

It is suggested that Google docs enable students to work in a student-centered learning environment. With the help of different writing features, students learn to write and learn different procedures (Oxnevad, 2013). Smart Spell Checker with Grammar Support and integrated reference tools are powerful Google Docs features in writing. The research tool allows research while one is writing by accessing different Google services such as images, quotes, dictionaries, spell checkers and Google Scholar from your document (Palpanathan, 2017).

Several studies have advocated the use of interaction between peers to enhance active learning in the classroom. This active learning can further promote problem-solving and decision-making skills in students (Kieser & Golden, 2009). This concept can be found in Vygotsky's (1978) socio-cultural theory, in which he gave the notion of collaborative scaffolding. It supports the notion that positive interaction amongst peers leads to better writing skills. To help active peer learning, online interactive activities can offer to suffice time and space to learners where they can easily collaborate and achieve given tasks. Thus, it supports teamwork and builds social skills in them. Consequently, technologies such as wikis, blogs, and Google Docs can promote collaborative writing amongst peers.

Lin &Yang (2011) argues that Google Docs has both tools, wikis, and blogs, which ultimately support collaboration which is time and energy saving. In this regard, Ishtaiwa & Aburezeq (2015) have examined the influence of Google Docs usage on student-to-student interaction and found out that it enhances the interaction and social skills of students by commenting on each other's work and by sharing information. Google Docs allows students more time to check and edit their work at home as well before their class time begins, which leads to more interaction and practice. This is further supported by Godwin-Jones (2008), who says that Google Docs is one of the best editing text tools as it supports student interaction in a positive and real learning environment. By using this, the peer editing practice not only enhances their interaction and cooperation but also supports the development of high critical thinking skills such as evaluation by giving and taking comments on their peers' work at their own pace and space without any physical barrier. This further supports the idea of collaborative writing using Google Docs (Ebadi & Rahimi 2017).

The utilization of Google Docs in vocabulary improvement was reported by Liu et al. (2016). According to the study result of Liu et al. (2016), there was a noteworthy escalation in the pupils' English vocabulary mean scores when they used Google Docs from 23.22 in the pre-test to 29.41 in the post-test. The survey results revealed that the tool enhanced the learners' English vocabulary and expressed positive attitudes towards its usage in learning English. In addition to vocabulary development, Ambrose & Palpanathan (2017) discuss the improvements in pupils' writing skills in a study and argue that the pupils were also in favor of Google Docs in writing lessons when they were asked about it.

By facilitating document editing, Google docs improve collaborative writing. According to research, students work more efficiently on collaborative writing, write longer essays, and quickly finish the work when they use Google docs for editing (Apple et al. 2011). According to Sharp (2009), the Google docs tool for collaborative editing enables students to concurrently edit documents and see the alterations others made. This distinctive characteristic makes Google Docs a great instrument that enhances language classroom writing. Chinnery (2008) claimed that Google docs are a fecund instrument for designing learning activities creatively and differently. For instance, a teacher could intentionally post a manuscript with faults for the students to rectify.

2.8.1 Google Docs as a tool for Collaborative writing

In educational communities, collaborative learning is one of the important components. This collaborative learning incorporates social interaction tools and virtual environments. Now, this is the role of a teacher to use this collaborative technology to design such tasks based on computers that would facilitate and enhance peer cooperation and social skills. This sort of learning must help in constructing such opportunities for students where they can use language in a functional manner with their own willingness (Zorko, 2009). Many collaborative tools are used these days for learning purposes. These tools are designed for the students so that they can learn interactively and collaboratively in the classroom. (Hadjerrouit, 2011).

Google docs could be used as a collaborative tool in writing activities. Woodrich & Fan (2017) conducted a study and examined some of the documents that were written in the face-to-face setting to those written online in a collaborative manner. The outcomes of the study suggest that positive results are achieved when students work collaboratively using Google Docs. One of the important points that were highlighted in this study was that students, who worked anonymously in group work activities, achieved better results in the progress of their writings. Moreover, Google docs should be used in primary and middle classes during writing activities.

Suwantarathip (2014) studied the impact of using Google Docs on students writing in a Thai university. The results of the study suggest that students who worked collaboratively and interactively in their writing activities and commented and critiqued on group tasks gained a better understanding of writing tasks. Furthermore, they argue that students who used Google Docs as a collaborative tool were more comfortable during the tasks, and they gained a better insight into the writing process. In a study, it is stated that students be given information about the use of Google docs features first so that they could gain the knowledge about using this digital tool. By gaining knowledge of this digital tool, they can perform writing activities effectively (Zorko, 2019). Student-student and student-instructor interaction was investigated in a study. The results of the study suggest that Google Docs is an important digital tool for its interactive and collaborative features. Further, it is suggested that teachers should design the writing activities precisely according to the needs of the students so that they can perform efficiently in their tasks. (Ishtaiwa, Aburezaq, 2015).

The use of Google docs may result in formatting problems and collaboration complications. Although Google docs have many benefits for English writing, using it as a teaching tool has some

limitations, which educators need to note to obtain better outcomes. In a study by Zhou et al. (2012), learners reported some problems with using Google Docs. They perceived that the tool complicated the collaboration as every group member's contribution was hard to keep track of. Other learners said their work was less efficient due to problems related to document formatting (Zhou et al., 2012). Specifically, learners noted incompatibility between Google Docs's formatting and some non-web-based application for word processing. As a result, going forth and back between the two became problematic due to the incompatibility.

Vallance et al. (2010) argued that other factors contributed to those challenges students encountered while using Google Docs. Firstly, students may lack an understanding of Google Docs operations or features, or problems they face may deter them from using the tool; thirdly, the online collaboration problems may not be attributable to the tool, but instead, learners' social skills. Therefore, providing detailed demonstrations in class with specific examples can help educators successfully integrate Google docs into their instruction.

2.8.2 Practical uses of Google Docs in EFL class

Firth & Mesureur (2010) demonstrate different applications in which Google Docs could be used in an EFL class. Four levels of applications, i.e., program management, course management, special programs, and class project, have been demonstrated by them. They are of the view that many other applications could be used in EFL classes according to the needs of the students in which Google Docs could be used for learning purposes.

According to Firth & Mesureur (2010), one of the most beneficial features of Google Docs is that it is free of cost, and it also has a web browser. Moreover, it allows students to make their documents according to their needs and academic requirements. It further makes it easier for students by letting them edit their documents online, and they do not need to buy anything as compared to Microsoft Word, which would force students to buy certain features. Gmail is an added feature in Google Docs, which makes submissions easier for learners and teachers. Teachers can also check the plagiarism ratio when they receive a soft copy of students' work through Gmail. Moreover, Google Docs carries more worth when it comes to individual as well as group projects. Such collaborative online learning motivates students more when they receive a response in the form of comments on their drafts from their teachers rather than marks. In this regard, the revision

check history feature makes it handy for the teacher to measure different stages of writing development in a pupil.

Furthermore, the initial stage of mistake finding makes it timesaving for students as they can check their mistakes in the early stage of writing a document. This leads to the satisfaction and motivation of students as they feel confident that they are on the right track in writing a certain document or assignment. Ebadi, Rahimi & Harati (2017) investigated a study on the online peer-editing effects using Google Docs. The students could review and edit the writing of peers during the research. After the findings, it was suggested that students learned some basic features of writing from their peers in terms of grammatical structure and vocabulary and sentence-making features. Therefore, it is said that Google Docs helps students in improving their academic writing effectively.

2.9. Conclusion

To sum up, it could be said that technology plays an important role in language learning. Learners use technology according to their needs and preferences. Computer-Assisted learning has gained significant momentum with the passage of time, and Norwegian classrooms are equipped with digital technology for learning purposes. The aim of the study here is to explore and investigate how students are writing in the classroom using computers. The study would also give an insight into the students' experiences of using technology for writing in English in the classroom. However, there is still a gap in finding out the importance of computer-assisted language learning using Google Docs. This research will examine the features which Google Docs offers to edit, comment, and share writing tasks amongst students by providing them with enough time and space. To date, much research has been done on university and high school students regarding the use of computer-assisted writing. This study will investigate the experiences of younger primary school students using computer-assisted writing in the classroom.

Integrating Google docs into classroom instruction is beneficial, especially in English writing lessons, but it may bring some challenges. The use of Google docs enhances pupils' writing skills, enabling them to write efficiently and faster. Also, it allows learners to develop English language vocabulary. Google docs allow collaborative document editing, and one can see changes other parties make in real-time. However, if the pupils are unfamiliar with the tool's operation,

formatting and compatibility problems may result. The literature failed to establish the way Google Docs is useful in reading and writing English for primary school children with an EFL background. Moreover, the literature did not show the way learning theories related to digital learning would foster the learning of English in EFL learners.

3. Methodology

3.1 Introduction

This chapter presents the methodology used in the research. Following a discussion of mixed methods research, the four different data collection methods used in this study will be discussed in turn. Data analysis and ethics are also discussed. As noted in Chapter 1, the research questions the study addressed were the following:

RQ1: What practices and perspectives characterize the use of Google Docs in learning English writing in Grade 5 children in Norway?

RQ2: What practices and perspectives characterize the use of Google Docs in teaching English writing to Grade 5 children in Norway?

RQ3: How does Google Docs influence teaching learning outcomes of English writing in Grade 5 children In Norway?

Mixed methods research fit best for this study. The endpoints, such as the utility of Google Docs in different aspects of teaching-learning was presented and analyzed through quantitative data. On the contrary, the subjective responses or latent attributes that translated into the quantitative data, which needs to be interpreted thematically and qualitatively. Since the study was carried out across EFL pupils, it is expected that they would find it difficult to express their perceptions on the use of Google Docs in enhancing their English writing skills.

3.2 Approaches to research

There are different research approaches that are used for data collection. These approaches are discussed in detail in subsequent sections.

3.2.1 Qualitative research

Qualitative research is defined as an iterative process where we get the improved understanding of a certain phenomenon through significant distinctions and approaches. In this regard, interpretive

phenomenology analysis has been widely accepted as a robust and comprehensive approach for analyzing latent relationships that underpin the specific phenomenon being studied, and apart from subjective or qualitative data, there is no quantitative or alphanumeric data to establish such relationships (Aspers & Corte, 2019). Qualitative data analysis involves the coding of subjective responses of the study participants according to the themes selected or identified by the researcher, but those themes should be aligned partially or fully with the research question that is being investigated (Aspers & Corte, 2019).

There are several advantages of using qualitative research. Firstly, it helps cover changes in attitudes within the target group. For example, it might help in investigating changes in mood in the workplace. Secondly, it usually provides a much more flexible and coherent approach. A researcher could align or increase the number of variables, including endpoints, based on the subjective responses of the interviewees (Austin & Sutton, 2016). It also helps the researcher to be more skeptical and speculative about the individual areas he has chosen to investigate. Through developing instincts, the researcher is confident in understanding where vital information may be found. Qualitative data also generates big data that is helpful in exploring a phenomenon.

Qualitative research has some disadvantages, such as the sample size. If a small sample is used to represent a large group, it may not provide a comprehensive representation of the view of the whole group. As a result, the reliability and reproducibility of qualitative data are often challenged. Secondly, the probability of selection bias cannot be ruled out because a researcher might adapt judgmental or accidental sampling instead of more robust probability sampling techniques. There is also the possibility of self-reflection bias (Austin & Sutton, 2016). Another disadvantage of qualitative data is the veracity and volume with which it is generated, especially when interview questions are open-ended. Therefore, despite qualitative research, researchers often formulate closed-ended questions to remain focused on the interviews and that the interviewee does not deviate from the topic. Although the sample size is a limitation in qualitative research, the evidence suggests that a sample size of 12 to 14 individuals is sufficient to achieve data saturation. This means if more participants are considered in the research, data redundancy or experimental bias will come into play. Such attributes are likely to reduce the reliability of the findings that were achieved with a small sample size. From this perspective, the sample size for this research cannot be undermined.

3.2.2 Quantitative research

Quantitative studies are those where a phenomenon or an endpoint is explained and analyzed by alphanumeric data. In this type of study, only such interactions between variables could be explored if they are quantitative. Quantitative data could be of two types; continuous (measured up to decimal places) and discontinuous (measured up to whole numbers). The quality of quantitative data is essential for selecting the statistical tests for the inference that would be used to analyze the referred data (Dettori & Norvell, 2018).

Quantitative research comprises data collection techniques, which provide numerical data through questionnaires, opinion polls, and surveys. The data are analyzed by standardized software. It also involves the process of both collecting and analyzing numerical data. Quantitative research is especially fundamental in finding patterns and making relevant predictions. The strengths of quantitative research are multiple. Since the findings could be easily tested and verified, the reliability and reproducibility are also high. Secondly, it is quite straightforward, even in the process of conducting qualitative research (Hoy & Adams, 2016). In that case, the process of interpretation and presentation of those data becomes quite effortless. On the other hand, the disadvantage of this research could be that it might not prove itself to be very sensitive in uncovering the reasons for some observations or the underlying details of the matter under study.

In some instances, quantitative research may just fall short in the pursuit of statistical correlations when exploring the cause-and-effect attributes of a less studied or less known phenomenon for which qualitative studies are appropriate because the latter incorporates the tenets of exploratory research. Such limitations in quantitative research may force the researcher to overlook some of the fundamental themes and even relationships. Just by focusing on the numbers only, one may miss critical information that may be valuable as deemed by exploratory and phenomenological approaches that are the hallmark of qualitative research (Hoy & Adams, 2016). In case of any errors in setting up the model, it may lead to complete invalidation of the results. Lastly, it may be misleading. Some of the opinions and biases used by the researcher may have significant repercussions on the quantitative approaches integrated into gathering information. Qualitative data is often presented as alphanumeric dummies that make them useful for quantitative analysis or mixed methodology research, but the context and content of such data are often lost through such approaches. Therefore, it is justified to conduct research either qualitatively or

quantitatively. Nevertheless, each of these research designs has its limitations and strengths, which foster mixed methods research.

3.2.3 Mixed methods research

Mixed methods research is a type of study where qualitative and quantitative methods are combined. It integrates an approach where the researcher decides to analyze both qualitative and quantitative data within the same study. It is a reliable approach as it aids to improve the quality of the research (Johnson & Christensen, 2012). In this approach, either both types of data are compared or are changed from one form to another during data collection and data analysis. Therefore, a mixed methodology study helps to integrate qualitative data with quantitative data depending on the research question or hypothesis investigated.

Mixed methods research categorically compares both qualitative and quantitative data. As a result, it is possible to highlight and note the comparisons and the contradictions emerging from the two data sets. It also makes it easy to reflect on the participants' points of view. Generally, mixed methods give the participants significant freedom by giving their own experiences, which makes it very easy to verify the results (Heyvaert, Hannes & Onghena, 2016). It also emphasizes scholarly interactions. Mixed methods studies enhance great interaction among the multidisciplinary scholars involved in mixed method, qualitative and quantitative analysis.

Lastly, it allows the collection of rich and comprehensive data. Primarily it mirrors the fundamental ways in which people collect data through the integration of both qualitative and quantitative approaches. The disadvantages of mixed methods research suggest that it makes evaluation difficult by increasing complexities, especially while interpreting and analyzing qualitative data in terms of quantitative data or vice-versa (Heyvaert et al., 2016).
In this study, the qualitative methods used were interviews and lesson observations, and the quantitative methods were text analysis and questionnaires. The results of both the qualitative and quantitative methods were combined to get a broader picture of the issues being studied.

3.3 Data Collection

In this section, the four data collection methods used in this study are discussed: semi-structured interviews, lesson observations, text analysis, and questionnaires. In terms of participants, these

consisted of one teacher of English and two Grade 5 classes that she taught. Several schools were contacted by email prior to the research, but most did not reply. Once they were chosen for the study, they did respond positively, and the teacher was contacted once permission from the Head Teacher was obtained to conduct the research.

3.3.1   Semi-structured interview

In educational research, a distinction is often made between structured, semi-structured, and non-structured interviews. This study used semi-structured interviews. This approach to interviewing has several features. For example, it offers interactive ways of gaining information from the respondents, and due to the flexibility of answering the question, the attitudes of respondents are understood more deeply (Hyland, 2019). One advantage of semi-structured is that the interviewer sets the interview guide ready, but the questions of the interview can be developed during the interview according to the responses of the interviewee, and two-way communication is encouraged during the interview (Dörnyei 2007). Such interviews also have some disadvantages; for example, the researcher should have good in-depth knowledge of the subject so that he/she could change and develop the questions of the interview accordingly. If the researcher does not have the knowledge, then gaining in-depth information from the interviewee could be difficult (Dörnyei 2007).

An English teacher at a Norwegian primary school was interviewed twice for the data collection. She taught English and Arts to Grade 5 students. Two interviews were conducted with her, the first interview at the start of the research and the second interview at the end of the project. The researcher got into contact with the teacher when she received a confirmation from the principal of the school for data collection. The teacher helped the researcher in data collection and played a very positive role during that period. The duration of the first interview with the teacher was thirty-five minutes, and the second interview was conducted for thirty minutes. Both interviews were recorded with a recorder by the researcher.

Before conducting the first interview, an interview guide was prepared (see Appendix 1) and piloted with an English language teacher. This helped the researcher improve her interviewing skills and to check the quality of the questions. An interview guide was also prepared before conducting the second interview with the teacher (see Appendix 2). Recordings of the interviews

were beneficial because they helped to transcribe both the interviews by the researcher during data analysis.

The location of conducting the interviews also plays an important role in data collection. Due to the Covid 19 pandemic, it was difficult to visit the teacher for the interview, so it was done digitally via Zoom. Instead of asking yes/no and agree/disagree questions, open-ended questions were prepared for the interview so that the teacher could talk with more ease and flexibility. The first interview with the teacher consisted of three different sections; in the first section, background questions were asked, for example, "For how long you have been teaching the English subject?" The second section of the interview questions consisted of the use of technology with a focus on Google Docs, for example, "Is the use of Google Docs an advantage or disadvantage when writing English digitally?" The third section of the interview consisted of questions regarding students' writing tasks on Google Docs, e.g., "Do the students work on English writing tasks individually or collaboratively?"

The final interview was conducted with the teacher at the end of the research, and an interview guide was prepared after analyzing lesson observations, questionnaires, and test samples. The final interview also consisted of several sections. In the first section, questions about the role of translation were asked. The next section consisted of questions regarding the benefits of using Google Docs for story writing. Furthermore, questions about grammar, vocabulary, and content of writing were also included. This second interview was valuable because it allowed the teacher to discuss the thinking behind the way she used Google Docs in the lessons observed.

The researcher had chance to conduct the study only with this teacher. When the principal replied to the researcher about the confirmation of getting the sample from the school, he mentioned the names of the two teachers in the teacher. One of the teachers never replied to the researcher on e-mail. The other teacher (participant of the research) replied to the researcher and the researcher had only the chance to conduct the research with that teacher. She faced some problems conducting interview with the teacher. For the first interview, the teacher was two minutes late for the first interview. During second interview, the call was disconnected one time.
Both interviews were recorded on the researcher's own recorder and were transcribed in the forms of notes right after both interviews. The interview recordings were deleted after the transcription.

3.3.2   Lesson Observations

Hyland (2019) argues that other forms of data collection administer what people think and do, but the observational data collection gives the indication of what happens during the data collection setting. It includes the involvement of the researcher in data collection. Actions involved in the method are observed through live or recorded performance. Dörnyei (2007) argues that the first advantage of lesson observation is that it gives the opportunity to the researcher to experience firsthand the data collection setting. Furthermore, it allows the researcher to see the scenario directly rather than the participants say they do. Secondly, some participants exhibited poor verbal skills. At the same time, the negative side of the lesson observations suggests that the presence of the observer can affect how the teacher and pupils behave. Moreover, the observations do not ponder inside the minds of the participants.

There are different types of observational methods for the data collection, for example, structured observation and unstructured observation. Given (2008) suggests that a structured observation should be highly planned and detailed. A semi-structured observation is a bit planned as well as it can go unplanned also during the observational fieldwork process. Lastly, in an unstructured observation, the researcher does not quite know the sort of information he or she would be looking for related to a research question. It is carried out in a more haphazard manner, unlike structured observation. Moreover, a hypothesis or a question will be formulated when something clicks the mind of the researcher during the observation.

Dörnyei (2007) divides the role of the observer as a participant and a non-participant during the data collection. The observer is a participant when the researcher is involved with respondents in data collection, whereas in the role of non-participant observer, the researcher is not a part of the respondents. During the lessons, the researcher was a non-participant, and he observed the behaviors of the teacher and pupils and made notes.

In research, observation fieldwork is one of the chief methods to study small groups in a natural setting, which can be further divided into participant and non-participant observation. Ostower (1998) suggests that both types are used to find out the needs of different groups of people or behavior towards a particular occurrence in a work setting. These techniques give a clear view to the researcher of the behavior of the selected sample, and it is more objective. This study involves non-participant observation. Lesson observations were done in six English writing lessons. Three

English writing lessons for 5A and three lessons for 5B were observed. In addition to other methods, lesson observation was used because this method gives the researcher all those minor details of the phenomena which might not sometimes surface through interview questionnaires.

During the observations, the research focused on the following issues: 1) How the teacher set activities using Google Docs; 2) What students did during Google Docs writing lessons; 3) The features of the writing that they produced. Moreover, the features of Google Docs that they were using during the English lessons, e.g., using colorful fonts, use of images in writing, colorful highlighting, and use of Google translate, were also monitored. The unstructured observation was done during the data collection of this research. However, the researcher did not prepare any checklist for the lesson observations. The recording was not done during the lesson observations to keep the participants at ease. She observed the lessons and prepared the narrative notes during the lessons so that the teacher and the pupils could behave naturally during the data collection.

In the pre-writing stage, when the lesson started, the researcher was sitting at the back of the classroom and wrote the narrative notes as how the teacher started the lessons. In the writing stage, the researcher observed the attitudes of the pupils that how the pupils wrote in the writing stage and how often they received the teacher's help. During the lesson observations, the researcher gave importance to the things whatever was significant to the researcher. In the first two lessons of 5A and 5B, pupils wrote the stories. In the third observational lesson, the pupils did collaborative writing. During the lessons, it was observed and recorded with the narrative notes that how often they were getting the teacher's help to use colorful fonts, Google translates, and colorful highlighting in Google Docs. When the researcher was done with the lesson observations which took three weeks to observe the lessons, then she asked the teacher to provide her of all the story writing samples. She agreed to provide her the writing samples via e-mail.

3.3.3. Text analysis

Writing is one of the important skills in second language learning. Since it is a very significant English learning skill, it is used to assess second language learners' writing abilities (Javadi-Safa, 2018). The writing conventions, grammar, vocabulary, and linguistics knowledge are used by the second language writers to express their second language (Javadi-Safa 2018). Hyland (2019) is of the view that examining writing is one of the important parts of the data collection methods. The

text samples gave enormous amount of data for the research. Analysis of the texts is usually done in the approaches, where writing samples are obtained as a result of any activity. The textual data shows how the communication is done using written language. Different features of writing are analyzed, which show the choices of grammar and vocabulary by the researcher.

In this research, text analysis helped to observe the natural writing practices of students. The use of text is one of the techniques being used in this research. Students wrote different texts using Google Docs which were analyzed to answer the research question by the researcher with the permission of teacher. Pupils' texts were analyzed which they produced during the lesson observations. For the text analysis, different aspects of writing (use of grammar, use of content and mechanics of writing etc.) were observed, and it was also analyzed how the pupils had used the features of Google Docs (colorful fonts, highlighting, and the use of images in their writing.

For the present research, the writing samples were an outcome of the three English writing lessons, pupils wrote stories in the first two lessons, and the third writing lesson was based on collaborative writing. When the pupils were being observed in the three writing lessons by the researcher, the researcher asked the teacher to provide her the writing samples. The teacher confirmed the researcher that she would provide her the writing samples in some days. The very next day, after the observation was completed, the teacher sent her the samples of the pupils' story writing. The text samples were not collected after each lesson observation but those were sent via mail to the researcher when the three lesson observations were done.

Thirty -four texts were provided to the researcher, but the researcher analyzed only thirty-two texts. The reason for excluding the text samples was that the pupils didn't plan or write the story and the work submitted to the teacher was completely blank. So, the researcher decided to exclude he two story samples and analyzed thirty-two story writing samples. For the collaborative-writing, six groups were made in 5A, and seven groups were made in 5B. So, total thirteen groups were made by the teacher, but the teacher provided only eleven groups' work to the researcher. The reason for not providing the rest of the two collaborative writing samples was that one group didn't submit the work to the teacher and the other remaining written sample was missed by the teacher. There was some technical error, so the teacher lost the one sample of collaborative writing.

3.3.3   Questionnaire

Hyland (2019) defines a questionnaire as a means of collecting a large amount of structured, easily analyzable information about the characteristics, beliefs, or attitudes. According to Hyland, there are different kinds of questionnaires e.g., closed-ended, open-ended, and structured items with scaling or ranking options to select. A simplified Likert type scale was selected to answer the questions. Instead of using statement answers in words like agree or disagree, emojis were used to make that appealing for the children. A Likert scale is a type of scale that is used in survey research to measure the respondent's attitude about the subject. The varying attitudes and behaviors of respondents can be measured easily by using this scale in the research (Elliott, 2021).

Thirty-four pupils of Grade 5A and 5B filled in the questionnaire. The pupils were ten years old, and their age was kept in mind for designing the questionnaire. The questionnaire was first made in English (see Appendix 3). After that, it was translated into Norwegian language (see Appendix 4), so that the pupils could understand the statements of the questionnaire without any ambiguity. The questionnaire was prepared and sent to the class teacher via the email. She printed out the copies and had them completed by the pupils. Due to the Covid-19 pandemic, it was difficult for the researcher to get the questionnaire that was administered by her. It took almost 20 minutes to get the questionnaire filled. The questions were designed based on a 10-point Likert scale with a zero as the lowest denomination for a response and 10 the highest.

Rensis Likert was a social psychologist who invented this scale in the 1930s, and the scale proposed by him is widely used by researchers. Likert type questions usually have five scales e.g., ranging from strongly disagree to strongly agree (Elliott, 2021). The questionnaire consisted of three sections; the first section of the questionnaire consisted of the five feeling questions like how you feel when 'The teacher asks you to write the text in English'. The second section of the questionnaire consisted of eight attitude questions like 'Using Google Docs is not difficult,' and pupils had to tick one option out of three. The third section of the questionnaire consisted of four behavioral questions such as how often you 'use the automatic spelling checker on Google Docs.' For designing the questionnaire, pupils' age was kept in mind, and it was made colorful to keep them engaged while filling in the questionnaire. Questions should be kept as short as possible to make it understandable for the children. The principle that was followed for framing the questions was that put forward by Austin (2014) and was as follows:

1. Less number of response options should be used.
2. Simple questions should be used to avoid uncertainty

3. Easy vocabulary should be used according to the child's age group

4. Questions should be written directly, while indirect questions should be avoided.

5. Negativity should be avoided.

6. Questionnaires should be administered in an environment where children feel comfortable

Dörnyei (2007) highlighted that structured or unstructured questionnaires provide a large amount of data in less time, it can be administered to a large number of respondents in a short duration and if the questionnaire is well constructed, it takes a short duration in processing the questionnaire. Moser & Kalton claims that data from questionnaire gives superficial information about the topic (Dörnyei, 2007). Moreover, for getting a detailed data, other methods of data collection should also be used in the research.

3.4 Data analysis

After collecting the data, the next step is to analyze the obtained data. For this study, data was collected with qualitative and quantitative methods. To analyze the data of the semi-structured interviews, they were transcribed first. After transcribing the interviews, different codes were created according to the themes so that the data could be organized into different themes. Same coding schemes were applied to the unstructured lesson observations. Written notes were taken during the lesson observations. Different codes were given to the data according to the theme, such as the pre-writing and writing stage of the English lesson. For analyzing the structured data of questionnaires, the numbers were combined in the form the tables for each category. After gaining the numbers for each category, the numbers were converted into a percentage, which gave the actual percentage of each statement according to the respondents.

Pupils' texts were obtained as a writing product during the lesson observations, and different linguistic categories were selected to analyze the use of these categories numerically. The numbers were converted into percentages giving us the use of the specific linguistics categories in pupils' texts. The texts were manually screened and coded for teacher's interviews while the statistical test of inference (correlation analysis) was conducted on students' responses. The quantitative analysis included correlation analysis based on Pearson's correlation coefficient. Correlation is a statistical test of inference that explores the relationship between two variables. Pearson's correlation coefficient is expressed on a scale of -1 to +1, including 0. If Pearson's correlation coefficient is zero, it means that there is no correlation between the two variables. On the other hand, if the

coefficient is between 0 and +1, it is a positive correlation, which means increasing or decreasing the magnitude of one variable would increase or decrease the magnitude of the related variable, respectively. However, if the coefficient is between -1 and 0, it is a negative correlation, which means increasing or decreasing the magnitude of one variable would decrease or increase the magnitude of the related variable, respectively. The correlation is considered high if the Pearson's correlation coefficient is more than 0.6, while it is moderate if it is between 0.4 to 0.6, and low if less than 0.4.

3.5 Informants and Sampling

The sampling technique used in this study was "Convenience Sampling" because only primary school children belonging to 5A and 5B standards and their English teacher in a Norwegian school were the only participants in this study. Convenience sampling is a type of sampling where the accessible individuals are included in the sample. According to Dörnyei (2007), the less desired and most commonly used sampling technique is convenience sampling. Because only these informants were available to the researcher, so she used this technique to get the data for the study. From this perspective, it could be assumed that the sampling strategy was appropriate.

The main informant of the research was the English teacher of Grade 5. She taught English to both sections (5A & 5B). In addition to English, she also taught Art to both classes. She was twenty-five years old and very new to the teaching and she did Master's in History. Both classes (5A & 5B) consisted of thirty-four pupils. Each section consisted of seventeen pupils. Seven pupils in 5A and five pupils in 5B had English as their third language. The various mother tongues were Russian, Polish, Arabic, Korean and Urdu.

3.6 Ethical considerations

Bryman & Bell (2007) mention that there are certain points that should be followed to conducting the research. The points are as follows

1. Consent should be taken from the participants before conducting the research.
2. The privacy of the participant should be ensured.
3. Priority should be given to the participants for the worthiness of the research.

4. Honesty is the key to conducting research. Thus, all communication should be done with honesty.

5. Deception and rude behaviors with the participants should be avoided.

Such considerations guided this research. Firstly, complete data with the correct information was sent to the Norwegian Social science data Service (NSD). The interview guide with the teacher, pupils' questionnaire and information about the participants were sent to NSD. Approval was received from NSD after three weeks. The confirmation letter from NSD id attached in (Appendix 5). It is a mandatory process in Norway to get approval from NSD before conducting research in the education sector. The same information was also sent to the participants and their privacy was respected during the research. They were told that their personal information would not be shared with others. The same procedure of privacy protocols was told to the pupils before administering the questionnaire and lesson observations. The researcher requested the teacher to provide her with the text samples without revealing the identity of the students. It was also told to the teacher that her personal information would not be shared with others. The recording of the teacher's interview was done with permission, but it was deleted after transcribing the interview. The letter is attached in (Appendix 6). Questionnaires and text samples were used for the analysis without identifying names. All the participants were also told that the research is voluntary and if they do not want to participate in the research, there is no pressure on them, and they can easily leave the data collection method if they want. Following this explanation of the methodology for this study, the next chapter will present its findings.

3.7 Validity and Reliability

Validity could be defined as the significant key factor to the effective research and encompasses the several factors such as trustworthiness, depth, and scope of the study (Cohen et al 2012). Reliability could be defined as the performance of conducting the research in a consistent manner. In addition, if the results of the same research are applied to the other group of people so these would be same (Cohen et al 2012).

To get the best possible results for the questionnaire, it was designed according to the age of the pupils. As Austin (2014) suggested that the age of the pupils should be kept in mind. The questionnaire was colorful and smiley emoticons have been used to grab the attention of the pupils

so that the pupils could get motivation to give best possible results. For the text analysis, the texts of all pupils were analyzed by the researcher, and it was made sure by the researcher that she could analyzed all possible categories. Name of the pupils were not mentioned on the texts so that there was no biasness to analyze the texts. The interview guide was piloted first as suggested by Dörneyi (2007) and interview was done only with one teacher, and it was made sure that the researcher could get every possible answer required for the research. During the lesson observations, there was much going on simultaneously. Although it was difficult to keep an eye on every pupil, but the researcher tried her best to get the record of the lessons to get the best reliable results of the study.

4. Results

4.1 Introduction

In this chapter, the results of the research on the usefulness of Google Docs as perceived by students and teachers are presented. As discussed in the previous chapter, four methods were used for the collection; that include teacher interview, lesson observation, text analysis and questionnaire. Section 4.2 presents the results of the first interview with the English teacher who taught English to grade 5. In section 4.3, which is divided into three sections, the findings of the lesson observations are examined. Section 4.4 presents the results of text analysis which is further divided into two sections with the results of story writing and the analysis of pupils' collaborative writing. Section 4.5 analyses the results of the pupils' questionnaire, while in section 4.6, the results of the second interview with the teacher are presented. The interview with the teacher was held twice before and after the use of Google Docs as planned in the research proposal.

4.2 Teacher interview 1

This section presents the interview with the English teacher, who taught English to 5th Grade pupils and used Google Docs regularly in English lessons. She was twenty-five years old and was quite new to teaching, having only one year of experience in teaching English in Norwegian primary schools. At the time of the study, she taught English and Art to grade 5, mainly classes 5A and 5B, which consisted of thirty-four pupils in total with two hours of English teaching per week. In addition to English, she taught other subjects if the respective teachers were not available. She had a Master's degree in history. The purpose of this first interview was to obtain some background information about the teacher and her approach to teaching English and the use of Google Docs in English writing lessons. Particular themes relevant to this study will be summarized here: the use of translation, her attitudes toward technology, and the use of Google Docs in English writing lessons.

In relation to translation, the teacher said, "I speak a lot of Norwegian." She explained that typically she says a couple of sentences in English, and then she translates the sentences into Norwegian for the ease of the students. Some of the students did not understand difficult words in English, so she summarized and translated for them. Whenever she designed activities for homework, it seemed that a word was difficult for the students, and then she explained them in their own language, which was time-consuming. When she was asked whether she used technology in her lessons, she was very positive: "Absolutely! We do have the benefits of technology in Norwegian schools".

She explained that pupils bring their own Chrome books to class, and she finds it amazing that they are using technology from a very young age. She was of the view that it is necessary to teach them from an early age how they could use technology, especially the use of the internet. Moreover, she said that "Using technology is really something that I prioritize". The teacher said that she uses different resources like Netflix and YouTube to choose videos for learning purposes in the classroom. She gets digital help from the school when it is needed. She said that whenever she finds something difficult regarding digital work, she goes to the relevant person in school and gets technical support. Following our general discussion of technology, the teacher was also asked more specifically about her use of digital writing in English lessons, and she explained that "Google Docs is my one and only platform that I am using". According to the teacher, the reason for choosing Google Docs for writing in English lessons is the availability of only this platform in the school. It is also free (compared to Microsoft Office, which requires a subscription). For creating writing activities, she designed worksheets on Google Docs and then posted them on Google Classroom. Pupils made their own documents and sent them back to the teacher.

The teacher identified several benefits of using Google Docs in her English lessons. One is that pupils' work is always automatically saved online. Also, when pupils write on Google Docs, they are online, and they have access to many resources (through a Google search) that can help them. The Auto-spell feature of Google Docs also helps the pupils to write correct spellings of the words if they are unsure. When pupils write on Google Docs, they could also add some pictures (online images) and colorful fonts to make their writing assignments more appealing. While talking about the advantages of collaborative writing, she said, "Another thing is that you can share a document with a friend or with the teacher. I also made students share their document with each other and then they can cooperate very easily."

While the teacher was very positive about technology generally and Google Docs specifically, she also mentioned some challenges of computer-based writing in English lessons. She felt that when students have laptops and internet access, they have unlimited access to irrelevant information, and "sometimes it's very tempting when they are on the laptops and use the internet for searching the other resources and that's the cons of using Google Docs". If students are engaged in their writing session, and the internet connection is lost, that is also a downside of using Google Docs. This was not a problem she had experienced because they had a good internet connection at the school, but the student may experience it at home.

In terms of the pupils that would be observed for this research, the teacher explained that her 5th Grade students find it motivating to do writing tasks on their Chrome books. This encourages her to assign computer-based writing tasks because, with 10-year-olds, it is important to find activities that motivate them. This is especially the case with her Grade 5 classes, where many pupils have multilingual backgrounds and find English difficult. In fact, she does all English writing digitally and no paper-based writing. The latter would be hard for the pupils, especially most of them do not know how to use a dictionary. However, being online allows them to check spellings and meanings easily. Given the challenges that English presents for many of her Grade 5 students, she explained that she works her to give them the support they need:

I know that many of them struggle in the beginning; maybe they do not have a lot of information, and I explain the task to them one by one. I explain to them what they are supposed to do. Getting started with any new task is always a difficult thing for them, and whenever they have enough ideas, then they usually do it by themselves. But they do need a lot of help. I am a little bit shocked by that, but they do need motivation, and I can see they enjoy receiving my positive feedback, and that is very motivating for them. I do have to work a lot to make them motivated toward their tasks. We have thirty-four students in 5A and 5B, and fifteen of them are international students. And they do need extra help from me because they have multiple languages to learn.

Through this initial interview with the teacher, then, it was established that:

- She was positive about using technology in teaching and had support for this in her school
- She did all English writing with Grade 5 digitally, using Google Docs
- She felt Google Docs had several advantages, particularly in terms of motivating students who found English difficult.

4.3 Lesson Observations

Six English writing lessons for 5 Grade were observed (these were the same three lessons taught twice with 5A and 5B. The researcher observed the English writing lessons over the period of three weeks. The focus of the class observation sessions was to observe how students write in English on Google Docs. In the first two lessons, students wrote stories on Google Docs, and in the third lesson, they wrote collaboratively.

4.3.1   Lesson Observation 1

The lessons with 5A and 5B are very similar, and the same sequence of three writing lessons was observed delivered twice with two different classes.

The lesson observation started with the introduction. The introductory part of the lesson lasted for fifteen minutes. Students were already aware of the visit of the researcher to the classroom, but the teacher told the students about the visit of the researcher to the classroom again. She told them, "We have a guest in the class today and we will be speaking English today, there will be very less Norwegian today."

In the pre-writing stage, she introduced the topic and prepared them for writing. She showed them pictures of five paintings on the projector and told them about the person who had painted those beautiful paintings. She asked them questions about those paintings, "Who has painted these paintings?" Some of the pupils raised their hands, and the teacher asked them one by one about the painter of those paintings. Some of the pupils knew that those paintings were painted by the famous painter Edvard Munch. The pupils knew about the name of the painter because they colored some of the pictures by the same painter (Edvard Munch) in other sessions too.

The teacher further asked some questions about the paintings. She asked, "What could be the theme behind the pictures?" Students were very excited about talking and discussing in English the themes of the paintings. They looked at the pictures and shared their thoughts about what could be the story behind the pictures. One student said the pictures had "scary themes". Another student referred to one of the pictures like this: "it seems that the girl is sick, and she is going to find some medicine for her". After brainstorming the themes of the pictures, the teacher asked the pupils to

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"select one of the five pictures and write a story about it. Make sure to plan your story first and use capital letters in the beginning of the sentences".

Further, she instructed them to make paragraphs while writing the story. She had already taught the students about using capital letters at the beginning of the sentences. She showed them on the projector how they could plan their writing. First, she asked them to use their ideas to plan a text. She showed them a table to write their ideas about the beginning, middle and end of the story first so that they could use those ideas to write the story. The table for planning the story is shown in (Appendix7).

In the second part of the preparatory stage, she told them to plan the story according to these steps:

- Choose a topic for the story first
- Name the characters of the story and mention where it took place.
- In the middle part of the story, write about the problems and main events of the story
- At the end of the story, write about what happened with the characters of the story

Then the writing stage started, and the teacher asked the pupils to open their computers and begin story writing on Google Docs. They opened their computers, and the teacher helped them to begin with the story writing. When pupils opened the Google Docs, the task for story writing was available there, as previously shown on the projector by the teacher. All the instructions were written in English, but the names of the pictures were in Norwegian. The teacher also asked the pupils to get help with the story writing from the researcher, if needed. The teacher told the researcher that the pupils were writing a story in the English writing class for the first time. But they were quite familiar with writing on Google Docs.

One of the pupils asked if they could use Google to translate the difficult words. The teacher allowed them to translate one word at a time and asked them not to translate complete sentences on Google Docs. The teacher asked the pupils to use dictionaries available in the classroom. During the task, many of the students were using Google Translate to translate the words from Norwegian to English. Others were using bilingual dictionaries for the translation as instructed by the teacher. On Google Docs, the teacher assisted the students by making the headings where they could start writing the text, like the beginning part of the story. During the lesson, it was also observed that the pupils started planning their story writing, and they were writing their ideas on a table so that

they could use it further for story writing as instructed by the teacher. Figure 1 shows an example of the planning of the story by a student of 5A.

Plan your text	
Beginning of the story - *Choose a painting by Munch.* - *Title your story.* - *Who are opthe characters?* - *Where does the story take place?*	I choose scream The story take place on a bridge Ali, Jesper and me An Tage are the characters in the story.
The middle - *Is there a problem that occurs in the story? If so, how does it get resolved?*	We went on a bridge and we found a monster. And we run the fastest we can on the way to a house.
The end - *What do you think about the ending?* - *Why did the people in this picture end up where they are?*	The monster gonna die in the end

Figure 1: Screenshot of the story planning by a 5A pupil

The pupils worked on the planning of the story. Some of them completed the planning of the story, an example is shown in Figure 1, but many of them were not finished with the planning part. The time of English writing lesson ended, but many pupils were still working on the planning of the story writing. They spent almost forty minutes for story writing, and most of them were working on planning the beginning and the middle of the story. The teacher highly emphasized on the planning of the story first because it could help the pupils to remember their initial ideas. At the end of the writing session, some of the pupils seemed stuck with the planning part of the story writing. Therefore, the teacher told them to continue the story writing in the next writing class.

The first observation with Class 5B followed a very similar pattern to that in 5A. There were just a few differences.

Some of the pupils asked if they could listen to the music while writing the story. Listening to the music did not happen in 5A. Teacher allowed them to listen to the music and suggested them

to use headphones so that they could not become hindrances to other students. Almost 1/3rd of the pupils was listening to the music while writing the stories on Google docs. When the students were writing on Google Docs, the teacher had access to their writings. She told the researcher that if she adds any comment on students' writing it would be visible to them. The students spent almost 40 minutes for writing, but most of them were busy planning the story. The teacher told them to continue the story writing in the next writing class.

Plan your text	
Beginning of the story - *Choose a painting by Munch.* - *Title your story.* - *Who are the characters?* - *Where does the story take place?*	Green gang Forest. The psycho killer. Pennywise ,,numa numa uliminati. In a forest.
The middle - *Is there a problem that occurs in the story? If so, how does it get resolved?*	Walk into the forest and suddenly a big man in front of them.
The end - *What do you think about the ending?* - *Why did the people in this picture end up where they are?*	All get killed. They found a hat when they went home for school.

Figure 2: Screenshot of the story planning by a 5B pupil

In Figure 2 we see the example of planning of the text by a 5B pupil. Here we grasp that the pupil has written in all of the three boxes and has planned to write the story as the teacher suggested to the class.

4.3.2   Lesson Observation 2

In the beginning of the second writing session of 5A, two students raised their hands and told the teacher that they enjoyed writing the stories in the class last week. They were also looking forward

for this story-writing session too. Teacher answered, "it is very nice to hear your positive feedback about story writing." She spent twenty minutes on the introductory part of the second lesson and further encouraged them to work more on their writing skills. One of the students had finished the story writing last week and the teacher displayed his work on the projector for the class. She showed the pattern of story writing to the class and asked the students to follow the instructions and continue the work from where they stopped last week. Furthermore, she asked the pupils, "if any one of you want to show his work to the class."

One of them told the teacher that he would like to show his work to the class. The teacher showed his work and read it aloud to the class. She told him that he had written a good theme of the story, but his work was incomplete. She asked him to complete the story and urged all of them to write and told them to "follow the instruction as I told you to do last week. Work on the planning part first, then start writing the story."

Teacher told them that they could ask for the researcher's help too if needed. One of the students asked the teacher if she could listen to music; she allowed her to listen to the music and asked her to pay attention to her story writing. Students opened their computers and started working on their stories from where they stopped last week. During the writing session, one of the students opened Google images, and she was searching for a suitable image to set in her text. It was also observed that she was using colorful themes in her text. She wrote the title of the story in yellow and used blue text for writing the story. Pupils were also using auto spelling check during the session. The researcher also noticed that one student was helping her friend in selecting the color for the title of the story. They kept on changing the color of the title of the story. Students spent almost thirty minutes for writing in the second story writing lesson. The teacher asked again if anyone else wanted to show his story to class. One of the students raised his hand and asked the teacher to show his work to the class. Teacher read aloud his story for the class and commented that the students should work more on their writing skills by paying more attention to their work.

4.3.3   Lesson Observation 3

The third lesson observed with each class was different from the first two because this time the students completed a collaborative writing task using Google Docs. Teacher made the groups and the pupils worked together and wrote on the same document. Teacher started the third English lesson by introducing collaborative writing to students. She told the pupils that they were going to

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work together on the same document. Her advice to the students was, "you should share your ideas with group mates when writing on the same document."

Introducing them to the writing topic of the day, she told them to create an interview (see Appendix 8). She instructed them, "use your own words for collaborative writing with your partners." The teacher introduced them to write about of one the topics i.e., plastic, CO2, pollution, waste management and deforestation. Teacher asked the students to explain their opinions about these topics. She asked them to explain about pollution and deforestation. Pupils had already worked on these topics in Norwegian class. Four of them expressed their thoughts about pollution and waste management. Teacher told them to make questions and told them the type of questions the interviewer would ask from the expert. For example, the interviewer would introduce him or her, and the interview first and then introduce the theme of the interview. Moreover, she told them that they had to work as an expert interviewer and present their report to the class in the next session.

For writing the introduction, she instructed the pupils to write the name of the interviewer and the expert and then explain the problems or the subject and the reason that why this is relevant to discuss in 2021. Fourteen students were present in the class. She made six groups of the students, two groups of three participants in each group and four groups with two participants. She asked them to open the Google Docs and asked them to work collaboratively. The teacher was walking around the class and motivating the students by saying, "help your partner in writing." She also told them the importance to working together by saying that "working together is very important and it will help you in improving your collaborative skills".

Pupils started working collaboratively and it was observed that they were working actively in the group activity. They were sitting and discussed things together. During the session, one of the groups was using the auto spell-check in their writing. One of the pupils in a group asked for teacher's help, the teacher checked their texts and told them not to copy and paste information from Google and recommended them to use their own words for writing the document. Teacher again helped them write the introductory part of the interview. That group was writing about the plastic, so she told them to write about the role of the plastic in their surroundings.

Moreover, it was observed that the pupils were browsing on the internet to get ideas about their topic. The teacher walked around in the class and helped them write and organize their ideas

into words. The groups in which pupils were working together in three and three, she told that one of the students would be an interviewer and two of them would be the experts on the related topic.

One group was done with the document writing. They were rehearsing their part of the interview for acting in the class for the next session, as the teacher had told them they would be performing as an expert interviewer in the next session. They were also editing their questions during that. One of the students called the researcher and asked her to write the questions. She helped them in making questions for the interviewer and told them to put question marks at the end of the questions.

At the end of the lesson, teacher asked them to close their computers and asked the students if it was a fun or boring activity. Three of the students in the class replied that it was very good activity working with the fellow students. One of the students said that it was boring to work together. The teacher told them to work on the activity later if they were not finished and told them they would be presenting as interviewers in the next session. She encouraged the students and allowed them to use the props like ties and coats in the class when they would be presenting and dismissed the class. They did collaborative writing for 40 minutes.

The third writing lesson of 5B was also based on collaborative writing. The collaborative writing lesson with 5B followed a similar pattern to that of 5A. Same sequence of introductory and brainstorming part was observed in 5B as the teacher did in 5A.Sixteen pupils were present in the class. She made two groups consisting of three pupils in each group and five groups of two pupils in each group. She asked them to open the Google Docs and asked them to work collaboratively. The teacher was walking around in the class and helped the pupils in sharing the document with the fellows. She was motivating them and told them the importance to working together with the other partners. One of the pupils called the teacher for help and told her that group members were struggling with the introductory part. The teacher assisted them in writing the introduction and motivated them that how they could better work collaborating with others by saying, "you should listen to the group members' ideas and then work on it together".

Three pupils were working together in a group, and one of the pupils was insisting to work on pollution but the other two were asking to start working on deforestation. But later, they agreed to work on deforestation. It was also observed that many pupils were browsing on internet for getting the ideas about their topics. One of the pupils in a group was suggesting the other one not

to copy paste from the internet. He advised his fellow student to use his own words in the document instead.

The teacher was walking around in the class and helped the pupils throughout the writing session. One of the pupils working in group, called the teacher and showed her their collaborative work, the teacher checked their work and encouraged them to work more on the document. Many pupils were browsing on the internet for the information about their topic. They were translating on Google translate if they were finding some difficult words. They were using Google translate for translating English words into Norwegian and Norwegian words into English. They also used the pronunciation feature on Google translate for listening the correct pronunciation of the words.

Three girls were working collaboratively in a group. One of the girls suggested others to make an interview question "What gonna we doing to stop deforestation?". Other two fellows corrected her by saying that we would not use this writing pattern in this document. They suggested her to correct the question formation to "What are we going to stop deforestation?" Additionally, it was also observed that one of the pupils working in another group was checking the images of deforestation on the internet. He was discussing with the fellow that these images would help them making questions about the interview. The pupils were also using the auto correct spelling feature on Google Docs.

The teacher closes the class session by saying that she noticed many good things in the class. Many pupils were working significantly with others but some of the pupils were not paying attention to writing, and she encouraged them to improve their collaborative skills by saying that they should work with the fellow students and share their ideas with them. She told them that next week they would be working collaboratively too and when they would be finished writing on the project, they would present their documents to the class as interviewers and experts. They spent forty minutes writing collaboratively in the third writing lesson.

From the observations of the Google Docs writing lessons with classes 5A and 5B, the following main conclusions were reached:

- The teachers' classroom practices reflected the positive views about Google Docs she expressed in the first interview.
- A substantial amount of class time was allocated to the actual computer-based writing process
- Google Docs was used for writing on different genres – a story and an interview
- Google Docs was used for both individual and collaborative work

- The pupils generally seem to be engaged in the process of writing using Google Docs
- While writing, pupils were observed to make use of various digital tools, such as spell checkers, online images and colorful fonts.
- Pupils used Google translate excessively for writing on Google Docs.

4.4 Text analysis

The third form of data for this study consisted of the actual texts that students produced because of the Google Docs writing lessons observed. First, the story writing texts from Lessons 1 and 2 will be analyzed, then the collaborative writing from Lesson 3.

4.4.1   Analysis of story writing

In the first two lessons, pupils wrote stories. Different aspects of writing are analyzed in relation to pupils' story writing

Table 1: Features of pupils' stories

Value	Text Planning		Use of images		Content related to the task		Colorful fonts		Task completion	
	N	%	N	%	N	%	N	%	N	%
YES	25	78.13	7	21.87	19	59.38	7	21.87	19	59.38
NO	7	21.87	25	78.13	13	40.62	25	78.13	13	40.62
Total	32	100.00	32	100.00	32	100.00	32	100.00	32	100.00

In Table 1, different aspects of writing are analyzed here. When it comes to text planning, as the teacher was emphasizing on planning the text, majority of the pupils completely planned their texts before the actual writing part whereas 21.87% pupils did not complete the planning part meaning that they worked on planning part, but their planning was not completed, and they jumped into actual story writing. Figure 3 shows an example of the incomplete planning part of a pupil's story. The next category is "use of images", values show that 78.13% pupils did not use images in their

texts and 21.87% pupils used images in their texts. Figure 4 shows the example of a pupil's story who used the colorful fonts and image in the stories. In the next category "content related to the task", findings show that 40.62% pupils' work was not related to the task (they wrote about the guns and digital games) in contrast to that 59.38% pupils' work was related to the task. Figure 5 shows an example of a pupil's story whose text was related to the task whereas Figure 6 presents the example of a pupil's work who used irrelevant content in the writing task.   The next category shows that a large number of pupils did not use the colorful fonts in their story writing, it was used by only 21.87% pupils. Figure 7 shows example of pupil's work who used colorful fonts and image to complement the writing. The last category shows that the story writing task was completed by about 60% pupils in two writing lessons.

Plan your text	
Beginning of the story - *Choose a painting by Munch.* - *Title your story.* - *Who are the characters?* - *Where does the story take place?*	Eventyrskogen The murder Miguel Hawk Troy Aisha Sam In Norway
The middle - *Is there a problem that occurs in the story? If so, how does it get resolved?*	They are in a fight with a mudrer and they almost lose but den johnny kamed and hit the guy in the head.
The end *t do you think about the ending?* - *Why did the people in this picture end up where they are?* *Æø*	

Figure 3: A sample of a pupil's incomplete planning part the story

Figure 3 portrays an example of the text where the pupil has not completely planned the story. Here, the pupil also wrote the incorrect spelling.

The Sandbridge

Now I am going to tell you about my teacher and friend called Sunniva. She hates the coronavirus so she screams on all the bridges she finds.

But one bridge was very special. It's called Sandbridge.
Because it's a little bit sand there and it is named after Sandnes. It's from Sandnes. Sunniva was sick for many days of the school. Finally we got to know it. That was because she hates corona and was scared to get it. So I wanted to help her. I got her a bandage. And after that I fix one problem! And no one

Figure 4: Screenshot of a pupil's story writing, who used images and colorful fonts

Figure 4 clearly shows the example of the text where we can the pupil's interest of using the image and colorful fonts in the story writing. The pupil has also tried to use the picture according to the name of story giving us the idea to grasp the theme of the story instantly.

Our trip into the magical forest

Once upon a time there was a family. They were out a lot and often went for walks.

One day when they went on a trip, they found mushrooms. What they did not know was that the mushrooms they found were poisonous. One day later the mother felt very sick and had to lie down. The kids thought they were from the mushrooms, but wondered why they had not gotten sick.

The children knew that the only cure for fungal disease was a plant deep inside one cave in the magical forest.

Figure 5: Screenshot of a pupil's story who used good content according to the theme of the image

Looking at the Figure 5, we get the idea that the pupil has written the story according to the theme of the image. Different images were presented to the pupils by the teacher, and they were asked to write about one of the images, so the story clearly shows that the content is written by the pupil accordingly.

take revenge on the girl that tried to assassinate him with that shotgun. Lil globglobgabgalab made a parachute cuz he was fat. Then the kids landed on Uganda Knuckles tonk. Then Uganda Knuckles said "Do u kno da wa". Then they explored and found a frozen lake. Then they found Apetor that was just about to go on thin ice and falling down. Then they saw his chainsaw which he cut the ice with and all his vodka. Then they found mini Poland which was a barn. Then they saw multiple polish cows that sang the song Polish cow. They continued and then they found the dude with "Da Diamond Testa" and they heard a lot of plinging sounds

Then they went back to the frozen lake and drank all the vodka and began singing Polish cow while the other one "Diamond Tested" all his stuff while the other just joined and sang polish cow on thin ice.

The end btw Tds is a grape game so look down for some awesome pics

Figure 6: Example of a pupil's story who used irrelevant content

The Figure 6 shows us the sample of the writing where the pupil used irrelevant content. None of the picture asked for such content to be presented in the story. There are many other things to be noticed, for example the pupil has used the colorful images in the story which also shows the irrelevance to the theme of the story.

Write you text below:

The corona monster

Once upon time me,Lotte,Eira,Johanna,Ellinor and Frøken was sent on a mission. The mission was to kill the corona monster. The monster was in Eventyrskogen.

It is very scary in that forest. But we did as they said. So we go into the forest. But we could not see the corno monster. What was that,it was a scream. wWe went closer to screaming. There was the monster. We yawned and yawned and did it,but it just rebuilt itself. But what we going to do

Figure 7: Screenshot of a pupil's story who used colorful fonts

In the Figure 5, the pupil has used the colorful fonts in the story. We can also see the difference in choosing the color of fonts between the title and the content of the story.

Table 2: Use of language in story writing

Language used	Value	
	N	%
ENGLISH	26	81.25
ENGLISH+NORWEGIAN	5	15.62
NORWEGIAN	1	3.13
Total	32	100.00

Table 2 shows the language used in pupils' story writing. The findings show that a large majority of the pupils (81.25%) wrote stories in English. There are a number of pupils (15.62%) pupils, who used English mostly with some Norwegian in their texts whereas, one pupil completely wrote his text in Norwegian language. Figure 8 and Figure 9 are presented below which illustrate the pupils' stories where one pupil used Norwegian language in addition to English in the story whereas the next example shows that the story was completely written in the Norwegian language.

The corona monster

Once upon time me,Lotte,Eira,Johanna,Ellinor and Frøken was sent on a mission. The mission was to kill the corona monster. The monster was in Eventyrskogen.

Figure 8: Example of one pupil's story who used Norwegian language in addition to English

In the Figure 8, we see the use of use of Norwegian in addition to English. Colorful fonts have also been used in this sample. In addition to that, the use of Norwegian is there and the researcher has highlighted the word to make it visible in the writing sample.

Write you text below:

Piken i bildet ligner ikke på Sophie. Munch brukte en pike som heter Betzy, modell for then syke piken. Hans tante er også en modell. Det var som satt der ved sengen under

Figure 9: Example of one pupil's work in Norwegian language

The Figure 9 presents the sample of writing where the pupil has only used Norwegian language to write the story. Despite the instructions by the teacher and sitting in the English lesson, the story is written in the Norwegian language. No attempt has been made to write a single word in English.

Table 3: Organization of the text in pupils' story writing

Organization of the text	Value	
	N	%

ONE BLOCK WRITING	9	28.13
ONE OR FEW SENTENCES	7	21.88
PARAGRAPHS	16	50.00
Total	**32**	**100.00**

Table 3 shows that how pupils organized their texts. 28.13% pupils wrote their texts in the form writing in blocks and few sentences without writing in paragraphs, as they were meaningless. Figure 10 shows an example of one block writing. About 50% pupils wrote their texts in the form of paragraphs. Figure 11 presents an sample of pupils' texts in the form of paragraphs whereas Figure 12 shows an example of a pupil's story where he wrote only few words in the story writing task.

Screams in the forest

They love to eat fingers, that is what my mom told me.
He should have obeyed her, he should not have gone outside to play. He got lost and I couldn't find my way back. It was getting so dark he found this empty truck and he went inside it. He fell asleep. He woke up about one hour later, scared because it was not a dream it was happening it was really happening. He was lost in the forest, alone. He was cold and shaking and then he started hearing noises. There were really loud screams, they sounded like high pitched screams. Like the ones that cats make when they're scared. It was insane, I couldn't believe what I was hearing. It was getting closer to where I was. Closer and closer it got. The scream could get louder and louder and it stopped

Figure 10: Example of one block writing

The sample of the text in Figure 10 presents that the story has been written in one block. The teacher instructed to use paragraphs for writing but the instructions of the teacher has not been followed and whole text is written only in one paragraph.

Scream

Once upon a time there was a group of friends. There were Menita, Lymar and myself. The bridge was not normal. It was a bestfriend bridge. We always met here if it was something we needed to talk about.

I just had to tell my friends how upset I was because I could not find my favorite friendship bracelet that they had given to me. They helped to search after the bracelet. When the help then Menita found it because it was a magnet so she gave it then I was happy for the help mee I said thank you so much.

Figure 11: Example of organization of the text in paragraphs

The text sample in the Figure 11 shows that the pupil has used paragraphs to write the story and the guidelines of the story writing by the teacher have been followed.

Write you text below:

FAIRYTALE FOREST

once upon a time the was a group with friends

Figure 12: Example of written story with only few word

In the Figure 12, the pupil used only few words to write the story. Two English lessons were used to write the story, but the sample shows us very less interest to write the story by the pupil. The name of the story is written in the colorful fonts but the very less content is used for writing. The sample also presents that even the first line of the story has not been completed by the pupil.

Table 4: The use of grammar in pupils' story writing

Grammar used	Value	
	N	%
DOUBLE NEGATION	1	3.13
INCORRECT USE OF PRONOUN	6	18.75
MISTAKES IN SUBJECT-VERB AGREEMENT	8	25.00
USE OF WRONG VERB FORM	5	15.62
NONE OF THE ERRORS ABOVE	12	37.50
Total	32	100.00

Table 4 represents the use of grammar in pupils' story writing showing that a least number of pupils used double negation in his writing and the example of this category is shown in Figure 13. The next category presents that 18.75% pupils used incorrect use of pronouns. A sample of wrong use of pronoun is shown in Figure 14. Pupils also made mistakes in subject-verb agreement, which is presented in Table 15 and Table 16, there were 25.00% pupils who made mistakes in choosing correct verb according to the subject form whereas, 15.62% pupils used the wrong forms of verb in their stories which is shown in Table 17. A good number of pupils wrote their stories without any major grammatical errors which are discussed above, it means that there was not seen any mistake in the use of verbs, pronouns, and subject verb agreement. So, most of the ratio showed that the use of grammar through Google Docs was good in terms of story writing and sentence construction . Figure 18 presents the example of a pupil's text without any major errors discussed above.

The corona virus

It was once one time me and my friend Olivia and Aila were on a trip. We went to a forest but we couldn't get in because the forest was overgrown. So we had to break something off the forest so then we could go in it.

In the forest there were many dangerous things in it so we had to run away but the deinrus tingh was not going away.

After the forest we saw a bridge and there was the corona monster and we tried to kill it but we couldn't not. It was so strong so we had to go to the hospital and that was the end of us, we died.

Figure 13: Example of using double negation in the story writing

In the Figure 13, the writing sample shows the use of the double negation in the text. The pupil has combined "couldn't" and "not" in the same sentence.

The five children in the dark forest

There were five children and they walked in the scary forest. They were very scared. They heard a noise. Me brother Max was scared about holding hands. We were still going in the forest but the noise was worse and the noise was darker. We heared a man scream help me brother see a man the man did in the forest.

Figure 14: Sample of use of wrong pronoun in the story writing

In the Figure 14, we see the example of wrong pronoun in the story. Instead of using "My brother", the pupil has written "Me brother". The wrong pronoun is highlighted by the pupil to make it visible in the writing sample.

In the faital forest

Once upon a time there was a killer clown called It. It lived in Eventyrskogen and he is a boy and loves blood and brain. He does not have a family. The family has been killed by humans. He wants revenge, he will kill. He has not eaten for three day ago.
It thinks   if <mark>he don't</mark> get food today and will he did.

Figure 15: First sample of incorrect subject-verb agreement

The text sample in the Figure 5 depicts the use of incorrect subject-verb agreement. The use of verb is not chosen according to the correct grammatical structure and instead of using "he doesn't", the choice of writing "he don't" has been choose.

Three friends and a fish

Once upon a time in a land far far away, there was 3 girls named Angelina,Natalia,Ane <mark>they was</mark> best friends, one day <mark>they was</mark> drunk and saw a fish swimming, the fish name was Emmeline she was very shy and had no friend and one day she saw Angelina,Natalia and Ane.

Figure 16: Second example of incorrect subject-verb agreement

The text sample in Figure 16 also shows the incorrect use of subject-verb agreement. The mistake has been repeated in the text too.

The adventure forest

Once upon a time in a land far away, there lived a troll inside a big forest. A group of children did not <mark>knew</mark> the story about the forest and they entered.

Figure 17: An example of use of wrong form of verb

The wrong form of verb has been used in the text sample in Figure 17 and the mistake is highlighted by the researcher to make it prominent.

There was once a girl called Suzie.
She was a happy girl at school, but at home she was horribly abused by her foster care.
Her parents died months after she was born by a car accident.
Which forced her into a foster home.
She was walking home one day when she saw a girl walking with her parents.
She was really sad the rest of the day.
When she came to foster care she was abused again.
She got bullied like everyday.

Figure 18: A sample of a pupil's story without any major errors

The text sample in Figure 18 shows the sample is written without any major mistake which were discussed in the Figures 13, 14, 16, 16, 17 earlier. For example, we do not see the double negation, wrong use of pronoun and mistakes in subject-verb agreement.

Table 5: The use of mechanics in the story writing

Mechanics	Value	
	N	%
CAPITALIZATION MISTAKES	3	9.38
MISSPELLED WORDS	15	46.88
PUNCTUATION MISTAKES	4	12.50
NONE OF THE ERRORS ABOVE	10	31.25
Total	32	100.00

Table 5 presents the mechanics of writing in pupils' work. The findings show that a minority of pupils made capitalization mistakes in their stories, but a large number of pupils made mistakes writing the misspelled spellings in their stories. Punctuation mistakes were also made by a few pupils, in contrast to that a good amount of people did not made mistakes in the categories mentioned about. Below are Figures 19, 20 and 21, which present these examples.

The murderer

Now I am going to tell you the story about 2 guys and 3 girls. They saw a forest and they went to the forest.

The forest was creepy. They heard a thing. Miguel was scared. And he tired to find his friend. Then somebody came and it was Hawk .And then came the other friends. Miguel said to his friend that he herded something.

20 seconds later. They saw a guy that was not Miguel's friend. The guy was trying to kill Miguel den Aisha and Sam came and they had a fight. All Of them got knocked down. But he forgot tory she jumped on the head and the guy gut hurt.

Figure 19: First sample of using misspelled words in the story writing

In the Figure 19, the text sample shows the use of incorrect spelling in the story writing and the pupil has used the misspelled words four times in this text sample.

The 1v1 starts now, and me and the boys are hyped.
It's a best of 3 and FaZe Justin kinda has an advantage because he has won the last 6 fncs' but Piece control Kyle has had bad placements lately.
But me and the boys still have faith in him.
Piece control Kyle starts with triple cranks and a quad edit, but Justin does the same and boxes piece control Kyle like a fish and 200 pumps him.
Justin's pov: Boxed u like a fish, ur literally dogwater, free cash, 0 earned 0 pr so free.
Piece control Kyle: what are you talking about? ur literally so lucky bro, ur the one that's dogwater bro, your literally free so free.

Figures 20: Second sample of using misspelled words

The text sample in the Figure 20 shows the second sample which is selected to present the use of misspelled words in the text sample.

One day, in the lab; with the mad scientist.(there's a lot of blood on the walls and on some walls it says HELP). The mad scientist wants, to create drugs and bombs.And one day' in the meme house there was a party and there were a lot of meme characters.

Figure 21: A sample of story writing showing the punctuation mistakes

We see many punctuation mistakes in the text sample in Figure 21. Irregular punctuation is seen is this writing sample.

Table 6: Word count in pupils' story writing

Word Count	Value	
	N	%
ABOVE 100	20	62.50
BETWEEN 50 and 100	4	12.50
LESS THAN 50	8	25.00
Grand Total	32	100.00

In table 6, the data shows the findings of word count in pupils' story writing, where 62.50% pupils wrote their stories in 100 plus words. In contrast to that, 12.50% pupils used 50 to 100 words for writing their texts, whereas 25.00% pupils used less than 50 words for writing their stories, and the length of stories was not indicated by the teacher at the beginning of the lesson. It is interesting that those using colors and images were in the minority (most writings were in standard black texts). It is also found here that many wrote content that was unrelated to the task and many of them made spelling errors in their texts.

4.4.2 Analysis of collaborative writing

Pupils did collaborative writing in the third writing lesson. They wrote collaboratively on one document. Six groups were made in 5A, and seven groups were made in 5B. So, in total, thirteen groups worked in the third writing lesson working collaboratively. Due to some technical errors, one document was missed by the teacher, and the second document was not delivered to the teacher

by one group. So, the work of eleven groups was provided to the teacher and analyzed. Out of eleven groups, seven groups wrote interviews on "plastic". Two groups worked on "CO2" and another two on "deforestation". Different features of writing were observed in the collaborative writing. All the findings are given in the tables below.

Table 7: Different features observed in collaborative writing

	Colorful highlighting		Colorful fonts		Content related to the task		Task completion	
	N	%	N	%	N	%	N	%
YES	8	72.7	8	72.7	11	100.0	4	36.4
NO	3	27.3	3	27.3	0	0.0	7	63.6
Total	11	100.0	11	100.0	11	100.0	11	100.0

Table 7 shows the finding of the collaborative writing, different features of the collaborative work are analyzed, which show that 27.3% of the groups did not use colorful highlighting in their collaborative work, while 72.7% of the groups did. Figure 22 shows an example of using colorful highlighting. Findings also show that about 72.7% pupils used colorful fonts in their collaborative work which is shown by a sample of collaborative work in Figure 22. In addition to that, 100% pupils' collaborative content was related to the task, and more than half of the groups 63.6% pupils did not complete their collaborative tasks in the third writing lesson.
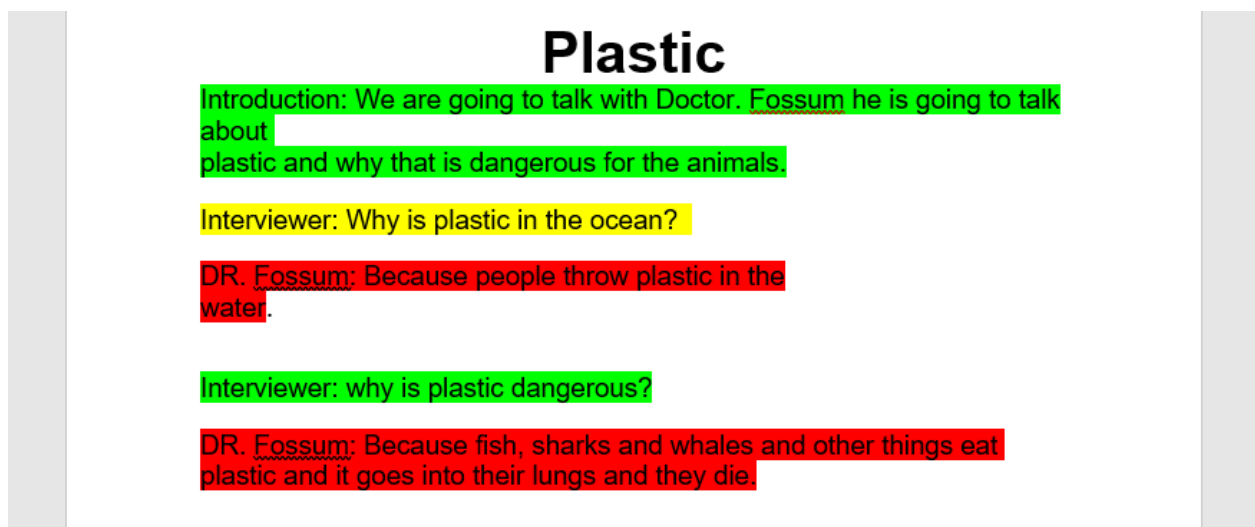
Figure 22: Example of colorful highlighting

Figure 22 shows us the sample of the collaborative writing and it shows that the text is highlighted using three colors. Different characters in the dialogue writing have been highlighted using different colors.
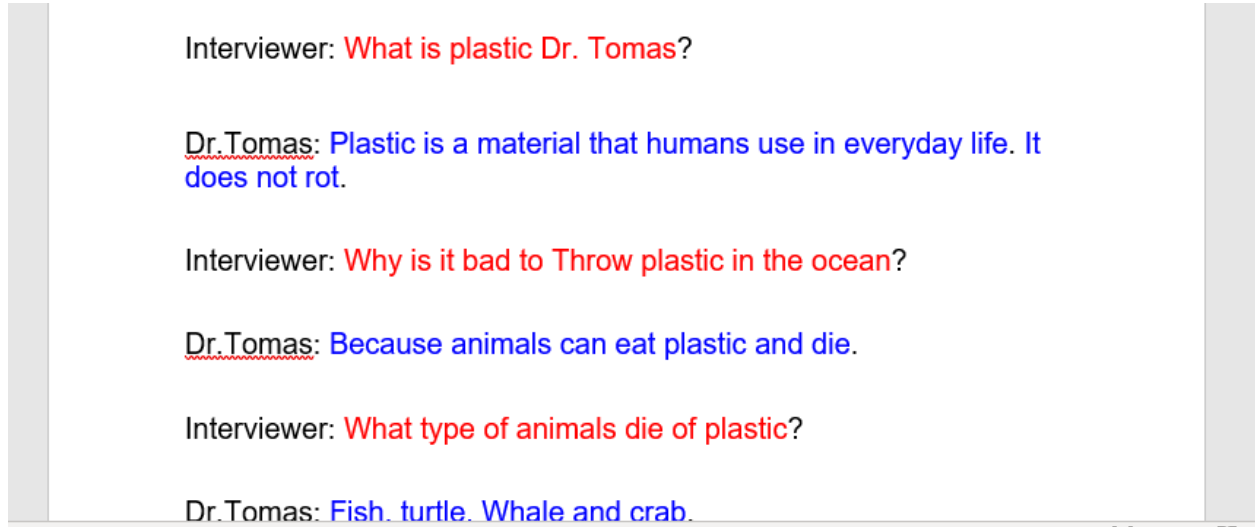
Figure 23: An example of using colorful fonts in the collaborative writing

The collaborative writing sample shown in Figure 23 presents the use of colorful fonts by the pupils. Two different colors have been used in the sample. Red color has been used to present the role of interviewer while the blue fonts have been used to present the role of the Dr in this collaborative writing sample.
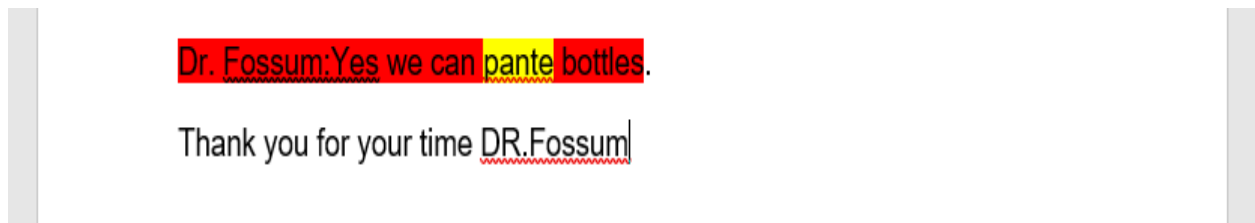
Figure 24: Use of Norwegian language in the collaborative writing

In the Figure 25, we see that the Norwegian language has been used in the dialogue writing. "Pante" is the Norwegian word. The sentence was highlighted with the red color by the group members, but the yellow highlighting is used by the researcher to make it prominent.

Table 9: Use of grammar in the collaborative work

Use of Grammar	Value	
	N	%
MISTAKES IN SUBJECT VERB AGREEMENT	1	9.1
USE OF WRONG VERB FORM	1	9.1
NONE OF THE ERRORS ABOVE	9	81.8
Total	11	100.0

In Table 9, findings show different aspects of grammar used in pupils' collaborative work. 81.8% pupils made no major errors in grammar, for this category use of subject verb agreement and use of verb forms was kept into consideration. A least number of groups made mistakes in the subject-verb agreement and in using the correct form of verbs. Below are the samples which depict the features of these categories.

(Me) Do you like plastic?

(Angelina) No, because it's harmful for the environment.

(Me) Why not?

(Angelina) Because animals eats it.

(Me) Hmm yeah that's true!

Figure 25: Sample of using incorrect subject-verb agreement in collaborative writing

The collaborative writing sample shown in Figure 25 presents the incorrect use of subject-verb agreement. The use of yellow highlighting is done by the researcher to make it visible. Instead of using he correct subject-verb agreement "animals eat", the wrong pattern has been used in this collaborative writing sample.

How does deforestation affect the world?

Expert 1: Deforestation refers to the decrease in forest areas across the world that are lost for the other uses such as agriculture crop urbanization

Expert 2:Deforestation referred to the decrease in forest areas across the world that are lost for other uses such as agricultural croplands, urbanization, or mining activities. Greatly accelerated by human activities since 1960, deforestation has been negatively affecting natural ecosystems, biodiversity, and the climate

Figure 26: Example of a wrong form of verb in collaborative writing

In the Figure 26, the collaborative writing shows the use of wrong form of verb. Instead of writing the yellow highlighted word in present form, the past form is used in this collaborative writing sample

Interviewer/Ane: What is deforestation?

Miss. Emmeline Giddings: Well Deforestation is people that chop down rainforests and normal forests, but they are doing it way too much.

Interviewer/Ane: Why does deforestation release CO2 in the air?

Miss. Emmeline Giddings: When people cut down trees, They chop them up at fabrics which releases CO2.

Interviewer/Ane: But why are people chopping down the rainforest and trees?

Figure 27: A sample of collaborative work with no major errors mentioned above

The collaborative writing sample shown in Figure 27 presents no major mistakes which were shown in Figure 25 and 26. The use of forms of verb is good and no mistake in subject-verb agreement is seen in this writing sample. In addition the writing sample is highlighted with two different colors.

Table 10: Use of mechanics in collaborative writing

Mechanics	Value	
	N	%
CAPITALIZATION MISTAKES	4	36.4
PUNCTUATION MISTAKES AND MISSPELLED WORDS	1	9.1
MISSPELLED WORDS	3	27.3
PUNCTUATION MISTAKES	3	27.3
Total	11	100.0

Table 10 showed the use of mechanics in pupils' collaborative work. It shows that several groups (36.4%) made capitalization mistakes in their collaborative writing. 9.1% groups made mistakes in both punctuation and spelling. The same number of students (27.3%) made mistakes in punctuation and used misspelled words. Below are the examples of different features of mechanics shown in Figure 28, Figure 29and Figure 30.
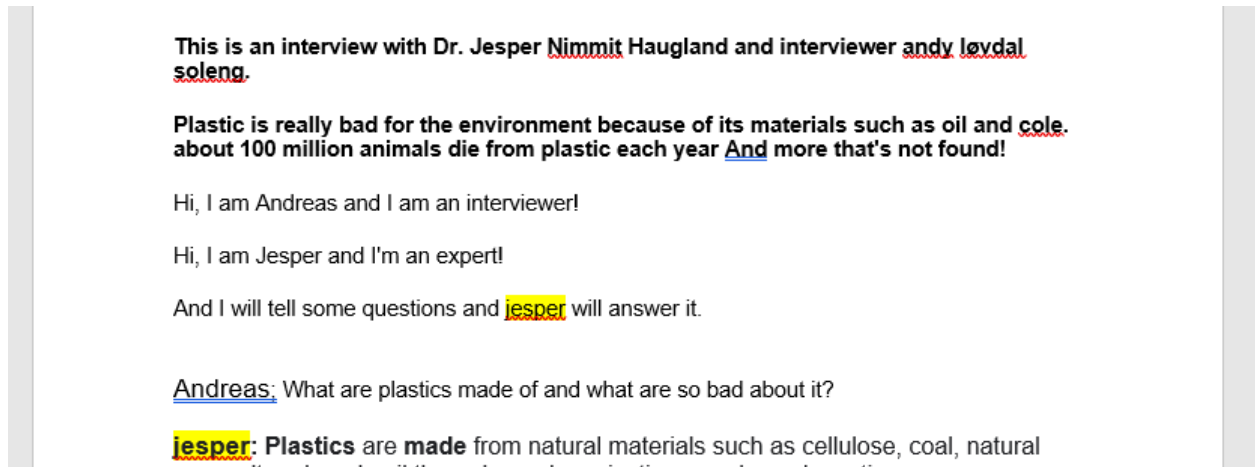
Figure 28: Capitalization mistakes in collaborative writing

The collaborative writing sample shown in figure 28 presents the capitalization mistakes. The capital letters are used for writing names. But in this text small letters have been used to write the names. We can see the inconsistency of capitalization in other words too.

> **Interviewer**: What do you think about deforestation
> **Expert**: It's not good because very many animals die from it.
> **Interviewer**: What type of animals
> **Expert**: Many types! for example monkeys.
> **Interviewer**: Why do animals die for deforestation
> **Expert**: Because the animals need the forest because they live <u>there</u> and they need the food.
> **Interviewer**: Do you help the animals
> **Expert**: Yes, I help the animals because I love the animals!

Figure 29: A sample of punctuation mistakes lacking question mark at several places

In Figure 29, the collaborative writing sample shows the punctuation mistakes. We can see the first sentence starting with "what", but it doesn't end with the question mark. Following the first sentence, in the text sample, there are several sentences lacking the question mark at the end of the sentences.

> Interviewer: Hi, what interests you about climate change?
> Expert: That is a bad <u>clima</u> and we need to do this to a good planet. We can't throw trash in nature or waste new things.
>
> Interviewer : Can I ask you <u>sume</u> questions about Co2 ?
>
> Expert : Yes, as much as you like.
>
> Interviewer: What is CO2 ?
>
> Expert: Carbon <u>daioxide</u> is a gas that has no colors, it has a smell and taste.

Figure 30: Example of misspelled words in collaborative writing

The collaborative writing sample above, presents the use of incorrect spellings. The incorrect spellings are underlined in the collaborative writing sample.

Table 11: Word count in collaborative task

Word Count	Values in numbers	
	N	%
ABOVE 100	8	72.7
ABOVE 200	2	18.2
ABOVE 300	0	0.0
ABOVE 400	1	9.1
Total	11	100.0

Table 11 shows the word count in the collaborative task. So, overall results are suggesting that large number of pupils (72.7%) used 100 above words in their collaborative work. 18.2% pupils' used above 200 words in their work. There were no pupils (0.0%) who wrote above 300 words in collaborative writing but a jump of using above 400 was analyzed by one group (9.1%).

4.5 Pupils' questionnaires

This section presents the findings from the questionnaires answered by the 5th Grade pupils from a Norwegian primary school, comprising thirty-four respondents in total. Seventeen pupils of 5th A and seventeen of 5th B completed the questionnaires. The questionnaire was divided into three sections. The first section of the questionnaire shows pupils' attitude toward writing using Google Docs. The second section of the questionnaire presents pupils' opinions about using Google Docs features for writing English lessons, and what do they find difficult to writing on Google Docs. The third section shows the pupils' behaviors about using different features of Google Docs like which features of Google Docs they use mostly, when writing on Google Docs.

Table 12: Pupils' attitudes towards writing on Google Docs

	Yes	%	No	%	NC	%
The teacher asks you to write an English text	11	32.3	21	61.8	2	5.9
The teacher asks you to write an English text using pen and paper	7	20.5	15	44.1	12	35.3
The teacher asks you to write an English text using Google Docs	20	58.8	11	32.4	3	8.8
The teacher asks you to work on Google Docs by yourself	16	47.1	15	44.1	3	8.8
The teacher asks you to work with another pupil on Google Docs	21	61.8	11	32.4	2	5.9

In Table 12, the figures indicate that only a small minority of pupils (5.9%) do not enjoy writing English texts, while the majority of the pupils feel good about writing English texts. There is also a clear preference among pupils for writing using Google Docs (which 8.8% do not enjoy) compared to pen and paper (which 35.3% do not enjoy). In terms of working individually or collaboratively, 61.8% enjoy the latter compared to 47.1% for the former.

Table.13 Pupils' opinions towards writing on Google Docs

What do you think? (Circle one picture !)	Yes I AGREE		I'M NOT SURE		NO I DON'T AGREE!	
	N	%	N	%	N	%
I like it when we use computers during lessons.	25	73.5	8	23.50	1	2.90
I like to use Google Docs to write English texts.	23	67.70	10	29.40	1	2.90
Google Docs helps me to write good texts.	24	70.60	9	26.50	1	2.90
When I use Google Docs, I like to use colorful fonts to make my writing attractive	12	35.30	12	35.30	10	29.40
I find it difficult to write English texts on	6	17.70	9	26.50	19	55.90

Google Docs.						
I prefer to write together with another student when we use Google Docs for English writing.	26	76.50	4	11.80	4	11.80
Writing texts in English is not difficult	17	50.00	15	44.10	2	5.90
Using Google Docs is not difficult	24	70.60	6	17.70	4	11.80

Table.13 reflects pupils' opinion about using Google Docs in English lessons. The results show that many of the students (73.53%) agree that they like to use computers during English lessons, and very few pupils did not agree to use computers during lessons. The same tendency of pupils was seen with regards to second and third statement where pupils agreed to use Google Docs in writing English texts, and they found it helpful in writing good texts. Equal spread of numbers can be seen in the next statement 'I like to use colorful fonts to make my writing attractive'. 35.29% agree to the statement, the same number of respondents (35.29%) marked not sure to the statement whereas, 29.41% don't agree to the statement. The next statement was about difficulty to writing English texts on Google Docs, and majority of the respondents (55.9%) do not it difficult to write on Google Docs. The next statement was about collaborative writing, and the majority of the pupils (76.47%) agreed to the statement that they prefer to use Google Docs with other pupils, whereas an equal number of respondents (11.76%) were not sure and not agreed to the statement. 50.00% of the respondents agreed that writing texts in English is not difficult whereas very few of them found the English writing difficult. A clear preference (70.6%) of using Google Docs easily is also seen from the last statement.

Table.14 Pupils' behaviors towards using Google Docs as digital assistance

How often do you…? (Circle one picture!)	I DO THIS A LOT!		I DON'T DO THIS MUCH	
	N	%	N	%
Use the automatic spelling checker on Google Docs	17	50.00	17	50.00
Use Google translate to help me find English words	24	70.58	10	29.41

Ask the teacher for help with Google Docs	18	52.94	16	47.05
Search online for ideas to use in my writing	17	50.00	17	50.00

Table.14 presents pupils' behaviors toward using Google Docs as an online help. An equal spread of numbers can be seen for the first statement, "how often do you use the automatic spelling checker on Google Docs," to which 50% of the respondents said that they 'do this a lot,' and 50% of the respondents opposed it. A large number of pupils agreed that they use Google translate to find new words. Almost an equal spread was also seen when the pupils were asked about needing the teacher's help when writing on Google Docs. An equal number of pupils (50%) responded to both options for the next statement "search online for ideas to use in my writing".

The main findings of the questionnaire are as follows

- Many pupils do not enjoy when the teacher asks them to write with pen and paper
- Many pupils like to write English texts on Google Docs, and it helps them writing good texts
- Pupils like to work collaboratively in English writing lessons
- Almost equal number of respondents liked and disliked about the use of colorful fonts in writing English texts
- Many of the pupils agreed that they use Google translate for writing English texts
- Half of the pupils agreed that they use automatic spelling checker and search for new ideas while writing on Google Docs

4.6. Correlation Analysis

The correlation coefficients were estimated between the intention to use Google Docs or usage pattern (high intention=3, cannot tell=2, and low intention=1) with variables such as "to use it if computers are available," "has the potential to create good text," "could create colorful fonts," "Difficulty of using Google Docs," "if it helps to write with others," and "Writing in English is not difficult." Thus, the correlation analysis was based on student's perception of using Google Docs as a function of its different features as well as the background level of writing in English and availability of computers in school or at home for study.

Table 15: Correlation Analysis

	Usage Pattern	*Use during computers*	*Create good texts*	*Colorful fonts*	*GDocs is Difficult*	*write others*	Writing in English not difficult	*GDocs not difficult*
Usage Pattern	1							
Use during computers	0.688593	1						
Create good texts	0.641671	0.998	1					
Colorful fonts	0	0.7251	0.76698	1				
GDocs is Difficult	-0.21995	-0.859	-0.8893	-0.9755	1			
write others	0.866025	0.9589	0.93919	0.5	-0.678	1		
Writing in English not difficult	0.123223	0.8045	0.8402	0.99238	-0.995	0.6029	1	
GDocs not difficult	0.81687	0.9808	0.96657	0.57682	-0.742	0.99584	0.6731	1

The correlation analysis (table 15) was reliable and reproducible because it showed that the difficulty of using Google Docs would reduce the usage pattern, but the correlation was low. However, finding Google Docs not difficult was highly and positively correlated with usage pattern (r=0.81). The finding suggested that it is more important to perceive Google Docs is not difficult than to perceive that it is difficult is what drives the usage pattern of the app in academic settings. Therefore, teachers should mentor students to use Google Docs meaningfully and with ease so that

they do not perceive it to be difficult. Moreover, teachers should identify which features of Google Docs are perceived difficult by a student, so that specific mentoring could be initiated to use the application.

The correlation analysis showed that Google Docs could be perceived difficult if the student does not have access to computers (smartphones or tablets would not be a good alternative), are unable to create good and grammatically correct texts, and cannot create colorful fonts, especially in terms of the written text. Similarly, the correlation analysis showed that usage pattern or the intention to use Google Docs would increase if they are able to create good texts, use colorful and appropriate fonts, find it easy to use it as a tool for collaborative writing, and have basic English writing skills. Despite a low correlation coefficient, the positive correlation between usage pattern and basic writing skills in English is important because it showed the importance of traditional pedagogical approaches for teaching-learning of English through texts, dictionaries, and audio-visuals is the foundation for using technology to improve English writing skills. The findings of the correlation analysis are in line with the qualitative findings that showed that students rarely used Google Docs primarily due to the lack of technical and linguistic limitations of the teacher in encouraging students to use the referred application.

4.7. Teacher Interview 2

The second interview with the teacher was conducted at the end of the project. In this interview, we discussed various issues emerging from the data previously collected. Different themes were addressed in the second interview. These were the role of translation in pupils' writing, the structure of first, second and third lesson, benefits of writing stories and improving grammar, vocabulary, and the content of writing on Google Docs.

As noted in the observations, pupils used Google translate to help them find English words. The teacher was not particularly happy that the pupils translated full sentences because they were supposed to use their own words. She assumed that Google translate is not always accurate but feels that it is a great tool if they just need to translate only one word at a time. Pupils usually find a way to use it for other purposes as well. She wants them to use a program in a way they are comfortable with, and it is easier for them to use. When asked about the use of a bilingual dictionary, she said that she had taught them to use a normal dictionary in the form of a book. But it takes too long for them to use it yet, but she was of the view that she will make it a priority to

use it next time or will make it a requirement for them to use. She had discussed the titles of the stories in the Art class. She wanted to familiarize them with what they had discussed before that is why she used the name of the stories in Norwegian in the introductory part.

We also discussed the way she organized the writing lessons, and in particular the planning stage. She usually wants to make English and Norwegian very similar in that manner. Moreover, whenever she starts writing class, pupils have the great ideas in the first lesson and then they forget next time. This is also the reason she wants them to plan the text before so that the ideas are written for them in a table. She also said that she wants them to remind that what their initial plan was and to just develop their first idea, so that's what she wants them to write in the planning part first. She said that "planning is important to develop their initial ideas."

Many of the pupils need help just to get started with their written assignments, and what the teacher likes to do is to listen to their ideas and then she usually just writes the first sentence and that's a just good start for them, then they continue. A lot of them need help with single words and some need help just to see whether they have made any mistakes that she needs to correct. Furthermore, talking about assisting the students in the writing class, she said that the pupils know what they want to write but they don't know how to write it so then sometimes I say a few sentences in English and then they pick up good sentences. So, sometimes I have to say it to them then they start writing.

In terms of feedback on students' writing, the teacher talked about two approaches – private and whole class. When pupils write on Google Docs, teacher has access to their writing tasks. She uses this feature a lot. When she usually checks their English classwork tasks then she comments on their work and gives them feedback like she writes something to them and that is completely private to one individual. When she gives feedback, it does not have to be common and the whole class does not see what she wrote. So, she thinks it's a good feature to use. She gives assignments to the pupils, and she has full access to their writings, whether they have written or not.

But she also gives public feedback and likes to show the work of individual pupils to the class because she enjoys giving positive feedback. Many of the pupils like to show their work and like to get positive response from the class and the teacher. According to the teacher it is a great motivation for them.

In terms of the accuracy of students' writing, many of them make the same types of mistakes like forgetting capital letters and misspelled words. Most of them usually forget to check out those

words and what is wrong with the text. Sometimes, when she shows other pupils' work to the class then it helps the pupils at pointing out their own mistakes and they get assistance in pointing out their own mistakes. She suggested that she did focus on the planning because it was not done previously, and they did that in Norwegian at the same time. So, she tries to do an interdisciplinary instruction for both subjects. Almost all the homework she gives them is assigned to them through Google as a document on Google Docs, and they go through them every Friday the same way the teacher showed the class their work when the researcher was there in Lesson 2.

When asked about the advantages of story writing on Google Docs compared to the pen and paper approach, the teacher said, "We are using pen and paper now." In the first interview she said that pupils were only using Google Docs for English writing, but in the second, which was taken at the end of the project, she said that the pupils had started using pen and paper for the writing. She thinks that students prefer to use Google Docs. It is because Google Docs is easier for them. She could only think of a few students who prefer to write with pen and paper. She thinks that using Google Docs is a great motivation for them and they can find words that are wrong and then it is easier for the students to correct. She says, " Auto-spelling check is a hug inspiration for them."

Reflecting on her use of Google Docs, she could not think of any big challenges. The only thing is that they must remember to bring their chrome books. It has been a challenge that they forget to bring their chrome books in the class. In terms of Google, it's a good and solid program and is accessible for students and teachers. She doesn't have any specific challenges using Google Docs.

Collaboration was another issue that was discussed in the final interview. She feels that collaboration can be very challenging for a few of them, especially a few individuals she was thinking about. She said, "Collaboration is one of the things that I must work on." She thinks it's very difficult to find students who can work together and who can produce something that is good. She said,

> One example is, in one of the classes there are two boys, one of them was good and other one was not so good in English, they didn't work collaboratively, and it was a complete disaster. They didn't produce anything. This is just an example how bad it could be. Collaboration is very difficult for many of them, and I will keep working on that and writing

texts is not something that we had done a lot, but I can see that it was very motivating for them, and they enjoyed it a lot.

Pupils worked in groups in the third lesson and worked collaboratively. Some of them worked in groups of two, and some worked in groups of three pupils. This strategy of group formation was simply because she knew their English levels. For the assignment like writing interview in collaborative writing, she believes that there should have been two more sessions. One session was not enough and many of them did not complete the task. She has not really taught them about using Google Docs. She thinks that she could give them lesson in how to use this program. She thinks sometimes they get too confused with the content what they are writing instead of looking at the language alone. In the final interview, different themes emerged such as, the role of translation, collaboration, accuracy, feedback, use of grammar and structure of the three observed lesson. The key findings of the final interview suggest that

- The teacher finds the use of Google translate very beneficial for the pupils.
- The use of bilingual dictionaries is difficult for the pupils.
- The planning of the stories was emphasized to remember and polish the pupils' initial ideas.
- Teacher helped the pupils in the writing lessons so that they could create a good content.
- Collaboration is difficult for some pupils.
- The teacher provided feedback both individually and as a group.
- Pupils started writing with pen and paper when the final interview was conducted but the pupils liked working on Google Docs for the writing assignments.

Concluding, it can be said that the findings in this chapter suggest that the pupils and the teacher were in the favor of using Google Docs as a digital writing tool and the pupils preferred writing on Google docs rather than using pen and paper. Pupils also used Google docs as a collaborative tool as well. Google translate was also excessively used by the pupils.

5. Discussion

5.1. Introduction

This chapter discusses the findings of this research project and relates them to the literature which was discussed in chapter two. Section 5.2 reflects the general findings of this study. Section 5.3 discussed the practices and perspectives those characterize the use of Google Docs in learning English writing in Grade 5 children in Norway, Section 5.4 reflected the practices and perspectives those characterize the use of Google Docs in teaching English writing to Grade 5 children in Norway, and Section 5.5 portrayed how does Google Docs influence teaching learning outcomes of English writing in Grade 5 children.

5.2. General Findings

The general findings of the study showed that the teacher was very positive about the use of technology in the classroom. She found the writing on Google Docs very motivating, and it could encourage the pupils to write good English texts. Pupils' questionnaire results also showed that they were interested to use Google as a digital writing platform. They were eager to use Google Docs rather than writing with pen and paper. They also showed their interest to use images and colorful fonts in their writings. Pupils' story writing samples showed that they made grammatical mistakes in the form of wrong pronouns, subject-verb agreements, and choosing wrong form of verbs to write texts. For the collaborative writing, it was also analyzed that pupils made grammatical mistakes, errors in mechanics were also seen in collaborative writing. Overall results of the analysis showed that a large number of pupils used colorful highlighting and colorful fonts in their collaborative writing; however, the excessive use of colorful fonts was not seen in their individual writing and none of the pupils highlighted their texts when they wrote stories individually. Furthermore, most of the groups did not complete their collaborative work and this high tendency was not seen in story writing because pupils had two sessions for writing stories.

It could be concluded that the pupils had only one session for writing their tasks in the collaborative session, whereas they wrote stories in two sessions that is why the timeframe impacted their task completions. Ambrose, & Palpanathan (2017) claimed that Google Docs has many powerful features such as images, quotes, colorful fonts could be used in the document while

working on Google Docs. Due to the less focus on the grammar in the beginning of the lesson, pupils paid less attention to the grammar in their texts. Those grammatical errors were highlighted in the results section. The pupils' texts could have improved if the teacher had focused on the use of grammar in the pre-writing stage too. Perron & Sellers (2011) claimed that one of the major features of Google Docs is collaborative writing. Their views support the idea that Google Docs helps to learn collaboratively. However, teachers should be competent in explaining the benefits and use of Google Docs to students. So, English language teachers' training is very important in this regard. Furthermore, we see that the teacher had a degree in History subject so the administration should make sure that the language teachers are professionally trained and have relevant knowledge according to the subject requirement.

5.3. Practices and perspectives in learning English writing using Google Docs

The first research question was about the practices and perspectives in learning English writing using Google Docs. The findings of the questionnaire suggest that many pupils suggested that they enjoyed writing English texts using Google Docs. A vast majority of the pupils also suggested that they liked writing on Google Docs with other pupils. Questionnaire results also reflected pupils' attitudes and opinions about using Google Docs in English lessons. The questionnaire findings showed that most pupils felt good about writing English texts in writing lessons. Most of the pupils also agreed to the statement that they liked to use computers during English lessons. The same tendency of the pupils also agreed to the statements that they liked to use Google Docs to write English texts and Google Docs helped them producing good English texts. Many of the pupils preferred working collaboratively with other pupils in writing English texts. However, they found it easier to write English texts on Google Docs.

The findings of the present study were aligned with those of Hall & Grisham (2011) because the 5th Graders of the Norwegian school were asked to select a specific topic to write, and they were not forced to select a specific topic to write. Nevertheless, it would be interesting to explore in future studies the way positive attitudes are shaped for writing English with Google Docs if the respective stakeholders are asked to write on a topic of their choice without being prompted by the teacher or the researcher. The positive attitude toward writing in English through Google Docs emerged as a robust theme both for individual and collaborative writing. In this regard, our results echoed those of Hall (2013) because pupils were motivated to use pictures and colorful fonts during

collaborative writing which was missing while they were writing individually. Thus, it could be contended that any application or resource that would help pupils to showcase their writing, especially for others, would motivate them to write better and accurately. This is because during individual assignment tasks, only 31.25% made no spelling, punctuation, or capitalization mistakes. This means that around 70% of the students failed to access or make use of the grammar tools in Google Docs.

A similar percentage (63.5%) of the pupils exhibited double negation, incorrect use of pronoun and verbs, and mistakes in subject-verb agreement during the individual story writing tasks. Such mistakes could stem from two perspectives; the inability of Google Docs to understand the semantic and lexical requirements of the pupils which might be confounded by Norwegian or languages other than English. The students failed to exhibit poor use of phonemes in writing, which shows that basic grammatical skills and semantic skills should be developed by teachers and technology such as Google Docs should not be used for such purposes.

It was observed during the story writing sessions that the pupils were shown the pictures by the teacher for writing the stories. The teacher enforced discussion session in the pre-writing stage and asked them about the best possible topics for the pictures. When the pupils were engaged in the discussion, then she also asked them to justify their thoughts. In this manner, we can relate our study to the Cognitive learning theory because the cognitive learning strategies were enforced by the teacher. The pupils looked at the pictures which worked as the external stimuli and then processed it in their brains and their internal thoughts and knowledge provoked them to suggest the topics of the stories.

The same manner of engaging the pupils in discussion was observed in the pre-writing stage of collaborative writing. The teacher asked the pupils about the factors affecting environmental issues and the pupils were engaged in the discussion and responded the teacher, so the cognitive learning strategies were also used in the third writing session too. In the first two individual writing sessions, they wrote stories on Google Docs and used it as a writing platform. The pictures and writing plan were already there for the pupils and they used pictures as external stimulus and after processing in their brains they wrote the stories about the pictures.

5.4. Practices and perspectives in teaching English writing using Google Docs

The second research question was about the practices and perspectives in teaching English writing. In the interview with the teacher, she said that the pupils prioritized the use of technology in the writing lessons because it boosted the pupils' confidence. Upon further probing, it showed that she did not use Google Docs much because she perceived pupils would be confused with technology. According to her, it was very good to see pupils using technology at an early stage. Moreover, she emphasized that the teachers should educate the pupils that how they could use the technology safely, for instance, the use of correct information from the internet. She also preferred the use of Google Docs in the English writing lessons because pupils got engaged in their writing activities when they wrote on Google Docs. Here the views of Cristen (2009) and Courville (2011) relate to the present study where teachers emphasize and endorse the use of technology in learning.

She said the planning was very important because it could help pupils to remember their initial ideas about the content of writing. She said that sometimes the pupils forget about their initial ideas for writing that is why it is important to help them writing their ideas in the planning part first. Hyland (2019) presents the Process Approach to writing consisting of the different stages, i.e., pre-writing, focusing ideas, evaluating & editing and feedback. He mentions that at the pre-writing stage, the teacher should stimulate the pupils' ideas by motivating and encouraging them. The flow of ideas is very important at this stage and if the pupils are not capable of presenting their ideas in their texts, then the teacher should contribute to refining their ideas so that they could produce the good texts. So, we can relate it to Hyland's Process Writing Approach where the teacher played her role in helping the pupils prepare to write the texts. We can also relate this notion of planning the writing adopted by the teacher with those of Atkinson (2018), Durga & Rao (2018), and Sun & Feng (2009), they claimed the writing as a process which includes brainstorming, drafting, editing, and revising.

There was very less focus on the use of grammar and vocabulary by the teacher. She instructed them to use capital letters at the beginning of the sentences and use full stops at the end. She did not focus on the use of grammar and the choice of the content as well. Hyland (2019) explains that some teachers only one approach for writing but others combine different approaches to get the effective outcomes. Here we can relate the teacher's strategy to the genre approach where the choice is on producing the texts and coherence of ideas in the texts and not on the use of grammar.

During the lesson observation, the very statement "we will not be speaking Norwegian today" gives the impression that the lack of motivation to write in English, irrespective of Google Docs could be attributed to the area of improvement in pedagogic skills of the English teacher. Although she justified that there is a need to translate or explain the meaning of English words and semantics in Norwegian, it cannot aid English writing skills which was evident from the pupils' poor use of paragraphing. It could be argued that Google Docs might not have the ability to rectify or guide paragraphing which is primarily based on the semantic and lexical attributes of the ideas of the student while writing in the referred software. At the most, it could be concluded that Google Docs acknowledge semantic and lexical attributes that the writers wanted to convey through their writing because 50% of the participants in our study were able to paragraph accurately. It is here the role of pedagogy and the qualities of English instructors related to English teaching come to play.

The point that 50% of the students wrote in blocks and without paragraphing (when the requirements were such) signified that they did not have the necessary semantic, lexical, and literary skills, and the prompts or features in Google Docs were insufficient to address such gaps. Without demeaning the academic expertise of the English teacher in the study, she had a Master's Degree in History. Therefore, it is not surprising that she would be more comfortable teaching in Norwegian than English, even in English classes. Similarly, the positive attitude of the teacher while considering the role of Google Docs could be limited to her knowledge development in English which is mainly restricted to grammar. It could also be assumed that she transfers the learning to the students or guides them to use Google Docs for grammar or translation that were evident in this study. However, it was also evident that she never instructed students to use Google Docs for constructing sentences or paragraphing. The teaching-learning of English irrespective of writing and the use of Google Docs could be questioned from the perspective of the educational background of the English teacher.

According to the teacher, Google Docs helped in improving the pupils' writing. She also mentioned that it could also help in generating new ideas of writing in pupils' minds. The role of the teacher is very important in the English writing lessons. It was seen in the writing lessons that the teacher was paying very less attention to the use of language. Instead of emphasizing the use of grammar, she emphasized planning of the text. We also see that pupils used Google translate excessively in the writing lessons. The teacher told the pupils to use the bilingual dictionaries

during the writing lessons, but very few of them used the bilingual dictionaries in the writing lessons. In this way, the result of using Google translate echoes the results of Steel & Levy (2013) when most of the EFL pupils used online dictionaries in writing.

Training and professional development of the teachers is very important to teach English writing. The teacher had a Master's in History, and she was not professionally trained to teach English to the pupils and had very limited experience of teaching. *Knowledge Promotion* (LK20) mentioned in literature, also focuses on the professional training of the language teachers and the school administration should consider it.

The respective school in our study should have deployed an English teacher with a Master's degree in English instead of other Arts subjects. This does not mean that the teacher or her pedagogic approach is incorrect, but they might be more appropriate for teaching Norwegian and History rather than English. Hence, it could be too much of an ask from Google Docs or other digital tools to develop literary skills in pupils which are grounded in the semantic and lexical skills of the learner. However, it could be argued that why the emphasis should be on semantic and lexical skills when it is well-known that Google Docs is primarily used for grammatical, translational, and collaborative purposes? This could be answered in the light of mistakes committed by the students on verb and noun forms that could be used interchangeably. Hence, this observation again supports the notion that Google Docs cannot develop semantic and lexical skills in English in EFL learners, but they seem to be appropriate for developing or improving such skills in native English learners or EFL learners who are competent in writing in English and had a positive attitude for writing in English as depicted in our study. On the contrary, the former assumption was supported by a study that showed Google Docs aids in sentence construction and paragraphing in native English students hailing from primary schools.

5.5. The influence of Google Docs on teaching-learning outcomes of English writing

The third research question in this study answers the influence of Google Docs on teaching-learning outcomes of English writing. Below are the several points which emerge as an outcome of this study.

a- Real-time communication

In the writing lessons, it was seen that the teacher could access the pupils' writing and she was also able to comment on pupils' texts from her computer which proves that Google Docs is a simultaneous communication tool between pupils and the teachers. This sharing feature allowed teacher to provide access to the document and it served as very helping feature during the writing session. Here we can relate our study to Gavin's (2019) opinion where he argues that Google Docs is a real-time communication tool. It allows its users to create file while keeping all their record are saved. His view of using Google Docs here supports that it keeps the record of pupils' writing and the access to the documents is easier for the pupil and the teacher.

b- Teaching and learning spellings

The other feature of using Google Docs is that the pupils have access to lot information on the internet. They have access to the Google search, auto-spell check which makes it easier for the pupils to write by suggesting the correct spellings and related literature to their topics. If the pupils are unsure about the correct spellings, the spelling feature suggests the several spellings to the pupils, and they could select the correct spelling, and use that in their document. Here, we can relate this feature to the theme of improved writing and our correlation coefficient also supported this claim.

c- Good texts and Literacy skills

In the interview, the teacher mentioned that Google Docs was a very good digital tool for English writing, and it was good to see pupils using technology at a very young age. She found the writing on Google Docs very motivating for the pupils and help them writing good texts. The questionnaire findings also supported he claim the pupils found it very motivating for writing English texts. It could also encourage the pupils to write good texts. Herold (2016) states that in developed countries, public schools are using technology to enhance the level of learning among the students. So, we see here, in this study, that technology was used in the English writing lessons. Costley (2014), Cristen (2009) and Courville (2011) also support the claim of using technology for making the writing motivating for the pupils.

d- Improved expressions through writing

Google Docs is one of the important writing tools used in English writing lessons. One of the key features of Google Docs is the ability to collaborate with other pupils. Here the online collaborative learning model and connectivism come into play. These models suggest the use of technology with peers to nurture the ideas of learning. Google Docs was used in the English writing lessons by the pupils, and they preferred using writing on Google docs over writing with pen and paper. The results of the questionnaire also showed that the pupils also favored working with the other pupils. The teacher also told that the use of Google Docs as a collaboration tool is something that she prioritized. In the literature, Woodrich & Fan (2017) argued that Google Docs should be used in primary and middle classes during writing activities, it could enhance the impact of writing of the students' work. When the pupils were writing collaboratively in the third writing lesson, it was observed that pupils were helping each other by correcting the mistakes of the fellow group mates. Here, our study supports the claim of

Suwantarathip & Wichadee (2014) and Ebadi et al. (2017) also suggested that when pupils worked collaboratively and interactively in their writing activities and commented and critiqued on group tasks, they gained a better understanding of the writing tasks. Furthermore, it was also argued that the pupils who used Google Docs as a collaborative tool were more comfortable during the tasks, and they gained better insight of the writing process. It was suggested that the pupils learned some basic features of writing from their peers i.e., grammatical structure and vocabulary and sentence making features. Therefore, it is said that Google Docs helps students in improving their academic writing effectively. So, it could be concluded from this point that when pupils worked collaboratively, they assisted each other, and their texts were improved. Although, it was not the aim of comparing the individual and collaborative work, but still it was found that the writing texts produced in the result of collaborative work were better than the individual work.

e- Supportive teaching-learning tool

Google Docs can improve English writing skills in primary school children as they get help to construct sentences line by line, but Google Docs might not be sufficient in ensuring semantic and lexical skills in EFL learners. This is where the importance of English instructors and pedagogy comes into play. The teacher in this case study was comfortable in communicating and teaching in Norwegian rather than English even in the English classes. This is the reason why some of the pupils wrote in English and Norwegian in the same prose and felt the necessity of translating

Norwegian to English. The overdependence on technology such as Google Docs was evident from the fact that only 6% of the students accessed the dictionary for writing despite being instructed by their English teacher.

The findings of this study vibrate the report of Hall (2013) who stated that positive attitudes to writing in English depend on appropriate resources. Considering the extant literature, the resources for English writing and learning involve the educational background of English teachers, the quality of English teaching, the technological tools that support writing English, and textbooks on grammar and literature. Therefore, Google Docs could be only considered as a support for writing and learning English, but it cannot be a substitute for traditional pedagogic teaching, especially for English.

Google should design or deploy big data analytics to improve the semantic and lexical features in aiding the ideas and expressions of writers while they are using Google Docs for writing and that too, irrespective of their language and lingual background. However, there could be apprehensions from teachers and students regarding increased or overreliance on Google Docs or allied software in teaching-learning of English. Students might find it difficult to communicate or identify their mistakes while communicating or exhibit poor communication skills due to the loss of words, which could happen because during verbal communication they would not receive prompts from Google Docs if they are making any grammatical mistakes as well as the context of the word or sentence for which they are communicated.

Previous studies (Nolen 2007, Piazza & Siebart, 2008) have indicated that grade level, gender, and writing attitudes influence learning and writing, it could be possible that the experience with Google Docs as a teaching-learning tool could have been different if other grades were considered in our study. Since writing attitude is an essential requirement for writing in English, it is imperative that pedagogic skills should be applied by teachers for developing an interest for writing among primary school children. This was also evident in our study because pupils were exposed to such a rigorous pedagogy on English writing with Google Docs for the first time. Despite that, their writing interest indicated that Google Docs prompted them to write, especially in the field of collaborative writing. The motivation for pupils to write using Google Docs was evident from the word count in story writing, which for 62% of the participants was more than 100. This means that the students were able to develop and share large contents in English despite hailing from an EFL background.

However, as the task completion rate in collaborative writing was only 36%, it signified that a significant proportion of the students were unable to assess the depth and breadth of their communication in English to others. This finding once again reciprocated the pedagogic need for a more formal and traditional teaching-learning in English, irrespective of the technology that is used to support learning English. Interestingly, the grammatical mistakes that were almost 70% came down to 18% students in collaborative writing. Therefore, it could be concluded that Google Docs is a robust tool for collaborative writing and reduces the probability of grammatical errors by four times. Therefore, English teachers should encourage collaborative writing on Google Docs not only for increasing literary skills, but also for improving grammatical and semantic skills in 5th Grade students. Here the collaborative learning approach proves itself to be very supportive for the pupils because with the help of the group mates, the ratio making grammatical mistakes came down while the task completion was minimum. The reason of not completing the task could be the only one writing session by the teacher. The teacher could have assigned two writing lessons for the collaborative tool to get the better results.

On the contrary, spelling, punctuation, and misspelled words were more in collaborative writing compared to individual writing which meant that there needs to be checks and controls in the use of Google Docs in collaborative writing because pupils might consider the words written by their peers to be correct compared to those prompted by Google Docs because either the knowledge or language background of the pupils involved in the collaborative writing group were similar. This was reciprocated from the responses of the students that only 32.3% of them shared that the teacher rarely asked them to write in English while 44% of them shared that the teacher did not ask to use a pen and paper in teaching-learning of English. However, the teacher shared more than 50% of the pupils used Google Docs for writing in English or working collaboratively. Perhaps, the lack of traditional pedagogic approaches for teaching and learning as was evident from our study made 50% of students feel that writing in English is difficult despite more than 60% of them found Google Docs to write and represent English texts. However, on further exploration, the study showed that despite students' used Google Docs, they used it less meaningfully.

Otherwise, only around 20% of the pupils used it for spelling checks or translation or search online for ideas. The study reciprocated the need for using Google Docs as a supportive tool and not an alternative for traditional pedagogies for aiding teaching-learning of English, especially across EFL learners. This study also showed that teachers should be trained or informed to use

digital technology meaningfully so that the students could perceive their utilitarian values in learning English. Although the research design of this study did not provide an opportunity to evaluate the effectiveness of Google Docs in terms of academic achievement in English (marks or CGPA), Bulut et al. (2017) reciprocated that writing attitude, self-belief, and self-efficacy interact with each other in writing achievement.

On the contrary, Paker & Erarslan (2015) showed that exposure to preparatory classes in English in Turkish students did not change their writing attitude for English. The findings of Paker & Erarslan (2015) depicted three things. Firstly, students might not develop a higher positive attitude toward writing in English, unless they are prepared to write English through appropriate pedagogic approaches with or without the use of technology, writing attitude toward English does not change much in higher education unlike in elementary school education when children are most likely to change their attitude and strategies for leaning or writing English. Hence, technology such as Google Docs should be used in elementary school curriculum, but they should be adequately backed by traditional pedagogic approaches for teaching-learning English, especially with textbooks and audio-visuals. Thirdly, the quality of preparatory classes for English classes in EFL nations should be revisited in terms of the educational background of the instructors, the content and context of learning, and the quality of English teaching. Nevertheless, this study showed that Google Docs could be useful in collaborative writing even in 5th Graders, but their ability to leverage grammatical and semantic skills in the respective stakeholders remains questionable.

The study further endorsed the need for adopting traditional pedagogic approaches for teaching and learning English, and technology should just be an aid to facilitate such endeavors, especially in the context of academics in EFL nations. Since studies (Gustilo et al., 2020) have shown that technology such as digital should be used for the teaching learning of English in cross-cultural and ESL classrooms, future studies should explore the role of Google Docs in such samples with the requisite demographics.

According to the teacher, collaboration was a hard task for some of the pupils too, because some of the pupils do not feel comfortable working with others. During the collaborative tasks, two groups did not submit the group task to the teacher so here we see that problems that can be faced during the collaborative task. Moreover, the teacher should not have simply asked the pupils to work collaboratively but make them understand the effectiveness and usefulness of the group tasks as well.

6. Conclusion

This research aimed in exploring the use of Google Docs in English writing lessons at a Norwegian primary school. The study answered the following research questions:

RQ1: What practices and perspectives characterize the use of Google Docs in learning English writing in Grade 5 children in Norway?

RQ2: What practices and perspectives characterize the use of Google Docs in teaching English writing to Grade 5 children in Norway?

RQ3: : How does Google Docs influence teaching learning outcomes of English writing in Grade 5 children In Norway?

This was a mixed-method study, and the data for the study was collected using qualitative and quantitative methods such as teacher interview, lesson observation, pupils' questionnaire, and text analysis. The researcher interviewed one teacher and thirty-four 5th graders filled in the questionnaires for the study. Three English lessons were observed for both sections (5A & 5B), respectively. After the lesson observations, writing samples were also analyzed to understand the features of the writing by the pupils. One of the main findings of this research showed that the teacher highly prioritized the use of technology in English writing lessons.

However, the use of Google Docs was limited because she thought that students would get confused. On the contrary, the teacher did not have sufficient academic qualifications in English but was deployed for teaching English. Thus, the use of Google Docs or any other technological application would remain unutilized or underutilized if teachers do not feel the benefit of the same in learning English. This reflects the emphasis on technology in the *Knowledge Reform (LK20)*, where teachers and pupils are encouraged to use technology for teaching and learning, including through digital writing, but such a phenomenon was not observed in the school till the researcher implemented the exercise. The teacher valued Google Docs because she felt that it motivated the pupils for writing lessons. The teacher was not experienced, and she had done Master's in history. She was not professionally qualified for English teaching. When she gave instructions to the pupils in the writing lessons, then she did not focus on the use of grammar. She focused on the planning part excessively instead of giving more instructions on grammar and the content of the writing.

Thus, while her attitudes toward using Google Docs were positive, but these attitudes were not reflected in her teaching because she was not only more comfortable with Norwegian but used it often while teaching English, Thus, the teacher would have benefited from stronger background on English and its use in teaching and using technology pedagogically.

Another finding of this study suggested that the pupils also enjoyed using Google Docs in their English writing lessons. Google Docs was used as a collaborative writing tool in one lesson. Although comparing individual and collaborative work was not one of your aims, but there were some differences between the two. In the collaborative work, texts were always relevant to the task, and there were fewer errors in the writing and greater use of colorful fonts. While the nature of the task will have affected what pupils wrote, it is also likely that working together allowed pupils to stay focused on the task and to help each other with ideas and language. In this sense collaboration contributed to a better final product compared to the individual stories, pupils wrote.

Google translate was excessively used in the writing lessons. It could be concluded that the excessive access to using Google translate made the pupils to use Google translate. The other reason was that the most pupils came from diverse backgrounds and sometimes they knew the words in their own languages, but they did not find the exact word in English. They used English as their second or third language and found English writing difficult that is why they used Google translate excessively in the writing lessons. It could also be that the writing tasks assigned by the teacher were quite challenging for the pupils and that they needed more preparatory support with language.

Some features of Google such as colorful fonts, images and colorful highlighting were used by the pupils in their text. But they used these features in their collaborative writing most (and much less so when they wrote individually). So, it can be concluded that working together with the other pupils can lead to using these innovative features in the texts, though the nature of the tasks the teacher assigned in the different lessons may have also affected how much use pupils made of color and images.

Finally, the research has presented the possible benefits and challenges of using Google Docs in the English writing lessons according to pupils and teacher's views. These results can be useful for the teachers to follow in their teaching professions.

One of the limitations of this study is that this research was only done with thirty-four pupils of 5th grade and their class teacher across six lessons. Future research could expand this research

by studying larger samples of teachers and pupils across a larger number of lessons and in different schools.

The study suggests that it would help teachers and pupils to get benefit from the use of Google Docs in English writing lessons. It proposes a focus on the pedagogical uses of technology in pre-service and in-service courses for primary school teachers, particularly at in-service level where teachers of English lack subject-specific training. It also provides greater awareness among teachers about the importance of focusing on language (and not just content, technology, and collaboration) during writing lessons; pupils can benefit from some preliminary language work before they are asked to write so that they are familiar with words and structures they can use.

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Appendix 1

First interview guide with the teacher

Background

- Tell me something about how you chose teaching as a profession?
- For how long have you been teaching the English subject?
- Do you find teaching of English enjoyable to younger students?

Technology with the focus on Google Docs

- How do you feel about using technology in the classroom?
- Are you encouraged by the school to use technology in the classroom and get the support from them when needed?
- Do you find it challenging to dealing with younger students when they are writing digitally in the class?
- Do you prefer to make students write digitally or on paper?
- How do you feel about the use of Google Docs in English writing class?
- Is the use of Google Docs an advantage or disadvantage when writing English digitally?
- Are there particular kinds of writing tasks on Google Docs you do not like?

Students' writing tasks on Google Docs.

- How often students write digitally in English lessons?
- Do the students prefer to write on Google Docs or on a paper?
- Tell me about the kinds of writing tasks you ask learners to do on Google Docs ?
- Are there any technical challenges you face when students are writing on Google Docs in class?
- Do the students work on English writing tasks individually or collaboratively?
- Do the students seek your help in writing tasks?

- Are there particular kinds of activities you like preparing when students are to write on Google Docs?

- Is there anything else you would like to tell me about use of Google Docs in English writing lessons?

Appendix 2

Final interview guide

The role of translation

1- I noticed that during the writing tasks the pupils often used Google Translate. Why do you think they need to use it? What are your views about pupils using Google Translate during writing tasks?

2- For the story writing, you showed the pictures to the class, the titles of the stories were mentioned in Norwegian, is there any reason for mentioning those in Norwegian?

The structure of Lesson 1 and 2

3- For the story writing, you emphasized on the planning part and asked the pupils to write in the table first, how would you like to comment on including the planning part in story writing?

4- You were helping the students in the class one by one during the writing sessions what kind of help did they need from you during story writing?

5- There is an important feature on Google Docs where you have access to students' writing when they write, how often you use that?

6- What value you see to giving students the chance to show their work to the class?

Benefits of writing stories on Google Docs

7- What do you feel about the advantages of story writing on Google Docs compared to writing using pen and paper?

8- What are the main challenges for the students doing writing on Google Docs? Are they technical challenges and/or challenges related to English?

9- What kind of tasks do the students do on Google Docs other than story writing?

10- In the questionnaire, 58% pupils said they enjoy using Google Docs and 61% pupils said they enjoy working collaboratively, could you comment on this?

The structure of Lesson 3

11- For Lesson 3, you wanted them to work collaboratively. How effectively do you feel the students worked together? What skills do they need to collaborate effectively?

12- What are the advantages of using Google Docs to write an interview compared to pen and paper?

13- In forming the group for collaborative writing, you made some groups of two and some groups of three. How would you like to comment on this inconsistent strategy of group making?

Grammar and vocabulary

14- In the lessons you did not spent much time explaining language or giving them examples of grammar and vocabulary, they can use in the writing. What are your comments on that?

15- Some students made mistakes in subject-verb agreement in writing, what do you think about students making this grammatical mistake particularly.

16- Many of the students wrote misspelled words in their writings, what do you think about the role of auto-spelling checker feature of Google Docs here.

17- Students made punctuation mistakes in their writings, are they learning to use punctuation at this stage, what are your comments on that?

Content of writing

18- The content of collaborative writing was much related to the task, but in story writing, some students did not follow the theme and content was not related to the topic, what do you think about that?

Appendix 3

Writing English on Google Docs

Dear Students,

I really enjoyed my visit to your lessons. Today, I want to ask you some questions about how you feel about writing on Google Docs in English lessons. Thank you for helping me! Please circle the appropriate option of the questions below.

How do you feel when … (Circle one face!)	I ENJOY IT	IT'S OK	I DON'T ENJOY IT
The teacher asks you to write an English text	😃	😐	🙁
The teacher asks you to write an English text using pen and paper	😃	😐	🙁
The teacher asks you to write an English text using Google Docs	😃	😐	🙁
The teacher asks you to work on Google Docs by yourself	😃	😐	🙁
The teacher asks you to work with another pupil on Google Docs	😃	😐	🙁

What do you think? (Circle one picture!)	YES I AGREE!	I'M NOT SURE	NO, I DON'T AGREE!
I like it when we use computers during lessons.	👍	❓	👎
I like to use Google Docs to write English texts.	👍	❓	👎
Google Docs helps me to write good texts.	👍	❓	👎
When I use Google Docs, I like to use colourful fonts to make my writing attractive	👍	❓	👎
I find it difficult to write English texts on Google Docs.	👍	❓	👎
I prefer to write together with another student when we use Google Docs for English writing.	👍	❓	👎
Writing texts in English is not difficult	👍	❓	👎
Using Google Docs is not difficult	👍	❓	👎

How often do you…? (Circle one picture!)	I DO THIS A LOT!	I DON'T DO THIS MUCH
Use the automatic spelling checker on Google Docs	🤞	👌
Use Google translate to help me find English words	🤞	👌
Ask the teacher for help with Google Docs	🤞	👌

Search online for ideas to use in my writing	👆	✍

Appendix 4

Engelsk Skriving på Google Dokumenter

Kjære studenter,

Jeg likte virkelig mitt besøk på leksjonene dine. I dag vil jeg stille deg noen spørsmål om hva du føler om å skrive på Google Docs i engelskleksjoner. Takk for at du hjalp meg!

Hvordan føler du deg når ... (Sirkel ett ansikt!)	JEG LIKER DET	DET ER GREIT	JEG LIKER IKKE DET
Læreren ber deg om å skrive en engelsk tekst	😀	😐	☹️
Læreren ber deg om å skrive en engelsk tekst ved hjelp av penn og papir	😀	😐	☹️
Læreren ber deg om å skrive en engelsk tekst ved hjelp av Google Dokumenter	😀	😐	☹️
Læreren ber deg om å jobbe med Google Dokumenter selv	😀	😐	☹️
Læreren ber deg om å samarbeide med en annen elev på Google Dokumenter	😀	😐	☹️

hva tror du? (Sirkel ett bilde!)	JA JEG ER ENIG!	JEG ER IKKE SIKKER	NEI, JEG ER IKKE ENIG!
Jeg liker det når vi bruker datamaskiner under leksjoner.	👍	?	👎
Jeg liker å bruke Google Dokumenter til å skriveengelske tekster.	👍	?	👎
Google Dokumenter hjelpermeg med å skrive gode tekster.	👍	?	👎
Når jeg bruker Google Dokumenter, liker jeg å bruke fargerike skrifter for å gjøre skrivingen attraktiv	👍	?	👎
Jeg synes det er vanskelig å skrive engelske tekster på Google Dokumenter.	👍	?	👎
Jeg foretrekker å skrive sammen med en annen student når vi bruker Google Docs for engelsk skriving.	👍	?	👎
Skrive tekster på engelsk er ikke vanskelig	👍	?	👎
Det er ikke vanskelig å bruke Google Dokumenter	👍	?	👎

Hvor ofte...? (Sirkel ett bilde!)	JEG GJØR DETTE MYE!	JEG GJØR IKKE SÅ MYE
Bruk den automatiske stavekontrollen i Google Dokumenter	🙌	✌️
Bruk Google translate for å hjelpe meg med å finne engelske ord	🙌	✌️
Be læreren om hjelp med Google Dokumenter	🙌	✌️
Søk på nettet etter ideer å bruke i min skriving	🙌	✌️

Appendix 5

NSD NORSK SENTER FOR FORSKNINGSDATA

Vurderring

Referansenummer

900808

Prosjekttittel

Computer Assisted Writing: A study of 5th grade students' experiences in a Norwegian primary
school

Behandlingsansvarlig institusjon

Universitetet i Stavanger / Fakultet for utdanningsvitenskap og humaniora / Institutt
forkultur- og språkvitenskap

Prosjektansvarlig (vitenskapelig ansatt/veileder eller stipendiat)

Merja Stenroos, merja.stenroos@uis.no, tlf: 95819633

Type prosjekt

Studentprosjekt, masterstudium

Kontaktinformasjon, student

Fakhra Usman, fakhra_m@yahoo.com, tlf: 46278205

Prosjektperiode

01.02.2021 - 28.05.2021

Vurdering (4)

28.04.2021 - Vurdert

NSD has assessed the change registered on 27.04.2021.

The research period has been extended until 28.05.2021.

Please note that in case of further extensions, it may be necessary to inform the sample.

NSD will follow up the progress of the project at the new planned end date in order todetermine whether the processing of personal data has been concluded.

Good luck with the rest of the project!

Contact person at NSD: Henrik Netland Svensen
Data Protection Services for Research: +47 55 58 21 17 (press 1)
18.03.2021 - Vurdert

NSD has assessed the change registered on 20.01.2021.

The research period has been extended until 26.03.2021.

Please note that in case of further extensions, it may be necessary to inform the sample.

NSD will follow up the progress of the project at the new planned end date in order todetermine whether the processing of personal data has been concluded.

Good luck with the rest of the project!

Contact person at NSD: Henrik Netland Svensen

Data Protection Services for Research: +47 55 58 21 17 (press 1)

22.01.2021 - Vurdert

NSD has assessed the change registered on 20.01.2021.

The research period has been extended until 12.03.2021.

Please note that in case of further extensions, it may be necessary to inform the sample.

NSD will follow up the progress of the project at the new planned end date in order todetermine whether the processing of personal data has been concluded.

Good luck with the rest of the project!

Contact person at NSD: Henrik Netland Svensen

Data Protection Services for Research: +47 55 58 21 17 (press 1)

18.12.2020 - Vurdert

Our assessment is that the processing of personal data in this project will comply with data protection legislation, so long as it is carried out in accordance with what is documented in theNotification Form and attachments, dated 18.12.2020 as well as in correspondence with NSD.Everything is in place for the processing to begin.

NOTIFY CHANGES

If you intend to make changes to the processing of personal data in this project it may be necessary to notify NSD. This is done by updating the information registered in the NotificationForm. On our website we explain which changes must be notified. Wait until you receive an answer from us before you carry out the changes.

TYPE OF DATA AND DURATION

The project will be processing general categories of personal data until 18.01.2021.

LEGAL BASIS

The project will gain consent from data subjects to process their personal data. We find that consent will meet the necessary requirements under art. 4 (11) and 7, in that it will be a freelygiven, specific, informed and unambiguous statement or action, which will be documented and can be withdrawn. The legal basis for processing personal data is therefore consent givenby the data subject, cf. the General Data Protection Regulation art. 6.1 a).

PRINCIPLES RELATING TO PROCESSING PERSONAL DATA

NSD finds that the planned processing of personal data will be in accordance with theprinciples under the General Data Protection Regulation regarding:
* lawfulness, fairness and transparency (art. 5.1 a), in that data subjects will receive sufficientinformation about the processing and will give their consent
* purpose limitation (art. 5.1 b), in that personal data will be collected for specified, explicit andlegitimate purposes, and will not be processed for new, incompatible purposes
* data minimisation (art. 5.1 c), in that only personal data which are adequate, relevant andnecessary for the purpose of the project will be processed
* storage limitation (art. 5.1 e), in that personal data will not be stored for longer than isnecessary to fulfil the project's purpose

THE RIGHTS OF DATA SUBJECTS

Data subjects will have the following rights in this project: transparency (art. 12), information (art. 13), access (art. 15), rectification (art. 16), erasure (art. 17), restriction of processing (art. 18), notification (art. 19), data portability (art. 20). These rights apply so long as the data subjectcan be identified in the collected data.

NSD finds that the information that will be given to data subjects about the processing of theirpersonal data will meet the legal requirements for form and content, cf. art. 12.1 and art. 13.

We remind you that if a data subject contacts you about their rights, the data controller has aduty to reply within a month.

FOLLOW YOUR INSTITUTION'S GUIDELINES

NSD presupposes that the project will meet the requirements of accuracy (art. 5.1 d), integrityand confidentiality (art. 5.1 f) and security (art. 32) when processing personal data.

To ensure that these requirements are met you must follow your institution's internal guidelines and/or consult with your institution (i.e. the institution responsible for the project).

FOLLOW-UP OF THE PROJECT

NSD will follow up the progress of the project at the planned end date in order to determinewhether the processing of personal data has been concluded.

Good luck with the project!

Contact person at NSD: Henrik Netland Svensen
Data Protection Services for Research: +47 55 58 21 17 (press 1)

Appendix 6

Are you interested in taking part in the research project?

Computer Assisted Writing: A study of 5th grade students' experiences in a Norwegian primary school.

This is an inquiry about participation in a research project where the main purpose is to investigate the students' experiences of computer assisted writing in class. In this letter we will give you information about the purpose of the project and what your participation will involve.

Purpose of the study

The proposed thesis is a study of students' experiences of computer-assisted writing in English lessons, based on writing on Google Docs in the class. I would like to find out how students are using Google Docs for writing in English lessons. This study would also aim to investigate students' positive and/or negative experiences of writing digitally in the class. The research would be conducted with primary students in a Norwegian school and thirty-four students of 5th grade would be the sample of my research. The study would be a Master's Grade thesis from the student of Literacy Studies.

This study would examine the following research questions:

1) How are Google Docs used for writing activities in English lessons?

2) What according to the teacher are the benefits of using Google Docs in writing activities?

3) How do students feel about writing in English using Google Docs?

a) What do they find enjoyable?

b) What do they do not enjoy?

Who is responsible for the research project?

University of Stavanger is the institution responsible for the project.

Why are you being asked to participate?

Sample size and population

I contacted many Norwegian schools for selecting my sample of research and got response from one of the schools. Now, I am in contact with the Principal and English teacher at a Norwegian school. Thirty-four students of Grade 5A and 5B of a Norwegian primary school would be the sample of the research. Most of the students are from Norwegian background and English is their second or third language. The English teacher of 5th grade would also be the part of research sample. The reason why I selected this sample of my research is Covid-19 situations these days. There are restrictions that other schools were not ready to participate for the data collection of the research. The principal of this selected population has agreed to co-operate, and the English teacher of 5th grade is also ready to help me in the data collection procedure.

Research Methods

For the research, I would be using mixed method research design. It would encompass quantitative and qualitative data in form of observation, survey questionnaires, writing samples, interview, and focus group discussion. I would be observing English lessons of 5th grade students. Questionnaire would be used as a basic method for data collection from students. I would be analyzing students' writings tasks and their positive and negative experiences. Interview of the English teacher and asking her opinions about the English writing tasks on Google Docs would also be the part of methodology. I would find out which teaching method and writing tasks teacher is using in the class. Moreover, focus group discussion with students would also be the part of my research. All these instruments would be used in order to get data from the students and teacher so that the meaningful interpretation could be achieved.

Observation

I would be observing English lessons for a period of four weeks. I would observe the writing tasks they are doing in class using Google Docs. It would also be investigated if the students need teacher's help for writing in the class. I would investigate what kind of writing tasks they are doing mostly in the class using Google Docs. Furthermore, it would be observed if they are doing story writing, essay writing, or any other tasks in their writing sessions. The format of the writing – for example, whether the students add visuals to their texts – will also be studied. Moreover, writing

tasks of the students would be analyzed. I would be looking at their pattern of writing, grammar use and choices of writing they make to communicate with readers.

 Questionnaire

A questionnaire would be used as the main source of data collection from the students. As I would be working with the young students of 5th grade, their privacy would be respected. I would prefer designing the questionnaire in Norwegian language so that it would be easier for the students to comprehend the questions. I would design simple questions according to the understanding of the students. Questionnaire would aim to contain the questions like:

a) Bruk av datamaskinen i Engelsk skrivekurs interessert. (Using the computer in English writing class in interested).

b) b) Jeg liker å bruke Google-dokumenter bedre enn andre måter å skrive på. (I like to use Google docs better than other ways of writing).

Teacher Interview

Interviews involve a one-to-one, qualitative, and in-depth discussion. I would also interview the teacher. The teacher plays an important role in classroom learning. He/she sets the lesson plan according to students' needs. I would set interview questions for the teacher. The purpose of the interview would be to understand what value the teacher gives to use of Google Docs in English lessons.

Parents of the students would be informed before the data collection. The data would be used only for the research purpose. The data would be stored on my personal computer. I would use codes for the students when analyzing the data in my research. After completing the research, the stored data would be deleted.

Participation in the project is voluntary. If you chose to participate, you can withdraw your consent at any time without giving a reason. All information about you will then be made anonymous. There will be no negative consequences for you if you chose not to participate or later decide to withdraw.

Your personal privacy – how we will store and use your personal data

We will only use your personal data for the purpose(s) specified in this information letter. We will process your personal data confidentially and in accordance with data protection legislation (the General Data Protection Regulation and Personal Data Act).

- *My supervisor would have access to the data in connection with the institution. I will replace your name and contact details with a code. The list of names, contact details and respective codes will be stored separately from the rest of the collected data. I would store the data in my computer but that would be deleted when my research would be done.*

What will happen to your personal data at the end of the research project?

- The project is scheduled to end *in the beginning of May 2021. The personal data i.e. sound recording of the teacher would be deleted after the research. Other data collection samples would be changed with the coding schemes.*

Your rights

So long as you can be identified in the collected data, you have the right to:
- access the personal data that is being processed about you
- request that your personal data is deleted
- request that incorrect personal data about you is corrected/rectified
- receive a copy of your personal data (data portability), and
- send a complaint to the Data Protection Officer or The Norwegian Data Protection Authority regarding the processing of your personal data

What gives us the right to process your personal data?

We will process your personal data based on your consent.

Based on an agreement with university of stavanger, NSD – The Norwegian Centre for Research Data AS has assessed that the processing of personal data in this project is in accordance with data protection legislation.

Where can I find out more?
If you have questions about the project, or want to exercise your rights, contact:
- *University of Stavanger* via my supervisor *Simon Borg*
- NSD – The Norwegian Centre for Research Data AS, by email: (personverntjenester@nsd.no) or by telephone: +47 55 58 21 17.

Student Name   Fakhra Usman
Supervisor Name   Simon Borg (Simon.Borg@hvl.no)

Master in Literacy Studies , University of Stavanger.

I have received and understood information about the project and have been given the opportunity to ask questions. I give consent:

☒ to participate in *(an interview)*

I give consent for my personal data to be processed until the end date of the project, approx. May 2021.

Sunniva V Næss 9/12-20

(Signed by participant, date)

Appendix 7

Choose one of the paintings by Edvard Munch below and write a story to it. Ask yourself "why did the people in this picture end up where they are". What "adventure" are they on, or what is the story behind the painting?

The pictures are called: "Skrik", "Piker på en bro", "Sykt barn", "Eventyrskogen" og "Livets dans".

Criteria for written work:

1. *Remember a headline.*

2. *Capital letter at the beginning of sentences and in proper names.*

3. *Write your text in paragraphs. (Avsnitt)*

Plan your text	
Beginning of the story - *Choose a painting by Munch.* - *Title your story.* - *Who are the characters?* - *Where does the story take place?*	
The middle - *Is there a problem that occurs in the story? If so, how does it get resolved?*	
The end - *What do you think about the ending?* - *Why did the people in this picture end up where they are?*	

Write you text below:

Introduction:

First paragraph:

Second paragraph:

The ending:

Appendix 8
Collaborative writing

Use your own words and collaborate with your learning partner.

Make an interview where one of you is an expert and the other one is the interviewer. Explain and reflect on one problem concerning the environment. What type of questions would you ask an expert?

Choose one of the problems below:

Plastic, CO2, Pollution, Deforestation, Waste Management

Headline:

Introduction: Who are you talking to, and why are you talking to this person. Explain the problem or the subject. Why is this relevant or important to discuss in 2021?

Interviewer: