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Formative assessment in digital resources

A study of formative assessment in the digital teaching materials Enter 8-10 & Echo

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Abstract

This study investigates to what extent formative assessment is promoted in two digital resources. The motivation of this study was to examine and gain knowledge on how formative assessment in digital teaching materials can support the teacher and the pupils in language learning. The research question is as follows:

To what extent do the English digital resources in the textbook series Enter 8-10 & Echo promote formative assessment?

To answer the research question, the study used qualitative research. The data was analyzed and organized by using thematic analysis, which resulted in the themes "self-assessment", "peer assessment" and "automated assessment". The themes include data from tasks from the two digital resources. The theme "teacher" with the subchapter "lesson plans" include findings exclusively from Echo. The data included are derived from both the teacher and the pupil's version.

The findings indicate that the two digital resources promote formative assessment to a differing and varying extent. The findings show that in some themes there is a big difference between the two digital resources. Thus, the research question is discussed and answered both as a whole and individually to the themes and the respective digital resource. The concluding remark is that the findings show that Enter 8-10 promotes formative assessment to a great extent both for teachers and pupils. The pupil version of Echo promotes formative assessment to a limited extent. However, if the digital resource is used alongside the lesson plans, the teacher's version promotes formative assessment to a sufficient extent.

Keywords: *formative assessment, assessment, digital resources, feedback, automated assessment, self-assessment, peer assessment.*

Sammendrag

Denne studien undersøker i hvilken grad underveisvurdering fremmes i to digitale ressurser. Motivasjonen for denne studien var å undersøke og å lære mer om hvordan underveisvurdering i digitale læremidler kan støtte læreren og elevene i språklæringen. Forskningsspørsmålet er som følger:

«I hvilken grad fremmer de to digitale læremidlene Enter 8-10 & Echo underveisvurdering?»

For å svare på forskningsspørsmålet benyttet studien seg av kvalitativ forskning. Dataene ble analysert og organisert ved bruk av tematisk analyse, som resulterte i de tre temaene «self-assessment», «peer assessment» og «automated assessment». Temaene inkluderer data fra oppgaver i de to digitale ressursene. Temaet «teacher» med under tema «lesson plans» inkluder data kun fra Echo. Dataen som er inkludert er fra både lærer og elev versjon.

Funnene tyder på at de to digitale læremidlene fremmer formativ vurdering i ulik og varierende grad. Funnene fra de to digitale læremidlene viser at det i enkelte temaer er stor forskjell mellom Echo og Enter 8-10. Dermed diskuteres og besvares forskningsspørsmålet både helhetlig til sist og enkeltvis direkte knyttet til temaene og den spesifikke digitale ressursen. Den endelige konkluderende bemerkningen er at funnene viser at Enter 8-10 fremmer underveisvurdering i stor grad både for læreren og elevene. Elevversjonen av Echo fremmer underveisvurdering i begrenset grad. Lærerversjonen av Echo fremmer underveisvurdering i tilstrekkelig grad dersom undervisningsplanene brukes.

Nøkkelord: underveisvurdering, vurdering, digitale ressurser, tilbakemelding, automated assessment, self-assessment, peer assessment.

Table of Contents

List of Figures

1 Introduction

The theme for this master thesis is formative assessment in the English subject. It is a vast and interesting topic as well as an integral part of the learning process for my future pupils. It is a theme that has been of interest to me as a student and an interest I believe will follow me throughout my whole career. Assessment is a key factor in the pupils' success, motivation, and joy of learning English. However, it is not an easy task to continuously provide formative assessment in an otherwise stressful day filled with other responsibilities and tasks.

Formative assessment is one of the most important components in second language acquisition. With the subject renewal in 2020, it has also become increasingly integrated into the subjects, as formative assessment now has become a new component within each subject plan. Formative assessment is in no way a new term in Norwegian schools, but the focus on how to facilitate and promote formative assessment according to the description provided by the Norwegian Department of Education and Training (henceforward NDEAT) may not be of common knowledge. I presume that everyone that has gone to school has their own idea of what formative assessment is; feedback on how to improve written or oral English skills, perhaps some feedback on how to improve your handwriting, and so forth. However, formative assessment is a more complex term that consists of much more than just the teacher's feedback. Part of the motivation and learning of the pupil has to do with the formative assessment that they themselves provide. The NDEAT (2021, p. 81) states that for the pupil to develop further in the subject, the pupil needs support to assess and reflect on their competence, and both the teacher, fellow pupils and teaching materials can contribute with this support. It is therefore of great interest to study how teaching materials can contribute with said support, and in turn, promote formative assessment. Teaching aids can play an important role in facilitating the pupils´ development of reflection skills and reflection on their learning (NDEAT, 2021, p. 81).

A survey done in 2016 reported more than 80% of Norwegian teachers used a textbook in their previous lesson (Lund, 2020, p. 343). With textbooks being a dominating factor in classroom education, and formative assessment an integrated part of the daily work with the English subject, it is highly relevant to study the extent the teaching material promotes formative assessment. I have therefore chosen to study how formative assessment is promoted in two digital resources made for the English subject of 8-10th grade.

1.1 Background

Formative assessment plays several important roles in second language acquisition - if done correctly; it motivates, inspires, corrects, and guides the pupils towards the desire to learn as well as succeed. It is however a difficult task to be able to continuously give formative assessment to every single pupil in the class. Pupils are part of a heterogeneous group with different needs and skills, who therefore require adapted education to feel seen, heard, and helped on their way to acquiring the new language. With an increasingly hectic workday, it may be difficult to achieve the daily formative assessment that the NDEAT has described. Digital tools may be an underused resource where teachers can delegate and differentiate materials for pupils and do direct follow-up on their teaching profile all the while using less time than if they were to do so using printed textbooks, pen, and paper. It is also a great way to adapt the material for pupils that have dyslexia and other writing or reading difficulties, as it also provides audio support.

Digital teaching materials are a medium that the pupils know well, and it is interactive and can sometimes provide instant, automatic feedback. It may motivate pupils more than the old, printed textbook. The report *Digitization provides better opportunities for learning* (2022) tackles the topic of digitization in the Norwegian classroom and comes forth with several findings related to the pupils' learning in correlation with digital learning resources. A review of Norwegian and international research shows that the use of digital learning resources in education can provide more engaging and relevant learning for pupils (NDEAT, 2022, p. 1). The report also indicates that the integration of digital learning resources in education has a positive impact on pupils' development and learning and can also make teaching more motivating and creative for the pupils (NDEAT, 2022, p. 2). There are several more benefits to using digital learning resources to learn languages, such as reading, writing, watching, listening, and recording of pronunciation and speech (NDEAT, 2022, p. 4). The possibility of immediate visual feedback is also stated as an important reason why pupils learn more by using technology.

One-to-one coverage of a digital device in lower secondary school was at 98% in 2021, and the numbers for the upper primary level were 90% and the primary level at 80% (NDEAT, 2022, p. 4). Although these numbers are quite high, the pupils report that the digital devices are not used to their potential, and rather as a more traditional aid and therefore losing out on the many opportunities that are available (NDEAT, 2022, p. 3). This leads us to another point

in the report, in which the teachers are the single most important factor for didactic digitalization. Teachers reported that they did not have enough competence and experience with using the new technologies, and furthermore, did not have enough time and resources to incorporate the new technologies into their work (NDEAT, 2022, p. 3-4). However, a survey done in relation to the report showed that most teachers are positive about the pedagogical value of digitalization in education, and find that digital learning resources are motivating, engaging, and make it easier for pupils to show their knowledge (NDEAT, 2022, p. 4).

1.2   Contribution to the field

As discussed in the previous subchapter, many teachers report that they are positive about the benefits digital learning resources bring forth, but at the same time they do not have the resources to immerse themselves in the vastness of technologies. By conducting this thesis, I hope to bring clarity to what extent formative assessment is promoted in the selected learning resources. Furthermore, I hope that the findings can provide insight into formative assessment and its importance for the pupils' learning.

The thesis statement is therefore *"To what extent do the English digital resources in the textbook series Enter 8-10 & Echo promote formative assessment?"*.

1.3   Structure of the thesis

The thesis will first present the theoretical framework that is relevant to the study. The theoretical framework describes teaching materials and digital resources and accounts for their possibilities. Furthermore, formative assessment is described with elaboration on self-assessment, peer assessment, and automated assessment. Lastly, the zone of proximal development is explained in short.

Thereafter, section 3 discusses the methodology of the study. The methodology first provides a quick overview of qualitative research in relation to this study. Thereafter it provides a detailed summary of thematic analysis, and the six phases of thematic analysis, and elaborates on how the analysis has been carried out. The chapter then discusses the validity and reliability of the study.

Section 4, Analysis material, describes the learning resources Echo and Enter 8-10 by using screenshots of the digital resources alongside detailed descriptions to provide a clear overview of the structure of the learning resources.

Section 5, Findings, presents the findings from the thematic analysis. The findings are divided into two main parts: Echo and Enter 8-10. The findings are sorted into the themes: *self-assessment, peer assessment,* and *automated assessment*. The theme *teacher* and subchapter *lesson plans* include data from exclusively from Echo and are also presented in this section.

Section 6, Discussion, will discuss the findings in relation to the theoretical framework of the study. The discussion is divided into discussing each theme. Lastly, this chapter will discuss some general thoughts on the two digital resources in relation to formative assessment.

Section 7, Conclusion, sums up the way the study has been conducted from start to finish. Thereafter it sums up the main findings in order to answer the thesis question. Lastly, this section gives suggestions for further research that can be done in this field.

2 Theoretical framework

This chapter will present the theoretical framework that is relevant to this study. Firstly, it will discuss teaching materials and their implications for teaching. Thereafter, the chapter will elaborate on formative assessment in broader terms before discussing self-assessment, peer assessment, and automated assessment. Lastly, this chapter will discuss the zone of proximal development.

2.1 Teaching materials

Up until the year 2000, textbooks in Norway had to be approved by authorities and to a number of set criteria (Lund, 2020, p. 343). Since then, the authorities have not had an official certification system for all but 23 years, and the assessment of the quality of the textbooks now lies in the hands of teachers. In 2016 a survey was conducted on the usage of textbooks in Norwegian classrooms, here 80% of teachers reported using a textbook in their previous lesson (Lund, 2020, p. 346). Textbooks can provide guidance, support and be a resource in teaching and learning. Lund (2020, p. 347-348) states that textbooks can provide guidance and equal access for both the pupils and the teacher in accordance with the national curriculum of the subject. She explains that it can be timesaving to use a textbook, and that time can therefore be used in other areas of teaching such as assessment. Textbooks often come with a teacher's guide, whether it be full lesson plans or ideas and suggestions, which can prove to be a valuable resource for teachers (Lund, 2020, p. 349).

Lund (2020, p. 248) states that it is important to remember that textbooks are a subjective interpretation of the curriculum done by the authors, and therefore teachers need to have the competence to approach and use the textbooks critically. To support the process of assessing the quality of textbooks, teachers can now use guidance material. At the request of the Ministry of Education and Research, guidance material has been developed for the purpose of assessing the quality of teaching materials used in the English subject (NDEAT, 2021, p. 3). The guidance material lists several key points of teaching materials that help support the teacher in realizing the goals of the core curriculum as well as the competence aims in the subject plans. One point is that these teaching materials help support the teacher by providing differentiated instruction with tasks that can be solved at different levels (NDEAT, 2021, p. 21). Another point is that these teaching materials facilitate formative assessment based on the

competence aims of the subject plans. Teaching materials can play an important role in facilitating pupils' development in skills such as reflection of learning and assessment, as they can provide a platform where pupils get to practice discussing assessment criteria, by, for example, solving tasks and giving peer assessment (NDEAT, 2021, p. 81)

Formative assessment is divided into three phases that are to be continuously repeated: monitoring and capturing competence, communicating about the progression of the pupil, and planning further learning (NDEAT, 2021, p. 81). It is worth noting that the teacher cannot complete these phases without the pupil, but the pupil can however, complete the phases on their own, in collaboration with other pupils, and with the help of a teacher. The monitoring and capturing of competence should be done in authentic learning situations, where pupils solve tasks and reflect on their learning process (NDEAT, 2021, p. 81). The communication of progression should be given as clear and qualitative feedback and be based on the progression of their learning. The pupil should be the foremost active participant in the planning of their further learning, and the teacher provides support (NDEAT, 2021, p. 81). It is important that the principles for assessment are reflected in teaching materials, and that both teachers as well as teaching materials support the pupils in reflecting on their work and learning process (NDEAT, 2021, p. 81). A good teaching material supports the teacher and pupil in monitoring and capturing the competence of the individual pupil continuously, helps pupils reflect upon and assess their learning process and learning products, and helps the pupils reflect upon the use of learning strategies as well as plan further learning (NDEAT, 2021, p. 81-82).

2.1.1 Digital resources

The digitalization of schools is developing rapidly, and schools must therefore be aware of the technological and pedagogical developments when assessing and choosing teaching materials (NDEAT, 2021, p. 22). Digital teaching materials can vary from being paper-based with corresponding digital resources, or fully digital where the content is only available digitally. There are many opportunities that digital teaching materials can provide for pupils and teachers. Digital teaching materials can provide opportunities for collaboration and co-creation in a different way than traditional teaching aids (NDEAT, 2021, p. 75). It can also provide teachers with adapted material which helps the teachers with giving differentiated instruction, as well as provide a repertoire of teaching methods. A good digital learning material utilizes the advantages of digital platforms (NDEAT, 2021, p. 75).

2.2 Formative assessment

The aim of formative assessment is to promote learning, adapt the teaching, and contribute to the pupil increasing their competence in the subject (Ministry of Education and Research, 2021, p. 15). Formative assessment can be explained using four principles. These principles are highly relevant to the discussion. The first principle is that the pupil participates in his or her own work and is given the opportunity to reflect on their own learning and development, and therefore learns to learn (Ministry of Education and Research, 2021, p. 15). The second principle is that the pupil understands what is expected of them and what they are to learn, as research has shown that this promotes participation in their own learning. The third principle is figuring out what they can achieve (Ministry of Education and Research, 2021, p. 15). This correlates with the teacher adapting the content and feedback to the pupil in question to guide them in their progress of learning. The fourth and final principle is receiving guidance on how they can work to increase their competence (Ministry of Education and Research, 2021, p. 15). By understanding the feedback and how to use it, they can become more motivated and learn more.

Formative assessment "[…] implies that the teacher - together with the student - clarifies the goal of instruction, identifies the current level of the student's knowledge, and then finds appropriate learning methods and materials to help the student reach the goal." (Bøhn, 2020, p. 312). Burner (2020, p. 2) states that "[t]he aim of formative assessment is more and better learning for both the student and the teacher". He further explains that it is not a question of when the assessment is given that makes it formative, but rather the purpose, and if that purpose is to promote learning. Therefore, a summative task can be used as formative assessment depending on how it is used. If the teacher gives feedback, or the pupils give peer-assessment there is an opportunity for learning and reflecting upon achievements and mistakes and correcting them. Bøhn (2020, p. 316) states that specific and concrete feedback contains information on what the pupil has accomplished and further steps on how to they can improve. The feedback must link the performance of the pupil's thought process to the assessment criteria and the learning goals in a useful and coherent way. In other words, this feedback, often referred to as feed forward, guides the pupil on how to improve their work and competence level (Bøhn, 2020, p. 317). Bøhn (2020, p. 304) further writes that assessment is a difficult task, and assessment sometimes can be unfair, irrelevant, and inconsistent and therefore it may inhibit the pupils' learning process. He therefore states that

teachers need to be competent in assessment to know the why, how, and what of assessment in order to follow the Regulations to the Education act.

2.2.1 Feedback

Hattie and Timperley (2007, p. 81) state that one of the most powerful influences on achievement and learning is feedback. They argue that feedback can be rejected, accepted, or modified, and on its own, it may not initiate further action. They have therefore produced a model in which they tackle different types of feedback and their effects on learning. Hattie and Timperley (2007, p. 86) state that "[e]ffective feedback must answer three major questions asked by a teacher and/or by a student: Where am I going? (What are the goals?), How am I going? (What progress is being made toward the goal?, and Where to next? (What activities need to be undertaken to make better progress?)". These questions can also be referred to as feed up, feedback and feed forward.

The question of "where am I going" surrounds criteria-based feedback, meaning feedback, or rather feed up, that is based on learning goals related to a task (Hattie & Timperley, 2007, p. 88). The question "how am I going" is based on feedback that contains information about progress that involves either the pupil themselves, a peer, a teacher, or a task (Hattie & Timperley, 2007, p. 89). This feedback must tell the pupil how they are doing in relation to a task and can be given by using criteria. The question "where to next" is often perceived by the pupil as more work (Hattie & Timperley, 2007, p. 90). However, they argue that feed forward, if done correctly, can be amongst the most effective on learning, must contain information that leads the pupils to greater opportunities for learning. This type of feed forward "[…] may include enhanced challenges, more self-regulation over the learning process, greater fluency and automaticity, more strategies and processes to work on the tasks, deeper understanding, and more information about what is and what is not understood" (Hattie & Timperley, 2007, p. 90).

Hattie and Timperley (2007, p. 90) write that each of these feedback questions can be given at four different levels. They write that feedback on the *task* level generally consists of information on whether the task is incorrect or correct. Immediate feedback on this level is beneficial for the pupil, as it can result in a faster acquisition (Hattie & Timperley, 2007, p. 98). Feedback on the task level is very common and can be powerful, especially if the

feedback is on faulty interpretations (Hattie & Timperley, 2007, p. 91). However, they (Hattie & Timperley, 2007, p. 91) state that if too much feedback is given on this level it may lead to the pupils using "[…] more trial-and-error strategies and less cognitive effort to develop informal hypotheses about the relationship between the instructions, the feedback, and the intended learning". The feedback that is given on the *process level* consists of information about the process and can be on a product or task (Hattie & Timperley, 2007, p. 90). They write that feedback aimed at the process level can be more effective in terms of deep learning than feedback on task level. The third level is the *self-regulation level*. Feedback on this level is given to build confidence and promote self-evaluation, which encourages the pupils in their further work and helps promote valuable skills such as self-efficacy (Hattie & Timperley, 2007, p. 90). Lastly, the fourth level is the *self level*, where feedback is personal. They argue that this level often contains feedback that is ineffective for the pupil's learning, as the feedback often does not relate to a task (Hattie & Timperley, 2007, p. 90).

Brookhart (2008, p. 97) states that feedback must be adjusted and differentiated for different types of learners. She defines characteristics and gives advice on how to give feedback to "successful pupils", "struggling pupils", and "reluctant pupils". which the teacher must consider when giving feedback. She states that "successful pupils" are learners that self-assess spontaneously, are motivated and are a driving force of their own learning. "Struggling pupils" are pupils "[…] who don't have solid prior learning experiences or don't have the learning skills to process the information, or both, may not completely understand what your assignment asks them to do or your feedback on their work" (Brookhart, 2008, p. 99). She further states that these pupils are aware that their work fails to meet the target, and that receiving feedback that further emphasizes this only leads to discouragement. The feedback must therefore rather be done on the progress the pupil has made, by comparing their current work to their previous work, i.e., self-referenced feedback (Brookhart, 2008, p. 100). Brookhart (2008, p. 106) further defines "reluctant pupils". She writes that these are pupils that have lost faith in themselves and take every feedback as further proof that they are a failure. Brookhart (2008, p. 106) emphasizes that "[f]or these students, feedback must deal with the negative feelings first and then provide just enough information so that the student has the confidence to understand and use it." This description of "struggling" and "reluctant" pupil can perhaps be related to what Hattie and Timperley (2007, p. 94) write about less effective learners. They state that these learners depend more on the assistance of peers,

teachers, and tasks for feedback. In contrast to effective learners, they seldom look for opportunities to embrace and find feedback (Hattie & Timperley, 2007, p. 94).

2.2.2 Self-assessment

Andrade and Valtcheva (2009, p. 13) define self-assessment as "[…] a process of formative assessment during which students reflect on the quality of their work, judge the degree to which it reflects explicitly stated goals or criteria, and revise accordingly." Furthermore, self-assessment also involves the pupils' reflection on how they learn, their weaknesses and strengths, and makes the pupils take more responsibility for their own learning process (Burner, 2020, p. 3). The main purpose for pupils assessing their work is to encourage and increase learning and self-regulation (Andrade & Valtcheva, 2009, p. 13). When pupils self-assess they monitor their learning strategies, learning process, and learning output (Burner, 2020, p. 4).

Self-assessment is a central element at all levels of primary school, and pupils must be given opportunities to reflect upon what they feel they are achieving and their subsequent progress (NDEAT, 2021, p. 72). When pupils are given these opportunities, they experience that trying on their own and together with peers is a part of learning a new language. This is an important part of formative assessment, as pupils assess how it went and what they need to do differently in order to develop (NDEAT, 2021, p. 72).

2.2.3 Peer assessment

Peer assessment can be defined as pupils assessing each other's products. Topping (2009, p. 20) writes that formative peer assessment has the purpose to help pupils assist each other in finding their weaknesses and strengths, developing personal and metacognitive skills, and increasing their learning. Burner (2020, p. 12) states that "[…] peer assessment can stimulate metacognitive learning strategies, as students learn to articulate their thinking related to learning and assessment". Furthermore, conducting peer assessment can help pupils' ability to provide and receive feedback on structure, language, and content while also reflecting on their language learning strategies (Burner, 2020, p. 12). He, therefore, states that there is a correlation between peer assessment and self-assessment, where the gain of competence in one of these will also increase the competence in the other. Topping (2009, p. 20) argues that

although pupils are less skilled in assessing, they have more time to give it frequently to their peers, and therefore the assessment can be of equal validity and reliability to the teacher's assessment. Receiving feedback from someone that is of the same age and that has relatively the same experience can be less intimidating for the pupils, and when peer assessment is carried out often and systematically, it can result in feedback of high quality (Burner, 2020, p. 11). Burner (2020, p. 11) also highlights that peer assessment can provide a better learning environment, as it is a highly collaborative activity. Research shows that "[…] classrooms which encourage self- and peer assessment are more effective for students learning than those which do not, and that involving students in the assessment processes and procedures is more positive for students' motivation and learning strategies than classrooms which do not encourage and involve students in such activities (Burner, 2020, p. 15).

2.2.4 Automated assessment

The digital resources Echo and Enter 8-10 have many tasks that provide instant assessment that gives the pupil knowledge of right and wrong answers related to the task. Assessment with this specific type of characteristics was difficult to find in the literature for second language acquisition, although there is plenty of research done on other types of more complex computer assessment. I have therefore gone to the field of mathematics to find theory on this type of assessment, and for this study, I have called the assessment that provides pupils with instant assessment on right and wrong answers in a task for *automated assessment.*

Drijvers and Gravemeijer (2005, p. 166) write about a meaningful relationship that forms between an artifact and a user. They (2005, p. 165) define an artifact as a "[…] material or abstract object, which given to the user to sustain a certain kind of activity, may be a meaningless object unless the user has used it before or has seen others using it". An artifact can be either something physical, such as a calculator, or abstract such as an algorithm. They (2005, p. 166) write that an artifact that is designed purposely to mediate an activity combined with a user that understands how to use it, is called an instrument. "An instrument is what the subject builds from the artifact" (Drijvers & Gravemeijer, 2005, p. 144). This means that an artifact only becomes an instrument if the pupil has an understanding of how to use it. There is much more technical information that can be elaborated on this subject, however, I deem it inexpedient, as further technical information does not influence the findings or discussion.

2.3 The zone of proximal development

When discussing formative assessment, it is highly relevant to bring forth theory on the zone of proximal development. Vygotsky (1978, p. 84) defines the zone of proximal development as "[t]he distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers". The zone of proximal development describes what the pupils cannot achieve on their own but is within reach if they have assistance. By having assistance, the pupil achieves the task, and can from there on manage it on their own in the future. Ash and Levitt (2003, p. 28) write that the teacher evaluates the pupil's understanding and finds strengths and weaknesses which the teacher then compares to the prior knowledge of the competence of the pupil. The feedback can then be adjusted to the particular pupil in order to guide the pupil to their zone of proximal development.

3 Methodology

This chapter will present the methodology of this study. Section 3.1 provides an overview of qualitative research in relation to this study. Section 3.2 provides a detailed summary of thematic analysis, and the six phases of thematic analysis, and elaborates on how the analysis has been carried out. The chapter further discusses the validity and reliability of the study in section 3.3.

This study is influenced by Skogvang and Bjørk who wrote the thesis "Give a man a fish, and you feed him for a day. Teach a man to fish..." in 2021. Their study investigated the principle of learning how to learn in the printed textbooks Echo published by Fagbokforlaget and Engelsk 8 and 9 published by Cappelen Damm. They write that due to the scope of their study, they did not include the digital resources of the book series. This inspired me to investigate formative assessment in digital resources.

To gain access to the digital learning resources I contacted the publishers of Echo and Enter. I wrote an email with an inquiry for a trial period that included the teacher and pupil version for the purpose of writing a master thesis on formative assessment. Fagbokforlaget and Gyldendal granted me full access for a trial period of 30 and 45 days, and upon further inquiry, they extended the trial period for another 30 and 45 days.

3.1 Qualitative research

Merrian and Tisdell (2015, p. 6) explain that qualitative research is conducted when the researcher wants to gain a deeper understanding of something. Qualitative research provides a detailed and in-depth understanding of the data (Cohen et. al., 2018, p. 288) Merriam and Tisdell (2015, p. 15) write that the focus is on comprehending the meaning that people have constructed. However, they state that qualitative research is a term that is difficult to define. It is a complex umbrella term that is more easily described by using four characteristics: "the focus is on process, understanding, and meaning; the researcher is the primary instrument of data collection and analysis; the process is inductive; and the product is richly descriptive" (Merriam & Tisdell, 2015, p. 15).

In qualitative research, it is the researcher that both collects and analyzes the data and the researcher, therefore, impacts the study with their biases and other shortcomings (Merrian &

Tisdell, 2015, p. 16). The researcher must therefore identify these and make it clear to the reader how they may affect the data. Qualitative research conducted on documents, such as books, will often find that a vast majority of the material is irrelevant to the study at hand (Merrian & Tisdell, 2015, p. 173). This is because the material in question was not made for the purpose of being analyzed. However, documents are often easily available, and compared to other sources, they are objective sources, as the researcher does not bring bias into the documents as they would with observation notes (Merrian & Tisdell, 2015, p. 182-183). The value of the documents can be assessed by considering the information related to the research question, and if it can be obtained in a systematic and feasible way (Merrian & Tisdale, 2015, p. 180). Merrian and Tisdale (2015, p. 180) state that qualitative research that uses documents has been underutilized.

3.2   Thematic analysis

Thematic analysis is a qualitative method in which the researcher identifies, analyses, and reports themes within data (Braun & Clarke, 2006, p. 79). Braun and Clarke (2006, p. 79) state that thematic analysis is a well-known and widely used method, but without a clear agreement between researchers on how to use it or what it is. Thematic analysis is a flexible method to use when doing qualitative analysis and can produce a detailed and complex amount of data (Braun & Clarke, 2006, p. 78). The flexibility of the method brings both opportunities and challenges. The researcher must therefore find a balance between clear-cut guidelines and the flexibility of intuitive findings (Braun & Clarke, 2006, p. 78). Braun and Clarke (2006) strive to help researchers find this balance by providing a recipe for using thematic analysis while still providing flexibility for the numerous ways of conducting research using thematic analysis. The analysis conducted in this study will be discussed in the following subsection. Each phase contains examples and descriptions of my analysis process.

3.2.1   The six phases of thematic analysis

Phase one of thematic analysis, according to Braun and Clarke (2006) is "familiarizing yourself with your data". This is a vital step where the researcher needs to fully comprehend the content, and this can be achieved through repeated reading (Braun & Clarke, 2006, p. 87). They state that before starting to code it is ideal to read the full extent of the data, as ideas of

codes take shape as one reads through it all. As the digital resources were unfamiliar to me, I started this phase by spending time gaining an understanding of the layout and functions within them. Braun and Clarke (2006, p. 87) advise taking notes of ideas for codes that will help in the next phases (Braun & Clarke, 2006, p. 87). I, therefore, noted down thoughts and discoveries as I familiarized myself with the data. Thereafter I immersed myself in the data, reading every task. This phase is a time-consuming process where one can be tempted to skip data, but Braun and Clarke (2006, p. 87) strongly advise against being selective, as this phase is the foundation of the analysis. All elements of the platform were investigated to ensure that I did not miss meaningful content.

Phase two is "generating initial codes". Once all the data has been read, the researcher can begin to produce initial codes. Braun and Clarke (2006, p. 88) explain a code as an identifying feature of the data that is interesting to the researcher. The researcher can code the entire data set or code for features, and the codes can differ to some extent if the researcher has determined theory-, or data-driven themes (Braun & Clarke, 2006, p. 88-89). The notes made during phase one combined with theory on formative assessment made the basis for what elements were interesting to code. The notes from phase one showed that there were many instances of self-assessment in Enter 8-10, and by using theory on self-assessment the codes were identified by evaluating whether the tasks included elements where the pupils were to reflect upon their learning strategies, learning process, or learning output. The codes are therefore both theory- and data-driven. Braun and Clarke (2006, p. 89) state that it is important to give equal attention and go systematically through every data item in the data set when coding. The data material was vast and phases one and two were time-consuming, but the focus remained on ensuring that each data item was given equal attention.

One way to code is by manually writing notes, using post-its, or using colored pens to indicate patterns and identify codes (Braun & Clarke, 2006, p. 89). As the data material was digital, I used paper to write down the identified codes. Braun and Clarke (2006, p. 89) state that "[y]ou may initially identify the codes, and then match them with data extracts that demonstrate that code, but it is important in this phase to ensure that all actual data extracts are coded, and then collated together within each code". In Enter 8-10 I had a paper for each chapter that identified codes of self-assessment. Braun and Clarke (2006, p. 89) writes that in this phase more is more, and coding for all possible potential patterns and themes as time allows is highly advisable, seen as it might prove valuable later in the process. Due to this statement, I also had a separate piece of paper to collect all the codes that I was either unsure

of or that did not fit into the other themes, and to subsequently be able to come back and evaluate them again.

Phase three is "searching for themes". Once all the data have been collated with the initial codes, it is time to go from individual codes to broad themes (Braun & Clarke, 2006, p. 89). The researcher will start by analyzing the codes and finding overarching themes and then collating the codes that match the themes. Mind maps and tables may help the researcher in identifying themes and their corresponding codes (Braun & Clarke, 2006, p. 89). During phase two I had already created initial themes based on notes from phase one and theory on formative assessment. This phase therefore provided a breach of the six steps and may unfortunately to some extent affect the findings. Braun and Clarke (2006, p. 90) write that the third phase, the researcher may encounter codes that do not fit any themes, and these codes can be put together in a separate theme temporarily. The themes and smaller themes or themes-within-themes, from now on called sub-themes, are not set in stone, and can be discarded, combined with other themes, or refined (Braun & Clarke, 2006, p. 90-91). The themes at this phase were *self-assessment*, *peer assessment*, *teacher* (including a subchapter of codes derived from lesson plans in Echo), *automated assessment* and *elevmedvirkning.*

Phase four is "reviewing themes". In this phase, the researcher must consider each theme critically. A theme must have enough data to support it and the data within it cannot be too diverse (Braun & Clarke, 2006, p. 91). The theme *elevmedvirkning* was therefore disregarded, as it did not have enough data to support it. Braun and Clarke (2006, p. 91) write that the themes should consist of data that have identifiable differences between them and that cohere meaningfully (Braun & Clarke, 2006, p. 91). To be able to discern the quality of a theme the researcher must review the codes collated for each theme while considering if it strikes a pattern. If not, the researcher could either rework the theme, place the displaced extracts in another theme, create a new theme, or discard the extract from the analysis (Braun & Clarke, 2006, p. 91). After this process, the researcher moves on to considering the validity of each theme in correlation to the data set by rereading the entirety of the data set (Braun & Clarke, 2006, p. 91). This process ultimately kills two birds in one stone, as the rereading causes the researcher to contemplate and decide whether the theme accurately reflects the data set, and to code additional data that could have been missed in the earlier phases. If the researcher does not find the theme to fit the data set, they need to return to the previous phases and refine and review the coding (Braun & Clarke, 2006, p. 91-92).

Phase five is "defining and naming themes". In this phase, the researcher will identify the "essence" and write a detailed analysis of each theme and how it fits with the other data and the research question (Braun & Clarke, 2006, p. 92). This is also the time when sub-themes are identified and can support complex and large themes. In this phase, the researcher must be able to define what the themes are and be able to describe the content and range of each in a few sentences (Braun & Clarke, 2006, p. 92). It is also the time to name the themes in a way that is concise and provides the reader with an understanding of what the theme is about (Braun & Clarke, 2006, p. 93). The themes in this phase were:

1. *Self-assessment.* This theme includes findings of tasks that included elements where the pupils were to reflect upon their learning strategies, learning process, or learning output.
2. *Peer-assessment.* This theme includes findings of tasks where pupils were asked to exchange or receive feedback from their peers. The theme also includes tasks where the pupils were asked to compare their work to a peer.
3. *Automated assessment.* This theme includes findings of tasks that give instant assessment that provides the pupil knowledge of right and wrong answers related to the task.
4. *Teacher.* This theme includes findings exclusively from Echo. The main theme has findings of tasks that ask for the teacher's feedback. The subtheme *Lesson plans* include findings of formative assessment in the lesson plans from the teacher version of Echo. These findings include what type of assessment the lesson plan intends, and how to carry it out. The findings include assessment that can be from the teacher, or peer assessment, or self-assessment.

Phase six is "producing the report" and involves the final writing and analysis. The researcher must write an intricate tale of the data while convincing the reader of the validity of the analysis (Braun & Clarke, 2006, p. 93). It needs to be a "[…] concise, coherent, logical, non-repetitive and interesting account of the story the data tell - within and across themes" (Braun & Clarke, 2006, p. 93). The data was placed into tables and the themes 1-3 (numbered above) were divided into two parts: Echo and Enter 8-10. This was done to enhance clarity for the reader. Each table includes a direct reference to where the task was collected, e.g., a task from the theme *self-assessment* in Enter 8 shows the chapter, learning module, subtitle and task (for visual aid, see figure 2, 3, 4 and 5:

Chapter	Learning module	Subtitle	Task
1 A fresh start!	I´m looking forward to…	Poster	e) What is good about your poster? Write three sentences.

The reader can therefore easily navigate to the finding by using the reference. Some of the themes contain a representative selection that shows all sides of the material. This was done in cases where the material was vast with many similar tasks, and further data would be repetitive and uninteresting.

3.3 Reliability and validity

This section will discuss the quality of the study by considering the validity and reliability of the collection, analysis and interpretation of data.

3.3.1 Validity

Validity can be defined as the quality of the researcher's data and interpretations (Gleiss & Sæther, 2021, p. 204). It questions whether the data material and method can answer the thesis question and whether the researcher answers the thesis question (Gleiss & Sæther, 2021, p. 204). Gleiss and Sæther (2021, p. 206) wrote that one way to strengthen validity is for the researcher to reflect upon the limitations and possibilities of different methods (Gleiss & Sæther, 2021, p. 206). In making the choice of which analysis method was the most appropriate to answer the thesis question, I familiarized myself with several other analysis methods. This included semiotic analysis, discourse analysis, and content analysis. Grønmo (2004, p. 291) writes that the choice of analysis method relies both on the thesis question as well as the data material. The choice of using thematic analysis was partly due to the amount of data material that needed to be analyzed and the flexibility of the method. Another reason was the ability to focus on patterns that are highly useful in answering the research question.

Validity is often divided into internal and external validity. Merriam and Tisdell (2015, p. 242) explain that "internal validity deals with the question of how research findings match

reality." They further state that although internal validity surrounds reality and truth, this can never truly be obtained in qualitative research. Creswell and Creswell (2018, p. 200) state that the researcher should implement validity strategies to enhance their own and the readers' ability to consider the accuracy of the findings. One way to strengthen the internal validity is to relay how the researcher's assumptions and biases have shaped the research process in order for the reader to gain a better insight into the study's conclusion and conduct (Merriam & Tisdell, 2015, p. 249). There were two main biases that could have influenced the research process. Firstly, I have been skeptical of the usage of textbooks in schools and have very rarely used them in my practice periods. This was due to my experiences of textbooks often being outdated and, in my opinion, static and unmotivating. Secondly, I was hopeful that digital resources could make the task of providing integrated formative assessment easier and more accessible both for the pupils and the teacher. However, being aware of these biases helped me limit the influences they bring to the research process.

External validity often refers to the transferability of the study (Cohen et. al., 2018, p. 255). They suggest that whether the research is transferrable is up to the reader to decide. The researcher can provide a detailed and rich description which makes the findings more realistic and clearer for the reader (Creswell & Creswell, 2018, p. 200). A thorough description of how the analysis process was conducted can be found in section 3.2.1.

3.3.2 Reliability

Reliability concerns the study's findings and whether they can be replicated if repeated (Merriam & Tisdell, 2015, p. 250). However, in qualitative research, the underlying understanding is that the human component makes this highly difficult to assess, as there can be numerous interpretations of identical data (Merriam & Tisdell, 2015, p. 250-251). Reliability in qualitative research, therefore, concerns more of "[…] whether the results are consistent with the data collected" (Merriam & Tisdell, 2015, p. 251). The aim is to have a consensus that data and results cohere, or in other words - the results agree with the data. The findings and the discussion are separate and can be found in sections 5 and 6. Nilssen (2012, p. 104) writes that through the analysis the findings come, and the interpretation creates the meaning of the findings. The findings are separate from the interpretation, and the reader can use the data to assess whether the data agrees with the result. Another way the researcher can strengthen reliability is by using an audit trail. "An audit trail in a qualitative study describes

in detail how data were collected, how categories were derived, and how decisions were made throughout the inquiry" (Merriam & Tisdell, 2015, p. 252). They recommend taking notes of reflections and decisions throughout the process of both collecting, analyzing and interpreting the data. Part of the audit trail can be found in section 3.2.1. Gleiss and Sæther (2021, p. 202) write that to increase reliability, the researcher must be transparent about how the analysis material has been chosen and how the analysis has been carried out. The analysis itself will also bear the mark of the researcher's bias, and one way to strengthen reliability will be to account for several perspectives in the analysis, as well as reflect on the fact that the researcher brings a degree of subjectivity when analyzing (Gleiss & Sæther, 2021, p. 203).

As a final note, it is important to remember that digital resources are constantly changing. New learning modules and more tasks with elements of formative assessment can be added continuously. This will mean that the findings from the digital resources will age. In contrast to printed textbooks that will always be available with the same content in that specific edition, digital resources are more subject to changes that are not traceable.

4 Analysis material

This chapter will describe the learning resources Echo and Enter 8-10 by using screenshots of the digital resources and give detailed descriptions to provide a clear overview of the structure of the learning resources. The two learning resources differ in many areas, such as length, content, and structure. Fagbokforlaget and Gyldendal have given written permission to use the following screenshots in this master thesis.

4.1 Enter 8-10

Enter 8-10 in *Fagrom* is a fully digital version of the printed textbook series and contains the same content only in a digitally adapted format. It is accessed via Skolestudio.no, which is a platform made by Gyldendal that also delivers digital learning resources for all subjects in lower secondary school. The full digital pack includes *Fagrom* which is the primary learning platform, *Basic Skills* (reffered to as "ferdigheter" in figure 1), a resource with audio that the teacher can use alongside the traditional textbook (bokstøtte), and a smart book version of the textbook *Basic Skills*, see figure 1. It also contains interdisciplinary topics (tverrfaglige temaer) and a library of books in Norwegian and English, however, both of these are not part of the analysis. Figure 1 shows the full digital pack for the English subject.
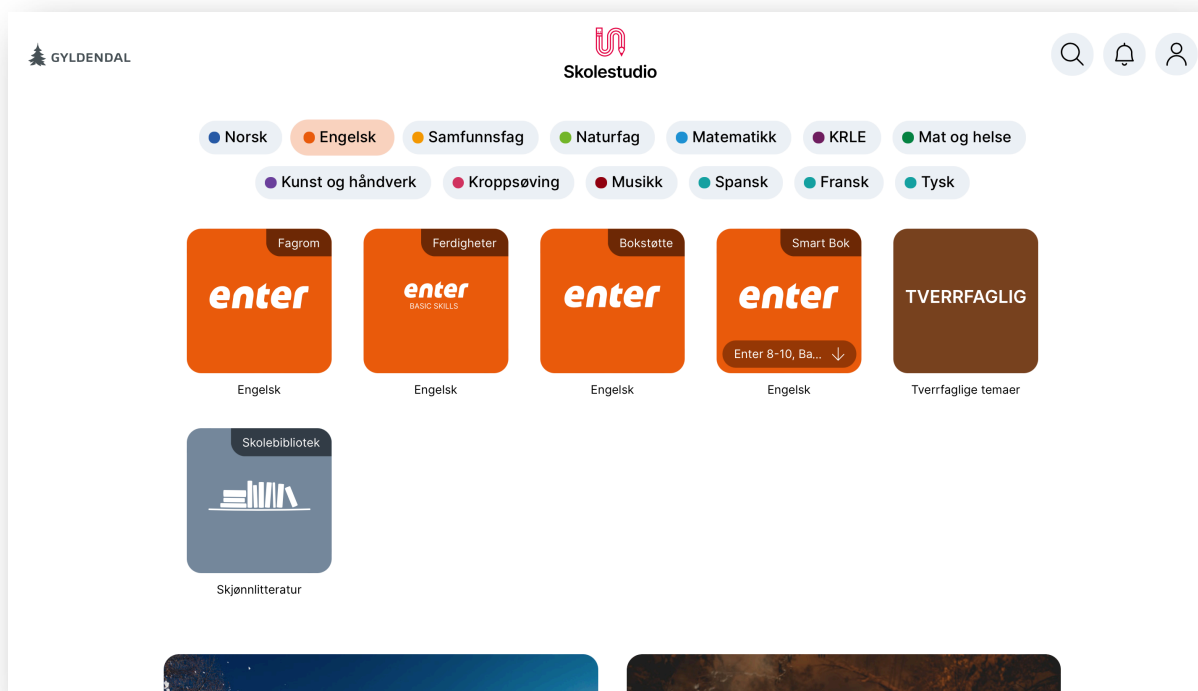

Figure 1 - Skolestudio.no

The digital learning resource is divided into three parts for each grade; 8th, 9th, and 10th grade. Each part contains 6-7 chapters, each built on learning modules. The figure 2 below, shows the 8th-grade chapters on the left, and learning modules within the chapter "1 A fresh start!" in the middle. Learning modules can be viewed as roughly the same as a thematic chapter in a printed textbook. The teacher can delegate work to the pupils, which the pupils then can find under "my work" as shown in the top right corner in figure 2.
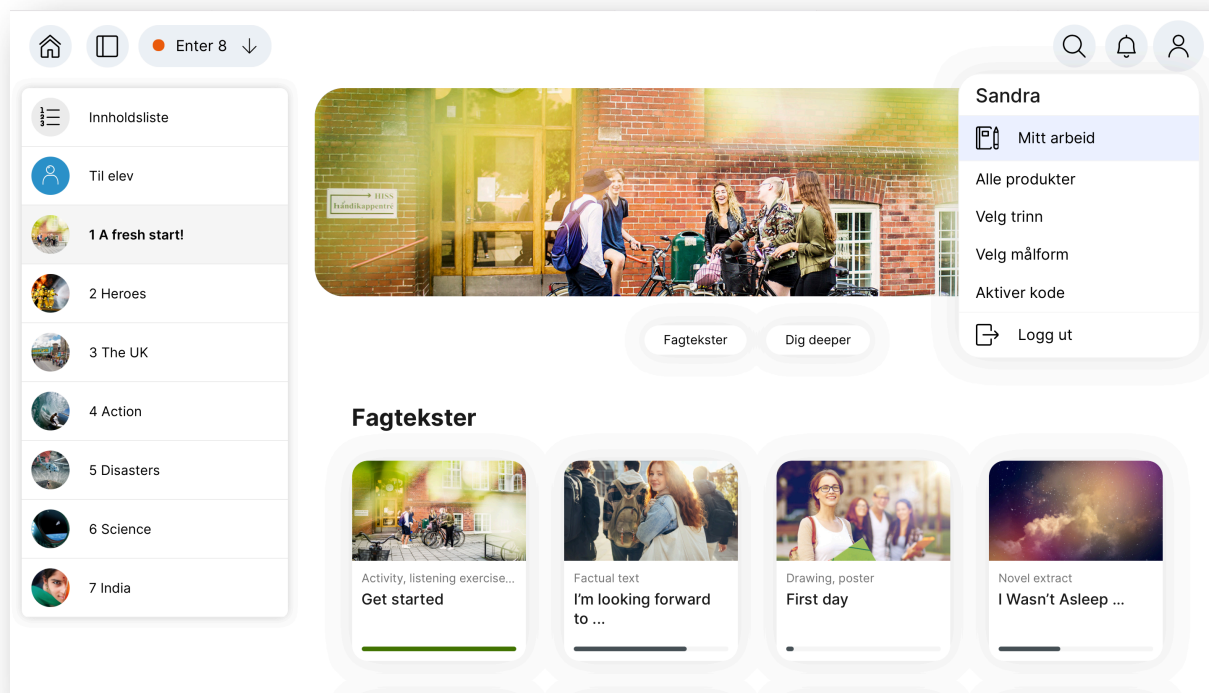

Figure 2 - Fagrom Enter 8

The chapters are split into a variety of learning modules of *fagtekster* and three learning modules of *dig deeper. Fagtekster* are learning modules that revolve around factual texts, novels, poems, articles, novel extracts, etc, see figure 2 and 3. These learning modules follow the same structure with activities like "reading to understand", "writing", "analyzing", "digital skills" and so forth. *Dig deeper* always consists of the same three learning modules: *sum up*, *dig deeper*, and *learning how to learn*, see figure 3 below. *Sum up* contains activities and tasks related to all the learning modules of *fagtekster* in the corresponding chapter, and acts as a summary learning module. *Dig deeper* is a learning module where the pupils have more room to work on writing, speaking, and creating, and the tasks and activities are related to the chapter. *Learning how to learn* is a learning module where the pupil assesses their learning in a particular chapter, the year, and their learning strategies, or discusses how they are going to

improve their work and more. The pupil and the teacher can see the progress of the pupil's work, by viewing progress bars, see the learning module "Dig deeper" in figure 3 below where I have finished a few tasks.
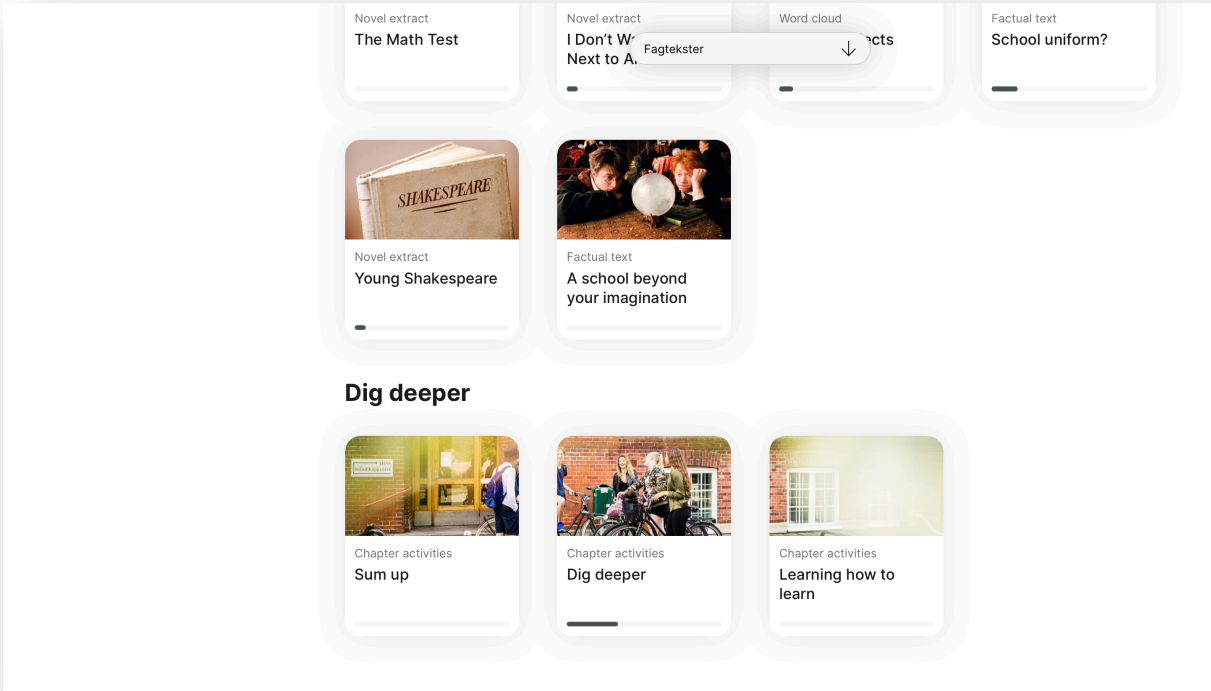

Figure 3 - Learning modules in "Dig deeper"

The progress of the pupil can also be monitored inside each learning module. Figure 4 below, shows dots on the right side that are white when unfinished, and filled in when the task is completed. Each finished task also contributes to the progress bar becoming more filled in, see the bar in the top right corner in figure 4. All work is automatically saved, and the teacher has full access to the pupils' work and can give direct comments on tasks. When a teacher gives feedback the pupil gets a notice, and the feedback can be viewed by clicking the speech bubble, to see it more clearly, I have drawn a yellow arrow to it.
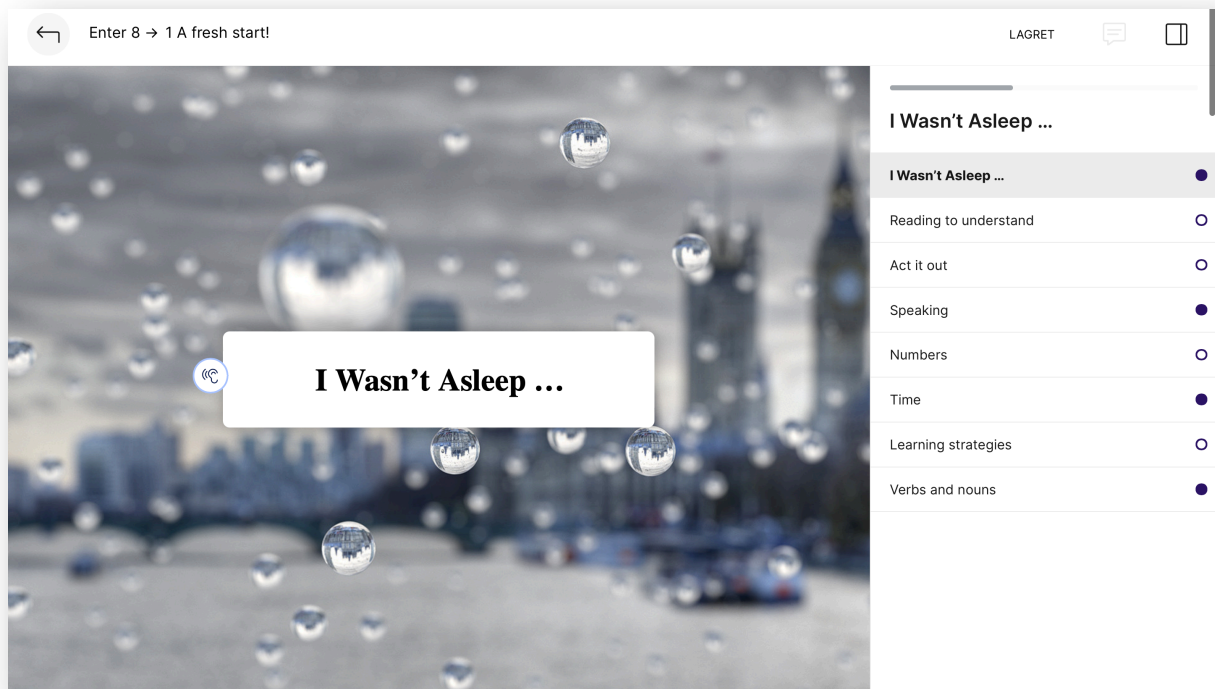
Figure 4 - Learning module in Fagtekster

Figure 5 below shows an example of a task in a learning module. Here the pupils write directly into text boxes. The platform also contains audio support both for tasks and texts.

Figure 5 - Example of task Enter 8

Enter 8-10 also provides automated assessment, below is an example of a task in Enter 8 where the pupil identifies verbs and nouns in sentences.
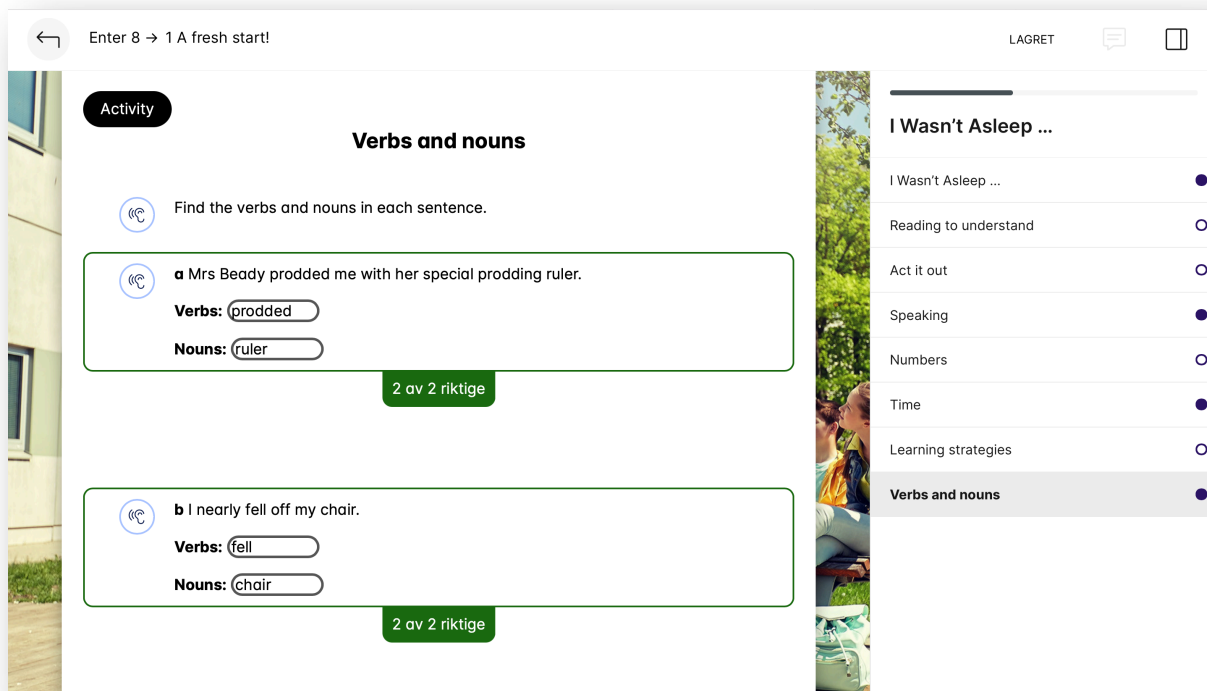
Figure 6 - Example of automated assessment Enter 8

The pupils also have access to *Basic Skills*, which is a digital practice room that is the same for 8th to 10th grade. *Basic Skills* is divided into four parts, see figure 7 below. Each part provides the pupil with information on a topic and tasks to practice using the information, e.g., information on how to use the definite and indefinite article and then corresponding tasks that test the pupil's knowledge, see figure 8 below. The tasks within the learning modules in *Fagrom* often contain hyperlinks that lead the pupil to a chapter in *Basic Skills,* e.g., a task within a learning module that tests the pupils' understanding of articles contains a hyperlink to the use of articles in Basic Skills.
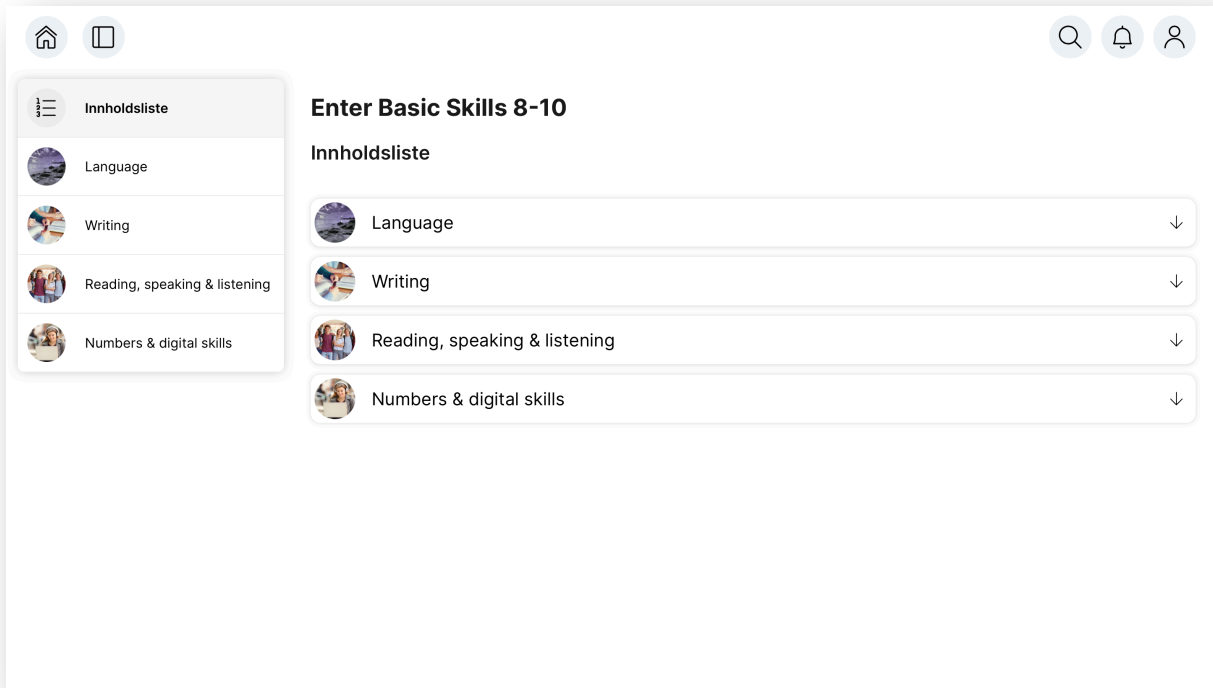
Figure 7 - Basic Skills
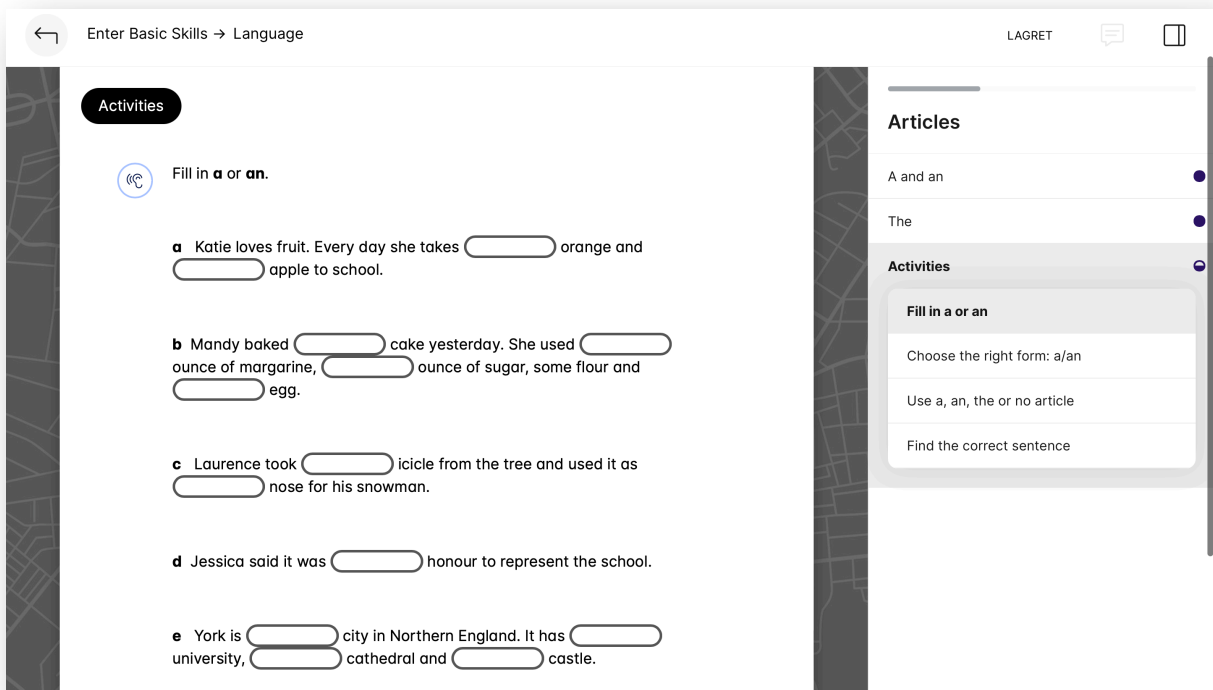
Figure 8 - Basic Skills example of task

4.2 Echo

Echo is a digital learning resource for lower secondary school published by Fagbokforlaget. Echo is not divided into 8th, 9th, and 10th grade, instead, it is presented as one collection. The content in the digital platform seen from the perspective of the pupil, is divided into themes and tools, see figure 9 below. The five themes are *Identity*, *English Around the World, Citizenship*, *Indigenous Peoples* and *My Grammar*. Echo also contains tools for practicing speaking and writing, named *Speak up!* and *Write on!* these tools will be explained later.
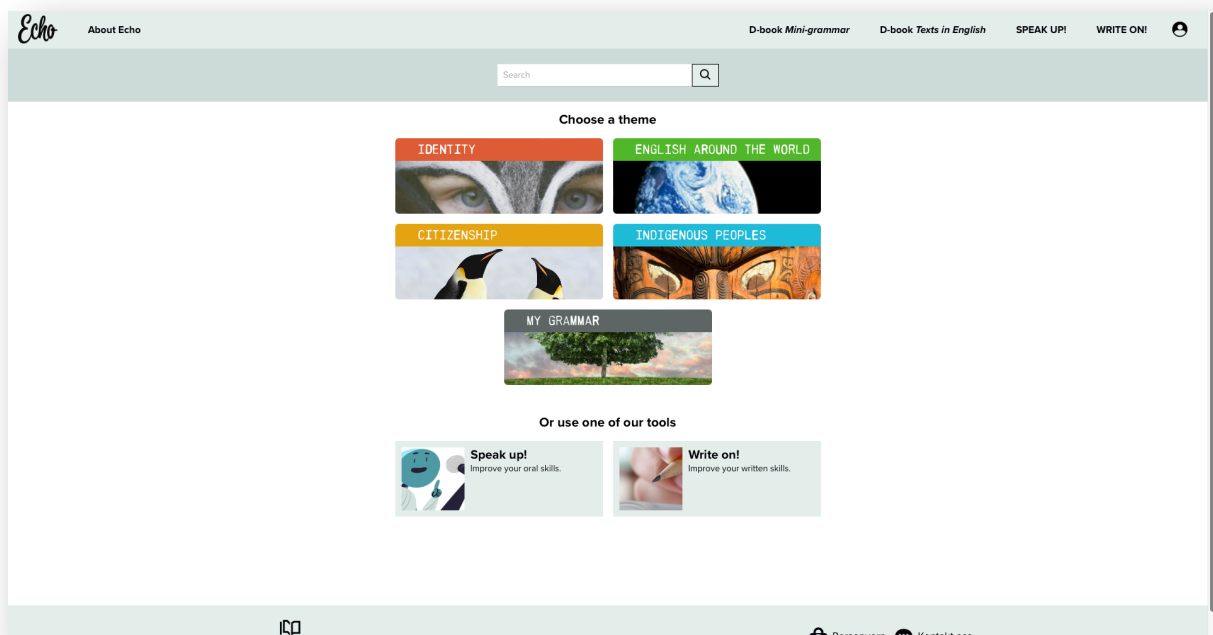
Figure 9 – Echo

The pupils navigate the platform in themes, and within each theme, the pupils find texts, videos, and audio, see figure 10.
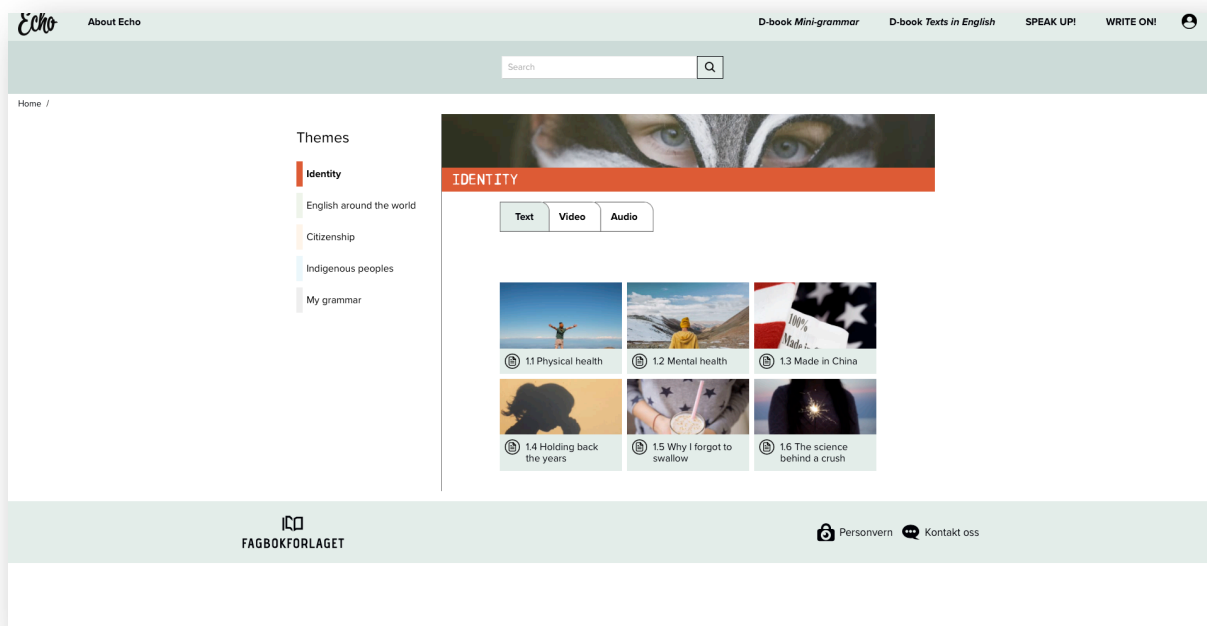
Figure 10 - Echo themes

Each text in the text collection typically contains half a page to a page length of text, and generally, three tasks, see figure 11 and 12 below. The text collection also contains differentiated chapters of many of the texts. The videos in the video collection have a link to a transcript, which is typically the same length as the texts, and generally also contains three tasks. The audio collection is not a part of the findings, as they do not contain any tasks.

Figure 11 - Echo text collection example of text

Figure 12 - Echo text collection example of tasks

The teacher does not have access to the pupils' work in Echo. As seen in task number 3 in figure 12, the pupils must send the paragraphs to their teacher for comments. The teacher can

therefore not monitor the progress or work of the pupils, nor delegate work from the platform. The teachers are therefore dependent on using an additional digital platform (such as Teams) to give feedback and see the work of the pupil.

The pupils can also use the tools *Speak Up!* and *Write on!* which are resources where the pupils can practice their writing and speaking skills. *Speak up!* contains three parts: "presentation", "debate", and "thematic discussion". Within each part, there is a video explaining terms and four topics that the pupils can practice speaking, see figure 13 and 14 below. *Write on!* is not a part of the findings, as it is more of a resource bank that provides information and guidelines on areas of written English, exams, and information on English literature, and a step-by-step frame where pupils can practice their writing.
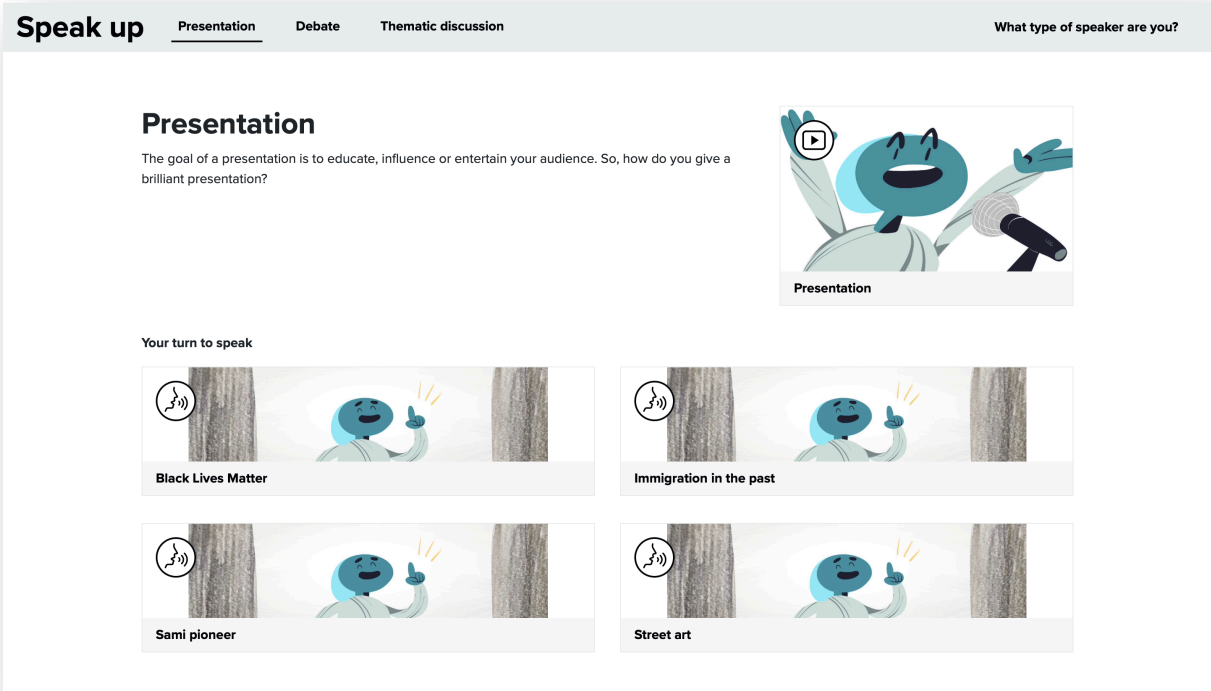
Figure 13 - Echo Speak Up! Presentation

Black Lives Matter

Before you start, read the poem Still I rise on page 208 in the *Echo* text collection.
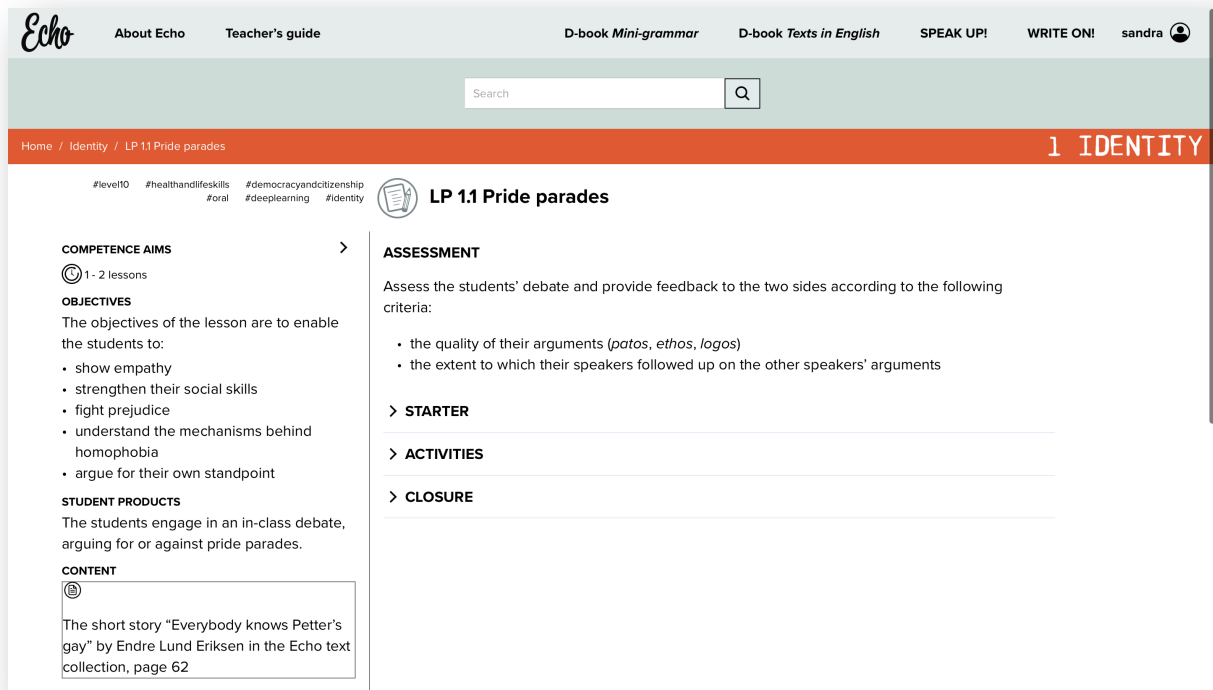
1. Find information on what the Black Lives Matter movement is and why it started.
2. Prepare a 1-minute presentation.
3. Record your presentation and send it to your teacher for comments.

Checklist

☐ I have included everything the task instructs me to.

☐ I have checked that the presentation lasts for 1 minute.

☐ I have listened to my recording, corrected any mistakes and improved the language.

☐ I have listed all my sources.

Figure 14 - Echo Speak Up! Presentation topic example

The teacher version of Echo contains the same content as the pupils' version, but in addition, it also includes lesson plans. The lesson plans are often based on texts, videos, or audio from Echo, and include a starter, activities, and, closure as well as competence aims, objectives, assessment, and content, see figure 15 for visual help. The main part of assessment in Echo lies within these lesson plans, which will be object to discussion in section 6.

Echo   About Echo   Teacher's guide   D-book *Mini-grammar*   D-book *Texts in English*   SPEAK UP!   WRITE ON!   sandra

Search

Home / Identity / LP 1.1 Pride parades

1 IDENTITY

#level10   #healthandlifeskills   #democracyandcitizenship   #oral   #deeplearning   #identity

LP 1.1 Pride parades

COMPETENCE AIMS ›

⊙ 1 - 2 lessons

OBJECTIVES

The objectives of the lesson are to enable the students to:

- show empathy
- strengthen their social skills
- fight prejudice
- understand the mechanisms behind homophobia
- argue for their own standpoint

STUDENT PRODUCTS

The students engage in an in-class debate, arguing for or against pride parades.

CONTENT

The short story "Everybody knows Petter's gay" by Endre Lund Eriksen in the Echo text collection, page 62

ASSESSMENT

Assess the students' debate and provide feedback to the two sides according to the following criteria:

- the quality of their arguments (*patos, ethos, logos*)
- the extent to which their speakers followed up on the other speakers' arguments

› **STARTER**

› **ACTIVITIES**

› **CLOSURE**

Figure 15 - Echo lesson plan

5 Findings

The findings are divided into two main parts: Echo and Enter 8-10. Each part presents the findings from the themes *self-assessment, peer assessment*, *automated assessment.* Findings from some of the lesson plans in Echo are also included, as this plays an important part in the discussion of the thesis statement. This theme is called *teacher* and has a subchapter called *lesson plans*. All data is copied directly from the digital resources in order to preserve the original meaning of the content. Spelling or grammatical errors will therefore not be corrected. Fagbokforlaget and Gyldendal have given permission to use the findings from the digital resources in this master thesis.

Some of the findings contain a representative selection that shows all sides of the material. This is done in cases where the material is vast with many similar tasks, and where further examples of tasks would be deemed redundant. In these cases, it will be stated explicitly before the specific finding.

5.1 Echo

As the figure 9 shows, Echo contains a text, video, and audio collection, as well as Speak up! And Write on! However, the audio collection did not contain any findings, nor did Write on! The following findings in 5.1.1, 5.1.2, and 5.1.3 are from the text and video collection and Speak up! As a reader, you can see where the findings are collected from out of these three types of medium on the left column.

5.1.1 Self-assessment

Type of medium	Name of text/video	Task	Description
Text collection	2.4 Welcome to Scotland	3 Your turn to talk	1.Find information online. Make notes. 2.Make a practice recording.

			3.Listen to yourself. Do you sound interested in what you are saying? Do you sound convincing? 4.Record yourself one more time.
Video collection	I kinda needed a job	3 Your turn to role-play	The teenager is to say why he or she wants to get a job. The parent is to react to what the teenager is saying and disagree about something. Record the conversation. Listen to the recording. Decide how you could make the conversation more convincing.

5.1.2 Peer assessment

Type of medium	Name of text/video	Task	Description
Text collection	1.5 Why i forgot to swallow	Tasks: 3	The author claims that many people are too obsessed with what other people think of them. Make a list of the things that you think your friends and other people in your age group are most obsessed about when it comes to their own public image. Compare your list with a learning partner and discuss what you agree on and disagree on.

Video collection	Preparing for prom	3. Your turn to write	Imagine that you are one of these friends. Write a blog post about this year's prom. Use the film and the pictures for inspiration. Send what you have written to a partner for comments.
Video collection	Part of the team	3. Your turn to talk	Work in a group of four. 1.Two of you prepare arguments for having more sport at school. 2.Two of you prepare arguments for having less sport at school. 3.Discuss. Whose arguments are most convincing?
Video collection	I kinda needed a job	3. Your turn to role-play	1.The teenager is to say why he or she wants to get a job. 2.The parent is to react to what the teenager is saying and disagree about something. 3.Record the conversation. 4.Listen to the recording. Decide how you could make the conversation more convincing. 5.Act out the conversation to another pair.
Video collection	Resume	3. Your turn to write	Describe a time you went the extra mile. Write one paragraph and share it with your learning partner for comments.

Video collection	Lunch	3. Your turn to talk	Take a picture of your favourite school lunch. Record yourself describing it. Send the recording and the picture to a classmate for comments.
Video collection	The Mikkelsons	3. Your turn to write	1.Tell your partner what you have found out. 2.Your partner takes notes. 3.Check that what your partner has written down is correct.
Video collection	Protecting the Environment	1. Digging deeper	Search online and find five of the biggest environmental problems the world is facing today. Compare your answers with your learning partner's.
Video collection	Protecting the environment	2. Your turn to write	Write a paragraph suggesting possible solutions for reducing environmental problems. Share it with your learning partner for comments.
Speak up!	Presentation	Immigration in the past	2. Create a 2-minute presentation using words and pictures that you present to another learning pair. 3. Comment on and compare each other's presentations.
Speak up!	Debate	Gun laws in the United States	3. Record your debate and send it to another learning partner pair for comments.

Speak up!	Thematic discussion	Bullying	4. Give peer feedback by using three stars and a wish – 3 things you think your partner did well and 1 suggestion for improvement.
Speak up!	Thematic discussion	Minorities	3. Give peer feedback by using three stars and a wish – 3 things you think your partners did well and 1 suggestion for improvement.

5.1.3 Automated assessment

The right column labeled "explanation" is written as descriptions of what the task concerns.
These are my own descriptions and have the purpose of guiding the reader.

Text or video collection	Name of text/video	Subtitle	Task	Explanation
Text	2.1 Welcome to England	1 Getting the gist	Only some of these sentences are true. Decide which are true and which are false.	True and false questions based upon the preceding text.
Text	2.1 Welcome to England	2 Word building	Find the words with the opposite meaning.	The words: beautiful, ancient, grand, industrialized, etc.
Text	2.4 Welcome to Scotland	2 Checking details	Choose synonyms for words from the article about Scotland.	Example: the word associate with three options; accept, connect, and help.

Text	2.8 Welcome to Wales	2 Word building	Choose the right meaning.	Example: the word ally with two options; supporter or enemy.
Text	2.11 Welcome to Ireland	1 Getting the gist	Correct and rewrite these sentences.	Example: "The Irish have mainly emigrated to other countries in Europe."
Text	2.15 Welcome to America	2 Checking details	Match the states and the abbreviations.	Example: Florida and FL.
Text	2.19 Welcome to Canada	1 Getting the gist	Finish the sentences using information in the article.	Example: "First Nations have lived in Canada" match with correct alternative; "a multi-cultural country", "between Canada and the USA", "for thousands of years".
Text	2.23 Welcome to India	1 Getting the gist	Use information in the article to fill in gaps	Example: "Far … Indians live in the countryside than in towns".
Video	Tattoos	1 Getting the gist	Only some of these sentences are true. Decide which are true and which are false.	True and false questions related to the video. Example: "A lot of the musicians Ian liked had tattoos."
Video	Preparing for prom	1 Getting the gist	Choose the right answer.	Choose the right answer relating to the text.

Video	Curfew	1 Checking details	Complete the sentences.	Example: "Andrew is allowed to stay out later if …"
Video	Parkour	1 Getting the gist	Listen to what Dan has to say and fill in the gaps.	Example: "I train about …. Times a week."
Video	A part-time job	1 Checking details	Some of these statements are wrong. Correct them.	"Emily works as an expo at an Irish Restaurant."
Video	A true friend	1 Checking details	Fill in the gaps with the words Rachel used. Look at the video again, but do not use the transcript.	Example: "Erm … you need to … you need to be able to … them, and they need to be able to … you."
Video	A new language, a new culture	1 Getting the gist	Match the two halves of the sentences.	Example: When Ali first came to Dubuque, he did not understand …". Match with "everything people said to him".
Video	Lunch	2 Word building	Match the words and the definitions.	Example: "brightly decorated, eg with

5.1.4 Teacher

Echo does not have a platform where the teacher can monitor the progress of the pupil, nor does it have text bubbles where the pupils can write directly. The pupils, therefore, must write and record themselves on another medium and send it to the teacher, see figure 12. The focus on assessment mostly lies within the lesson plans in the digital platform. The following findings display the tasks where Echo makes space for teachers' assessment.

Text or video collection	Name of text or video	Task	Description
Text	2.4 Welcome to Scotland	3 Your turn to talk	5 Send your recording to your teacher for feedback.
Text	2.6 Scottish accents	2 Checking details	Send your recording to your teacher for comments.
Text	2.18 Over easy and hash browns on the side	3 Your turn to talk	Choose one of the topics. Find information about it online. Record a 3-minute talk giving some facts and your own opinions. Send this to your teacher for comments.
Text	2.23 Welcome to India	3 Your turn to talk	Work in pairs. Choose a region in India. Find information about it online. Make a 5-minute presentation using words, pictures and music. Send this to your teacher for comments.
Text	2.26 Welcome to New Zealand	Your turn to write and talk	Choose 1 or 2. Send your work to your teacher for comments.

Text	3.3 You can really be someone	Your turn to talk	Could a Norwegian do what Frank Abignale did? How do you become a success in Norway? Discuss with a partner. Record 2–3 minutes of your discussion and send this to your teacher for comments.
Video	I am Scottish	3 Your turn to write	Some would say that school uniforms represent culture and identity. Do you agree? Write two paragraphs in which you discuss the positive and negative sides of wearing school uniforms by linking it with the word "identity". Send the paragraphs to your teacher for comments.
Video	Curfew	3 Your turn to talk	How much control should parents have over their children? Do you think that teenagers should have curfews or decide for themselves? Discuss in pairs. Record your discussion. Send it to your teacher for comments.
Video	A true friend	3 Your turn to write	Write down five things a true friend does and five he or she would never do. Send this to your teacher for comments.
Video	Parkour	4 Your turn to talk	Prepare a 3-minute talk about a sport you enjoy playing or watching. Record your talk on a mobile, tablet or a computer. Send the talk to your teacher for comments.
Video	What teens do	3 Your turn to talk	What do teenagers do where you live? If you don't feel there is much to do, suggest some

			changes. Record your thoughts and send them to your teacher for feedback.
Video	A new language, a new culture	4 Your turn to write	Imagine you are going to the USA as an exchange student. Where would you like to go, and why? Write a paragraph about this. Send it to your teacher for comments.
Speak up!	Presentation	Black lives matter	1.Record your presentation and send it to your teacher for comments.
Speak up!	Debate	Adoption	3.Record you discussion and send it to you teacher for comments.
Speak up!	Thematic discussion	Native Americans	3.Film your discussion and send it to you teacher for comments

5.1.4.1 Lesson plans

The following findings are from the lesson plans derived from Echo. These findings are from the teacher's pack and are important findings seen as they contain the majority of the assessment in the platform. The left column refers to the name of the lesson plan, the middle column refers to the goal for assessment in that lesson plan (see figure 15 for visual help) and the right column contains how Echo details how to perform the assessment – although this is not present in every lesson plan.

These findings show a representative selection.

Lesson plan	Assessment	How
1.1 Pride parades	Assess the students' debate and provide feedback to the two sides according to the following criteria: the quality of their arguments (*patos*, *ethos*, *logos*) the extent to which their speakers followed up on the other speakers' arguments.	Provide feedback on the debate session and then ask the students in plenary what they learned from the session and the subsequent feedback. Instruct the students to comment on: the process of preparing for the debate the content of the debate (LGBTQ rights) the product (the actual debate) Let two–three students respond. Conclude the lesson by relating the students' responses to their other classes at school, such as those in the social sciences or natural sciences.
1.2 A debate on bullying	Provide feedback during the debate by encouraging critical thinking and detailed answers, and by occasionally requesting elaboration.	
1.5 Adoption	Ask the students for feedback at the end of class and use that feedback to adjust your teaching, depending on what the students say they have learned from the session.	Instruct the students to write (on sticky notes) three things they learned today and stick these on the wall or the door before leaving class. Collect them and integrate the students' feedback the next time you plan the session.

| 1.6 Menstruation meditation | Provide continuous feedback to the students throughout the entire process, as they choose photographs, write texts and perform peer assessments. In addition, read and comment briefly on the revised versions of the texts submitted by the students. | Tell the students to switch their texts with each other, read them and provide peer feedback. Instruct the students about how the feedback is to be provided. The feedback should be constructive: They should start by pointing out the strengths of the text (What did you like and why?), and end by suggesting one or two things the other student can do to improve the text.

The students then revise their own texts and re-submit the improved texts on the learning platform.

End the session by commenting on the students' texts, either in class or as homework, with emphasis on their discussions of the relevance of the social issues to their everyday lives. |
| --- | --- | --- |
| 1.12 Songs and poems | The end products will allow you to observe the students' understanding of the text and the level of their reflections about its content. | Ask the students these questions for the closing discussion:
Which background story is most realistic? Why?
Which background is most unexpected or surprising?
Why do you think the song "Down by the salley gardens" is so popular? |

1.13 Create a graphic short story	The end-product of this activity is peer-assessed by the students according to a set of criteria either discussed in class or pre-determined by you.	Peer: Before starting the activity, criteria for the final product may be discussed in class (or set by the teacher). The criteria will determine what constitutes a good graphic short story. Suggested criteria: "Less is more"—draw a maximum of 20 panels Include one or two main characters Express moods and emotions through the illustrations Write the text primarily as dialogue between the characters Use short sentences The students read each other's graphic short stories and give written feedback based on the pre-established criteria. The students could use "two stars and a wish" to highlight two criteria that have been met and one that should be improved. Depending on the number of texts, you may assign specific texts to different students for the peer review. If there is time for a more extensive peer review, the students could be asked to comment on all the texts—in class or as homework.
1.14 Fifteen minutes of fame	Summarize the "two stars and a wish" feedback from the students to enhance	Using "two stars and a wish", instruct the students to write (in one

	your teaching of the same session next time. You may also post a summary of the students' responses on your learning platform.	or both of the stars) what they liked about the session and how it relates to their own life outside of school. The wish should describe ways that the session could have been arranged differently.
1.15 Where do you come from?	Provide feedback to the students when they are sharing their interview results in small groups	
1.16 Immigration and bullying	Use the students' texts in a future lesson to work on recurring language issues.	
1.17 Being a weather poet	You can evaluate the students' poems and/or the recording of them performing their poems. Additionally, the students can participate in peer assessment during the writing process.	Activities: 2. Midway through the lesson, instruct the students to team up with a learning partner and give each other feedback. The assessment criteria can be related to discussing these questions: How is the poem coming along so far? Which descriptions are you using? What have you compared the weather phenomenon to? How is the poem structured? What does the shape look like?

		Is there a clear coherence in the poem?
1.18 Funerals and rituals	Provide oral feedback to the students while they are working on the questions in class and while they are working on the mini project. The students should demonstrate any relevance to other subjects such as social science and religion with regards to funeral cultures and rituals. Ask the groups whether they want oral or written feedback on group submissions online. The closure assignment does not need to be assessed.	
1.19 A mock interview	Have the students provide their own oral or written peer feedback while they are writing their job application. This feedback should target areas where students can improve their application. In addition, provide the students with brief written feedback on their mock interview performance. Would you have offered them the job? Why/why not? This feedback should provide students with a clear understanding of what went well during their interview and what they need to improve.	Activities: Instruct the students to use the template they received in lesson 2 in order to write a short job application. After each paragraph, have the students receive peer feedback from their learning partner. Students upload their job application online in the learning platform you use. Closure: "Exit ticket": Tell the students to reflect on today's lesson. Ask them

		if they have any additional questions about writing a job application.
		Closure: lesson 5:
		Ask the students to debrief individually, answering the following questions:
		How do you think you performed during the mock interview?
		How were your mannerisms and your body language?
		What did you do well?
		What did you do poorly?
		How can you improve?
		Is there anything you need from me to improve?
		Have the students upload their answers online in the learning platform you use.
1.22 To love and be loved	Provide feedback on the students' processes of making posters. The students can also comment on each other's posters.	Let the students walk around and look at each other's posters. In plenary, ask the students: Which poster(s) did you like and why?

		What did you learn by drawing a song and how did you collaborate in your group when making the poster?
1.23 Graffiti showing hope	Provide feedback on the process of finding graffiti and the students' descriptions using adjectives. Provide feedback continuously on what the students do well and what they can improve.	In plenary, ask the students: How did you experience listening to descriptions without any visualizations of the graffiti? Were there any words you did not understand? Did you ask questions when there was something you did not understand?
1.24 Exploring the senses	Use this activity, and its final product, to assess the students' vocabulary and ability to use suitable strategies to expand their vocabulary.	Ask the authors of the texts what was the hardest thing about the task, which new words they looked up in English and ultimately used. Make a note of some of the new descriptive words on the board and persue in future lessons.
2.1 Hamlet - the true story	In this lesson, the students give and receive peer assessments; they also perform a self-assessment. Peer assessment: The students provide oral feedback to each other while they are working on the news report in class. The feedback should enable the	3rd and 4th lesson The students write the script, rehearse and film the report, and monitor each other (through peer assessment). 5th lesson

	students to identify ways to improve the report and their oral communication skills, as well as encourage self-reflection. Self-assessment: At the end of the lesson, the students perform a self-assessment online in the learning platform. They should reflect briefly, in writing, on the following questions: How much time and effort did you put into this report? What were your strengths and weaknesses? How might you improve your work next time? What are the most valuable things you learned from this assignment?	The students complete a self-assessment online through the learning platform. Group discussion: At the end of each lesson, each group evaluates itself by discussing the following questions: What is working well in our group? What needs to be improved? How can we improve? What is our goal for the next lesson?
2.13 Home language and identity	Provide oral feedback to the students while they are working on the questions in class. The students will practise self-assessment without being aware of it by reflecting on their own language repertoire. It is therefore important that you encourage the students to think about any languages they are familiar with, to any extent. The individual/group submissions	

	online can be assessed as "completed" with short, written feedback.	
2.14 Wherefore art thou Romeo	Provide feedback based on rhetorics' patos and etos. The students can also provide peer feedback on the dramatization.	Introduce the students to the rhetorical terms patos and etos. Provide examples and explain how patos and etos can be used in dramas to convince and entertain the audience. Draw up a list of assessment criteria that can be used when giving feedback in collaboration with the students. 2nd lesson Have the groups perform their dramatizations. Feedback should be provided by you and those watching the performances based on the agreed-upon assessment criteria. Summarize the comments on the student performances and point out which performance(s) best fulfilled the criteria for patos and etos.

5.2 Enter 8-10

Enter 8-10 are divided into three parts for 8th, 9th, and 10th grade. The findings are therefore divided into different tables for clarity. As Enter 8-10 has a different layout than Echo, the columns are named differently. "Chapter" refers to the chapter in Enter 8, 9, or 10. "Learning module" refers to the learning modules within the chapter. "Subtitle" refers to the name of the activity. "Task" refers to the explicit task. For visual help, see figure 2, figure 4 and figure 5.

5.2.1 Self-assessment

5.2.1.1 Enter 8

Chapter	Learning module	Subtitle	Task
1 A fresh start!	I´m looking forward to…	Poster	e) What is good about your poster? Write three sentences.
1 A fresh start!	I Wasn't Asleep…	Act it out	c) What is good about your dialogue?
2 Heroes	Summer and August	Adjectives	e) What is good about your description? Write two or three sentences.
3 The UK	A multicultural society	Verbs	c) How good are you at writing verbs in the past simple? Assess yourself on a scale from 1 to 6, where 6 is the best.
3 The UK	Visiting the UK	Description	c) What do you think is good about your description?

4 Action	The Trial	Paragraph	b) Underline two sentences in your text that you think are good. Explain why you underlined these sentences.
5 Disasters	The unsikable ship	Letter	b) Underline three sentences that you think are well written in your letter. What is good about the sentences?
5 Disasters	Learning how to learn	Learning how to learn	a)pick three tasks that you are satisfied with. b) Choose one of these tasks and write a paragraph which describes what was good about your work.
6 Science	Dig deeper	Writing 1	c) What was good about your text? Write two sentences.
7 India	Learning how to learn	Goals	Look at the goals you made at the end of chapter 1 A fresh start! a) To what extent did you achieve your goals? b) What would you like to focus on in year 9? c) How are you going to do this?

5.2.1.2 Enter 9

Chapter	Learning module	Subtitle	Task
1 Food for thought	Future food	Speech	c What was good about your speech?

1 Food for thought	Make a refecton note	Reflection note	What did you learn in year 8? What was difficult in year 8? What is your plan for this year? Find three areas to focus on. Save the reflection note as you will need it at the end of the year.
2 Beyond	Miss Peregrine's home for peculiar children	Descriptions	c Read through your paragraph and write two sentences explaining why you think it expresses anger well
3 Opportunities	Boys and Girls Together	Digital skills	c Give three reasons why you trust the websites you used for information
5 Australia & New Zealand	Visiting Australia & New Zealand	Writing 2	b What is good about your pamphlet? Write a few sentences that describe your work.
5 Australia & New Zealand	Visiting Australia & New Zealand	Vocabulary	e What do you think is good about your description?
6 Get involved!	The Carbon Diaries	Writing	c Write a few sentences describing what is good about your text.

5.2.1.3 Enter 10

Chapter	Learning module	Subtitle	Task
1 Getting along	Dig deeper	Speaking: Relations (conversation)	Your topic is *relations*. Look through the notes you have made while working on this chapter, and reread some of the texts as preparation for a conversation with some classmates on the topic of relations. Assess your own language skills after the conversation.
1 Getting along	Learning how to learn	Reflection note	You are now starting your final year of English at lower secondary school. a What would you like to improve or work on this year? How do you plan to work on this? b What would you like your teacher to help you with?
2 The US	The road to equality	Digital skills	Evaluating sources. a Write "Black Lives Matter" in a search engine. b Find three different digital sources that give facts about this. c Evaluate the sources according to the CARS checklist.

			d Which source is the most reliable? Write a paragraph explaining your answer.
2 The US	American teenagers	Reading to understand	e What can you learn from doing an activity like this?
2 The US	Inspiring speeches	Writing	d Write two or three sentences on what you can learn by working this way.
2 The US	A twist on a well-loved tale	Writing	b Ask a classmate to read your review. Does he or she want to read the book now? c If not, how can you adjust your review to make your classmate interested in the book?
3 Both sides	Prove your point	Reflection	After writing an argumentative paragraph, reflect upon these questions. a What is the most convincing part of your argumentative paragraph? Why? b What was the most difficult part of writing your argumentative paragraph? Why? c If you had more time to revise, what would you change or work on? d What did you learn during the process? e What will you do differently next time you give your opinions orally or in writing?
4 Distant realities	Eragon	Writing 2	b Explain what is good about the paragraph you have written.

5 Precious drops	The next global crisis	Digital skills	Is the planet running dry?
			a Find examples of dramatic language to sell the article.
			b Search the internet to find sources that support the text. Make the list of sources.
			c In which way do you think the use of sources in this article is reliable?
6 Solving conflicts	Learning how to learn	Reflection note	a Read through a factual text you have written recently. Assess how you:
			use varied and exact terms related to the topic.
			start each paragraph with a topic sentence.
			support each topic sentence with relevant supporting sentences.
			cite relevant and reliable sources.
			b Write a letter to a pupil in next year's class.
			What should pupils do in order to be successful in year 10 English?
			What advice might you give them?

5.2.2 Peer assessment

5.2.2.1 Enter 8

Chapter	Learning module	Subtitle	Task
1 A fresh start!	School uniform?	Debate	b Compare your lists with those of a classmate. Add more arguments to each side
2 Heroes	Superheroes	You are a superhero!	b Let your classmate read your text and tell you what was good about it.
2 Heroes	Who was Robin Hood?	Description	c Ask your classmate to tell you what was good about your description.
3 The UK	Goal!	Speaking	b Discuss with your classmate what was good about your role play.
3 The UK	British fashion	Mini-talk	**b** Ask your classmates to tell you what was good about your mini-talk.
4 Action	Sports equipment	Speaking	**b** Tell each other what was good about your mini-talks.
4 Action	Dig deeper	Writing 2	**c** Test the instructions on a classmate. Were they easy to understand? Rewrite your instructions if necessary.
5 Disasters	Hurricane Katrina	Speaking	**c** Agree upon what was good about your news report.

5 Disasters	Dig deeper	Writing 5	**b** Ask a classmate to write a comment on your blog post.
6 Science	The teenage brain	Act it out	Make a role-play of a pupil's visit to the school counsellor. The counsellor is going to talk to the pupil about growth mindset. Take turns being the counsellor and the pupil. a Have a conversation about facing challenges at school. b Have a conversation about grades at school. c What was good about your role-plays? Make a list and tell the rest of your class.

5.2.2.2   Enter 9

Chapter	Learning module	Subtitle	Task
1 Food for thought	One grain of rice	Speaking	a Act out the story as a play together with two classmates. Roles: Rani, the raja and a narrator. You may improvise and add dialogue. b Agree upon what was good about your play

1 Food for thought	The Restaurant at the End of the Universe	Speaking	d Swap the review with another group. What is good about the review? What could be improved?
1 Food for thought	Sum up	Verbs: infinitive and present simple	a Write a paragraph about your favourite food in the present simple. b Take out all the verbs and put them, in the infinitive form, in a table underneath the text. c Ask a classmate to fill in the correct form of the verb in your text d Correct the text and explain any mistakes to your classmate.
2 Beyond	A peculiar watch	Writing	b Ask a classmate to read your review. Does he or she want to see the film now? c If not, how can you adjust your review to make your classmate interested in the film?
2 Beyond	Crop circles: Mystery or hoax?	Vocabulary	d Listen to your classmate's summary and tell them what was good about it.
3 Opportunities	Job vacancies	Application	f Ask a classmate to read what you have written and comment on what was good about your application.

3 Opportunities	Anna - a street performer	While listening	Work together with a classmate Watch the video below and listen for information to answer the questions in the table. One of you will answer the three questions in column A, and the other one will answer the questions in column B. Once you are done watching, share your answers with each other. Then watch the video again and check each other's answers.
4 Whodunnit?	Blood Fever	Speaking	c Agree upon what was good about your news report.
4 Whodunnit?	Dig deeper	Writing	b Read each other's texts. Tell each other which text you liked the most and why.
5 Australia & New Zealand	Visiting Australia & New Zealand	After listening	3. Listen to a classmate's recording and give feedback on pronunciation and word choice.
5 Australia & New Zealand	Learning how to learn	Learning strategies	Ask a classmate to tell you what was good about your summary

5.2.2.3   Enter 10

Chapter	Learning module	Subtitle	Task

1 Getting along	A Midsummer Night's Dream	Speaking	Which elements in this play are similar to the ones you find in TV series or films that you watch? Make a list and compare in class.
1 Getting along	Sum up	Speaking	Join groups to talk about the chapter you have just read. One pupil in each group listens to the conversation. Their job is to note examples of the following: • active or open-minded listening • how to maintain the conversation • interesting arguments • how to give reasons • relevant questions • how to use what others say to continue speaking
2 The US	American teenagers	Reading to understand	a Make ten questions about the text. Your questions should check understanding of the text, not just be questions that can be answered with one word or by copying a sentence from the text. Vary the question words that you use. b Swap questions with a classmate. Answer as many questions as you can without looking at the text.

			c Read through the text again to find any answers that you are missing. d Give your classmate some feedback on their questions. e What can you learn from doing an activity like this?
2 The US	A twist on a well-loved tale	Writing	Choose a book that you have read recently. a Write your own book review using the book review about *Romiette and Julio* as a model text. b Ask a classmate to read your review. Does he or she want to read the book now? c If not, how can you adjust your review to make your classmate interested in the book?
3 Both sides	#Madeinpoverty	Writing	Write a reply to one of the comments. Ask a classmate to comment on your reply as well.
4 Distant realities	Fantasy readers will save the world	Speaking	Borrow words, sentences or paragraphs from the text in order to make a speech. The purpose of the speech should be the same as the purpose of the text. a Give the speech in groups.

			b Give each other feedback on the way the speech was delivered.

c Suggest other words or sentences that could have been included in the speech.

d Give the speech once more in groups or record it for your teacher. |
| 4 Distant realities | Sum up | Pronunciati on | Practise pronouncing these words and record your version when you are happy with it. Ask a classmate to compare your pronunciation with an online dictionary version, and give you feedback on your pronunciation.

church – chairman – pleasure – jumble – judge – realise |
| 5 Precious drops | Rezpect our water | Writing | b Ask a classmate to read your letter and give you three things to work on in order to improve your letter. |
| 5 Precious drops | Dig deeper | Speaking 1 | Work in groups to talk about the chapter you have just read. One pupil in each group is an observer to the conversation. Their job is to note examples of the following:

ability to maintain the conversation

interesting arguments

ability to give reasons

ability to use what others say to continue speaking |

5 Precious drops	Sum up	Learning strategies	c Ask a classmate to tell you what was good about your summary.
6 Solving conflicts	Cape Town, South Africa	While listening	Work together with a classmate Watch the video below and listen for information to answer the questions in the table. One of you will answer the three questions in column A, and the other one will answer the questions in column B. Once you are done watching, share your answers with each other. Then watch the video again and check each other's answers.

5.2.3 Automated assessment

The coloumn "explanation" is a description that gives an explanation of how the task works. These findings are a representative selection.

5.2.3.1 Enter 8

Chapter	Learning module	Subtitle	Task	Explanation
1	I'm looking forward to…	Reading to understand	a)connect statements with the right person in the text I'm looking forward to …	Multiple choice

1	I'm looking forward to …	Nouns	b)Sort the nouns below into common nouns and proper nouns.	Drag the noun to the right box
1	First day	Vocabulary	Unscramble these words.	One side of the column is scrambled: "RHEETAC" which unscrambled is teacher
2 Heroes	What makes a hero?	A and an: the rule	b)Does *a* or *an* go in front of each of these words?	The pupil chooses the button for "a" or "an" in front of each word, eg. Hero, idol.
2 Heroes	Sum up	Vocabulary	Match the words with the correct explanation	The pupil matches words like "unselfishness" with explanations such as "putting someone else before yourself"
3 The UK	British food	Reading to understand	a Are these statements true or false?	The pupil chooses "true" or "false" related to statements to the text they have read before. Statements such as "British people usually drink their tea with milk"
3 The UK	British fashion	Verbs	a)Which of these verbs are in the present simple?	The pupil chooses the words in present simple. The words are: works, does, is, designs, designed.

4 Action	The Karate Kid	Vocabulary	c Which of the words are nouns?	The pupils places the words into two boxes: "nouns" and "not nouns". The words are: fight, stunt, bully, competition, crowd and challenge.
4 Action	The Karate Kid	Vocabulary	d)Which of the words can be both verbs and nouns?	The pupil chooses the words that can be both verbs and nouns. The words are the same as the column above.
5 Disasters	Hurricane Katrina	Vocabulary	Combine the phrases that have the same meaning.	The pupil combines phrases such as "belly up" and "upside down", and "to run out of insulin" and "have no medicine left".
5 Disasters	Sum up	Contractions	a Write the contracted form for each pair of words: they would, he will, they had, we were not, she is, I did not.	The pupil writes in the answer in a box beside each pair of words.
6 Science	The Many Worlds of Albie Bright	Vocabulary	a Sort the words into two categories: *physics* and *biology*.	The pupil places the words into two boxes: "physics" and "biology. The words are: solar system, black hole, paralysed, choromosome, clone, universe, Geiger counter.

5.2.3.2 Enter 9

Chapter	Learning module	Subtitle	Task
1 Food for thought	Food habits	Uncountable nouns	Fill in these sentences using *some* or *any*. a)have you … orange juice b)alice ate … chocolate with her coffee. c)is there … sugar in this cake? d)no, but there is … fruit juice to make it sweet. e)we need to add … salt to this sauce - it's tasteless.
1 Food for thought	The Carrot	Reading to understand	Complete these sentences with words from the story. a)A nun serves Felix hot … b)Dodie is a loud … c)Felix sees a whole … in his dinner bowl. d)They can't grow … up in the mountains. e) The kids peer into their bowls in case there is a speck of … there. f) Mother Minka thinks Felix has found an … in his bowl.

3 Opportunities	Boys and Girls Together	Pronouns	Fill in the gaps with a pronoun. Example: *I have a job. The job is mine.* a The kingdom belongs to the king. The kingdom is . b Susan is very clever. You can ask for help. c Jim and I work together. Jim is a colleague of . d Her aunt is strict. used to be a teacher. e In the future, I see as a famous actor. f If you want to succeed, it is important to believe in
3 Opportunities	Running from Poverty	Antonyms	Match the words that have the opposite meaning.
4 Whodunnit	Crime sells	Vocabulary	Match the words from the text with a suitable explanation.
4 Whodunnit?	Blood fever	Language	What is the difference between *of* and *off* in both meaning and pronunciation? Choose the correct word in each of these sentences, and then record yourself reading them aloud with the correct pronunciation. a He saw her out the corner of his eye. b James tried to fend the men.

			c She had a large pan tomato sauce.
			d Mauro pulled his messy shirt.
			e The football player kicked the ball the pitch.
			f Have you ever heard James Bond?
5 Australia & New Zealand	Q&A	Present perfect	Fill in the correct form of the verb in these sentences.
			Example: *The children have eaten dinner. (to eat)*
			a Norwegian pupils in year 9 English for 9 years. *(to study)*
			b Norway an independent country since 1905. *(to be)*
			c I English all my life. *(to speak)*
			d you the Herald Sun this week? *(to read)*
			e Australians Anzac day since 1915. *(to celebrate)*
			f The British monarch New Zealand several times. *(to visit)*
5 Get involved!	Our generation	Verbs	Find the noun phrases. Decide whether the verbs should be singular or plural.
			a Our generation (is/are) amazing.
			b The books about the environment (is/are) on my desk.

			c The boy who cleans up the beaches around here (is/are) a friend of mine.
			d Being loving, respectful and kind (is/are) the way to go.
			e None of my friends (was/were) there.
			f Pupils in Norwegian schools usually (start/starts) school at 8.30 a.m.
			g The price of oil, gas and electricity (has/have) risen recently.
			h Ten tonnes of rubbish (float/floats) about in the Pacific Ocean.
			i The boy who wrote this poem, and probably several other poems, (live/lives) in North Carolina.

5.2.3.3   Enter 10

Chapter	Learning module	Subtitle	Task
1 Getting along	Paul is Gay	Language	Match the idiomatic expressions with a suitable meaning.
1 Getting along	Greg and the Dying Girl	Phrasal verbs	Complete the sentences with a phrasal verb. Get by, let out, take down, hand over, carry out, put off. a She … a tremendous sigh of relief.

			b They decided to … some research to see what people really thought. c We have to … our vacation until next year. d Will you be able to … this month with the little you have?
1 Getting along	Sum up	Phrasal verbs	Phrasal verbs. Fill in a suitable preposition to complete the sentences. Identify the phrasal verb. In, after, down, up, off, up. a I was brought by my grandparents. b He took his mother in both looks and personality. c He broke in tears when he failed his driving test again. d They broke just a month before their wedding. e Her father told her for being late. f I didn't manage my job, so I gave .
2 The US	The road to equality	Active and passive voice	Write these sentences in the active voice. a The picture was taken by my sister. *My sister* . b We should have been taught more about US history earlier. *Somebody* .

			c The Jim Crow laws were considered unfair by many people. d African Americans were given the same rights as whites with the Voting Rights Act.
3 Both sides	Gaming is good for you	Easily confused words	Choose the correct word for each sentence. a I need to in my diary. *(write/right)* b Writing is a good way to vent frustrations. *(your/you're)* c not going to believe what happened to me! *(your/you're)* d Just about every time I wash the dishes, I something. *(brake, break)* e It's because not careful, my mother says. *(your/you're)*

3 Both sides	Nobody Ever Asked	Language	Choose *then* or *than* to complete each sentence. a It was … that Kelly realized her mistake. b My sister makes better grades … me. c If Anna doesn't want to go, … she should stay home.

6 Discussion

This chapter will discuss the findings in relation to the theoretical framework of the study, as well as answer the thesis statement: "To what extent do the English digital resources in the textbook series Enter 8-10 & Echo promote formative assessment?" Lastly this chapter will discuss some general thoughts on the two digital resources in relation to formative assessment.

6.1 Self-assessment

The theme "self-assessment" includes the discussion of findings that have elements of self-assessment. The findings can be found in 5.1.1 and 5.2.1. Self-assessment in tasks was identified by evaluating whether the tasks included elements where the pupils were to reflect upon their learning strategies, learning process, or learning output. These types of tasks enable the pupils to assess themselves and increase their learning. The NDEAT (2021, p. 72) states that self-assessment is a central element in primary school and pupils must be given opportunities to reflect upon their progress and their achievement. The number of findings of tasks with elements of self-assessment in the two digital resources are very different. It is important to note that one of the causes of this, may be due to the difference in number of tasks in the two digital resources. There were generally only three tasks with each text and video in Echo, compared to the innumerable tasks in Enter 8-10. Another cause can be due to the fact that Echo has its primary source of assessment in the teacher resources, namely in the lesson plans. This will be discussed later, in section 6.4.1.

The first principle of formative assessment, as discussed in 2.2, is that the pupil participates in his or her own work (NDEAT, 2021, 81). For the pupil to participate in their own learning, it is elemental that he or she is given the opportunity to reflect on their own learning and development, and therefore learns to learn (NDEAT, 2021, 81). It can therefore be argued that it is elemental that the pupils meet these opportunities often, if they are to take charge of their own learning. This correlates with the third phase of formative assessment, which is the planning of further learning. The NDEAT (2021, p. 81) writes that in this phase the pupil is to be the foremost active participant. If the pupil is to be the foremost active participant, there must also be opportunities for them to do so. When analyzing and interpreting the data, I made several notes on each of the digital resources. As section 5.2.1 shows, there were many findings of self-assessment in Enter 8-10. Some of the findings of self-assessment were related to assessing learning output, such as this task in Enter 8: "Underline two sentences in

your text that you think are good. Explain why you underlined these sentences." This type of tasks allows the pupils to participate in assessing their own work. Other findings were related to the learning process and learning strategies, such as this task in Enter 10: "Learning how to learn – reflection note "You are now starting your final year of English at lower secondary school. **a** What would you like to improve or work on this year? How do you plan to do this? **b** What would you like your teacher to help you with?". For further examples, see section 5.2.1. This type of task gives the pupils the opportunity to reflect and assess their own learning and development, as well as plan their further learning. The teacher then gains insight into how they are to best support them in their further learning. In other words, this type of task realizes both the first principle and the third phase of formative assessment. Findings of elements of self-assessment in the digital resource Echo were few, as can be seen in section 5.1.1. One of the findings in Echo was "1. Find information online. Make notes. 2. Make a practice recording. 3. Listen to yourself. Do you sound interested in what you are saying? Do you sound convincing? 4. Record yourself one more time." This task asks the pupils to assess their learning output, revise and try again. The other finding was: "The teenager is to say why he or she wants to get a job. The parent is to react to what the teenager is saying and disagree about something. Record the conversation. Listen to the recording. Decide how you could make the conversation more convincing." This finding is related to learning output as well; however, it does not include the pupils' revision.

The two digital resources promote self-assessment to different degrees. Enter 8-10 has many tasks with elements of self-assessment on learning output, learning strategies, and learning processes. The tasks were integrated within the learning modules, which provide the pupils with opportunities to self-assess frequently. I believe that a high frequency of opportunities for pupils to conduct self-assessment is key to making them aware that they are the single most important driving force in their language learning. The pupils must be active participants in their learning and the teaching material must reflect this. In Echo, there were only two findings of tasks that had elements of self-assessment. These tasks were related to self-assessment of learning output.

6.2 Peer assessment

The theme "peer assessment" includes findings of tasks where pupils were asked to exchange or receive feedback from their peers. This includes tasks where the pupils were asked to compare and assess each other's work. The findings of peer assessment can be found in sections 5.1.2 and 5.2.2.

Integrating peer assessment in a classroom has several benefits. First and foremost, formative assessment can be conducted by a peer often and with instant feedback. If one compares this to a teacher's ability to assess each individual pupil in a class of 24, or more, it is much more effective and should be used to the teacher's and the pupils' advantage. Many teachers may be skeptical as to how reliable the feedback is from peer assessment. However, Burner (2020, p. 11) states that when peer assessment is carried out often and systematically, it can result in feedback of high quality. This statement is supported by Topping (2009, p. 20) who argues that although pupils are less skilled in assessing, they have more time to give it frequently to their peers, and therefore the assessment can be of equal validity and reliability to a teacher's assessment. Following this line of argument, it is important that the pupils meet opportunities to assess each other for them to practice giving feedback. These opportunities must be frequent which in turn will help the pupils gain competence in giving quality feedback. The findings from Enter 8-10 and Echo show a high frequency of tasks that include peer assessment in relation to the number of tasks in each of the two digital resources.

The findings from Enter showed that tasks varied from peers comparing their work, to providing feedback with and without criteria. The finding from a task Enter 8: "Ask your classmate to tell you what was good about your description", gives the pupils an opportunity to focus on and discuss the strengths of the work of the pupil without using criteria. The peer assessment can be given on structure, language, or content, whichever is the most fitting. One of the purposes of peer assessment is to help pupils assist each other in finding their weaknesses and strengths (Topping, 2009, p. 20). Another finding from Enter 10 is: "Join groups to talk about the chapter you have just read. One pupil in each group listens to the conversation. Their job is to note examples of the following: active or open-minded listening, how to maintain the conversation, interesting arguments, how to give reasons, relevant questions, how to use what others say to continue speaking". This task provides specific criteria for the peer assessment. Both the pupils that are on the receiving end of the feedback as well as the pupil conducting the assessment will learn from this task. Burner (2020, p. 12)

states that conducting peer assessment can help develop the pupils' ability to provide and receive feedback. Seen as peer assessment is a highly collaborative activity, pupils learn from each other both in regards to how their peers assess and receive feedback. The finding from Echo: " 3. Give peer feedback by using three stars and a wish – 3 things you think your partners did well and 1 suggestion for improvement" provides a framework on how the feedback is to be given. This task also illustrates that pupils can give feed forward, which in the words of Hattie and Timperley (2007, p. 90) can be amongst the most effective on learning. The feedforward may identify and help explain to the pupil how to get to the next step in their competence, whether it be in writing a personal text or grammatical misconceptions. The zone of proximal development describes what the pupil can achieve with assistance, that would otherwise be out of reach (Vygotsky, 1978). I argue that peer assessment can help assist learners to further their learning, and consequently help each other reach their zone of proximal development.

6.3   Automated assessment

The theme "automated assessment" includes findings of tasks that provide instant assessment which gives the pupil knowledge of right and wrong answers related to the task. The findings of tasks with automated assessment in the two digital resources show that they contained many of the same components. There are several benefits of automated assessment, such as it being readily available, can be taken more than once, and is timesaving compared to doing the tasks on pen-and-paper for both the pupil and the teacher. It can however be discussed as to what extent it provides useful learning for the pupils. The possibilities and limitations of automated assessment will be discussed in two parts.

6.3.1   Possibilities

Automated assessment brings forth many possibilities. The main difference between digital resources and printed textbooks is the instant feedback that the pupils receive on their work. The NDEAT (2022, p. 4) states that the possibility of immediate visual feedback is a reason why pupils learn more by using technology. Pupils often must wait for a period of time for the teacher to finish assessing their work. When pupils are provided with this instant feedback - it comes at just the right time and lets the learner see what they have answered correctly and

incorrectly. The pupil can therefore either move along to the next task or try again. The feedback identifies the incorrect answers for the pupil, and the pupil can therefore make use of other resources to continue their learning – such as *Basic Skills* in Enter 8-10 or *My Grammar* in Echo or simply rereading the text if the tasks are based on reading comprehension. The feedback from automated assessment can be classified as feedback on the task level. Hattie and Timperley (2007, p. 98) describe the task level as information on whether the task is incorrect or correct. They further state that immediate feedback on this level is beneficial for the pupil, as it can result in faster acquisition. Instead of the pupil awaiting feedback on a test or a paper they have written, they can gain insight into their understanding in an instant and take further steps to correct their mistakes. When the pupils gain feedback from automated assessment that identifies their incorrect answers, it may make the "successful pupils" assess how they can continue their learning. In other words, it may lead them to ask the question "where to next?". Brookhart (2008, p. 97) describes these types of pupils as learners that self-assess spontaneously, are motivated, and are a driving force of their own learning. Enter 8-10 often provides hyperlinks to *Basic Skills* that take the pupil to a specific part of the content, E.g., a task that asks the pupils to sort proper and personal nouns has a hyperlink to "nouns" in *Basic Skills*. If the pupil first tries to complete the task on their own but does not get a full score, they can choose to use this hyperlink to read and complete other activities to progress and thereafter be able to complete the task. It could also be argued that automated assessment to some degree, answers the question of "how am I going?". Hattie and Timperley (2007, p. 89) define this question as feedback that contains information about the progress. If the pupil retakes the test, the instant feedback provides a new amount of correct and incorrect answers of the pupil, which let the pupil know their progress. Automated assessment can therefore be at the task level and the feedback can to a small degree answer the questions of "how am I going" and provide "successful pupils" the opportunity to ask themselves the question of "where to next?".

Another benefit of automated assessment is that. It frees up time for the teacher to use in other areas of teaching. Instead of having a pile of papers on their desk that needs to be assessed, they can use their time to give more in-depth feedback and guidance to pupils that are in need of more assistance. The "successful pupils" are often capable of furthering their own learning by making use of resources, however, this is not the case for "struggling" and "reluctant" pupils. Brookhart (2008, p. 100) explains that "struggling" and "reluctant" pupils struggle because of a lack of solid prior learning experiences and/or learning skills and can struggle

with understanding feedback and what the tasks asked of them. They benefit from feedback in small doses that is self-referenced. Automated assessment can therefore make more room for the teacher to focus on assisting these pupils in reaching their zone of proximal development and provide adjusted feedback.

6.3.2 Limitations

As discussed in the previous paragraph, I argue that automated assessment may spur the "successful" pupils into assessing themselves and asking the question "where to next?" and make use of the resources available to further their learning. This argument may be valid in regard to "successful pupil", but not for the "struggling" and "reluctant pupils". Pupils that are demotivated and have a lack of faith in themselves may not use of the resources that are available to them. Instead, they may end up retaking the tasks over and over again until they arrive at the right answers, and only become further demotivated by the task. Brookhart (2008, p. 99) explains that these pupils already know that their work fails to meet the target. She further writes that "reluctant pupils" perceive themselves as failures (Brookhart, 2008, p. 106). Receiving feedback from tasks with automated assessment that states "2/14 correct" may further emphasize their lack of belief in their skills and their confidence. As discussed in section 2.2.4, Drijvers and Gravemeijer (2005, p. 144) tells us that an artifact only becomes an instrument if the pupil has an understanding of how to use it. When pupils retake the tasks repeatedly and without any aim other than having it be good enough to continue to the next task, there is a breach with the intention of the artifact. In these instances, the pupil (user) is not using it in a meaningful way, and in these cases the tasks do not become an instrument.

Another limitation of automated assessment is that it only provides the pupils with feedback limited to how many correct and incorrect answers they have. There is no further feedback on *why* it is incorrect or what misconceptions the pupils have in their answers. Bahn (2020, p. 316) states that specific and concrete feedback contains information on what the pupil has accomplished and further steps on how they can improve. Automated assessment does give feedback on what the pupil has accomplished, but not on further steps on how to improve *their* work. In other words, the hyperlinks to *Basic Skills* are not differentiated to the specific pupil. In comparison, a teacher could identify grammatical errors and clarify misconceptions, plan and give further activities for the pupil to undertake to make greater progress.

6.4 General thoughts

Formative assessment must be an integrated part of the English subject, and in order to fulfil this mandate, it is inevitable to disregard the support that teaching materials bring, especially digital resources. However, seen as there has not been an approval form for textbooks in Norway for the last 23 years, the responsibility of assessing textbooks lies in the hands of teachers. This provides a pitfall, where teachers can end up blindly trusting that the textbooks, which in reality, as Lund (2020, p. 248) states, are a subjective interpretation of the curriculum done by the authors. It is therefore important to assess the textbooks critically, and this can be done by using guidance material provided by the NDEAT, which is explained in section 2.1. During the analysis process I made several notes on the two digital resources which will be discussed in the following subchapters.

6.4.1 Echo

In the process of identifying to what extent formative assessment is promoted in Echo, I made notes on the practicality and accessibility of the resource. First and foremost, the function of the digital resource, as a full-fledged digital resource meant to replace the printed textbook, is in my opinion impractical, both for the pupils and the teacher. The strength of digital resources is that they save the teachers' time; there needs to be no collection of papers, and the teacher can follow the progress of the individual pupils digitally and give feedback on specific tasks within the digital resource. However, Echo does not have the ability to collect the work of the pupils, and the pupils, therefore, must send their work to their teachers or peers to get feedback – see figure 12. The teacher must then access their work either by e-mail, one drive, or other digital platforms. From past experiences in practice periods, this is a flawed system. Many pupils end up never sending their work, and it is difficult to achieve the first phase of formative assessment, namely, to monitor the competence of the pupils and give effective and differentiated assessment. This also implicates and makes it difficult to achieve the third principle. The third principle of formative assessment is to find out what the pupil can achieve (Ministry of Education and Research, 2021, p. 15). By having knowledge of the competence of the individual pupil, the teacher can adapt the feedback to guide them in their learning process. The fourth principle of formative assessment is receiving guidance on how they can work to increase their competence (Ministry of Education and Research, 2021, p. 15). In my opinion I think that the practicality of the platform weakens the accessibility of the

pupils gaining feedback from their peers and teachers, as well as the teachers' ability to monitor the pupil's competence, and therefore weakens adapted feedback and the frequency of which the feedback can be given.

The tasks in Echo are mostly related to the text or video, and there were few tasks related to the texts. When conducting the thematic analysis there were several instances where I noted there being missed opportunities for self- or peer assessment. E.g., the task in the text collection: 2.1 Welcome to England task 3 – "Find information online about an English town. Make a 3-minute presentation to your partner. Include some pictures. Ask you partner two questions about his/her presentation." This would be an ample opportunity for the pupils to also assess each other's presentation give each other feedback on their learning output.

Lund (2020, p. 349) states that textbooks can prove to be a valuable resource for teachers, as if often contains lesson plans and suggestions and ideas. The strength of Echo is the vast amount of lesson plans in their teacher resource. The lesson plans can be found in section 5.1.4.1. Each lesson plan provided the teacher with what was to be assessed, and many of the lesson plans also includes how to conduct the assessment. Lesson plan 1.17 – Being a weather poet, has the aim of evaluating the pupils' poems and/or a recording of them performing their poems, as well as suggesting peer assessment during the writing process. The lesson plan further suggests that midway through the lesson that the pupils give peer assessment by discussing the questions:"how is the poem coming along so far? Which descriptions are you using? What have you compared the weather phenomenon to? How is the poem structured? What does the shape look like? Is there a clear coherence in the poem?" The lesson plans provide the teacher with a multitude of ways to facilitate self-assessment and peer assessment in teaching. It also provides the teacher with criteria and ways to perform formative assessment and can be a useful tool for both new and experienced teachers. Another example is lesson plan 2.1 which aim for the pupils to both give and receive peer assessment, as well as preform self-assessment. The lesson plan gives further instructions on how to do this and provides criteria:

"Peer assessment: The students provide oral feedback to each other while they are working on the news report in class. The feedback should enable the students to identify ways to improve the report and their oral communication skills, as well as encourage self-reflection. Self-assessment: At the end of the lesson, the students perform a self-assessment online in the learning platform. They should reflect briefly, in writing, on the following questions: How

much time and effort did you put into this report? What were your strengths and weaknesses? How might you improve your work next time? What are the most valuable things you learned from this assignment?"

The lesson plan 1.17 gives criteria for assessing the learning output of their peers and gives feedback on the task level. The lesson plan 2.1 intends the peer assessment to include feed forward, and for pupils to help each other find ways to further their learning and learning output. The lesson plan 2.1 also includes criteria for self-assessment. The criteria involve self-assessment on their learning process, learning output, and learning strategies, aswell as self-reflection on their effort. This type of criteria enables the pupils to be active in their own learning process, and promotes self-sufficiency and autonomy. However, it is a weakness that the majority of the formative assessment in Echo is placed in the teacher's recourse. The teacher chooses which lesson plans to use and can therefore end up with an unbalanced assessment practice where there is plenty of assessment done by the teacher, but a lack of self-assessment or peer assessment. The pupils do not have access to the lesson plans and can therefore not make use of this part of Echo.

6.4.2 Enter 8-10

The layout and functions of Enter 8-10 were interactive and practical. The teacher can differentiate the learning material for the pupils by assigning work that shows under "my work" for each pupil. It is therefore also possible to assign more work to the pupils that complete their work quickly, such as "dig deeper" where they can further practice writing, speaking, and creating related to the theme of the chapter. The teacher can also assign modules from *Basic Skills* in order to target specific areas of the pupils' competence. The learning modules often contain hyperlinks that guides the pupils to Basic skills, as discussed in 6.3.1.

The first phase of formative assessment is monitoring and capturing competence (NDEAT, 2021, p. 81). They state that this monitoring and capturing of competence should be done in authentic learning situations, where pupils solve tasks and reflect on their learning process. Enter 8-10 automatically saves all work of the pupil, and the teacher can see their answers and progress. This is an advantage that only comes with using digital platforms, that saves the teacher time and resources that can be used in other areas of teaching. The NDEAT (2021, p.

71) writes that a good teaching material supports the teacher and pupil in monitoring and capturing the competence of the individual pupil continuously. In my opinion, Enter 8-10 does this by providing the teacher and the pupils with a platform that compiles all their work and shows their progress.

7 Conclusion

This section will discuss the methodology used in relation to answer the thesis question. Thereafter the findings from the themes are presented as well as a final conclusion to the thesis question. Lastly, this section will present ideas for further research.

7.1 The research process

This thesis has had aim to answer the thesis question "To what extent do the English digital resources in the textbook series Enter 8-10 & Echo promote formative assessment?". This was researched using qualitative research. By selecting and considering several types of methods for analysis, I consequently chose thematic analysis as the aim was to focus on patterns, be able to analyze a great amount of data and have flexibility when analyzing. During the analysis process, I used an audit trail to strengthen the reliability of the study. This audit trail entails rich descriptions of the choices that were made and consequently allows the reader to gain further knowledge of how the analysis was conducted. The findings were placed in tables with the data being copied directly from the sources. This was done with respect to both clarity and accuracy. The findings were then discussed by using the theoretical framework of the study in order to answer the thesis question.

7.2 Findings and conclusion

There are several findings that can be discussed in regard to each theme. The theme *self-assessment* showed that there were few tasks with elements of self-assessment in Echo. The possible causes for this are discussed in 6.1. This inhibits the pupil from developing skills in self-assessment which are highly important for the pupil to assess their work, participate in their own learning and plan their further learning. In my opinion, the tasks in Echo promote self-assessment to a low degree. In contrast, Enter 8-10 had a high frequency of tasks with elements of self-assessment on learning output, learning process, and learning strategies. I argue that these tasks fulfill the first principle and third phase of formative assessment, and that Enter 8-10 promotes self-assessment to a great extent. The theme *peer assessment* showed that both Echo and Enter 8-10 provide the pupils with many opportunities to conduct peer assessment. These opportunities can help them practice their competence in assessment and further their learning. In my opinion, both digital resources promote peer assessment to a

great extent. The theme *automated assessment* showed that there were many possibilities and limitations to using automated assessment in tasks. The main possibility of automated assessment is the instant feedback it provides on task level, which can contribute to faster acquisition. Another possibility is the hyperlinks within tasks that may lead "successful pupils" to make use of the resources in *Basic Skills,* and perhaps lead them to further ask themselves the question of "where to next?". Another possibility with tasks with automated assessment is that it can free up time for the teacher to use in other areas of teaching. While the "successful pupil" may get enough assistance from the resources and further their learning on their own, the "struggling and reluctant pupils" can get more time from the teacher and adjusted feedback. A limitation with tasks with automated assessment may undermine the intention of formative assessment – which is to promote learning. "Struggling" and "reluctant" pupils may not make use of the resources, may be further demotivated by the assessment, and try over and over again without the intention to learn, and rather just finishing the task. Another limitation is that tasks with automated assessment do not include the reason for the incorrect answers nor does it deliver feedback that is adapted to the errors the pupil has made. I, therefore, find that the digital resources have many tasks with automated assessment. However, the extent automated assessment in tasks promote formative assessment is questionable. It has several possibilities as well as implications for learning. I, therefore, argue that it does promote formative assessment to some degree, but can also inhibit it.

Furthermore, in my opinion, the function of Echo is impractical for the teacher to monitor and capture the competence of the pupils. This has implications for how the teacher can give feedback and at the frequency it can be done, and for adapted feedback. Another finding, or rather a non-finding, was missed opportunities to include peer-assessment in the tasks. The resources for the teacher in Echo provide detailed lesson plans that have an explicit section for assessment, and some lesson plans also include a description of how to perform or facilitate the assessment. However, the fact that the primary weight of assessment lies in the teacher's resource is a potential pitfall. The teacher that makes use of the lesson plans may not be choosing the lesson plans based on assessment, but rather on topic or content. This can create a skewed practice of formative assessment, where the teacher can potentially use lesson plans that mostly includes assessment done by the teacher. The functions and layout of Enter 8-10 were practical and can be used in a useful way to track progress, answers and give

feedback to each individual pupil. Which embraces the first phase and the fourth principle of formative assessment.

The findings indicate that the two digital resources promote formative assessment to a differing and varying extent. The findings show that in some themes there is a big difference between the two digital resources. Thus, the research question is discussed and answered both as a whole and individually to the themes and the respective digital resource. The final concluding remark is that the findings show that Enter 8-10 promotes formative assessment to a great extent both for teachers and pupils. The pupil version of Echo promotes formative assessment to a limited extent. However, if the digital resource is used alongside the lesson plans, the teacher's version promotes formative assessment to a sufficient extent.

7.3   Further research

The topic of formative assessment in digital resources provides many opportunities for further research. This study investigates to what extent formative assessment is promoted in the digital resources Enter 8-10 and Echo. The data material was the content and functions of the platforms. The study does not include how the digital resources are used in classrooms. It would therefore be interesting to gain insight into whether the resources work as intended. This could be studied both from the teacher's and the pupils' perspectives.

Another opportunity for further research is to investigate tasks with automatic assessment. One way to conduct this research could be to look at the effects on the learning of pupils when they solve tasks with automated assessment.

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