IMPROVING STUDENTS' CRITICAL READING AND MULTILITERACY SKILLS: A material package

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Abstract - tiivistelmä

Uudet lukion opetussuunnitelman perusteet julkaistiin syksyllä 2019. Uudessa opetussuunnitelmassa painotetaan monilukutaitoa ja kriittistä lukutaitoa oppiaineesta riippumatta ja rohkaistaan oppiainerajat ylittävään opetukseen. Tämän vuoksi on aiheellista kehittää oppimateriaaleja, joissa painotetaan näitä taitoja ja mahdollistetaan integraatio oppiaineiden välillä.

Tämän materiaalipaketin tavoitteena on luoda kokonaisuuksia, joissa yhdistyy kriittinen lukutaito ja monilukutaito multimodaalisten aineistojen avulla. Tutkimuskysymys, joka ohjasi materiaalin tekoa, on seuraava: Millaisella oppimateriaalilla voidaan paremmin opettaa opiskelijoille monilukutaitoa sekä kriittistä lukutaitoa?

Materiaali sisältää ehdotuksia integraatiosta oppiaineiden välillä ja sitä on helppo muokata eri teemoihin sopivaksi esimerkkiaineistoja varioimalla. Materiaali on tarkoitettu käytettäväksi opetussuunnitelman A-englannin moduuleissa 4 ja 5.

Materiaalin teoreettinen viitekehys pohjaa New London Groupin (1996) teoriaan monilukutaidosta ja siihen liittyvästä monilukutaidon pedagogiikasta. Suomalaisessa koulukontekstissa tutkimusta aiheesta ovat tehneet esimerkiksi Sulkunen (2011) ja Leino (2014).

Keywords

Multiliteracy, critical reading, critical literacy, authentic materials, material package

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1. INTRODUCTION

Upper secondary school education in Finland has seen major changes in recent years. The current national core curriculum in use was published in 2015 and took effect in 2016. Along with the curriculum, the matriculation exam has been redesigned to be electronic instead of the traditional pen and paper approach. In 2018, the then working government of Finland passed the new law of upper secondary schools (Lukiolaki 714/2018), which made the Ministry of Education work on a new version of the core curriculum to take into account the new law. The new national core curriculum was published in November of 2019 and will come into effect for the autumn term of 2021 (Opetushallitus, 2020). The national core curriculum is the foundation upon which municipalities build their own local curriculum. In this regard, the national core curriculum is flexible. The local adaptation of the national core curriculum permits schools to take advantage of the local services and allows for more efficient cooperation with local businesses, organizations, and authorities. Schools in university cities, for example, can cooperate with the local universities and create study units that take advantage of the university's services.

As designing teaching materials is a critical part of any teachers' job, it made sense for me as a teacher-to-be to choose a material package as my thesis topic. Especially, as the new curriculum is recently published, there is a lot of freedom in designing the material as there is no pre-existing teaching material for the new curriculum. I am interested in multimodal environments and I wish to provide an interesting material package that is different from more traditional materials and study books used in Finnish upper secondary schools. The focus of this material package is in improving students' critical reading skills and multiliteracy, including media literacy, through meaningful tasks using authentic materials, with possibilities for cross-curricular integration.

The research question behind this material package is the following:

1. What kind of materials are needed to better teach students multiliteracy and critical reading skills?

The emergence of personal computers, the internet, mobile devices, and social networking sites has transformed the way media is consumed (Scolari, 2018b: 8). As Scolari (2018b: 8) says: "the former passive TV viewer is now an active user that jumps from one media or platform to

the next one looking for specific content or information". The nature of social media along with devices that are constantly online means that people are in contact with more and more information. In addition, that information is rarely a piece of writing on paper. Videos, hypertexts, and other types of texts all require a different type of literacy from the user. In education, this need for media literacy is often not regarded as a priority (Buckinham, 2018: 6). As the internet enables everyone to publish whatever they wish, there is a lot of biased or false information available on the internet. This can lead to problems if people are not able to critically assess the reliability of the information they are presented with. This material package focuses on improving these skills and to make the students aware of the different ways today's media is used to influence the public opinion.

To conclude this chapter, I will shortly introduce the content of each chapter that follows: The second chapter of this thesis starts with a description of the theoretical framework of the material. I begin by exploring how literacy has traditionally been defined and how the definition has changed through the years. Thirdly, I introduce the theories of critical literacy and multiliteracy. I also describe the pedagogy of multiliteracies.

The third chapter covers the national core curriculum and its function. I also go over the Finnish performance in PISA (the Programme for International Student Assessment) research and what implications it has had in Finland. PISA scores are discussed, because they tend to influence the discourse on the state of Finnish education system a lot. Each time the results are published they stir up a debate on whether the Finnish education system is in a downfall or not. The Finnish scores show a downward trend in literacy scores, which should be addressed with teaching materials like this material package.

The fourth chapter of the thesis goes over the framework of the material itself. The chapter contains a description of the aims and goals of the material, as well as its target group, applications, and structure. Along with the structure, I describe how the material should be used and how it can be modified. The teaching material itself can be found in chapter five. Chapter six contains a discussion on the impact this material might have and how it can be supplemented further, as well as what the shortcomings of the material are, and a conclusion.

2. THE EXPANDING CONCEPT OF LITERACY

In this section I will explore how the concept of literacy has been defined throughout the years. I will also describe the theories on *critical literacy* and *multiliteracy*, as well as their pedagogical applications.

To give a comprehensive overview of the research done on the nature of reading and literacy is an impossible task (Alderson, 2000: 1). The amount of theories of reading is simply overwhelming and there are many different aspects to reading, so successfully taking all of them account under a single theory is not likely to happen (Alderson, 2000: 1). The definition of literacy has also changed throughout the years, as Warner and Dupuy (2018: 118) note. Traditionally literacy was defined as the ability to read and write (Warner and Dupuy, 2018: 118). Both skills were considered to be separate cognitive and linguistic processes and merely acts of transferring information. In other words, reading and writing were understood as little more than acts of transferring information. An example of this view is how Linnakylä (1990: 3) defines basic literacy: as the ability to both read and write texts. In the latter half of 1990s both reading and writing were seen as more interconnected modes of communication. This change prompted language teachers to focus on improving their students' analytical and conceptual abilities, rather than simply focusing on comprehension and functional use of language (Warner and Dupuy, 2018).

With the technological advances during the 20th century, literacy as a concept has been expanded to better suit all the new aspects of media. Scolari (2018a: 12) describes, how literacy first expanded to *digital literacy*, then *new media literacy* or *multimedia literacy*. These advances in technology have made speaking and writing in a second language more important skills in education and business (Weigle, 2002: 1). Next, I will describe the newer literacy concepts that are relevant to this material package.

Buckingham (2018) mentions *media literacy* as an example of a new type of concept. He argues for the need of media literacy education programmes. Scolari (2018a) shares this view and expands on it, calling for *transmedia literacy* education. Transmedia literacy expands on the concept of media literacy and focuses on the media practices that are developed outside formal education settings (Scolari, 2018a). The new media technologies, practices and forms have presented the users with freedom of self-expression and new ways of communication that, as Buckingham (2018) points out, blur the boundaries between public and interpersonal communication. Media companies that provide these services also use them to gather and sell data of their users. This, along with the emergence of 'fake news', online abuse and threats of

privacy requires a new form of media literacy education (Buckingham, 2018). Scolari (2018a) proposes *transmedia literacy* as a substitute for media literacy. He argues that media literacy is not extensive enough in today's context. The reasoning behind his idea is the following:

Is it still possible to talk about 'media literacy' in a context where the broadcasting (one-to-many) model is being displaced by the network (many-to-many) communication paradigm? (Scolari 2018a: 14).

New types of media producing, sharing, and consuming practices call for more than just the critical analysis of media that media literacy entailed (Scolari 2018a: 14). Scolari (2018a: 14) identifies the difference in how media is consumed by pointing out that instead of being passive consumers, people are active subjects creating new content and sharing it in different digital applications and networks. The new types of literacy skills needed to create and share content in a social media platform are diverse: one has to know how to set up an account on the platform, how to use the software associated with it, as well as knowledge on what type of content is expected and associated with the platform (Scolari, 2018a: 14).

2.1 Critical literacy

Critical literacy as a term was introduced by social critical theorists who were concerned about social injustice and inequality (Bobkina and Stefanova 2016: 683). Critical reading, or critical literacy, has recently become an important theory in the educational field. However, it lacks consistent strategies that can be applied to teaching (Behrman 2006: 490). Behrman (2006: 491) also mentions that putting the critical literacy theory into practice is a demanding task, requiring innovative solutions. To demonstrate what solutions other teachers have come up with, he set out to research what kinds of classroom practices can be found when searching for critical literacy in four different electronic databases. He divided the findings into six different categories:

- 1. reading supplementary texts
- 2. reading multiple texts
- 3. reading from a resistant perspective
- 4. producing countertexts

- 5. conducting student-choice research projects
- 6. taking social action (Behrman 2006: 492)

Behrman also mentions that in many of the cases activities were merged, so that students were engaging in more than one type of activity at a time. Next, I will describe what kinds of activities each category included in detail.

Supplementary text -based activities involved supplementing the traditional classroom texts by works of fiction, nonfiction, popular culture or even films. Supplementary texts can be used to provide students with texts focusing on important social issues, or to give them better understanding of the underlying environmental or political issues for example (see for example: Houser, 2001; Bean & Moni, 2003; Johnson & Ciancio, 2003).

Reading multiple texts -approach centred on reading multiple texts on the same topic. In one of the examples, an article from Spires (1999), students were provided with five different versions of the popular fairy tale "Little Red Riding Hood". The students' task was to read them and describe which character's values were being promoted in each of the texts.

Reading from a resistant perspective involves asking the students to assume a new identity before reading the text. Different identities, based on gender, class sexuality or religion for example, influence how the text is received (Foss, 2002; Young 2001).

Behrman (2006: 494) describes countertexts as "a student-created text that presents a topic from a nonmainstream perspective". Some examples of countertexts include reading logs or journals (Hanrahan, 1999; Young, 2000).

Student-choice research projects emphasize the students' role in choosing a topic. Behrman (2006: 495) points out that the students' everyday events are worthy of academic study. Behrman notes though, that in order to be effective, students need to do more than simply select a topic and find library books or websites on it. The students will have to reflect upon the social and cultural forces that are affecting their topic, for this approach to be effective.

Taking social action means that students engage in projects that try to make a real impact in their own or others' lives. In student-choice projects, the idea was to take important issues from the students' own lives and research them in a school setting. In this approach, however, the idea is to move a real-life issue beyond the school setting (Behrman 2006: 495). Boyd (2017: 97-98) notes that these projects gives students a lot of responsibility and power compared to

traditional classrooms. The teacher needs to act as a guide to the students and help with the decision-making, as well as giving them the proper tools needed to complete the project. The school strike for climate -movement of recent years can be seen as a good example of what students can achieve, even though it did not start as a teacher-led project (see e.g. Carrington, 2019).

2.2 Multiliteracy

The term *multiliteracy* was introduced by New London Group in the year 1996. The group consisted of ten scholars from the fields of language, teaching and literacy. They gathered at New London, New Hampshire for a week, and discussed their views on how to approach literacy teaching and pedagogy in the quickly changing near future. They decided to summarize the outcomes of their discussions with the word *multiliteracy*. Their main argument is that literacy, in the traditional sense, is not enough to describe the skill needed to interpret the different modes of text available. *Multiliteracies* includes two 'multis' together with literacy: "the 'multi-' of context differences and communication patterns and the 'multi-' of multimodality (New London Group, 1996). As an example of contextual and cultural differences they give an Aboriginal community, where the visual mode is much more powerful than 'mere literacy' (New London Group, 1996: 4). They reasoned that the different technologies and types of communication allow for and require varied form of expression. Members of the group have continued to work on the theory. Gee (2009), one of the members of New London Group, suggests that there is a need for a new New London Group. Since the original group consisted of mainly baby boomers, the new New London Group should be composed of much younger scholars, who are more in touch with the modern world. Provenzo et al. (2011: xx) set out to explore different literacies found in contemporary culture, much in the same way as the original New London Group. Their view of multiliteracies is the same as New London Group's and they ended up debating if they should use 'alternative literacies' as a term instead of multiliteracies. However, in order to link their work to the work of New London Group, they ended up choosing multiliteracy as well.

There are many different ways to define what literacy is these days. However, the definitions are quite close to what New London Group originally came up with. Below are two more definitions of modern literacy. For a discussion on how literacy is viewed in the material package, see chapter 3 in the current paper.

Leino (2014: 63) describes modern literacy as follows:

Literacy is no longer defined as the ability to read and write traditional texts but also as a competence to speak and listen, to switch codes, to recognize numbers, signs, animations and various types of symbols, including visual and audio ones.

Westby (2010: 65), applies the term literacy to different contexts in the following way:

Visual literacy: The ability to understand and produce visual messages.

Computer literacy: The ability to use a computer and its software to accomplish practical tasks.

Media literacies/technology literacy: Literacies in digital mediums and on the Internet, involving

hypertext, multimedia, and electronic forms of communication.

Cultural literacy: The ability to understand and appreciate the similarities and differences in the

customs, values, and beliefs of one's own culture and the cultures of others.

To demonstrate the skills required to process contemporary texts, let us have a look at hypertext, a type of text that is common in internet documents. Provenzo and Goodwin (2011) state that reading hypertext demands more from the reader than a traditional text. Where in a traditional text the author decides on the pattern of reading, in hypertext the reader is the one making the choices. When reading an internet document, the reader needs to "be able to navigate across multiple screens or windows, using parallel processing, pattern recognition, and strategic thinking." (Provenzo and Goodwin, 2011: 4). Some amount of technological competence is required as well and the reader's ability to process hypertext improves as their computer literacy improves. For example, using ctrl + f on a PC to search for keywords in a document or internet site makes finding the relevant information much easier.

Computer literacy is needed more and more in Finnish schools these days. In 2015, the Finnish government, then led by PM Juha Sipilä, introduced their plan to make Finland a top country in digital learning. Their objective was called 'the digital leap' (digiloikka). This, and the digitalized Finnish Matriculation Examination (changed to entirely digital in 2019) has led to an increasing need in computer literacy for students. In fact, von Zansen (2019) found out that the implementation of visual input along with the audio in a listening comprehension test might have disturbed the listening process, while the overall results did not differ significantly between audio-visual and only audio-based testing.

2.3 Pedagogy of multiliteracies

New London Group (1996) started on the pedagogy of multiliteracies and have since developed it further, both individually and as a group. Cope & Kalantzis (2009) note that the original theory of the group has stood the test of time. At the same time, they acknowledge that the vast changes that have occurred in society require them to update the examples, language and pedagogical agenda of the theory. Thus, a new type of pedagogy is needed: a pedagogy of multiliteracies. To explore the requirements of the pedagogy, they analysed the questions of "why", "what" and "how" of multiliteracies. According to them, the "why" of multiliteracies has to do with the changes in meaning making and representation in different modes of literature used in working life, citizenship, and personal life. These changes force us to reconsider our pedagogical approach to literacy teaching and learning (Cope & Kalantzis 2000, 2009). As for the question of "what", they argue that with the increasingly multimodal way of presenting information, traditional alphabetical literacy needs supplementing.

The pedagogy of multiliteracies can be applied to teach students to read and write multimodal texts, which integrate language with the other modes (Cope & Kalantzis 2000, 2009). To answer the question of "how", Cope & Kalantzis (2000) began analysing the limitations of the traditional way of teaching literacy by transmitting rules of language from literary models (*overt instruction*). They compared this to the progressive application of the immersive learning model, mostly used in oral language learning, to literacy learning (*situated practice*). Their suggestion is that the pedagogy of multiliteracies would compile a variety of different pedagogical approaches, including both overt instruction and situated practice, supplemented with what they call *critical framing* and *transformed practice* (Cope & Kalantzis, 2000: 33-36). Their application is discussed in more detail below. Later, they added 'knowledge processes' to the pedagogy to make them more instantly recognizable. (Cope & Kalantzis, 2015). Below is a description of the original aspects of the pedagogy and the connected knowledge processes in parentheses.

Situated practice (experiencing): Connecting the topics of the material to out-of-school world of students. Behrman (2006), as mentioned earlier, provided examples of student-choice research projects that can be classified as situated practice. In those projects, students would take an issue from their own everyday life and research it in school setting. Gee (2004: 10-12) speaks for situated language learning. As reading in schools has traditionally been an instructed process, he advocates for a more cultural process. Reading as a cultural process means that the

students adopt reading as part of their everyday culture, e.g. it is normal to read. In this way, the process of reading is much more pleasant and learning more efficient. He names, for example, the language used in video games and Pokémon cards as a source of cultural learning processes. According to him, in order to learn and use any aspect of language, learning situations have to be *situated*, e.g. the examples and situations of use have to be from the students' own lives. Teachers are then responsible for guiding the students into paying attention to the right details of language use in these situations (Gee 2004: 106). Cope & Kalantzis (2009: 185) divide experiencing further into two categories: *experiencing the known* and *experiencing the new*. Experiencing the known means that the learners reflect on their own experiences and "bring their own, invariably diverse knowledge, experiences, interests and life-texts to the learning situation". Experiencing the new means that learners are reading new texts and are exposed to new information. However, the information should be close to what they already know, so that the students can draw new meaning based on their previous knowledge (Cope & Kalantzis 2009: 185).

Overt instruction (conceptualizing): The traditional way of teaching literacy, by transmitting the rules of language from existing literary models. However, it is not a passive process. Learners are active, drawing generalizations from examples. Again, there are two ways to perform the process. Coceptualizing by naming means drawing distinctions from similarities and differences and naming and categorizing concepts. Conceptualizing with theory means that students make generalizations and build frameworks and schemas that enable them to make sense of the information patterns (Cope & Kalantzis, 2009: 185).

Critical framing (analysing): Once again, Cope & Kalantzis (2009: 185-186) define different types of analysing strategies: "Analysing functionally includes processes of reasoning, drawing inferential and deductive conclusions, establishing functional relations such as between cause and effect and analysing logical and textual connections". Second type of strategy is analysing critically. This type of analysis involves analysing one's own or others' perspectives, motives and interests on a subject. This definition is in line with Behrman's (2006) definition of critical literacy, as presented earlier.

Transformed practice (applying): Cope & Kalantzis (2009: 186) identify two ways of applying: 'Applying appropriately', which "entails the application of knowledge and understandings to the complex diversity of real-world situations and testing their validity". The other type is applying creatively, which means making an intervention in the world by taking action, in the

same way as what Behrman (2006: 495) called "taking social action". Below is a picture to illustrate the multiliteracies pedagogy and the associated knowledge processes (Cope & Kalantzis 2015: 5)

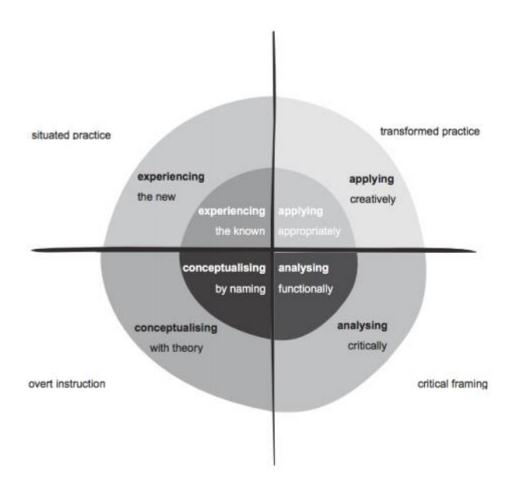


Figure 1: Original multiliteracies pedagogy against the 'knowledge processes' (Cope & Kalantzis 2015: 5)

Warner and Dupuy (2017: 121-122) identify the challenges of implementing literacy with FL teaching programs. The first obstacle they identify is the education of foreign language teachers. Since new teachers graduate with a background in more traditional, less literacy-oriented schooling, it is tough to implement multiliteracy pedagogies. Warner and Dupuy (2017: 121-122) suggest that new teachers should be given chances to reflect on the discrepancies between their educational background and current multiliteracy frameworks. The second challenge is found in teaching materials themselves. The emphasis on grammatical content and the fact that many of the texts are not meaningful to the students hinder the implementation of multiliteracy pedagogies. The main function of the texts is usually to integrate the target grammar and vocabulary content in an authentic context. This forces teachers to search for authentic and

meaningful materials outside of the textbooks. Thus, it is crucial that novice teachers learn to develop their lessons and supplement the existing textbooks to create more multiliteracy-oriented lessons (Warner and Dupuy 2017: 121-122).

However, in the Finnish educational context the textbooks and the curriculum itself do take multiliteracy into account. This does not mean, however, that there is no room for improvement in the Finnish educational context. Kallionpää (2014) points out that it is crucial that the Finnish multiliteracy pedagogy should see students primarily as active social participants and producers of text, instead of just recipients of different media. Her concern is that teaching writing skills may be lacking if the focus is mainly on teaching reading and text interpretation skills. Pentikäinen et al. (2017: 158) reflect this view and point out that the knowledge gap between students and between different genders are growing. Also, they mention that the discussion around writing skills has been overshadowed by the literacy discussion sparked by Pisa research. Pentikäinen et al. (2017) also note that in Finland reading and writing skills have been regarded as separate skills as opposed to cultures where the term *literacy* covers both of those skills.

3 NATIONAL CORE CURRICULUM FOR UPPER SECONDARY SCHOOLS 2019

In this section, I cover the purpose of the national core curriculum, as well as the main theories regarding learning and teaching that are presented in the curriculum and how they tie in with the theories discussed earlier in this paper. I will also take a closer look at how multiliteracy is present in the curriculum and point out how it relates to the theories described earlier. I go over the specified learning goals, assessment criteria and themes that the curriculum sets for English as a foreign language learning. Finally, I describe how literacy has been defined in Finland and cover the implications of PISA research results in Finland and it has shaped the Finnish education.

3.1 Purpose and function of the curriculum

The purpose of the national core curriculum is to create a shared framework of learning goals, shared themes, and assessment criteria, accompanied with descriptions to make applying them

easier (LOPS 2019: 13). This way, upper secondary school education is standardised throughout the country. Municipalities then create their own local curriculum based on the national core curriculum (LOPS 2019: 13). The local curriculum provides flexibility to municipalities and allows them to tailor the curriculum to benefit from the local services. For example, schools in university cities can take advantage of the universities' services by including cooperation with them in the local curriculum.

The new curriculum has moved from set courses to modules, meaning that schools have more flexibility in creating larger cross-curricular study units. The new curriculum emphasizes the support provided to students. Each teacher is now responsible for providing support for individual students. Teachers feel optimistic about the change but are calling for more resources to be successful (Hongisto 2019).

The curriculum states that teaching aims to improve the students' multiliteracy, allowing them to understand the specific languages of arts and science. According to the curriculum, multiliteracy is the basis of foreign language learning and the texts used in teaching are multimodal, written, spoken, visual, audio-visual or a combination of them (LOPS 2019: 174). This view reflects the views of New London Group (1996). The teaching of foreign languages progresses from everyday language use towards more academic language skills. The students' metalanguage skills and awareness are improved, which helps them in improving their multilingual competences (LOPS 2019: 174). The different foreign languages are expected to cooperate amongst themselves and with other subjects to create cross-curricular connections between topics.

3.2 Multiliteracy in the curriculum

Multiliteracy and its' derivatives appear in the curriculum a total of 85 times. In this segment I will describe how the curriculum views multiliteracy and compare it with the theories presented earlier in this paper.

The curriculum begins with a general description of the contents of the curriculum itself and the process of creating the local curriculum, followed with a description of the theoretical pedagogical background. The second chapter of the curriculum is devoted to the objective and values of upper secondary school education. Third chapter focuses on how the education is carried out. Here, it is stated that every teacher is responsible for teaching their own subject's

language and multiliteracy skills (LOPS 2019: 23). This is also the first mention of multiliteracy in the curriculum.

The fourth and fifth chapter focus on student counselling and assessment, respectively. The curriculum states that each student is entitled to adequate personal and study related counselling, as well as guidance on applying for higher education (LOPS 2019: 27). Further exploration into this chapter is not relevant to the topic at hand, so I will move on.

On assessment, the curriculum states that the two major goals of assessment are to support and guide learning and to make achieving learning goals apparent (LOPS 2019: 45). The curriculum embraces both formative and summative assessment. Formative assessment to support and guide the students' learning and summative to make the students aware of what learning goals they reached (LOPS 2019: 45). When assessing a single study period, the curriculum states that students need to receive enough supporting feedback during the period, so they can improve their studying accordingly during the period (LOPS 2019: 46).

The sixth chapter discusses the general aims and the pedagogical background of the curriculum before moving on to more detailed aims and themes for each subject. Firstly, teaching should improve students' multiliteracy so that they are proficient in different content areas' literacy (LOPS 2019: 58). Teaching should also aim to improve their motivation in researching, interpreting, and producing different types of texts. The curriculum also suggests how multiliteracy skills can be improved. The students learn interaction skills together in cooperation and in different environments, which in turn improves their language awareness and multiliteracy skills (LOPS 2019: 61-62). It is also mentioned, that multiliteracy is based on a broad definition of text. (LOPS 2019: 63) This is exactly what New London Group (1996) originally pointed out. Finally, before moving on to specific subjects, the curriculum ties multiliteracy together with the students' global competences. More specifically, students improve their global competences and multiliteracy by utilizing culturally and linguistically heterogenic networks, medias and source materials while studying (LOPS 2019: 65).

Curiously, multiliteracy per se is not directly mentioned in EFL section of the curriculum. However, the different aspects of multiliteracy are focused on in different modules. The curriculum goes more in-depth here as opposed to the rest of the subjects. Rather than using the umbrella term multiliteracy, the specific aspects of multiliteracy are more explicitly stated. The larger theme for the first two modules is the role of English as a lingua franca. The students observe themselves as language users and create a language profile for themselves, identifying

their strengths and weaknesses, as well as their own learning habits. This creates a solid base on which further learning can be built on. From module three onwards, the attention shifts more towards what different text types require. From here on, multiliteracy is focused on a lot. The texts are varied, presented in different modes and in different contexts, some more formal and some informal.

Compared with the curriculum from 2015, not much has changed in the A-level English as foreign language section. The changes are mainly in the titles of the modules and in the more detailed description of the aims of different modules. The larger changes are present in other areas, such as the general description of the aims of foreign language teaching. In my BA thesis, I went over the EFL and foreign language sections on the 2015 curriculum, see Pyöriä (2016) for a thorough analysis on it.

Multiliteracy is present among other subjects as well. The context revolves around how the different texts and modes of the specific subjects help the students in expanding their multiliteracy and the associated skills. For example, in arts teaching, students improve their visual literacy, which is one part of multiliteracy as stated before. In chemistry, multiliteracy is improved by analysing and producing various videos, models, simulations, tables, and graphs (LOPS 2019).

3.3 Literacy and PISA results in Finland

In this section, I will present how literacy is viewed in Finland, to provide background for the material. I will also discuss the implications of the PISA research results in Finland and discuss Finland's performance in recent PISA surveys to show the need for materials such as the present one.

Finland has in the past been a model country when it comes to traditional literacy. The Finnish school system, public libraries and strong literary culture have all done their part in making Finnish citizens adept readers (Koskimaa, 2018: 3). As for the spread of electronic media, Finland has been slow compared to other western countries. It took until the 1980's for cable and satellite tv and commercial local radio to spread across the country (Koskimaa, 2018). While Finland was late to the party when it comes to tv channels and radio stations, it was one of the first to take advantage of emerging information technology. With companies like Nokia leading the way, Finland became one of the most advanced countries in the IT department and

citizens were quick to take advantage of the internet and its services. According to Koskimaa (2018), the quick shift from traditional media to internet-based media might explain the lack of transmedia literacy in Finland. It could be said that Finland sort of skipped the period dominated by television and shifted straight to internet-based media. Sulkunen (2011) points out that Finns do not, however, use the internet more than what is the OECD average. Next, I will take a look at Finland's performance in the PISA research over the years, to demonstrate why new materials and approaches to literacy teaching is needed.

PISA research is a survey of 15 year-old-students that focuses on reading, mathematics, and science. The research is organised by the OECD (Organisation for Economic and Cultural Development). Finland has been one of the top countries each year in the research and in 2003 Finland had the best performance among all OECD countries in literacy (Välijärvi et al. 2007). The top contributing factors for Finland's success, according to the research, were student's informal activities and interest in reading outside the formal school setting (Välijärvi et al. 2007). The strong Finnish performance in PISA research through the years has been used as an argument defending the Finnish school system in the public debates mentioned earlier. According to Sulkunen (2011), the Finnish curriculum reflects the focus of the PISA research, by focusing on improving the students' ability to apply their knowledge and the skills they need in their lives. This might explain the good Finnish performance in the research. Excellent PISA results reflect that Finnish youth are able to analyse and interpret texts in different contexts and can assess the reliability of the texts well, when the skills are compared internationally (Sulkunen 2011). Finnish PISA scores have been on a decline since 2006, however. Sulkunen (2011: 43) notes that the decreased interest in reading, as well as the declining use of printed media is one of the main culprits for the reduced scores.

The latest PISA research was carried out in 2018, with reading literacy as the main assessment area. Finland ranked 7th overall in mean score in reading (or 5th if the different provinces of China are combined as one). Only Estonia ranked higher in reading scores from European countries and Canada was tied with Finland with 520 points (OECD 2019). Finland scored higher than the OECD average in all three categories. Despite the high overall score, there are some issues in the Finnish education that can be drawn from the scores. First and foremost, students with immigrant backgrounds were at a disadvantage in Finland. The average difference in reading performance between non-immigrants and immigrants was 92 points (OECD 2019). Another alarming variable to consider is the gender gap in the results. Finland has one of the highest differences in reading performance between girls and boys, with girls outperforming

boys by over 50 points (OECD 2019). The socio-economic status of students was also a contributing factor to the scores, with the socio-economically advantaged students performing better. The difference, however, was not as large as in other OECD countries on average (OECD 2019). Finally, the amount of excellent readers stayed on the same level as previously, but the amount of weak readers saw a significant increase, with around 14% of the pupils failing to reach level 2 (OECD 2019). This is alarming, because level 2 is considered to be the lowest threshold for being able to study and take part in society (Ministry of Education and Culture, 2019). Overall, it can be said that while Finland still performs rather well in PISA tests, the negative trend in the scores throughout the years, as well as the problems mentioned above mean that there still is work to do in improving the Finnish school system. Materials such as the present package can be used to improve the reading skills of all readers, weakest readers included.

4. FRAMEWORK OF THE MATERIAL PACKAGE

4.1 Aims / goals

The current material is aimed to be used when teaching modules four and five, titled "ENA 4 Englannin kieli vaikuttamisen välineenä" (English language as a medium for influencing) and "ENA5 Kestävä tulevaisuus ja tiede" (Sustainable future and science), respectively. Both modules are two credits in length. Two credits covers 38 45-minute-long classes (LOPS 2019: 9). However, most upper secondary schools in Finland have implemented 75-minute-long classes, so the activities are planned with that in mind. Individual parts of the material can be used when teaching other modules as well, however, the material is meant to be used primarily when teaching modules four and five. The contents and themes of the modules are described below.

Module four:

• Moduulin tehtävänä on kehittää ajattelu- ja opiskelutaitoja harjoittelemalla kriittisiä luku- ja tiedonhankintataitoja sekä niihin pohjautuvia soveltamisen ja tuottamisen taitoja. Moduulissa tarkastellaan osallisuuden, aktiivisen toimijuuden ja demokratian rakentumista englannin kielellä kielellisesti, kulttuurisesti ja katsomuksellisesti monimuotoisessa maailmassa.

Tavoitteet

- Moduulin tavoitteena on, että opiskelija
- tutustuu medioissa esillä oleviin ajankohtaisiin aiheisiin ja niiden taustoihin
- kehittää taitojaan ilmaista ja arvioida mielipiteitä sekä argumentoida tiedon perusteella
- hyödyntää erilaisia tietolähteitä, oppimisympäristöjä ja tapoja tuottaa tekstejä.

Keskeiset sisällöt

- vaikuttaminen kansalaisyhteiskunnassa
- ihmisoikeuskysymykset, tasa-arvo
- yksilön vastuut ja velvollisuudet, sananvapaus
- neuvottelemisen taidot (arkiset–institutionaaliset)
- median rooli asenteiden muokkaajana (LOPS 2019: 182)

Main points in English (translated by author, official English language version of the curriculum due in August 2021):

• The purpose of the study module is to train critical reading and information seeking skills. Active citizenship and the foundation of democracy in a multicultural world is reviewed.

Objectives

- The purpose of the module is that
- students familiarize themselves with topical subjects and their backgrounds in the media
- improve their arguing based on facts and improve in voicing their own opinions
- make use of different information sources, learning environments and ways of producing text

Themes

- influencing in society
- human rights questions, equal rights
- responsibilities and rights of the individual, freedom of speech
- arguing skills (everyday institutional)
- the role of media in molding public opinion

Module five:

 Moduulin tehtävänä on syventää opiskelijan tiedonhankinnan taitoja, erityisesti lähteen luotettavuuden tarkastelun näkökulmasta, ja vahvistaa hänen tekstin tulkitsemisen ja tuottamisen taitojaan. Tehtävänä on myös vahvistaa opiskelijan taitoja esittää kysymyksiä ja etsiä vastauksia tai hahmotella ratkaisuja itsenäisesti ja ryhmän jäsenenä.

Tavoitteet

- Moduulin tavoitteena on, että opiskelija
- oppii käyttämään asiayhteyteen sopivia lukustrategioita ja tiivistämisen taitoja
- kehittää taitojaan raportoida jäsennellysti havainnoista itseään kiinnostavista aiheista yksin ja ryhmässä.

Keskeiset sisällöt

- opiskelijoita kiinnostavat tiedon- ja tieteenalat
- erilaiset tulevaisuudenvisiot
- kestävää tulevaisuutta rakentavat innovaatiot; mahdollisuudet ratkaista monimutkaisia ongelmia
- yleistajuiset tekstit, lähdekriittisyys
- englanti tieteen kielenä, tieteellisen tekstin piirteet (LOPS2019: 183).

Main points in English:

• The purpose of the module is to improve students' information seeking skills, especially regarding the credibility of the sources used. The purpose is also to strengthen their text interpretation and producing skills. Finally, the purpose is also to help students pose questions and seek answers when working to find solutions individually and as group members.

Objectives

- The aim of the module is that students
- learn to employ correct reading strategies and learn to summarize information
- improve their skills on reporting their observances on topics they are interested in, both individually and
 in groups.

Main themes

- science and information branches that students are interested in
- visions of the future
- innovations that build sustainable future and possible solutions to complex problems
- popularized texts, source criticism
- English as language of science, basics of scientific text.

The present material is meant to supplement other study materials, rather than replace them entirely. The material is not extensive enough to teach an entire course by itself and should be used alongside other materials. The exercises can be used separately, as quick warm-up exercises in start of lessons, or as more complete units covering multiple lessons. The curriculum offers possibilities for CLIL -teaching and this is noted in the material. There are suggestions for possible subjects to integrate the present material with.

The aim of the material is to improve students' literacy and critical reading skills. The different modes of text present in the material all require different types of reading skills. The various skills required to critically interpret the meaning and motives behind the texts is the biggest priority of the material. The material aims to be as authentic as possible, meaning real-life issues

that are close to the students' own lives. Teachers are encouraged to find newer examples and to tailor the tasks used to better fit their students' lives.

4.2 Target group

The material is aimed at upper-secondary school students. The target modules are the fourth and fifth in the curriculum, so students studying them are usually at the end of their second year or beginning of the third year, meaning that the students are generally 17 to 19-year-olds. Their English language skills are at this point rather advanced. The curriculum uses a modified version of the CEFR (*Common European Framework of Reference*) scale, previously called the Language Proficiency Scale in the English language versions (see LOPS 2016, for example). The curriculum sets the target competence level of the students in at the end of upper secondary school to B2.1 on all categories (interaction skills, text interpretation skills and text producing skills) of the scale (LOPS 2019: 177). With that in mind, it is reasonable to expect the students' competence level to be at least around B1.1 on the Language Proficiency Scale by the time they encounter the modules the material is targeted at.

4.3 Structure of the material

The material begins with a foreword including instructions on how to use the material. The material itself is divided into two units by their topic.

Teachers can use the material as it is. However, since the curriculum is not in effect yet as of writing this material, the example cases used in the material might be outdated, and thus unfamiliar to the students at the time of using the material. Teachers are encouraged to search for more relevant and contemporary examples to make the tasks more authentic. Each task that features a specific example, such as a news story, also has guidelines for the teacher to help them find timely examples. The material includes the 'framework' or requirements for the examples used to help teachers search for more relevant examples. The exercises of the material can be used separately, instead of using the entire units.

4.4 The concept of literacy in the material package and the terms used within it

Literacy is a difficult concept to define and it has seen its definition change many times during the 20th and 21st century. In this chapter I will shortly describe the terms that I have chosen to use within the material and what I mean with them.

Multiliteracy is used in the sense that New London Group (1996) originally defined it while taking into account the later updates to the theory by Cope and Kalantzis (2000, 2009, 2015). The national core curriculum defines multiliteracy similarly to NLG. Multiliteracy should be thought of as an umbrella term that covers all aspects of the literacy skills needed today.

With critical reading I mean the ability to read and decipher the meaning and motives behind texts. The theories regarding critical reading usually speak of critical literacy. Texts can be in different modes (spoken, visual, written etc.). Critical literacy ties with multiliteracy, since multiliteracy is needed when working with multimodal texts.

5. The material

5.1 Introduction and instructions

Critical literacy has always been an important skill. Texts are everywhere and they are used to influence public opinion on topical issues daily. Being able to critically assess the goals of the writer and the text itself is important. In the 20th century, especially during the World Wars I & II and Cold War, state propaganda aimed to unite the people of a country to fight a common foe and at the same time tried to influence the public opinion of the other side to their favour. These days, the propaganda posters and texts of that era are easy identify as such and they might not seem like they are very believable. Propaganda is still used, but its' form is different and harder to distinguish from regular content in the media.

For example, during 2019 the people of Hong Kong held protests that lasted for months. The people were protesting new laws which were threatening Hong Kong's autonomous status. As the protests had lasted for months, and as videos and pictures of the protests circulated in the media around the world, China took to advertising to swing the public opinion to their side. In September 29, Finland's largest daily newspaper, Helsingin Sanomat, ran an ad covering the

entire front page that was paid for by the Government of Hong Kong. The advertisement tried to convince the reader that the issues in Hong Kong were difficult to solve, but that the government was doing everything it could to reach a peaceful solution. As the situation was a hot topic in the media at the time, a critical reader could analyse the purpose behind the announcement and realize that it tried to downplay the issues. The same advertisement was run in Sweden, on the front page of Sweden's largest newspaper, Dagens Nyheter, around the same time.

Using the material is simple. To complete most of the tasks, students either need a computer or a mobile device with internet access, or the teacher can print out the articles beforehand. To make learning more efficient, I advise teachers to find out what their students' idea of critical literacy is before using the material. What skills and techniques are associated with critical literacy? What does it mean to read critically and why is it important? Based on their students' perspectives, teachers are then able to use the parts of the material that best suit their own groups of students and modify other parts to better suit their students. The material kicks off with questions for students that can be used to find out what they think of critical literacy and the associated skills. Students can answer the questions by themselves, or they can be used as prompts for group discussions. There is also a short self-assessment for the students on critical literacy and multiliteracy. If the material is used as a cohesive unit spanning multiple lessons, the self-assessment can be used in the beginning of the unit and again at the end. This will make students aware of their progress and if they could still improve in some areas. Any part of the material can be used to supplement other study materials used in the classroom. If only an individual part of the material is used, using the self-assessment is not necessary. Unit two has suggestions for possible cross-curricular integration if teachers wish to integrate the material into cross-curricular teaching.

5.2 Self-assessment

Self-assessment should be used after going through the intro questions collectively. The self-assessment is on a Likert scale where 1 = completely disagree and 5 = completely agree.

Intro questions:

• What is critical reading and how does it differ from "regular" or normal reading?

• What is multiliteracy (monilukutaito)? How do you understand the concept?

• '	Where is crit	ical reading ne	eeded? What a	about multilite	eracy?	
Self-ass	essment (1 C	Completely dis	agree, 5 comp	oletely agree):		
- I know	how to che	ck information	ı from multipl	e sources		
	1	2	3	4	5	
- I can d	lecipher info	rmation from a	a video or and	other multimo	dal source as w	ell as from a text
	1	2	3	4	5	
- I can a	ınalyse grapl	ns and statistic	s and their rel	ation to a text	well	
	1	2	3	4	5	
- I can t	ell fake news	s from real one	es			
	1	2	3	4	5	
- I can a	ssess the cre	edibility of the	source of the	information		
	1	2	3	4	5	

5.3 Unit 1: News

Equipment needed: Students need a computer or mobile device with internet access, or teachers can print out the articles.

To start this unit off, describe the concept of fake news and explain the difference between *misinformation* and *disinformation*. Asking the students to describe what they think of the concepts is a good way to start as well. Below is a brief summary of the emergence of the term fake news and the terms misinformation and disinformation.

The subject of fake news has become more mainstream, especially after Donald Trump was elected the president of the United States in 2016. Throughout his campaign he kept calling unfavourable reporting of him in the media "fake news". This led to the term being used very widely. Of course, the concept of fake news or false information spread as though it is a fact is nothing new. However, through social news, both fake and real are spread faster than ever. When the Covid-19 pandemic spread throughout the world in 2020, the internet was full of information, both correct and false, regarding the pandemic. World Health Organization calls this phenomenon an *infodemic* (WHO 2020).

There are two types of fake news though: on one hand news can contain misleading or false information, because the journalist failed to check the facts properly. On the other hand, the piece of news may be purposely written to contain false information, in order to affect the public opinion on different matters. Vehkoo (2020) calls false information due to an error on the journalist's part *misinformation* and purposely written false information *disinformation*.

5.3.1 Misinformation or disinformation?

To begin this activity, divide the class into small groups or pairs, before giving the students the articles to read and discuss in their groups.

In December of 2019, news circulated in media outlets around the world how the Finnish government, led by the new PM Sanna Marin, was moving forward with plans to implement a four-day working week. **Task:** Take a look at this recap by David Mac Dougall of News Now Finland on how this piece of news spread as a fact. Browse through the articles linked in Mac Dougall's article as well.

https://newsnowfinland.fi/politics/how-finlands-fake-four-day-week-became-a-fact-ineuropes-media

Analyse the language of the British media headlines mentioned in the first part of the News Now Finland report. What kind of words are used to report the story? How sure are they of Finland's plans to introduce a four-day work week? How do the articles describe Sanna Marin?

For the second article, have the students read through this piece of news, this time of a quote that Sanna Marin never said:

https://newsnowfinland.fi/domestic/thousands-share-sanna-marins-fake-donald-trump-quote

Discussion: Which type of fake news are these two instances? In other words: is the article misinformation or disinformation?

5.3.2 Native advertising

Native advertising is an increasingly popular form of advertising, especially in different social media platforms. Sponsored or promoted content that blends in with the regular content flow of the platform is one example of this. On social media platforms, the content usually has a *promoted* or *sponsored* tag associated with it. In newspapers, native advertising is usually in the form of an *advertorial*, which resembles an objective news article, but is in fact an advertisement. Schauster, Ferrucci and Neill (2016) state: "Native advertising's effectiveness lies in its ability to look like content produced by journalists". They point out the ethical concerns associated with this kind of advertising and how it can diminish the credibility of journalism. Campbell and Marks (2015) state that native advertising is most effective when the source (i.e. the entity paying for the advertisement) is clearly stated, instead of trying to be deceptive by hiding the source. They fear that if customers see through the deception, they get angry, which might lead to controversy.

Exercise: https://www.nytimes.com/paidpost/netflix/women-inmates-separate-but-not-equal.html (20.08.2020).

Browse through the story (reading time 5-10 minutes + two 5-minute-long videos). For a quick exercise, a shallow visual inspection of the article is enough. For a more thorough exercise,

have the students read the article and answer the following questions (watching the videos is optional):

1. Deeper challenges

- a. What often happens to the children of women inmates?
- b. Why are male prison staff members important?

2. Challenges outside

- a. What challenges does re-entry to society bring to former inmates?
- b. What happens to the women's families?

3. Hawaii as a role model

a. What has happened to the prison's population over time?

After reading or browsing through the article, have the students discuss the following questions:

How clear is it that the content is sponsored? Does sponsoring in your opinion affect the way news is perceived? Does the credibility of the article diminish because of the sponsoring? Have you seen similar type of native advertising before?

As for the videos, they feature former woman inmates telling their backgrounds of why they got incarcerated and how they experienced prisons. They include the same topics as the text but go into more personal details.

5.4 Unit 2: Misinformation, disinformation, and fact checking

Equipment needed: Students need a computer or a mobile device with internet access.

5.4.1 Introduction

When the Covid-19 pandemic spread around the globe in late 2019 and through 2020, the amount of mis- and disinformation regarding the virus was vast. This unit focuses on the importance of fact checking and critical analysis of new information. To start this unit, ask the students their own experiences of news during the pandemic. Find out if they can remember any misinformation they might have come across during the pandemic. After this, summarize the information below in any way you like. Most importantly, go over the four questions in the end that deal with confronting new information.

During the coronavirus crisis, different kinds of myths, rumors and misinformation about the pandemic spread quickly, especially via social media. YLE, the Finnish national public broadcasting company, divided the misinformation to five categories (Vehkoo, 2020a):

- 1. Fake and satire news
- 2. Conspiracy theories
- 3. Manipulated and out-of-context pictures and videos
- 4. Manipulated and out-of-context graphs, stats and maps
- 5. Questionable remedies and other health humbug

Fake and satire news are news that imitate the form and style of proper news but contain false information. The purpose of fake news during the Covid-19 pandemic has been to cause panic and fear. Satire news are news that imitate the look of real news but contain false information. The intent of satire news, however, is to entertain the reader, instead of causing panic. The pandemic has prompted many news agencies, such as AFP, to create fact-checking services, to curb the emergence of fake news (AFP 2020).

Vehkoo (2020b) points out that the amount of disinformation is only going to increase in the future. There are two reasons for this, according to her. Firstly, as the amount of data produced on a daily basis is increasing, the amount of disinformation will increase as well. Secondly, automated content producing and sharing is getting cheaper and more efficient as time goes on, which makes spreading disinformation easier (Vehkoo, 2020b).

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Vehkoo (2020a) introduces four key questions, when dealing with any new information. The

questions help readers discern the purpose of the information and help gauge whether the reader

should trust it or not. She also points out that readers should be especially critical towards any

information that can cause panic or uproar. The four questions are (Vehkoo 2020a):

1. Who provides this information? Are they an expert on the subject?

2. What are the writer's motives? Is someone benefiting from this?

3. Will it cause unnecessary panic if I share this content?

4. Can I confirm this information from another trustworthy source?

By considering these questions, students are able to critically analyse any piece of information

they come across.

5.4.2 Exercises

The exercises in this unit revolve around the five themes of misinformation spread during the

coronavirus pandemic in Finland according to Vehkoo (2020a).

1. Theme one: satire or real news?

Teacher points:

Before starting this exercise, go to www.theonion.com, or a similar satire news site and pick

any recent piece of news that is of a current topic, in case the example below is already

yesterday's news. Then, ask the students to read through the article and compare the article with

a story from a real news source on the same topic.

For example: At the time of designing this exercise, president of the United States of America,

Donald Trump, had recently encouraged his supporters to start poll watching in the coming

presidential election to combat alleged voter fraud.

Task:

Compare these two pieces of news. Can you tell which one is satire? How can you tell?

https://politics.theonion.com/poll-watching-is-not-voter-intimidation-trump-suppor-1845319153

https://abcnews.go.com/US/trump-team-rushes-train-army-poll-watchers-critics/story?id=73542441

Part two: Having read through a satirical and real news article, it is now time to write your own.

Divide the students into groups or pairs and have some groups write a satirical story and some a truthful news story on a chosen topic. The topic of choice should be agreed upon in class and can be anything. Each student or group can also write two stories, one satirical and one not.

The stories do not have to be long but should follow the style of the articles used as examples. After writing, switch the stories between groups. Have the groups read each other's stories and guess if they are satire or real.

Cross-curricular possibilities: History or social studies, by writing the piece of news on a historic event or a current societal issue.

2. Theme two: Conspiracy theories

Have the students discuss these questions in groups or pairs. At the time of writing this thesis, the QAnon conspiracy theory was on the rise, along with myths about Covid-19. This article by Spring and Wendling (2020) summarizes the main points of them: https://www.bbc.com/news/blogs-trending-53997203. Encourage the students to think of conspiracy theories they may have come across and share them with the class. After the groups have discussed the questions below, have a class-wide discussion on the group's findings.

Group discussion: What are conspiracy theories? What examples of conspiracy theories can you find? What are the motives behind a conspiracy theory? What are the common themes behind conspiracy theories? Can conspiracy theories be debunked easily?

Task: After the discussion, have the groups choose a conspiracy theory and debunk it. Students can make a poster, a powerpoint (or similar) presentation, a video, or a podcast, where they debunk or fact-check the conspiracy theory of their choice.

Cross-curricular possibilities: Social studies and history. Many conspiracy theories revolve around historic events and social issues, which provide fruitful opportunities for cross-curricular education.

3. Theme three: Manipulated and out-of-context pictures and videos

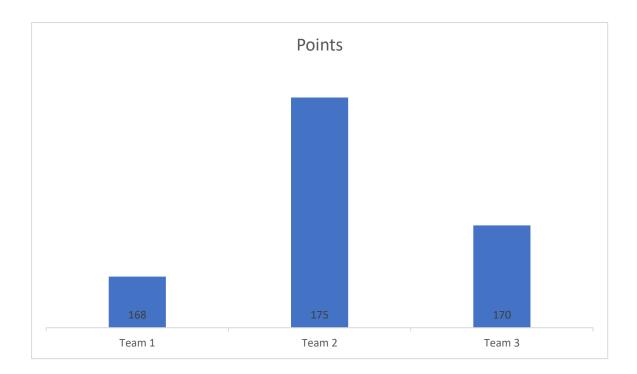
Is there a way to know if an image is real? As editing software has gotten more advanced, telling original photos apart from manipulated ones is more and more difficult. Is there a way to check the authenticity of a photo? Pictures are also taken out-of-context to try and cause panic. Vehkoo (2020a), describes how a still image from a movie trailer from 2011 film Contagion was used to show how China was burying coronavirus casualties in mass graves.

In 2018, a picture of Justin Bieber eating a burrito sideways spread through the internet. The picture was staged though. The whole process is explained here: https://youtu.be/Vs6In7UtyXY.

Cross-curricular possibilities: Arts or IT. This theme can be combined with arts or IT teaching by teaching the students to use a photo editing software.

4. Theme four: Manipulated and out-of-context graphs, stats, and maps

Ask the students to analyse the graph below. On a glance, it looks like Team 2's score is much better than the other teams' scores. However, the overall amount is only five to seven points off. Graphs and stats are easy to manipulate to tell a story in a certain way.



Real-life example of misleading graphs:

During the coronavirus pandemic, reporter Jonathan Swan interviewed US President Donald Trump on how he and the country had handled the crisis. During the interview, Swan asked Trump about the number of people dying daily because of the virus, and Trump responded by showing Swan a bunch of papers with different statistics. Trump argued that by the numbers, the US is doing well in responding to the virus. Trump then showed Swan the statistics and it turns out that the stats were showing coronavirus related deaths as a proportion of cases, whereas Swan was talking about deaths as a proportion of population.

A video of the portion of the interview described above can be found here: https://www.youtube.com/watch?v=NmrEfQG6pIg (at 1:00 onwards).

Task: Have the students come up with a checklist of things to check whenever they see a graph.

Cross-curricular possibilities: Maths. This exercise can be combined with maths teaching. Mathematics teachers could also come up with better examples.

5. Theme five: Questionable remedies and other health humbug

For this exercise, have the students fact check these claims. You can also come up with your own health advice, both tried and true methods and bogus ones, to add to the list.

- 1. Consuming lots of garlic can prevent coronavirus (False)
- 2. Alcohol kills coronavirus and can be used as a cure (it works as a disinfectant when strong enough, but not as a cure)
- 3. Drinking or injecting bleach cures coronavirus (False)
- 4. When you see a person wearing a face mask (surgical mask or a medical mask), your neural nets related to danger are activated in your subconscious. (False)
- 5. Exercise can help cure depression. (Yes, but individual results may vary)

Cross-curricular possibilities: Health education. Health education teachers may have a lot to add to this topic. Teaching this theme in conjunction with health education is encouraged.

6. DISCUSSION AND CONCLUSION

The idea for this material package was inspired by the new core curriculum that was published around the same time I started my master's thesis seminar. Having done my BA thesis on the previous core curriculum, I was intrigued by the possibility of working on another thesis with the new core curriculum as the focus of it. The emphasis on critical reading in the curriculum piqued my interest the most, so I decided to focus on critical literacy and multiliteracy in the material itself.

When writing the theory and starting to work on a first draft of the material, the Covid-19 pandemic hit the world. The pandemic brought along social distancing guidelines and most services were (and some still are at the time of writing) shut down and people were forced to isolate themselves. The changes in everyday life brought along the rise of worrying elements on the internet, such as conspiracy theories on the origins of the virus. Conspiracy theories regarding public health crises are not a new thing, but with the help of social media and modern technology, they are spread rapidly (Law, 2020). This rise of fringe elements into the mainstream narrative made forming the material difficult, as there were simply too many examples to choose from. Whenever an example was chosen, it seemed that an even worse example was broadcast in the news the next day.

The material package itself is divided into two units. The first unit focuses on news and advertising, with focus on telling apart misinformation and disinformation, as well as bringing into attention a recently new type of advertising, native advertising. The first unit is smaller and works as an introduction to the second unit. The second unit focuses on critical reading, fact checking and the many types of mis- and disinformation social media has been full of during the coronavirus pandemic.

The strength of the material is the focus on skills that students benefit from in any school subject, as well as life after school. Another strength is the possibility for cross-curricular integration, making the material versatile and easy to modify to support different types of integration. The examples provided in the material are authentic. However, taking into account that the new curriculum the material is based on comes into effect in 2021 (a year after the package is made), it is possible that some of the examples used in the tasks may not be as authentic by the time the material is in use. To combat this, I have provided a framework and instructions for teachers to help them search for more authentic and timely examples.

As mentioned, the biggest weakness of the material is the examples used. A year from now, the coronavirus pandemic might be long gone, and Donald Trump might no longer be the president of the United States, making the political and societal atmosphere very different. However, the skills this material teaches are still needed in the future, so by modifying the topics and examples, teachers can use the material in the future as well.

In the future, the material could be improved by adding more tasks, with emphasis on multimodal texts. Another possible improvement would be to improve upon the already strong focus on cross-curricular integration, making the material useful in any cross-curricular teaching.

In conclusion: the present material set out to provide a material that can be used to supplement study books and other teaching materials used in the classroom in upper secondary schools. The focus of the material is in improving students' critical reading and multiliteracy skills, as the name suggests. The material features authentic examples of multimodal texts present in today's media. The strength of the material is the authenticity of the examples used, as well as its focus on cross-curricular implementation. However, the material has its limitations as well. As the material is aimed to be used with a core curriculum that comes into effect in autumn of 2021, the authenticity of the examples might degrade over time. The examples are thoroughly described to enable teachers to search for more authentic and timely examples to replace the ones used in the material. Future research to further improve the material or to expand it could include observing a class and teacher that uses the present material and using a survey to assess the effectiveness of the material.

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