

“I trust the old way” –
Opinions and attitudes towards digitalizing the Matriculation
Examination of English

Bachelor’s Thesis
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Tiivistelmä – Abstract <p>Ylioppilastutkinto tulee sähköistymään vuoteen 2019 mennessä ensimmäisinä aineinaan osallistujamääriltään pienet aineet saksa, maantiede ja filosofia; englanti suurilla osallistujamäärillään on vasta viimeisten aineiden joukossa. Muutokset kielten digikokeissa ovat rakenteellisia, mutta innovatiivisuutta on pyritty tuomaan digiajan keinoin monipuolisemmin materiaalein ja siten myös lisäämään kokeen autenttisuutta.</p> <p>Tutkielman tarkoituksena on selvittää, millaisia mielipiteitä ja asenteita digitaalisen ja toisen asteen koulutuksen asiantuntijalla sekä abiturienteilla on uudistuvaa englannin ylioppilaskoetta kohtaan. Tutkimuksen aineisto koostuu asiantuntijan haastattelusta sekä abiturienteille teetetystä kyselystä. Nämä menetelmät tukevat toisiaan, sillä ne tuovat tutkielmaan kahdenlaista näkökulmaa, ammattilaisen sekä oppilaiden perspektiivin.</p> <p>Tulokset osoittivat, että suurin osa tämän tutkimuksen abiturienteista ei haluaisi tehdä sähköistä englannin ylioppilaskoetta. Syyt tähän ja yleiseen epäluuloisuuteen sähköistä koetta kohtaan johtuivat suurimmaksi osaksi tottumattomuudesta tehdä digitaalista koetta. Asiantuntijan näkökulmasta katsottuna digitalisoituminen on osa kansainvälistä suuntausta yhteiskunnallisella tasolla ja näin ollen tietyllä tapaa väistämätöntä pitkällä aikavälillä.</p> <p>Vaikka tuloksia ei voi yleistää pienen otannan vuoksi, ne voivat kuitenkin antaa viitteitä siihen, mihin kannattaisi kiinnittää huomiota englannin ja ylipäätään kielten ylioppilaskokeen kehitystyössä. Tutkimusta voisi tehdä myös eri aineiden välillä sekä myöhemmin tutkia itse sähköistä englannin ylioppilaskoetta.</p>	
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1 INTRODUCTION

The Finnish Matriculation Examination is going to be digitalized by the year 2019. The digitalization is done gradually, first with only a couple of subjects, beginning from autumn 2016. Going beyond a simple shift to digitalization, structural changes are going to be introduced in the case of the language exams. The idea is not to transfer the traditional exam directly into digital form, but instead create something more innovative. Since the project is a new phenomenon, detailed research has not been done with respect to the examination but on a general level regarding digital assessment.

The project is being developed all the time; therefore, it could use some outside objectivity. It is important to do research already in the developmental phase, so that the progress and results could be monitored better. Because the digital examination is such a current phenomenon, there are some limitations to be considered. Due to the number of examinees, English is going to be one of the last subjects to be digitalized, and research cannot yet be done on the exam itself. Thus, the purpose of this thesis is to shed light on the opinions and attitudes future examinees have about the digitalized Matriculation exam of English. To explore the change to digitalization from another angle, the thesis will integrate the views of an expert in the field as well.

First I will have a brief look at the history of the Finnish Matriculation Examination and move on to discuss the digital matriculation examination in general and then with respect to the English language. I will present views to why the Examination is going to be digitalized and what kind of structural changes are planned to the examination of English. Secondly, I will present the data of this study and methods of analysis. The data consists of an interview with a specialist in the field of digital and upper secondary school assessment as well as a questionnaire designed for the candidates for the matriculation examination. Third, I am going to present the results and discuss the broader implications of the results.

2 BACKGROUND

The focus of this study is on the opinions and attitudes with respect to the renewing matriculation examination of English. As the digital examination of English is not completely finalised, I also discuss aspects that are general to all foreign language exams at this point. It is also important to note that while the planning of the tests is under development, this thesis is written based on the sources that were current at the time. First I discuss the historical background of the Finnish Matriculation Examination.

2.1 The history of the Finnish Matriculation Examination

During the past 160 years, the Finnish Matriculation Examination has become a national institution, which is a central part of the Finnish educational system. In its early days, the examination was meant to measure candidates' knowledge in Latin and Christian studies for the entrance exam of the University of Helsinki (at the time known as the Royal Academy of Turku). In the year 1852 it was incorporated into the syllabus of gymnasium education, which is considered as the beginning of the Finnish Matriculation Examination. (YTL, historia, n.d.; YTL, The Finnish Matriculation Examination, n.d.)

Nevertheless, the society has greatly changed in over a hundred years, and so has the examination. It has become a final degree of upper secondary school that measures knowledge and skills required by the curriculum as well as whether an adequate level of maturity that is in line with schools' goals has been reached. At the same time the examination is an important assessment tool, which gives a general qualification for studies at a university or a university of applied sciences: the significance of the examination has increased even more in the admission process of tertiary studies. (YTL, historia, n.d.).

In the beginning all the examinations were held orally, whereas now they are generally on paper. Other major structural changes are, for example, the decentralization in completing the exam in maximum three consecutive examination periods (e.g. spring – autumn – spring) or the renewal in the general studies battery of tests, which means the exams in science and humanities such as Biology or History, all being separate tests instead of one common. Nowadays there are four compulsory subjects to carry out in the examination. The exam in the mother tongue and literature is compulsory for everyone, and the candidates have to choose three from the following: the second national

language, a foreign language, mathematics and a general studies battery of tests. Candidates can also include other optional tests to their examination. (YTL, historia, n.d.).

2.2 The digitalized Matriculation Examination

The whole Finnish Matriculation Examination is planned to be digitalized gradually by 2019. The first subjects to go digital are German, Geography and Philosophy. (Nissilä 2014: 26). The candidates for the matriculation examination complete the digital examinations with laptops of their own or borrowed from the school. A safe basis for completing the examination is ensured by the Matriculation Examination Board operating system that is switched on with a USB flash drive. (Von Zansen, 2014a: 13).

According to the web sites of the digitalization project called Digabi (2014), there are ten perspectives to the digitalization process: the exam exercises, for example, can be enriched with a wider use of materials, the correction process could be sped up by technological automaticity, and the mailing process of the exams can be abandoned. This is reinforced in an article by von Zansen, one of the main creators of the Digabi project, in a web edition of the Finnish Network for Language Education Policies (2014b): the aim is to create an up-to-date examination, where the possibilities of information and communication technology (ICT) would be made use of, because they are important both in working life and in further studies.

Other studies show also that there is a preference towards digital tests. For example, Kitola (2014: 16-17) refers to other studies (Osang 2012; Bernik and Jereb 2006; Doukas and Andreatos 2007; Lester Gilbert 2008) and reports that ‘most researchers have come to the conclusion that the majority of students would like to do a test digitally rather than as a traditional paper version’. He presents that the most important reasons for this are the flexibility of digital tests concerning time and place as well as the possibility of receiving the results faster. Other suggested advantages (Holvitie et al. 2012, cited in Kitola 2014: 17) are the easiness in writing and editing with computer keyboard and the versatility in digital exercise types.

Kitola (2014: 25, 32-36) was also involved with the first digital preliminary matriculation examination in Finland. The preliminary subject was English, and there were 23 participants completing the digital preliminary exam with a test platform called ViLLE, designed at the University of Turku, in the spring of 2013. The results showed that almost 83% (19 students) would have been ready to do the actual digital matriculation examination of English with ViLLE even in the same spring. When

asked about which subjects the digital examination would suit the best, the participants thought that either languages or general studies battery of tests would suit the best.

2.3 Language teaching in relation to ICT

From the viewpoint of languages, Tarvainen (2014: 2) indicates that the digitalization of the Finnish Matriculation Examination is in accordance with the development of teaching technology in upper secondary education: changes are sought because the examination does not completely reflect the reality of language classrooms anymore. As she demonstrates, it is evident that essays are not written by hand in a growing number but instead on the computer where they are easily editable. The electronic format also enables teachers to reduce paper costs and have easy archiving, whereas the importance of oral skills has been emphasized in the foreign language curriculum in 2010, and yet it is not measured in the examination. The development of language exams does not end in the digitalization but also includes the aspect of linking the grades to the Common European Frame of References scale of degrees.

Tarvainen (2014: 2-3) also points out that while the changing classroom practices have an impact on the digitalization process, it holds true vice versa. Since the whole Matriculation Examination is digitalized, language teaching in upper secondary school must have an update in its practices, especially in those schools which have not yet invested in enhancing the use of ICT in their teaching. As the final courses of the upper secondary school curriculum have a strong emphasis on preparing the students for the matriculation examinations, it is now very important to familiarize the students with the new exam format as well as with the requested answering technique.

There are also other reasons why the use of ICT is of growing interest: Tarvainen (2014: 8-9, 11) notes that the furthest stages of Computer Assisted Language Learning (CALL) integration are where the students are active and autonomous users of digital devices and ICT. Case studies on 1:1 laptop usage have showed that positive effects for students include, for example, improved and more fun learning environment, increased length in students' essays, deepened student engagement as well as improved critical thinking. Negative aspects, however, were disturbing use of social media, increased plagiarism or difficulties in assessing online information; health issues such as back problems or headaches were also mentioned.

2.4 The digital matriculation examination of English

The language tests of the Finnish Matriculation Examination will become digital beginning from the autumn of 2016 (Von Zansen 2014a: 13). These tests have similar alignments in their design; therefore, I discuss them generally with respect to the matriculation examination of English, where there is not available a specific emphasis on the English examination.

The basis of the whole development process has been the search for a model from the international high stakes tests such as TOEFL (Test of English as a Foreign Language) and IELTS (the International English Language Testing System). As Juurakko-Paavola (2015) demonstrates, there are currently two main long term aims concerning language tests: the first is to create item-based exams as TOEFL and IELTS are. This means that very functional exercise types would be used more than once in addition of creating new types, which ensures the uniform quality of the exams year after year.

The other aim is to design the tests to be adaptive, which means that, in contrary to the prevailing method, the candidates would not have to choose the level of the exam beforehand. In the exam, first there would be a specific number of exercises to do, and based on the success in these, the rest of the tasks would be either easier or harder to resolve. Juurakko-Paavola (2015), however, notes that these two aims can be executed in practice after 2019.

Traditionally languages tests in the matriculation examination have been divided into two parts: the listening comprehension and the written part, both having a day of their own for completing the parts. Juurakko-Paavola (2015) shows that one of the major structural changes in the first digital language tests is that there will no longer be two separate days for the listening comprehension and the written part. While this means that the digital exam will be held in one day, it also implies that the amount of time at candidates' disposal remains the same six hours that were reserved only for the previous written part (Digabi 2015). As a conclusion, changes have to be made in the digital test.

In the prevailing language tests, the written part has also three subsections: the reading comprehension, vocabulary and structures, and the written production. According to the Digabi Project (2015), these sections will remain the same as concepts in the digital exam, even though the listening comprehension is included. Originally it was planned that browsing between different sections would not be allowed, however, the idea was renounced at least from the first years. Lattu (2015) reports that the aim for the first few years is to aspire for a test that is similar to the traditional one, which

presumably means that the sections are designed to reflect traditional exercise types to some extent. The candidates will, however, have free access between the sections and be independently responsible for their progress and time management, as it is in the paper-based exam. Lattu (2015) also points out that the exam can be developed further when there is more data on the usage experiences.

While these sections remain the same as concepts, structurally they will have several changes. Juurakko-Paavola (2015) describes that the sections will be on the whole ‘more authentic’ than previously, which is ensured by the use of, for example, pictures or the variety in text layouts. The term ‘authentic’ is not discussed in more detail, but arguably Juurakko-Paavola means *situational authenticity* that Chappelle and Douglas (2006: 9) describe as ‘authenticity in terms of the features of context including setting, participants, content, tone, and genre’. Nevertheless, some of the exercise types can be familiar to the candidates in the first digital exams, as slightly touched upon: there can be multiple choice or cloze tests which are common in the traditional exam. Even though these exercise types are reviled being just drills in the language teaching, their validity in the new format can be remarkable in addition to the familiarity: if a chosen answer is inserted into the text by the program, it could help the candidates to see the text as a whole, and thus possibly increase the degree of success in the exercise.

Juurakko-Paavola (2015) continues that another noteworthy change in the examination is the possibility of including videos to the listening comprehension test, which would also enhance the authenticity of the situation. The oral part, in turn, is planned to be taken into action by 2019 at the latest. According to Juurakko-Paavola, it seems that technically completing the exam would be very simple: answering is done within the proper test software, and other programs for image or word processing would not be needed. The online environment would also be closed, and the candidates would not have for example dictionaries in use. The maximum score would be the same 299 points as in the traditional one (Digabi 2015).

The project is of course not without any challenges. As von Zansen (2014b) illustrates, one very current issue is the consideration of copyrights: permission is needed to use material in the ‘learning platforms’ in both teaching and in the exams. From the point of view of the Matriculation Examination itself, there is the issue of learning how to ‘boot’ the computer, i.e. switching it on by using the USB flash drive and so creating the examination platform. As geographically wide country as Finland is, there are also differences in the upper secondary school resources how extensively they can offer, for example, ICT-related teaching or the needed technological devices. That is also one of the concerns that Suomen Lukiolaisten Liitto (2013: 7), the Union of Finnish Upper Secondary School

Students, discusses in its report, and suggests that the contributing factors are the lack of teachers' updating training as well as the decrease in the education innovation due to the success in the PISA-testing.

3 RESEARCH AIM AND QUESTIONS

The aim of this study is to find out what kind of thoughts and outlooks a specialist as well as current candidates for the matriculation examination have towards the renewing examination of English and to shed light on the changes between the traditional and digitalizing examinations. Based on earlier research and my own reasoning for the time being, my assumption is that the majority of candidates would prefer to take the digital examination if they had the chance. The current generation of the candidates is grown up with technology closely to their everyday life, which is why I doubt that each individual of the sample would refuse choosing the digital exam, even though they would be the first ones to take it. Therefore the research questions are

1. What kind of views does a specialist in the field of digital assessment have towards the revised matriculation examination of English?
2. What kind of attitudes do the current candidates for the matriculation examination have towards the revised matriculation examination of English?

The results of this study can be used to analyse the potential drawbacks and advantages of the exam in the future. Even though a BA thesis is rather a small scale study and by no means generalisable, suggestions can be made based on the findings to revise the examination to the better. As the study is also based on the theoretical background of computer assisted language learning and ethical principles of academic writing such as objectivity, an outsider researcher can possibly notice elements which could be useful to the development of the examination itself.

The thesis can also be a good beginning for further study in a Master's Thesis, thus a contribution to the field, or a source of general information for someone else who is interested in the same topic. The renewal of the Matriculation Examination is such a long and topical process that I assume it will intrigue many researchers for years to come. The most important aspect is nevertheless that there needs to be research already before the digitalization process is completed, because if there is

documented data from the past years of improvement, there is much more material to rely on in the future.

4 DATA AND METHODS

In this section I will discuss the data, participants and methods of this study. I chose the interview and the questionnaire for my data-collection method, because I cannot yet do research on the actual digitalized examination. The two types of methods are fundamental to provide versatile perspectives on the topic: the specialist's viewpoint from a professional level and the students' from a field level, the ones for whom the exam is planned. These two types of methods were also chosen for the fact that the interview enabled lively conversation and expression, whereas the students' numerous answers were easier to analyse with a structured scale and categorise the open-ended answers in a written form. Both forms of data-collection were carried out in Finnish. The questions for the interview and the template for the questionnaire and can be found in the Appendices.

4.1 Participants

The research involved the participation of 44 candidates for the matriculation examination of an upper secondary school in Northern Ostrobothnia and a language specialist, Professor Ari Huhta, in the field of digital and upper secondary school language assessment. The permission for conducting the questionnaire was asked from the principal of the upper secondary school, and the approval to refer to his full name was also asked from Professor Huhta. I designed the questionnaire only to comprehend third year students, because they had already completed their examination of English or they would have taken it in the incoming spring or autumn.

4.2 Data gathering

The data was collected in January and February 2015. The interview with the specialist consisted of five semi-structured broad questions about the views on digitalization as well as preparations and investments of schools on that matter. During the interview some additional questions came up, some of which asked about the personal opinion of the specialist, and also gave him an opportunity to add something that was not directly asked.

The questionnaire consisted of 11 questions that can be categorised into quantitative and qualitative questions: four were statements in the form of Likert scale and the other four were open-ended questions. There was also one question that included choosing between *yes* and *no* alternatives as well as a clarifying open-ended question for the choice. The two remaining questions were about finding out how many participants had already done digital exams.

The sample in the questionnaire survey is rather small. Thus the results of this study cannot be generalised, however, they may give some points of view or insights with respect to the digitalization of the matriculation examination of English, and possibly be a prospective basis for a Master's Thesis, as mentioned.

4.3 Methods of analysis

The interview was recorded with a tape recorder in January and transcribed in February. The quantitative results from the questionnaire were coded into numbers by using the Microsoft Office Excel program, and their averages were digitally calculated. Answers from the open-ended questions were typed manually and brought together in one document per question. Their process of analysis was conducted in the way that the core ideas of each answer were crystallized into one or two words and then put into a word cloud creator called ABCya.com (2015) for visual presentations. Methods for the questionnaire were also completed in February.

5 RESULTS

In this section I will present and discuss the results of the interview and the questionnaire. First I review the aspects that arose during the interview. Secondly I observe quantitatively the numbers of the Likert scale part of the questionnaire, and then analyse qualitatively the answers for the open-ended questions.

5.1 The interview

The interviewee in this study was Professor Ari Huhta. He is a member of the Centre for Applied Language Studies (CALS), which is a national expert unit that is specialized in studying the goals,

practices and policies of language education. As one of the research areas of CALS is language testing and Professor Huhta himself has specialized in language assessment, an interview with him was a fruitful opportunity to gain profound understanding on the topic.

In this section I will summarize Professor Huhta's views and answers according to the five broad questions about digitalization. Even though many interesting points arose in the interview, I will discuss only the most relevant ones with respect to the first research question and the matriculation examination of English.

According to Professor Huhta, the digitalization of the matriculation examination of English along with the whole Finnish Matriculation Examination follows an international trend that has been going on for the past two decades. Digitalization is not completely a new phenomenon; there has already been some computerization in the background of the Finnish Matriculation Examination, for example, in the storing of different exercises or in the analysis of results. All of these are not, of course, visible to every participant. Some parts have been computerized earlier, some will be in the future.

Professor Huhta personally contemplated that if the digitalization is realized in a rational way, it will enable more versatile exercise types. The direct transfer from paper-based to digital form, however, may not serve the purpose of digitalization the best. In the case that the exercises are planned in an innovative way already from the beginning, it can possibly improve the quality of the whole process. With respect to the oral part, Professor Huhta could not say with certainty when and how it would be arranged at this point.

Regarding the technological requirements, schools do not have to invest a lot in new devices. According to the Professor, the technology, namely the computers, would not have to be the latest models in order to carry out the examinations. As the principle is that every candidate could bring their own laptops, and the schools would offer their devices for the rest, the majority of the exercises and knowledge in the examination has to be routine-like tasks for the computers.

However, one of the biggest challenges concerning the technology is that the examination would have to be done via a wired network, because a wireless connection would be more susceptible for exterior sabotage attempts at this point. In addition to the practical aspects such as the 'sea of wires' in the examinations situations in order to distribute a wired network, the schools would probably have to invest on distributor devices, which can bring some costs.

Even though there most seemingly are many advantages in implementing the digital Matriculation Examination, there is a viewpoint of concerns towards the digitalization process. According to Professor Huhta, there can be some worries regarding the listening comprehension as well as the upcoming oral part. With respect to the listening comprehension, the Achilles heel in electric tests can be the processing of sound files. From the Professor's own experiences with the DIALANG project, the problem in this is that in order to carry out the listening comprehension, the computers must have functioning sound cards. If some of the candidates' laptops do not have this, the schools must be prepared to offer extra devices, even though candidates' laptops would otherwise suit doing the examination.

Regardless of the sound card problem, the renewing listening comprehension part is a major improvement in equality, the Professor explained. In the traditional procedure some upper secondary schools do not have a separate language laboratory; therefore, the listening comprehensions are held at some large halls. In this case it seems inevitable that if these listening materials have been played from only one CD-player, those nearer to the player have an advantage over to those who sit farther away. When all candidates are completing the listening most probably on their own devices with individual headphones, everybody will have the same audibility when doing the part.

While the candidates' individual headphones ensure equality in the listening comprehension, it may cause problems in the oral part. This can happen if the speaking test is executed as a group test where there are, for example, ten persons present at the same time: the others' speech will be audible during the test if the headphones are ordinary. This, in turn, can affect some students' performance in the way that they can hear good answers, and then present them as their own, or be under pressure to carry on speaking, even though their answers would already have been sufficient and coherent. According to Professor Huhta, the problem could easily be solved by noise-cancelling headphones; however, they are rather expensive investment. As this aspect is not yet discussed in that detail or is not necessarily a topical issue, it will be left to the working group to design.

Another aspect to the equality is the habituation and experience in writing with a computer keyboard. As writing with a pen is rehearsed already from the first grade, keyboard writing usually comes in an older age and not necessarily that systematically. Some learn it on their own, some will take a class of touch-type system. It is clear that those who have a good command of the touch-type system have an advantage over to those who are slower writers, which was also admitted by Professor Huhta. When answering the question whether the class of touch-type system should become compulsory, for example, in the lower secondary school, professor Huhta seconded the thought by

pointing out that it would be a reasonable skill to possess also later in life. In addition to this, it would be a relevant way to prepare for the examination, which helps to succeed in the exam even though not being direct practice for language skills.

This interview offered both general and personal viewpoints of a specialist in the field of digital and upper secondary school assessment towards digitalizing the Finnish Matriculation Examination. The digitalization follows an international trend that has been going on for the past two decades, nevertheless, it is not completely a new phenomenon in the Finnish context: there has already been some computerization in the background of the examination. With respect to personal opinions, the digitalization can have many advantages if the execution is completed in a rational way. In the beginning the examination has to be done via wired network in order to avoid exterior sabotage attempts, whereas the devices that the students will use can be basic computer models. Concerns over the examination regard at least the sound card problem in the listening comprehension as well as the headphones used in the oral part situation. An aspect that should also be taken into account is the students' command in the touch-type system. In the following section I will discuss the questionnaire results.

5.2 The questionnaire

In this section I study the results from the questionnaire. On the whole there were 11 questions, out of which four were statements in the form of Likert scale about the digitalization in general as well as five open-ended questions specialized in the digital matriculation examination of English. Two questions were designed to survey how many had already done a digital test. As participants, there were 44 secondary school candidates for the matriculation examination, 24 females and 17 males, and three respondents who had not identified their gender. With respect to the analysis of gender differences, I left out the three unidentified answers but included them in the overall analysis. In the figures 1 to 4 below, the colour blue refers to male participants and red to females.

5.2.1 The Likert scale

The first two questions meant to survey the candidates' experience in taking digital tests. 43% of the respondents (19 out of the total 44) had already taken a digital test. Most of them mentioned that they had done digital tests or essays in Psychology and Finnish; Moodle and Peda.net were men-

tioned as exercise platforms. A multiple choice test and deciding between *right* or *wrong* alternatives were mentioned as digital exercise types. One candidate also made a good point that the driving theory test is mostly done on computer in Finland, which may not occur to everyone – it is not considered as an exam *per se* in a traditional school-related sense.

Questions 3 and 4 in the questionnaire were meant to explore the candidates' opinions of how well the paper-based and digital exams measure learning. As Figure 1 shows, the female participants had a stronger opinion on the superiority of the pen and the paper test, whereas the males' opinion was more dispersed; however, a slight majority of them was also in favour of the traditional exam. The dispersion in the boys' opinions can also be seen in Figure 2, even though most of them could not agree or disagree with the comprehensive measurement of the digital test. The girls were more undecided about the advantages of digital exams, as most of them inclined to undecidedness or disagreeing.

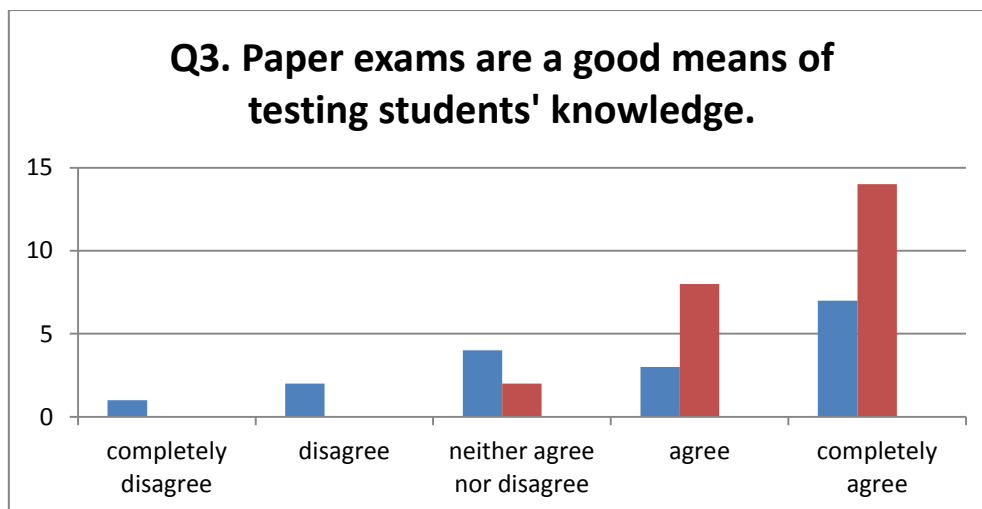


Figure 1. Students' Likert scale answers in testing knowledge by paper. Blue = males, red = females.

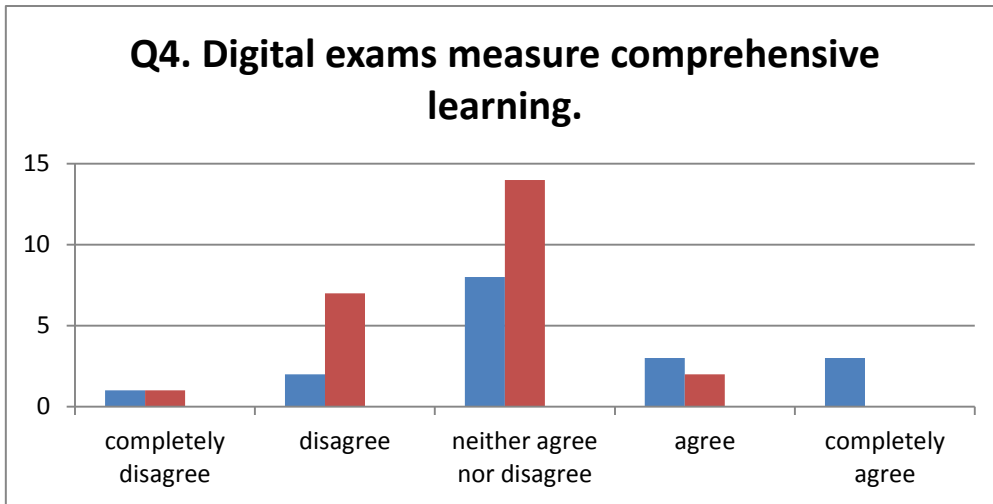


Figure 2. *Students' Likert scale answers in measuring learning digitally. Blue = males, red = females.*

Questions 5 and 6, in turn, surveyed the candidates' attitudes towards the whole digitalization process. With respect to retaining the paper-based examination, the girls had the strongest opinion of all the questions. As can be seen from Figure 3, the girls would have liked to preserve the traditional exam, while the boys were quite even – and disunited – in their answers: the two largest parties would have either supported the paper-based exam completely or disagreed with its advantages.

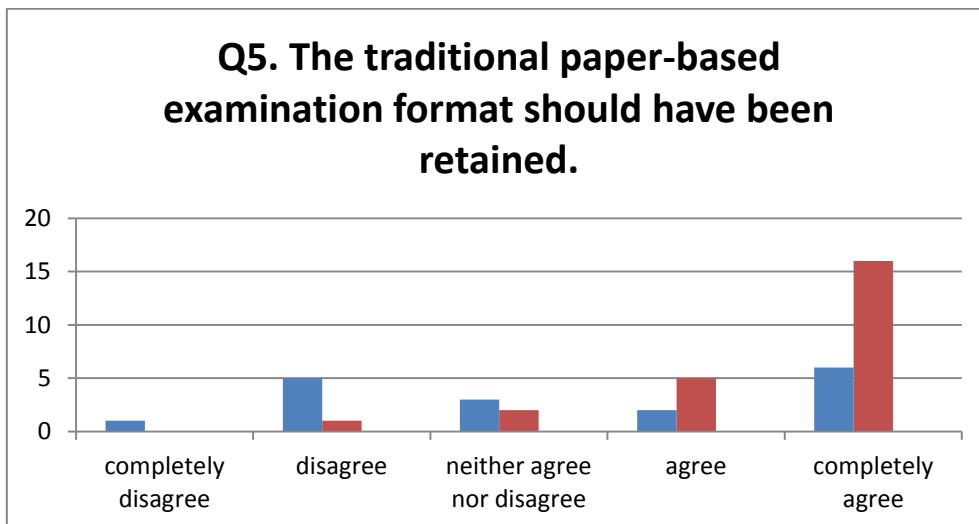


Figure 3. *Students' attitudes towards the digitalization. Blue = males, red = females.*

Figure 4, instead, shows that the girls were more doubtful towards the digital examinations, as there are no answers for *agree* or *completely agree*, whereas the boys show slightly more support for the success of the digitalization by choosing *agree* as well. However, the majority of boys were also inclined more to disagreeing on this matter.

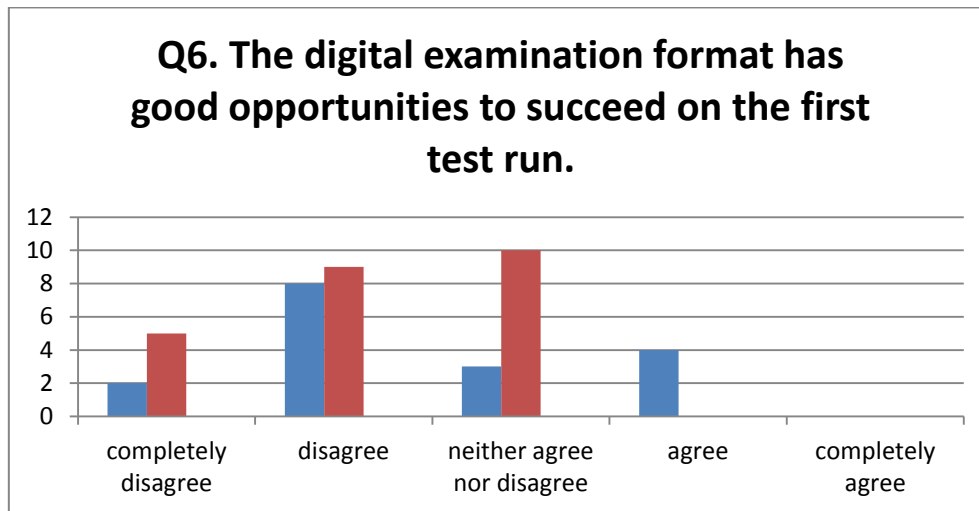


Figure 4. *Students' attitudes towards the digitalization.*
Blue = males, red = females.

5.2.2 The open-ended questions

In this section I analyse the answers in the open-ended questions. I offer an overview on the answers in the form of word clouds: I have crystallized the aspects in the answers to respond to one single word. However, some aspects were difficult to condense into one word or could not be written with a hyphen in the word cloud creator, because the application would have cut off the word in two, which is why there are a couple of words that are not orthographically correctly written. The frequency of words can be seen in their boldness and size – the bigger the more.

Candidates were asked if they would like to do the electronic matriculation examination of English, if they had a possibility. They showed clear preference towards the traditional examination: 70% (31 out of 44) would not have done the electric exam, whereas only 25% (11 students) would have done it; 5% (2 students) were undecided. The respondents were also asked to explain the reasons behind their choice. Figure 5 below illustrates the reasons.



Figure 5. Students' comments on completing the matriculation exam of English digitally.

Most worries were in connection with the difficulty of completing the electric exam, which was closely related to students' unpreparedness for the new type of exam. The term *traditional* in the word cloud refers to the students' habituation and familiarity in doing the paper-based exam, and *concentration* was mentioned being better without the computer. Students also noted that sitting in front of the screen was more exhausting and at the same time the tendency to make mistakes higher than usually. However, those in favour of the electric exam also mentioned that doing the digital exam would be easier and faster, as well as the editing the exam with keyboard; multimodality was also mentioned as a positive element.

Respondents were asked to weigh the advantages and disadvantages of the digitalizing matriculation examination of English. With respect to the advantages, 70% (31 students) could evaluate them, whereas almost 30% (13 students) could not visualize them or had left the question unanswered. As illustrated in Figure 6, the fastness and easier editing possibilities along with the multi-modal materials were attributed to the advantages of the digital form. *Correction* refers to the estimation of enhanced fastness in the overall correction process. Economical resources and writing with the keyboard were also seen as positive aspects, as less paper would be consumed and unclear handwritings would not be a problem anymore.

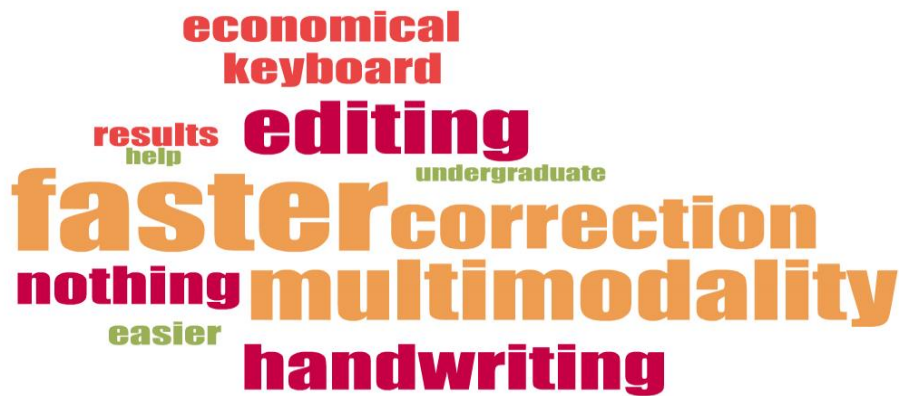


Figure 6. *Students' comments on the advantages of the digital matriculation exam of English.*

Most of the disadvantages mentioned were in relation to technological problems, difficulty and concentration in front of the screen. As Figure 7 illustrates, power cuts, IT skills and making careless mistakes were also considered as problems that need to be ensured before the digital examination can be trusted more. The respondents seemed to have more opinions on the disadvantages as only 3 out of 44 left the question unanswered.

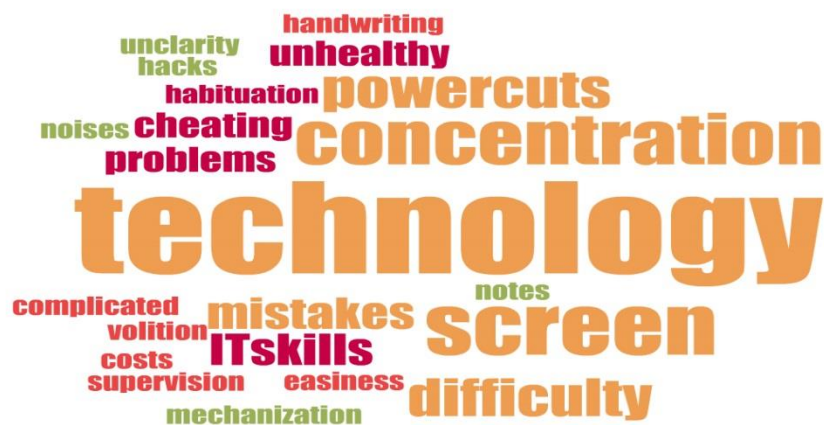


Figure 7. *Students' comments on the disadvantages of the digital examination of English.*

Two questions concentrated on the upcoming new elements in the listening comprehension and the oral part concerning the digital matriculation examination of English. Question 10 asked opinions on whether it is a good improvement that the listening comprehension will be on the same day as the written part. As can be seen from Figure 8, the students continued their tendency to incline more

to the traditional way. The majority of students (almost 66%) argued that the workload for one day would be too excessive and stressful, as the exam would last over six hours according to them, as well as the familiar issue of concentration was also seen as a problem. Thus they voted for separate days.



Figure 8. *Students' comments on the renewing listening comprehension.*

However, 18% of the students thought the change to be positive on condition that, for example, the timing for different parts is planned reasonably. Some of them were also delighted that in this way there would be more time to prepare for the listening comprehension, whereas some did not agree. About 16% were undecided or had treated the subject on a general level and did not give an explicit opinion on the question. The comments below illustrate some opinions.

Example 1. rankempaa [sic] oppilaille, 8 tuntia, aikas paha.

Harder for the students, 8 hours, quite bad.

Example 2. Hyvä uudistus siinä mielessä että kieleen pääsee hyvin käsiksi mutta huono uudistus siksi, että jos kokelaalla on huono päivä, kaikki osiot menevät huonosti.

Good renewal in the sense that one can gain a good access to the language, but bad renewal if a candidate has a bad day, all parts go poorly.

The upcoming oral part caused more dispersion between the respondents. Almost 48% (21 students) saw the oral part as a positive improvement, while 34% (15 students) were against the idea. 18% (eight students) gave a neutral opinion or discussed the subject on a general level, not giving answers on behalf or against. Figure 9 illustrates that oral skills as well as pronunciation were considered as important parts of language learning.



Figure 9. *Students' comments on the upcoming oral part.*

This renewing was also seen to measure language skills more comprehensively, which was considered as a positive aspect. Opposite opinions contained issues of shyness and inequality concerning unpreparedness to carry out a speaking test, and some even regarded it as unnecessary on the whole. The quotes below illustrate some opinions.

Example 3. Suullinen osio on ihan hyvä uudistus. Kokeen tulisi mitata monipuolisesti osaamista. Toisaalta uudistus on huono, jos opetus ei keskity yhtään suullisen taidon harjoittamiseen.

The oral part is quite good renewal. The [matriculation] exam should measure skills comprehensively. On the other hand the renewal is bad if teaching does not concentrate on the practicing the oral skills at all.

Example 4. Hyvä aksentti ja oikeaoppinen lausuminen on [sic] osa kielen hallitsemista, joten kyllä.

A good accent and an orthodox pronunciation are a part of commanding the language, so yes [good improvement].

6 DISCUSSION

Now that the results have been presented, I will discuss them in more detail. First I will take a look at the points that came up in the interview and then move on to deal with the questionnaire's Likert scale results as well as the answers for the open-ended questions.

6.1 The interview

As already mentioned, the themes in the interview touched upon were digitalization, investments and preparations on behalf of schools, the new listening comprehension test as well as the upcoming oral part.

In the opinion of Professor Huhta, the examination can have many advantages compared to the traditional exam if the digital exercises are planned in a reasonable and possibly innovative way. According to Juurakko-Paavola (2015), paper-based exercises are not planned to be just directly transferred into digital form, even though there are familiar elements in the digital exercises compared to the paper-based ones, such as multiple choice and cloze tests. As pictures and different layouts can be included to the written part and videos to the listening comprehension, digital examination is about to provide more authenticity to the exam.

Professor Huhta also pointed out that the digitalization of the Finnish Matriculation Examination is not completely new issue in the Finnish education, because it follows the international trend that has been going on for the past two decades. Even though the majority may not be aware, the storing of different exercises or result analyses have already been done digitally, and in a way it seems inevitable that the digitalization would not have a greater part in the Finnish Matriculation Examination. For the candidates, there is also a web site called Abitreenit, where they can prepare for the examinations by studying, for example, the previous exercises and themes; the Abitti sites are dedicated to the digital exams. Moreover, the digitalization with respect to languages would enhance the comparability of the matriculation examinations to other high stakes tests such as TOEFL, according to the Digabi Project (2015).

Other aspects that should be remembered are the command of the touch-type system as well as the organisation of the listening comprehension and oral part. It seems plausible that a good command of the touch-type system can divide the candidates into unequal positions: it should not be supposed

that every student has had sufficient training in typing, even though we live in the era where technology is closely present in the everyday life. An answer to this could be compulsory touch-type classes in secondary schools, because as seconded by Professor Huhta (2015), it is a reasonable skill to possess also later in life and not only in upper secondary school. What is more, it could be wise to direct students to purchase applicable laptops already from the beginning keeping in mind the listening comprehension test, so that the sound card problems could be minimized.

With respect to the oral part, it should be given a thought whether it is better to organise, for example, as a group test or in pairs. Both of them have advantages and disadvantages: in a group situation more students could be tested at the same time, but others' speech can be heard through the headphones unless they are noise-cancelling, whereas more equality and privacy would be provided in pairs. In the latter case, however, testing would take longer and there probably should be more examiners to supervise the situation one after another. According to Juurakko-Paavola (2015), there has to be enough experience on the digital language tests, before the oral part can be planned more thoroughly.

6.2 The questionnaire

The basis for compiling the questionnaire was to find answers to the second research question of what kind of attitudes the current candidates for the matriculation examination have towards the renewing matriculation exam of English. Based on the results of the whole questionnaire, it is evident that the majority was against the idea of digitalization, which contradicts my assumptions.

The results show, however, that especially female participants think that the traditional paper-based exam measures learning better and that it should have been retained. Moreover, the girls were not sure about the advantages of digital exam in measuring learning or whether the digital exam has good opportunities for success in the first test run.

The male participants were dispersed and disunited in their answers regarding the measurement of learning and overall there was not a clear majority whether the traditional test should have been retained. The distribution in the boys' answers in advantages of digital measuring was also rather even, but the majority inclined more to being undecided. The success in the first digital test run also got more doubtful answers, although some were hopeful for the digital exam.

While most participants of this study were sceptical towards the digital matriculation examination, it is contrary to what, for example, Kitola (2014: 35-36) found in his research: the respondents of his study would have been ready to do the actual digital matriculation examination of English even in the same spring. Regardless of this, the current candidates' answers indicated that this generation had not been prepared for the electronic exam. This explains why they considered the traditional exam as easier and in a way safer to finish. The feeling of unpreparedness is also very understandable, because due to its numerous participants, English is one of the last subjects to become digital (Tarvainen 2014: 1-2), and therefore this generation did not have to familiarize themselves with the digital examination.

However, the students' unpreparedness and Kitola's survey lead to ponder, whether the results in his study were positive, because his respondents had the chance to try the digital exam or because the platform in ViLLE program was so functioning. Kitola (2014: 31) namely reports that according to the student feedback after the preliminary exam, there would not have been a need for a separate introductory session for ViLLE, because it was already so easy to use. It could be asked whether the Northern Ostrobothnian students would have been more positive towards the digital matriculation examination if they also had had a similar chance to try completing one. Another affective aspect to consider in this study could be the geographical location. Would the more negative results have been the same if the study was conducted in a different region?

Even though a slight majority of students considered the upcoming oral part as a welcomed renewal, some brought out the concern that in this case there should be more preparation and teaching in speaking. As Juurakko-Paavola (2015) notes, the oral part is planned to take into action by 2019 at the latest, so it is now crucial to start paying more attention to this aspect in language teaching. Moreover, it was also quite obvious that some students had rather traditional attitudes and opinions on speaking, while many of them saw pronunciation as being very important to oral skills. This is of course understandable, because possessing a native-like pronunciation, along with grammatical accuracy, is often considered as being fluent in a language, and therefore an aspect worth to achieve.

However, this is not always the case. As Graddol shows (2006: 82-83, 87), English as a Foreign language (EFL) has strong roots in teaching English world-wide, which usually highlights the importance of learning the culture and society of native speakers. Orthodox view in native-like pronunciation is also one trait. An 'inexorable trend' is, nevertheless, that fewer interactions involve native-speakers, and therefore the proponents of teaching English as a Lingua Franca (ELF) suggest that the teaching should concentrate on non-native speakers interacting with other non-natives. In

ELF, intelligibility and retaining national identity in the form of pronunciation features are central issues, and this could be one element to negotiate in the design process of the oral part what to emphasize in measuring oral skills.

With respect to the listening comprehension, it was evident that the candidates did not know much about the upcoming structural changes in the digital examination. This can be seen in the answers where the students argued that the workload for one day would be too excessive, when the listening comprehension would be *added* to six hours that the written part lasts – altogether over six hours – even though the plan is to *include* the listening comprehension to the six hours, as the Digabi Project shows (2015). There was also some disunion in the comprehension of the time available for preparing. Some thought that having the listening comprehension on the same day as the written part would give the students less time to prepare, as they would have to concentrate on more parts during one day, whereas some thought that it would give them more time, when the day for the listening test would now be completely free.

Another valid remark was that if some students are having a bad day when completing the exam where these two parts would be together, they may not be able to compensate the poor success in another part in another day. This can be a drawback, but one solution could be, at least, the sufficient preparation of students so that their performance would not be dependent on the digital format.

In conclusion, I have offered possible explanations and implications in this discussion with respect to the digitalization of the English matriculation examination. It is evident to note that the sample and the time frame were rather small on a broad scale. Moreover, there have been limitations in what could be studied, because the matriculation examination of English is one of the last subjects to be digitalized. With respect to the frames of a Bachelor's Thesis, nevertheless, the strengths lie in quite numerous participants in the questionnaire as well as in two points of view, professional and student perspectives, and therefore the thesis has some advantages.

7 CONCLUSION

In this section I will draw some conclusions on the results. First I discuss the research questions and issues that arose in the results. Secondly I introduce some implications and present previous studies on the topic. Finally I suggest possible improvements and further aspects to take into consideration in the future research.

As the first research question concerned the views that a specialist in the field of digital and upper secondary school assessment may have towards the digitalization of the matriculation examination of English, the overview to that is rather straightforward: the digitalization is a part of a larger international trend in the Western world. The model has been searched from the bigger language assessment test such as the TOEFL. It is in a way inevitable and expected that the society will digitalize, so will the language tests.

The second research question was to find out about the attitudes the current candidates for the matriculation examination have towards the revised matriculation examination of English. The results of this study showed that the majority of the participants would not like to complete their matriculation examination of English in the digital form, which was mostly due to their unpreparedness. In this light it is quite easy to understand their point of view, because the digitalization of the English examination is going to take place a few years after their graduation from the upper secondary school; therefore, they have not been much informed or prepared for the digital exam. However, there was also the slight minority who showed more trust for the electronic exam by being willing to complete it if they had a chance, which is in accordance, for example, with the results of Kitola's study (2014) on the digital preliminary exam for English.

The lack of information was also noticeable when asking opinions about including the listening comprehension to the same day as the written part. It was visible in the sense that most students thought the listening comprehension would be added to the maximum six hours the examination lasts, whereas the idea is to include it within the six hours. On the other hand, the upcoming oral part was seen mostly as a positive improvement, even though some students had rather traditional views on the importance of pronunciation compared to intelligibility. The assessed advantages of the digital examination were the fastness and easy text editing, economical resources without consuming paper, and multimodality of the materials. The disadvantages were more related to technology, for example, the command of IT skills and the possibility of power cuts were considered as affective factors as well as lowered level of concentration and sitting in front of the screen for many hours.

As a broad analysis on the attitudes of these students, it could be argued that they were rather doubtful on the possibilities of the digital examination, which is contrary to what I expected before conducting the study. I considered the current generation of candidates more technology-oriented in the sense that completing a test with paper and pen would be laborious for them. However, the doubts

could be more attributed to unpreparedness, because presumably with proper preparation and information, the attitudes could be more positive in the future.

Because the digitalization is a current phenomenon, and the development is under process, much detailed previous research had not been done. The web sites of the Digabi Project, which is responsible for the digitalization process, provided much information on the design and changes of the Examination, whereas Tarvainen's thesis (2014) concentrated specially from the viewpoint of ICT on the perceptions that the upper secondary school students can have on the digitalized examination of English. Kitola's (2014) study concentrated more on the perspective of assessment, but on the other hand it provided information from the viewpoint of the digital exam of English.

This study could be improved, first of all, with more participants from different parts of Finland so that the results could be more generalised. The viewpoint of teachers would also be a good extension to the topic. This thesis is, however, a good start in the research of attitudes and opinions on the digitalization of the matriculation examination; a comparison in willingness to do the digital exam between different subjects, for example French or German that are soon to be digitalized, could also be done with respect to English. Later the research can concentrate on the actual digitalized examination of English.

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APPENDICES

The original interview and the questionnaire were made in Finnish, but the translation is given below each question in English.

Appendix 1: The interview

Haastattelu asiantuntijan kanssa

The interview with an expert

1. Mitkä ovat henkilökohtaiset mielipiteesi / alasi mielipiteet yleisesti uudistuvasta englannin ylioppilaskokeesta?

1. What are your personal opinions / your field's opinions in general towards the revised matriculation examination of English?

2. Tiedätkö, miten opettajia on valmisteltu uudistuvaan englannin yo-kokeeseen?

2. Do you know how teachers have been prepared for the renewing matriculation examination of English?

3. Onko alallasi huolia uudistumista kohtaan?

3. Does your field have concerns over the renewing?

4. Tiedätkö, miten paljon koulut ovat investoineet opettajien ja oppilaiden teknologiakoulutukseen (tässä vaiheessa)?

4. Do you know how much the schools have invested in the technology training of the staff and the students (at this point)?

5. Tiedätkö, miten paljon koulut ovat yleisesti ottaen investoineet käytettävään teknologiaan?

5. Do you know how much the schools have invested in the technology in general?

Appendix 2: The questionnaire

Kysely tulevasta englannin sähköisestä ylioppilaskokeesta

Questionnaire on the forthcoming electronic matriculation exam of English

Sukupuoli: Nainen / Mies

Sex: F / M

1. Oletko koskaan tehnyt sähköistä koetta? Kyllä/ En

1. Have you ever taken electronic exams? Yes/ No

2. Jos vastasit kyllä, kerro tilanteesta:

2. If yes, please explain the situation:

.....

Valitse mielipidettäsi vastaava vaihtoehto seuraavista väittämistä.

Please rate your level of agreement with the following statements.

Ympyröi vastausvaihtohtosi.

Please circle the number of your choice.

3. Paperipohjaiset kokeet ovat hyvä keino testata oppilaiden tietämystä.

3. Paper exams are a good means of testing students' knowledge.

täysin eri mieltä 1-----2-----3-----4-----5 täysin samaa mieltä

strongly disagree 1-----2-----3-----4-----5 strongly agree

4. Sähköiset kokeet mittaavat kokonaisvaltaista oppimista.

4. *Digital exams measure comprehensive learning.*

täysin eri mieltä 1-----2-----3-----4-----5 täysin samaa mieltä

strongly disagree 1-----2-----3-----4-----5 strongly agree

5. Perinteinen paperipohjainen koejärjestelmä olisi pitänyt säilyttää.

5. *The traditional paper-based examination format should have been retained.*

täysin eri mieltä 1-----2-----3-----4-----5 täysin samaa mieltä

strongly disagree 1-----2-----3-----4-----5 strongly agree

6. Sähköisellä koejärjestelmällä on hyvät mahdollisuudet onnistua jo ensimmäisenä vuotenaan.

6. *The digital examination format has good opportunities to succeed on the first test run.*

täysin eri mieltä 1-----2-----3-----4-----5 täysin samaa mieltä

strongly disagree 1-----2-----3-----4-----5 strongly agree

7. Jos sinulla olisi (ollut) mahdollisuus tehdä sähköinen englannin ylioppilaskoe, tekisitkö sen?

Kyllä / Ei

7. *If you had (had) the possibility to do the digitalized matriculation exam of English, would you do it? Yes / No*

- Miksi / Miksi et?

- *Why / Why not?*

.....

.....

.....

8. Mitkä voisivat mielestäsi olla uudistuvan englannin ylioppilaskokeen hyödyt?

8. In your opinion, what could be the advantages of the new matriculation exam of English?

.....

.....

.....

9. Mitkä voisivat mielestäsi olla uudistuvan englannin ylioppilaskokeen haitat?

9. In your opinion, what could be the disadvantages of the new matriculation exam of English?

.....

.....

.....

10. Sähköisessä englannin ylioppilaskokeessa kuunteluosio tulee olemaan samana päivänä kuin kirjallinen osio. Onko se mielestäsi hyvä uudistus? Miksi / Miksi ei?

10. In the digitalized matriculation exam of English, the listening comprehension part will be on the same day as the written part. Do you think it is a good improvement? Why / Why not?

.....

.....

.....

11. Tulevaisuudessa englannin ylioppilaskokeessa tulee olemaan myös suullinen osio. Onko se mielestäsi hyvä uudistus? Miksi / Miksi ei?

11. In the future there will be an oral part in the matriculation exam of English. Do you think it is a good improvement? Why / Why not?

.....

.....

.....

Kiitokset kyselyyn osallistumisesta! :)

Thank you for answering the questionnaire! :)