

# **Digital Testing During the Pandemic Crisis: University Students' Opinions on Computer-based Tests**

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## **Abstract**

*In 2020, the pandemic crisis caused by covid-19 led to some changes in global education. Consequently, primary and secondary schools as well as universities introduced distance learning in many countries all over the world. This situation mostly required, among other things, a new way of testing learners' knowledge and skills. The objectives of this paper are to reveal university students' opinions on computer-based tests in comparison with paper-and-pencil tests and to map their requirements concerning digital testing of English as a foreign language. The research sample includes 284 students of the Faculty of Business and Management, Brno University of Technology, Czech Republic. These students experienced online testing at home during the summer semester of 2019/20 as well as paper tests at school in the previous winter semester of the same academic year. Thereafter, they were asked to complete an anonymous online questionnaire. The results have shown that the learners were mostly satisfied with the introduction of online testing at home. However, if the electronic tests took place at school, not all of them would prefer this way of testing. Regarding tasks in digital tests, the learners gave priority to assignments based on multiple choice. Moreover, the respondents expressed their views on electronic devices and testing speaking skills on online platforms.*

**Keywords:** digital testing; English as a foreign language; online tests; pandemic crisis; university students

## **1. Introduction**

Recently, primary and secondary schools as well as universities in many countries around the world have been innovating their approaches to teaching and testing. This trend was accelerated in 2020, when the global pandemic crisis caused by covid-19 led to the closure of many schools and introduction of distance learning. This paper aims to fill a gap in the current literature concerning university students' opinions on online testing of English as a foreign language during the pandemic crisis.

From March to May 2020, a state of emergency was declared in the Czech Republic resulting in significant changes in education, which also affected universities. University students were not allowed to attend courses and distance learning was introduced instead. Later, only a limited number of learners was allowed to enter school buildings, so a lot of teachers decided to assess their students' knowledge with the help of

online tests. This article introduces readers to university students' views on distance testing of English as a foreign language.

## **2. Theoretical background**

Nowadays, university teachers can use e-learning platforms not only for the preparation of online tests, but also for uploading various teaching materials. The combination of online education materials with traditional classroom methods is called Blended Learning (BL). Ughade and Badre (2020) tried to determine Indian MBA students' perceptions of BL in terms of its suitability in higher education. They used a structured questionnaire which was completed by 75 respondents. The authors found out that 57% of the students considered BL to be more effective than traditional classroom teaching, 60% agreed that they were able to access the content anytime and anywhere, 71% were of the opinion that BL increased their interest in the subject and 64% of them thought that BL should be incorporated in higher education.

In the field of foreign language teaching, the implementation of BL was investigated by Muhtia and Sumardi (2018). The case study involved one lecturer and six students of a paragraph writing course at the English Education Department of a university in Indonesia. The techniques for collecting data included interviews, observations and document analysis. Ten BL activities, including five activities in face-to-face settings (lecturing, class discussion, pair/group work, teacher-student conferencing, portfolios) and five activities online (uploading materials, online quizzes, online writing assignments, displaying the assignments, online feedback), were identified in the course. In order to find out the extent to which the use of BL affected the paragraph writing performance of 27 students, their scores were analysed and the positive effect occurred. Therefore, BL seems to be beneficial in higher education.

E-assessment (EA), which is an assessment where all procedures should be carried out electronically, helps teachers correct exams and release marks in a short time. Altruwais et al. (2018) discuss the advantages of using EA in different domains: student, teacher, institution, and education aims. They claim that students prefer EA because they can have more control, immediate feedback, improved performance, friendly interfaces, increased motivation etc. On the other hand, EA saves teachers' time, helps them to improve the quality of feedback for students, enables them to track students' performance, allows them to find misconceptions, reduces their burden etc. Moreover, using EA decreases the cost of institution to assess students, as the time is reduced. Next, EA has its own security by not allowing copying questions, assists in reduction of cheating by providing different questions in different order, includes checking identification and password verification to ensure students' identity etc. Last but not least, it supports educational aims by high order thinking skills, has the ability to sort questions which helps to represent information in a simple and fast way or provides more accurate results than paper tests by adaptive testing. To sum up, electronic tests offer many advantages.

However, the question is whether students' results in these tests are comparable to paper tests, which was investigated by Boevé et al. (2015) in the Netherlands. Altogether 401 bachelor students were enrolled in

a biopsychology course, half of which was randomly assigned to take a digital midterm test while the other half took a digital final test. The students' performance in these multiple-choice question exams has shown that there was no significant difference in the mean-number of questions answered correctly between the computer-based and paper-based mode for both the midterm and final exam. Next, after completing the computer-based exam the students were invited to fill in a questionnaire on their experience with it. In this respect, there was a difference in how the questions were evaluated between the midterm and final exam – the learners were less able to concentrate in the midterm test. Overall, 50% of the students preferred the paper-based exam, 28% gave priority to the computer-based one, and 22% indicated that they did not have a preference for one mode over another.

Similarly, Washburn et al. (2017) evaluated students' performance and perceptions of electronic vs. paper multiple-choice tests in a veterinary physiology course at the Texas A&M University College of Veterinary Medicine and Biomedical Sciences. In total, 134 first-year veterinary students and 13 graduate students were randomly assigned into two groups and were given four exams throughout one semester – two on paper and two electronically. Surprisingly, the mean score for electronic examinations was significantly greater than for paper ones. Next, the students anonymously completed two surveys concerning their experiences – at the beginning and at the end of their study. However, the results show that 87% indicated that they preferred paper over electronic formats, so the students' attitudes to the format were not primarily determined by their results. Moreover, almost all learners participated in one focus group discussion of 12 students. When asked if they experienced additional anxiety before the test because it was electronic, 85% responded yes. Only 28% of the students reported no technical problems with their device or software, the rest mentioned problems with downloading the exam, long delays caused by waiting for it to open or freezing their device. Therefore, technical problems are probably an inevitable part of electronic testing.

In the area of language education, Alyahya and Almutairi (2019) measured the impact of implementing electronic tests on middle school students' academic achievement in Arabic language courses in Saudi Arabia. They used mixed research design with quantitative experimental approach based on two groups – experimental with an electronic test and control with a paper-and-pen test. The test included questions measuring various components – listening and reading comprehension, spelling, writing, linguistics, grammar and writing skills. The results have shown a positive effect of digital testing on the students' academic achievement, especially in 'linguistics' where this component had a significant impact. Next, a qualitative approach with semi-structured interviews was used in a focus group of 8–10 students to find out their views on electronic testing and some important suggestions have been identified. For example, the ability to review the answers and change them in the electronic test had a positive effect on the students while their stress at the beginning of the digital test begun to disappear over time.

The above-mentioned stress might lead to poor academic performance. Kolagari et al. (2018) aimed at the effect of computer-based tests on students' anxiety at Golestan University of Medical Sciences, Iran. The quasi-experimental study was conducted with 39 nursing students with the anxiety score under 128 on Spielberger's State-Trait Inventory. The learners were randomly allocated to computer-based and paper-

based test groups. Prior to the exam all students completed Sarason's Test Anxiety Scale. The results have shown that 47% of the computer test students and 29% of those in the paper test group experienced higher test anxiety. However, this difference was not statistically significant, which, according to the authors, could be caused by the students' skills in handling their mobiles, tablets or laptops.

In conclusion, the introduction of electronic tests might lead to students' higher stress level, however, their results should not be negatively affected. In general, students are not inclined to change paper tests to electronic testing, which may be caused by, among other things, potential technical problems. However, university students will probably have to get used to this method of testing, since the current trend in science and technology is heading for it. Pokrivcakova (2019) focuses on this trend and claims that the constant development of modern information and communication technologies leads to the possibility of applying artificial intelligence in foreign language learning, for example in the form of personalized learning materials, machine translation tools, writing assistants, chatbots, language learning software, intelligent tutoring systems and intelligent virtual reality. As a result, foreign language education is becoming more learner-centred, as students are able to make their own decisions and become more responsible for their work.

### **3. Research methodology**

The research was conducted in two English language courses, each lasting two semesters, at the Faculty of Business and Management, Brno University of Technology. The first course, called Business English I/II, was focused on teaching English for Specific Purposes (level B1+ according to CEFR) in bachelor's study programmes. The content of the second course, whose name was English Language B2 I/II, was English for General Purposes (level B2 according to CEFR). This course was aimed at the preparation of master's programmes students for the First Certificate in English.

In both courses, the students took paper-and-pencil tests at school in the winter semester of 2019/20 while online testing was introduced in LMS Moodle in the summer semester of the same academic year. These tests examined the learners' knowledge of grammar and vocabulary, as well as their listening and reading skills. Therefore, they had the opportunity to compare the same types of tests in two different forms. The students completed the online tests at home, which provided them with some benefits. However, they were also asked for their opinions on potential computer-based tests at school and their preferences concerning electronic testing.

The available selection of respondents was realised in the research – a total of 633 learners were asked to complete a questionnaire, namely 402 full-time bachelor students, 171 full-time master students and 60 part-time master students. Altogether 284 respondents filled in the questionnaire, so the return rate was 45%. In total, there were 162 full-time bachelor students (40% return), 99 full-time master students (58% return) and 23 part-time master students (38% return). The percentage distribution of the research sample is shown in Figure 1.

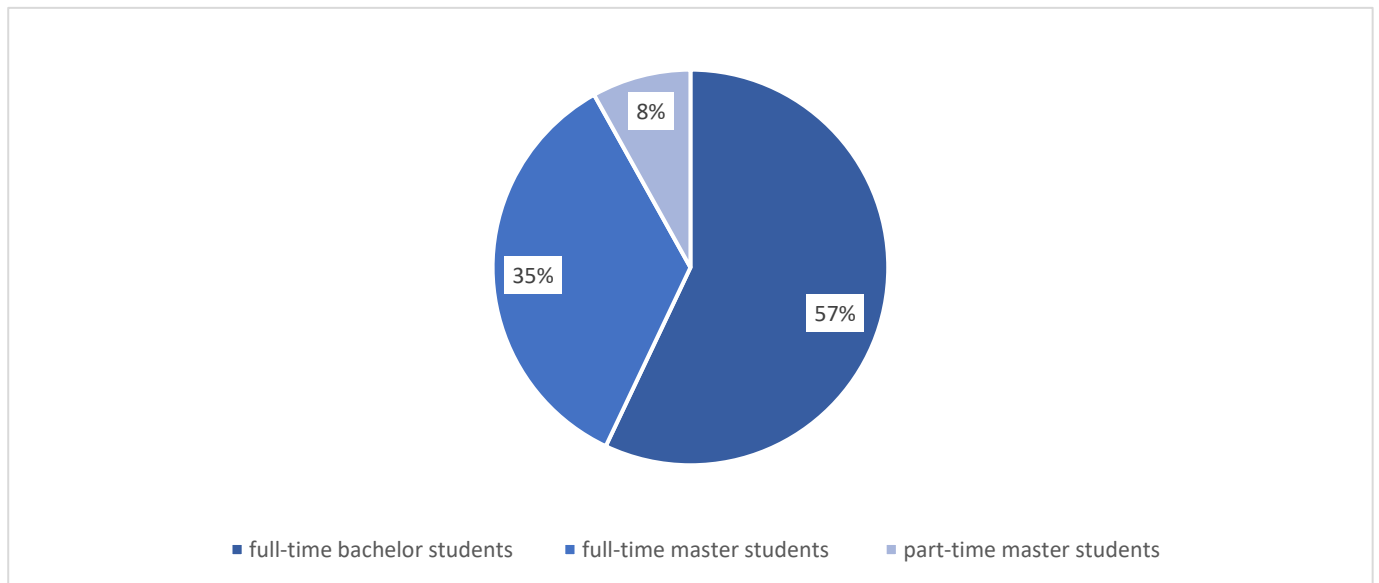


Figure 1. Research sample

As mentioned above, the aim of the research was to find out whether the university students preferred computer-based tests to paper-and-pencil tests and to map their requirements concerning digital testing in the English courses. Based on these objectives, a main research question has been created: *Do the students prefer computer testing to paper testing and what kind of online tests do they require?* This main question has been divided into several sub-questions:

- 1) *Were the students more satisfied with the paper-and-pencil tests taken at school or the computer-based tests taken at home?*
- 2) *Would the students be more satisfied with paper-and-pencil tests taken at school or computer-based tests taken at school?*
- 3) *Which electronic devices would the students choose for digital testing at school?*
- 4) *How were the students satisfied with the test tasks used in their online tests?*
- 5) *Would the students be satisfied with digital test tasks based on writing skills?*
- 6) *Would the students be satisfied with testing speaking skills via online platforms?*

The research method of questionnaire has been chosen to address the above-mentioned questions, since a lot of information could be obtained from a large sample of respondents with the help of the questionnaire (Gavora, 2012). In June 2020, the university students were asked by email to fill in the questionnaire published on [www.surveymonkey.com](http://www.surveymonkey.com). It consisted of eight questions (see Appendix). The first, factual question, was focused on the division of learners into the individual English courses.

The other six closed questions consisted of a scale of answers: *definitely yes – rather yes – don't know – rather no – definitely no*. These questions were based on the research sub-questions and each question had to be completed for three items:

- 1) *Were the computer tests which you took in the summer semester at home more convenient for you than the paper tests which you took in the winter semester at school? – Final Test, Listening, Reading*
- 2) *If the computer tests which you took in the summer semester were conducted at school, would they*

be more convenient for you than the paper tests at school? – Final Test, Listening, Reading

3) If you had to take the computer tests at school, would it be convenient for you to use the following devices? – Computer, Laptop, Tablet

4) Were you satisfied with the types of test tasks listed below that occurred in your computer tests? – True / False Choice, ABCD Multiple Choice, Text with Multiple Choice Words

5) Would you be satisfied if the test tasks listed below appeared in your computer tests? – Text with One Missing Word, Short Answer (1–5 Words), Long Answer (Several Sentences)

6) Would you be satisfied with the types of computer oral examination listed below which would be conducted in an online platform (e.g. Microsoft Teams, Skype, Zoom)? – Individual Speech, Conversation with a Classmate, Conversation with the Teacher

The last open question enabled the students to mention any comments and suggestions concerning the previous questions. This opportunity was taken by 42 students, which represents 15% of all the learners who completed the questionnaire. The validity of the questionnaire was increased by its anonymity, as anonymous questionnaires usually provide truer answers than non-anonymous (Gavora, 2000).

#### 4. Results and discussion

As the main research objective was to find out whether paper or computer tests were more suitable for the students, it would be appropriate to mention the learners’ evaluation. Figure 2 shows the students’ marks in both semesters and it is clear from it that they achieved significantly better results during computer testing in the summer semester. This was probably due to the fact that they sat for the tests at home, where they could use course materials or be in contact with other learners. Scientific literature also mentions better results in electronic tests (Alyahya & Almutairi, 2019; Washburn et al., 2017). However, this paper is about the comparison of results from two different tests (in the winter and summer semester) at two different places (at school and at home), so it cannot be compared to other authors’ experimental research.

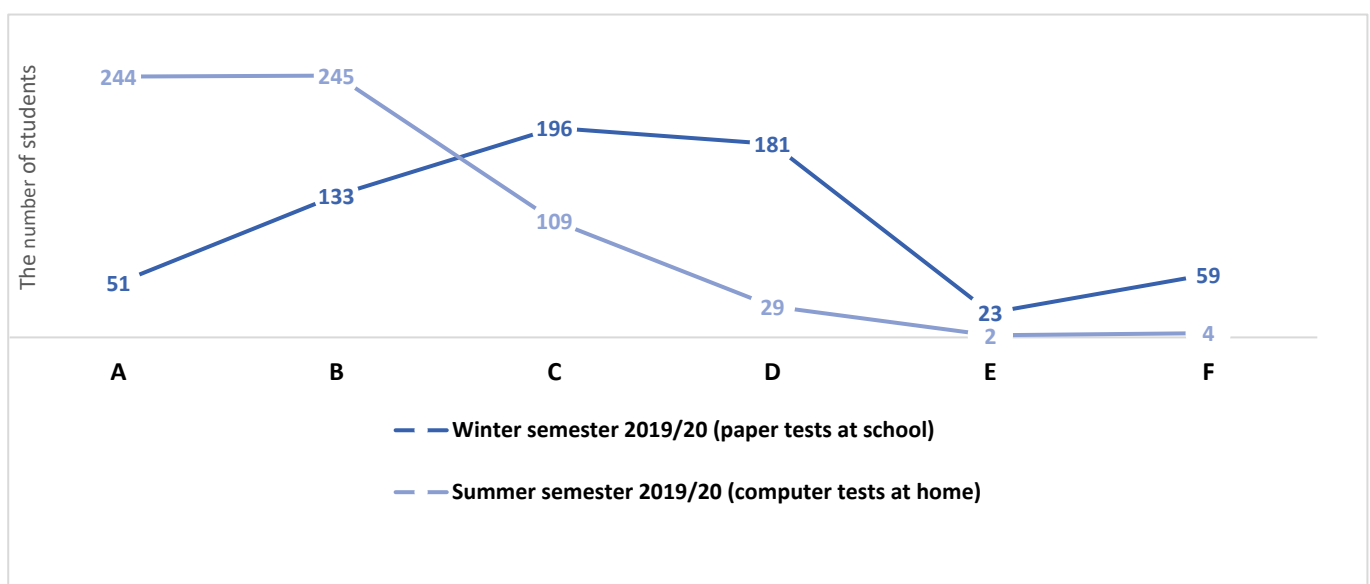


Figure 2. Students’ evaluation

### 4.1 Computer vs. paper tests

As already mentioned, two questions were aimed at comparing the respondents’ satisfaction with paper and digital tests, both at home and at school. The students’ answers were related to three types of tests – *Final Test, Listening, Reading*. The *Final Test* examined the learners’ knowledge of grammar and vocabulary, where they had *ABCD Multiple Choice* answers. *Listening* and *Reading* tests, examining listening and reading skills, were slightly different in paper and electronic forms. Whereas the computer tests consisted of three types of test tasks (*True / False Choice, ABCD Multiple Choice, Text with Multiple Choice Words*), the paper tests used these assignments as well but also some other tasks which were not included into digital testing (filling missing words and phrases into listening transcripts, finding words and phrases according to their definitions in reading texts, adding sentences into reading texts, etc.).

In the first question, the respondents were asked if they had been more satisfied with the computer-based tests taken at home than with the school paper-and-pencil tests. Figure 3 shows that most students (89%) were satisfied with all computer tests, especially with *Listening*. Only some learners (8%) were against digital testing and a negligible number of them (3%) did not know. In the second question, the respondents were asked for their opinions on computer tests taken at school in comparison with paper tests. Figure 4 shows that their answers were substantially different. Although more students (54%) were for electronic testing, there was a significant number of learners (31%) who preferred paper tests, the rest of them (15%) did not know. The students were satisfied especially with the digital testing of *Listening*, a little less with *Final Test* and finally with *Reading*. Therefore, in both cases, most students gave priority to electronic tests. However, this is not consistent with other research (Boevé et al., 2015; Washburn et al., 2017) where most learners preferred paper tests.

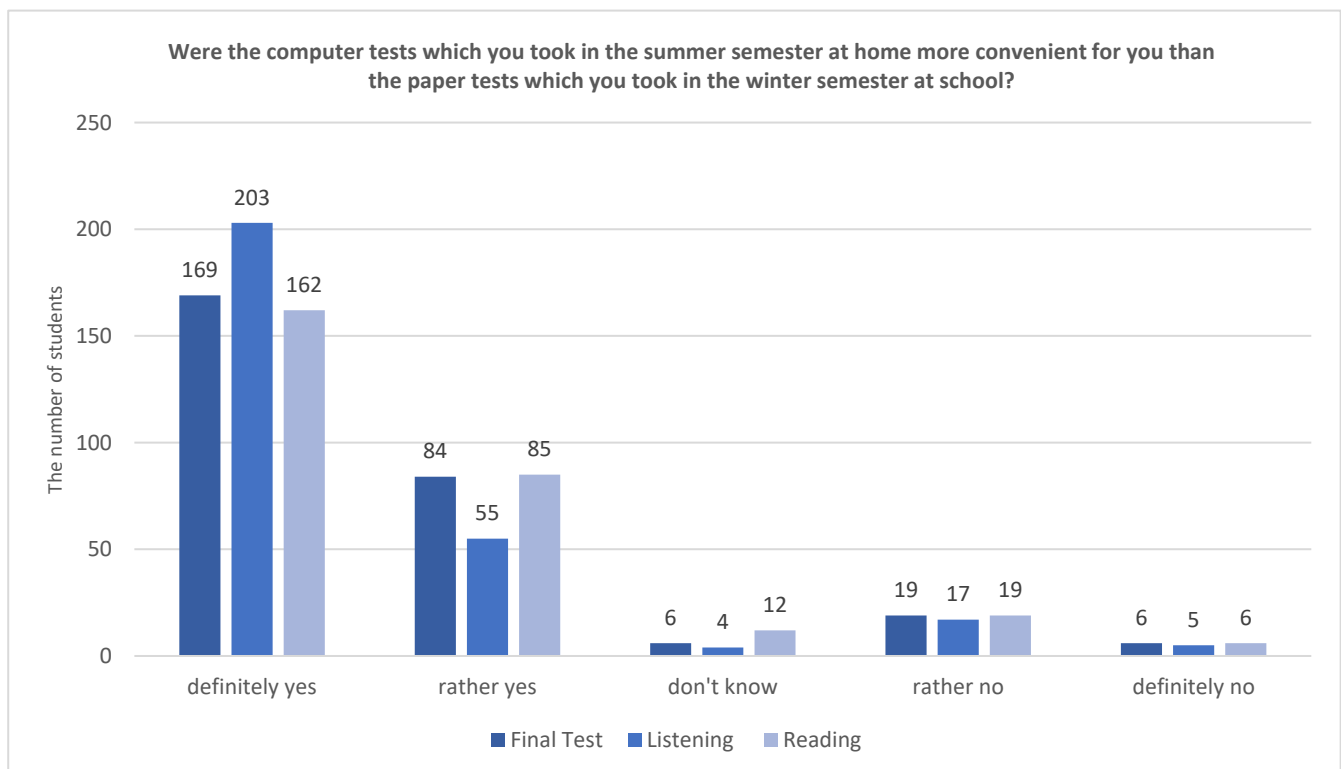


Figure 3. Students’ opinions on computer tests taken at home

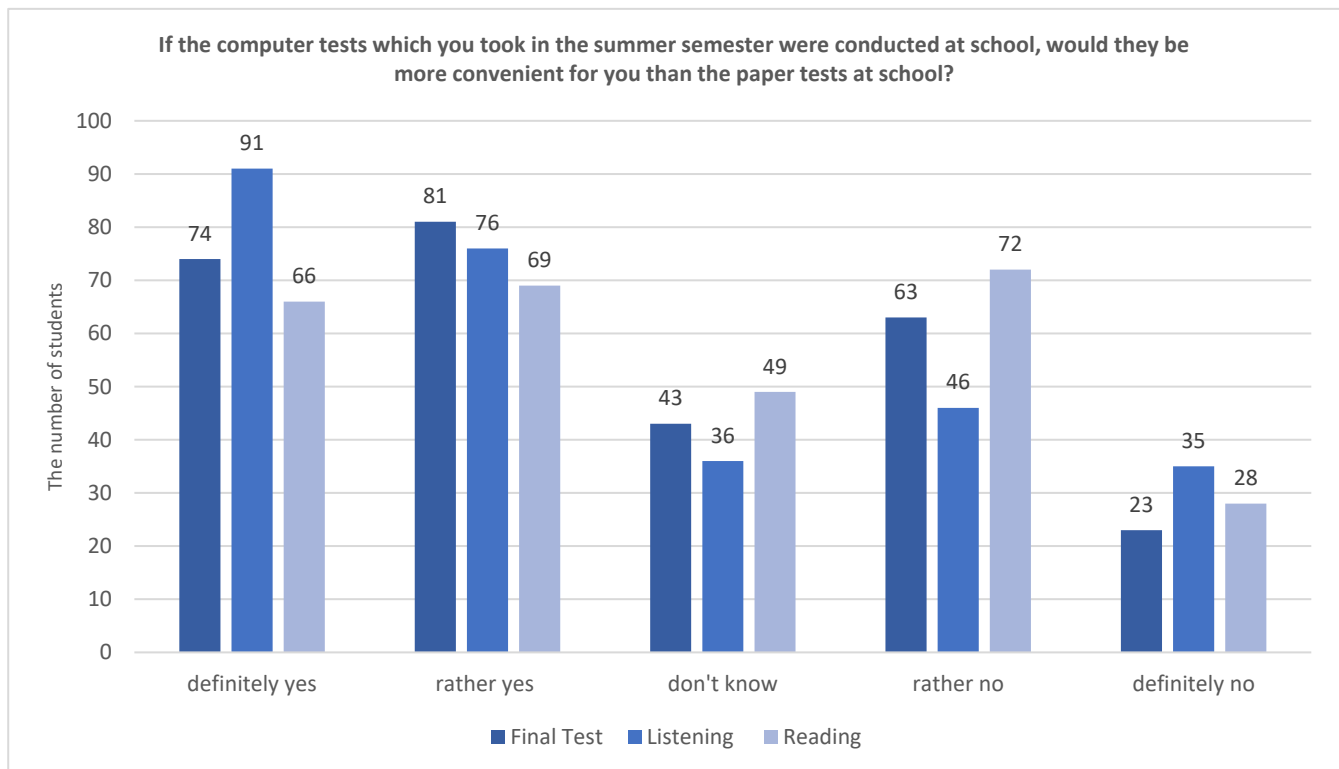


Figure 4: Students' opinions on computer tests taken at school

In the last, open question of the questionnaire, 5 respondents mentioned technical problems during *Final Test*. The test was mostly slowed down, or some students' websites crashed, which was caused by the fact that more than 400 learners joined it in LMS Moodle at the same time. Later, this problem was solved by taking online tests in a time range of several hours, but still having a limited time for the individual tests. Nevertheless, other 5 learners complained about technical problems concerning stopping and moving the recording during *Listening*. Moreover, 4 students mentioned some advice to prevent technical problems and the need to improve the way how to demonstrate possible technical failures. To sum up, technical problems might be common issues when implementing electronic testing (Washburn et al., 2017).

Regarding the content of the tests, 2 students mentioned that *Final Test* was not fundamentally different from its paper form and that they did not mind the digital form, a student asked for the possibility to have all questions on one page and 2 learners suggested that *ABCD Multiple Choice* should also include the option "no answer" because of deducting points for wrong answers. According to a large number of learners (16), the great popularity of online *Listening* (see Figures 3 and 4) lied in the possibility to stop and move the recording and to use their own headphones as opposed to school loudspeakers. Moreover, 3 students mentioned their dissatisfaction with scrolling up and down all questions in *Listening* and *Reading* since it was not possible to see the whole screen. A student mentioned that he would prefer a paper version in *Reading*, where he would be able to underline words and orient himself better in the text. This could result in less popularity of digital *Reading* in comparison with *Final Test* and *Listening* (see Figures 3 and 4).

On the whole, the respondents' preference for home electronic tests might be caused by the possibility of using school materials at home or comparing answers with other schoolmates. This was also mentioned by



a student: “Computer tests are useless. Try to compare the success rates of school and home tests. Students will always cheat in computer tests – this cannot be prevented in any way, unlike face-to-face tests.” However, stress factors at school could also play a role, which was mentioned by 3 learners: “I get a lot of stress from tests. There was no such stress at home, and I was able to concentrate better.” On the contrary, the stress factor has been studied by some authors (Alyahya & Almutairi, 2019; Kolagari et al., 2018; Washburn et al., 2017) who have come to the conclusion that electronic tests increase students’ anxiety more than paper tests. However, in this study the electronic tests took place in home environment, which, on the contrary, had a calming effect on the students. Moreover, 2 students noted the advantage of home testing because of the time saved by not travelling to the university.

#### 4.2 Equipment for digital testing

The intention of one question was to find out which equipment the respondents preferred to take online tests on. For this reason, three devices were selected – a computer, laptop and tablet. Figure 5 shows that most students gave preference to the computer (82%) and laptop (84%) – the answer *definitely yes* was mainly for the computer and *rather yes* for the laptop. Only a small number of the learners (11% and 12% in the same order) did not choose these devices while the rest of them did not know (7% and 4%). The situation was different with the tablet – as many as 68% of the students were against it and only 20% voted for it, while the remaining 12% could not decide.

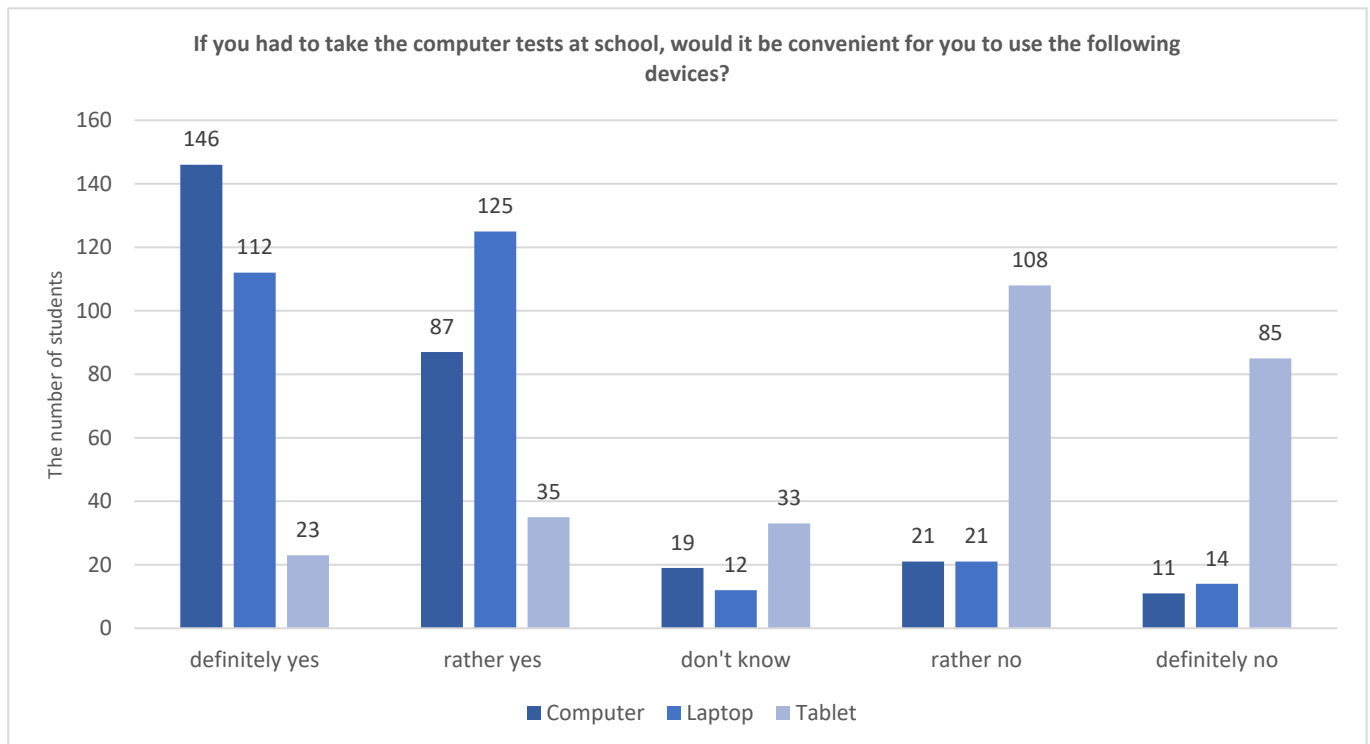


Figure 5. Devices for computer testing

Some respondents also mentioned their preferences concerning these devices in more detail. One of them noted: “An electronic version requires headphones, a good display (resolution, size), a physical keyboard and mouse/touchpad (therefore not a tablet) and the ability to write notes on paper.” Another student

mentioned his need to take school tests on his own laptop, and 2 students demanded the possibility to have their own headphones. While the latter would be a suitable and hygienic solution, it would not probably be possible to use the learners' own laptops because of the possibility of using the Internet or other materials in these devices.

### 4.3 Types of test tasks

The purpose of one question was to find out how the respondents were satisfied with the test tasks used in their online tests. A task called *ABCD Multiple Choice* (Figure 6) was used not only for *Final Test* but also for *Listening* and *Reading*. In *Listening* there was also task *True / False Choice* (Figure 7) and in *Reading* task *Text with Multiple Choice Words* (Figure 8).

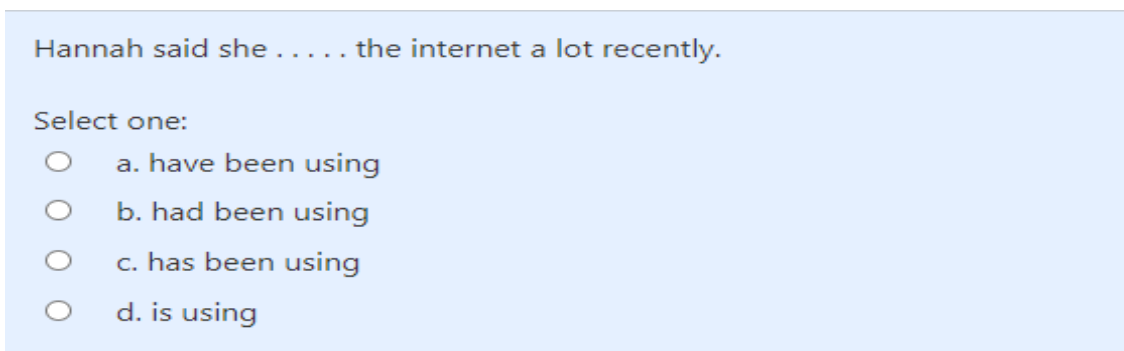


Figure 6. ABCD Multiple Choice

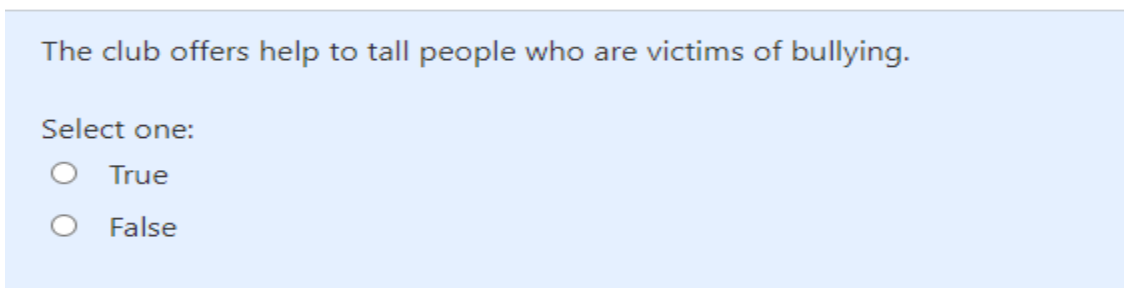


Figure 7. True / False Choice

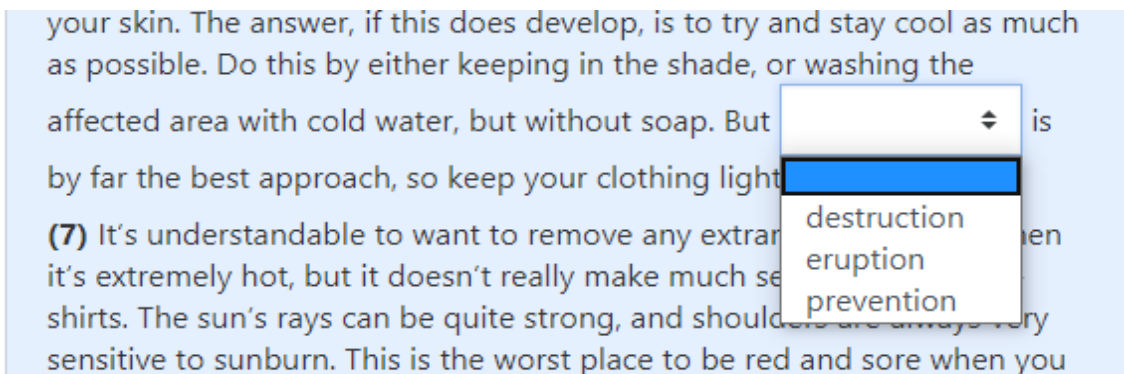


Figure 8. Text with Multiple Choice Words

Figure 9 shows that the students were mostly satisfied with all the mentioned test tasks. The most favourite

was *ABCD Multiple Choice* – 97% of the learners liked it and only 2% were against it. The students also expressed their satisfaction with *True / False Choice* (94%) where the number of dissatisfied learners was very low (5%). In both cases only 1% of students could not decide. The results for the last task called *Text with Multiple Choice Words* are not so explicit, as 71% of the learners voted for it, 22% were against it and 7% were not sure. The overall satisfaction with these types of tasks probably lay in their simplicity and unambiguity since the students did not have to invent their own answers.

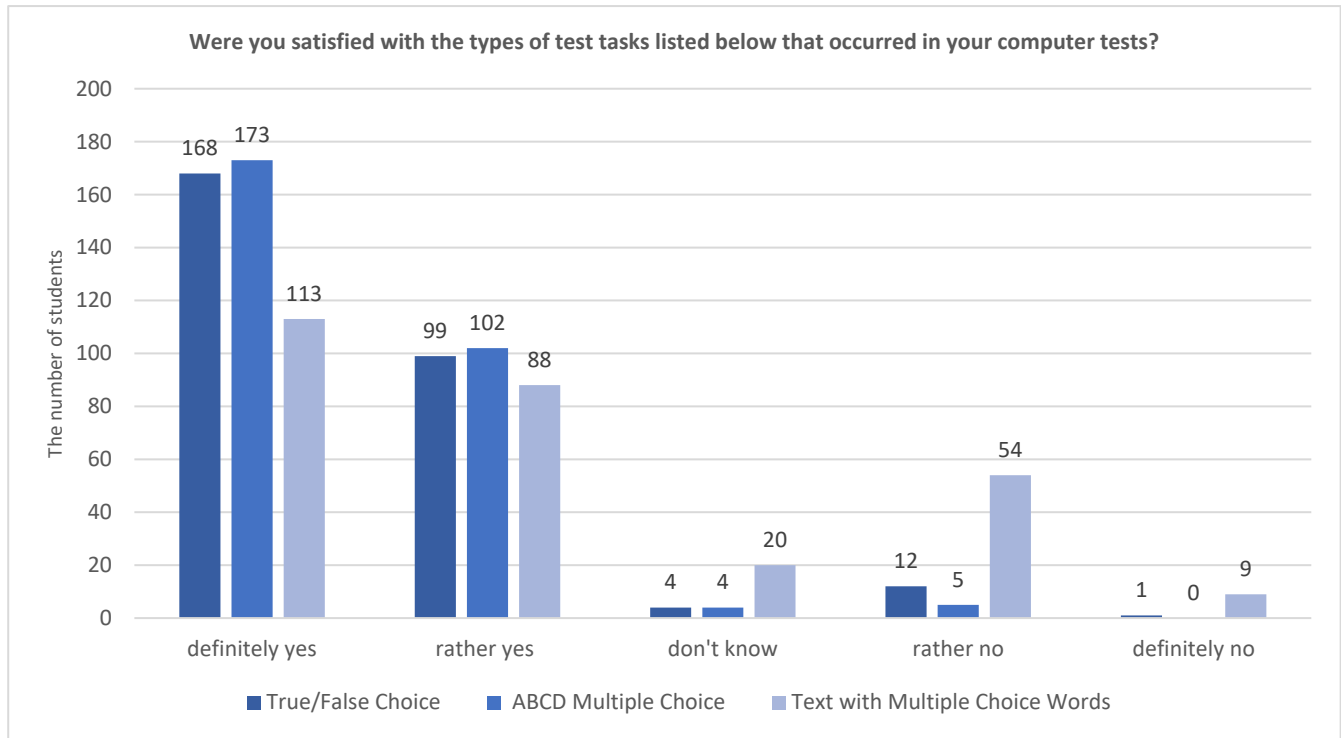


Figure 9. Students' opinions on multiple choice tasks

However, the respondents were asked not only about the tasks that had been included in their electronic tests, but also about others based on their own writing. Three types of tests were offered in the questionnaire – *Text with One Missing Word* (Figure 10), *Short Answer (1–5 Words)* (Figure 11) and *Long Answer (Several Sentences)* (Figure 12). The first two tasks had predefined answers, while the last task had to be corrected by a teacher in LMS Moodle.

Words convey the messages that we want others to hear, but our bodies may tell a different story. Whether we express our problems to our colleagues with a hunched back and sad, downcast eyes, or our enthusiasm  life with a cheerful spring in our step, our bodies are constantly sending out messages. And understanding these clues that we unavoidably offer each other is an essential part of effective communication.

Figure 10. Text with One Missing Word

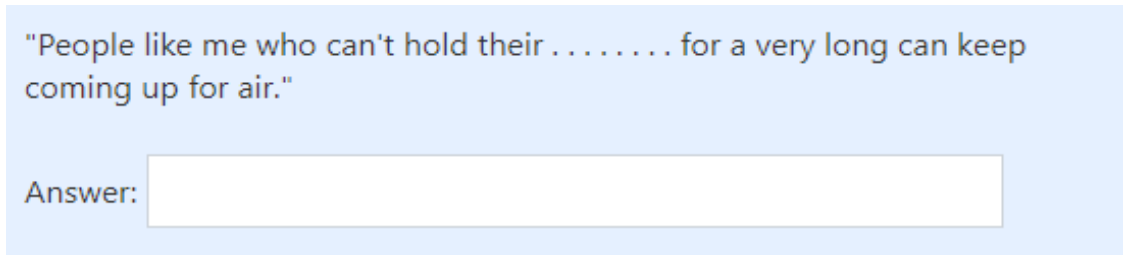


Figure 11. Short Answer (1–5 Words)

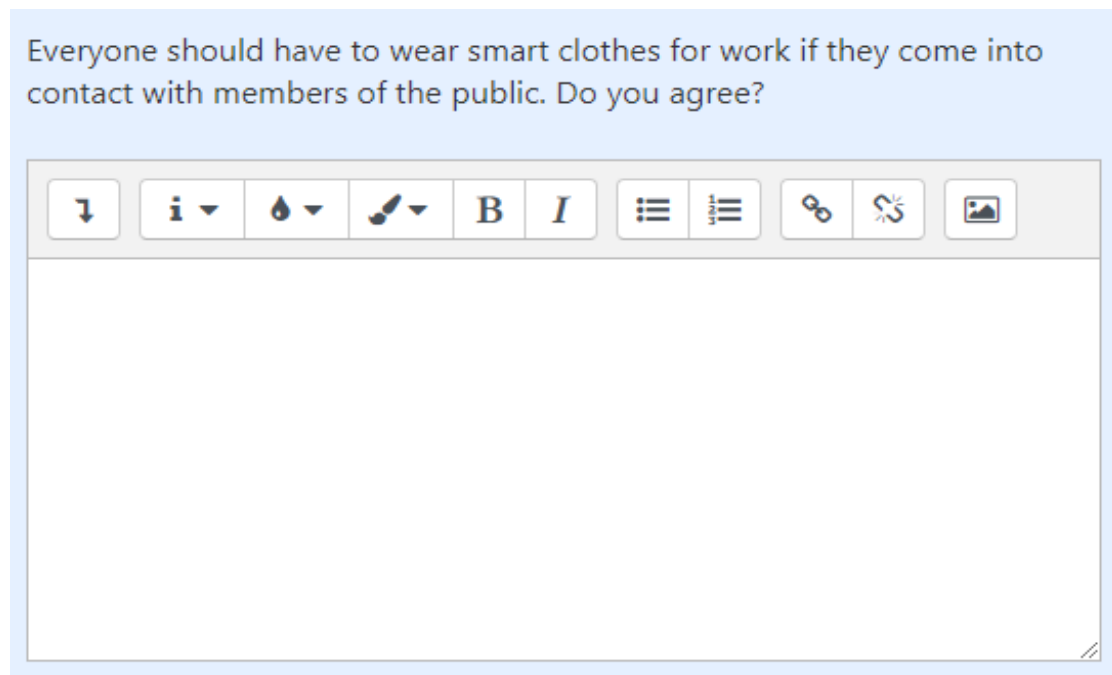


Figure 12. Long Answer (Several Sentences)

According to Figure 13, these tasks were not very popular in comparison with the tasks based on the students' choice (see Figure 9). Only 64% of the students were for *Text with One Missing Word*, while 37% could imagine completing *Short Answer (1–5 Words)* and 13% *Long Answer (Several Sentences)*. It seems that the more words the learners would have to write, the lower their interest. Moreover, the students who were not satisfied with these tasks made up a significant number (26%, 51% and 77% in the same order), while 10%–12% of the learners could not decide.

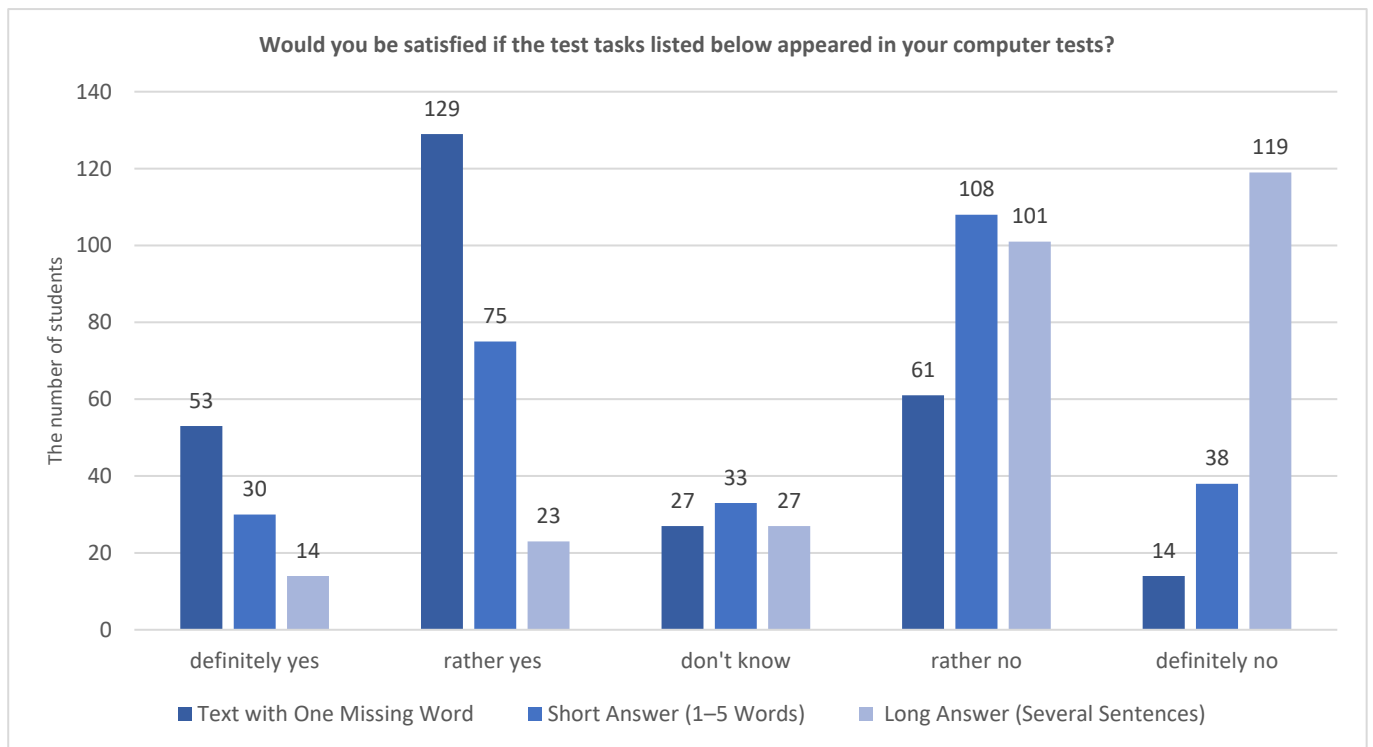


Figure 13. Students’ opinions on writing tasks

Obviously, these tasks would be more difficult for the learners, which also 2 of them noted: “As for the longer questions in the test, I think that the tests would be more demanding, which would not be a problem if the student was allowed to answer the question in his own words.” Similarly, 4 students were concerned with the idea that they might make mistakes in the predefined answers, which could be caused by typing errors.

#### 4.4 Testing speaking skills

In the field of foreign language knowledge (grammar, vocabulary) and skills (listening, reading, speaking, writing) the greatest importance of speaking skills has been mentioned by both students and employers (Dzieciol-Pedich, 2014; Hloušková, 2010; Jašková & Šťastná, 2019, Neuwirthová, 2009). Therefore, the aim of one question was to determine whether the students would welcome this type of testing on online platforms such as Microsoft Teams, Skype or Zoom. They were offered three options of testing their speaking skills – *Individual Speech* (e.g. talking about photos), *Conversation with a Classmate* (e.g. solving a problem) and *Conversation with the Teacher* (e.g. answering questions).

Figure 14 suggests that the respondents were not very enthusiastic about testing their speaking skills. Firstly, *Individual Speech* was chosen by 29%, while 55% were against it. As far as *Conversation with a Classmate* is concerned, altogether 35% of the students voted for it, but 48% rejected this task. The situation is slightly better with *Conversation with the Teacher* where almost half of the learners (44%) would not mind this way of testing, but also many students (39%) were against it. In all cases, there was a relatively large percentage of the learners (16%–17%) who were not able to answer this question.

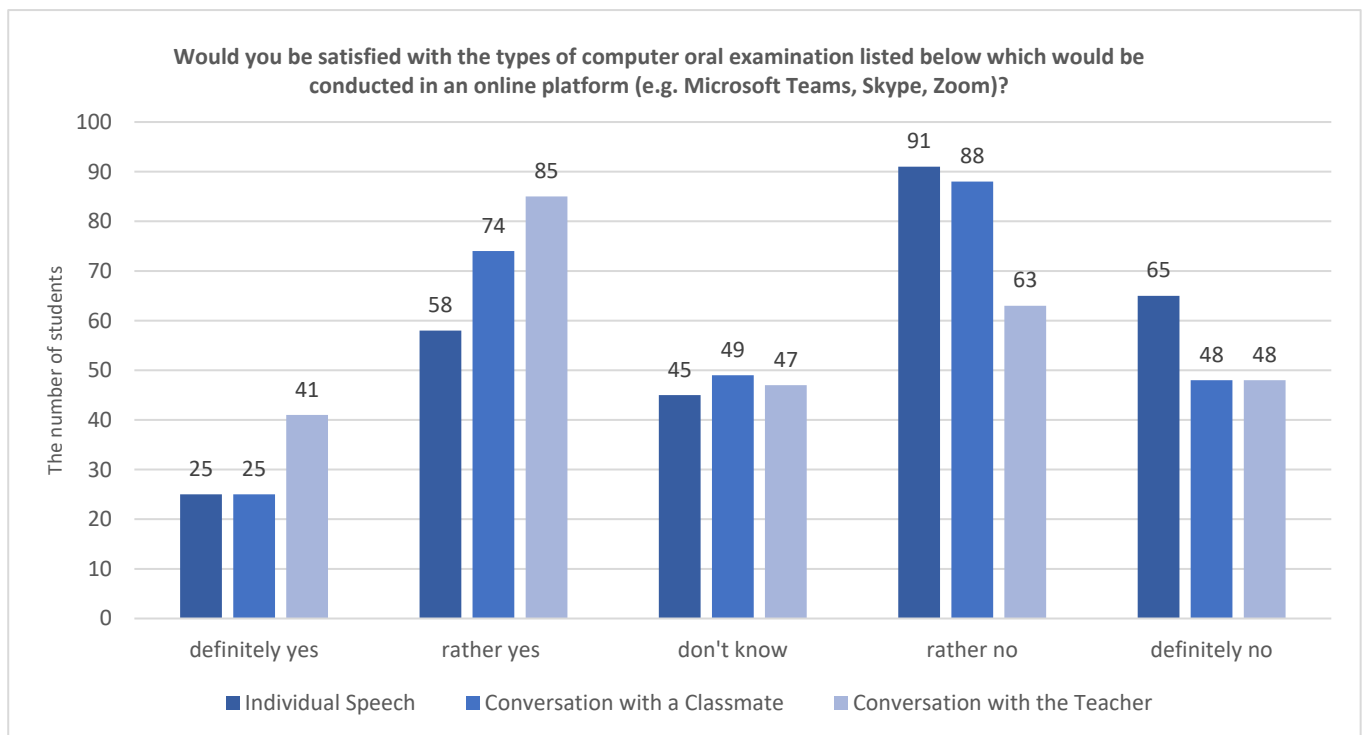


Figure 14. Students’ opinions on speaking tasks

As for testing speaking skills, a student mentioned: “In my opinion, oral examination is the best way to test a student’s knowledge of this subject.”, while another learner noted: “For us students, it would certainly be a better way to test some conversation. It is much more practical, and I would say more useful for life.” However, another learner admitted some negatives of oral examination: “From my own experience, I am not afraid to say that students are much more diffident at speaking than at the test form. But on the other hand, the spoken word is much more beneficial than the test – the spoken word is used much more often (mostly).” Only one student disagreed with this way of online testing: “Electronic testing bothers me a lot. I do not like the invasion of privacy, a student has to show his room, or simply the surroundings where he lives. For me, it is an extreme invasion to privacy.” This opinion should be taken into account and solved in some way, for instance, by choosing an artificial background offered by a platform.

**4.5 Students’ opinions on distance learning**

As already mentioned, distance learning took place in the second half of the summer semester, when the students had various materials available in LMS Moodle (ppt presentations, textbook keys, recordings, mock tests etc.). At the end of the questionnaire, some students shared their views on this type of education as well. For example, a student mentioned his experience with this way of learning: “I also think that it would not be out of the question if these lessons took place only in an electronic way through e-learning, like Information Literacy.” Another student noted that distance teaching could take place only during several weeks of a semester or as compensation for absences. A part-time student also requested video lectures on e-learning and praised distance testing: “For the part-time form, the distance exam with variable time is ideal and I am very much in favour of it in the future.” However, teachers should realise that these students’ opinions cannot be taken as dogma, as they might be driven by their desire to make their studies

easier.

## 5. Conclusion

In conclusion, the students were mostly satisfied with the online tests which they were allowed to take at home. However, they would not be so satisfied if they had to take these tests at school where they would prefer personal computers or laptops to tablets. As for the types of test tasks, they liked the tasks where they could choose the correct answer, while they mostly disliked written answers. Next, the students had different attitudes to oral examination on online platforms, considering conversation with a teacher to be the best way of testing speaking skills. These research findings provide insight into electronic testing from the learners' point of view, which might be useful in many universities where this way of English as a foreign language testing is being considered.

To sum up, computer-based testing is probably an inevitable future of foreign language teaching at universities. The tests themselves do not necessarily have to be based only on the choice of options, but also on written answers, so they can fully replace paper tests. Moreover, digital testing is useful especially in the assessment of a large number of students, where the biggest advantage is correction by software. The ideal situation would be if it was possible to take computer-based tests at school so that learners' knowledge could be objectively assessed. However, in the event of a pandemic crisis, the tests can also be taken at home, where it is not possible to prevent cheating. This problem should be solved in the future, for example by using special software to monitor students.

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**Appendix**

**Appendix 1. Questionnaire**

**Questionnaire of Students’ Opinions on Electronic Testing**

The aim of the questionnaire is to find out whether students in English courses prefer a digital form of testing to paper tests and what their preferences concerning computer testing are. The questionnaire is anonymous, consists of 8 questions and takes about 5-10 minutes.

**1) I am a student of ...** (select 1 option)

Bachelor full-time study (courses HA1PZ, HA2PL)	
Master full-time study (courses AJ1B, AJ2B)	
Master part-time study (courses AJ1BK, AJ2BK)	
Others	

**2) Were the computer tests which you took in the summer semester at home more convenient for you than the paper tests which you took in the winter semester at school?** (select 1 option for each type of test)

	Definitely yes	Rather yes	Don’t know	Rather no	Definitely no
Final Test					
Listening					
Reading					

**3) If the computer tests which you took in the summer semester were conducted at school, would they be more convenient for you than the paper tests at school?** (select 1 option for each type of test)

	Definitely yes	Rather yes	Don’t know	Rather no	Definitely no
Final Test					
Listening					
Reading					

**4) If you had to take the computer tests at school, would it be convenient for you to use the following devices?** (select 1 option for each device)

	Definitely yes	Rather yes	Don’t know	Rather no	Definitely no
Computer					
Laptop					
Tablet					

**5) Were you satisfied with the types of test tasks listed below that occurred in your computer tests?** (select 1 option for each type of test task)

	Definitely yes	Rather yes	Don’t know	Rather no	Definitely no
True/False choice					

ABCD multiple choice					
Text with multiple choice words					

6) Would you be satisfied if the test tasks listed below appeared in your computer tests? (select 1 option for each type of test task)

	Definitely yes	Rather yes	Don't know	Rather no	Definitely no
Text with one missing word					
Short answer (1-5 words)					
Long answer (several sentences)					

7) Would you be satisfied with the types of computer oral examination listed below which would be conducted in an online platform (e.g. Microsoft Teams, Skype, Zoom)? (select 1 option for each type of oral exam)

	Definitely yes	Rather yes	Don't know	Rather no	Definitely no
Individual speech					
Conversation with a classmate					
Conversation with the teacher					

8) If you have some comments, suggestions, etc. on any of the above questions, you can mention them here:

Thank you very much for completing the questionnaire.