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Remote language teaching/learning under scrutiny: assessment of progress in language competence and extra-linguistic abilities in first-year university students of Italian Philology studying in in-person versus virtual mode

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Abstract
The pandemic caused by the spread of COVID-19 brought an unprecedented change to the life of people all over the world, including students and pedagogical staff. Following the safety protocols, educational institutions, including University of Warsaw, were advised to switch to remote learning. This occurrence offered a unique possibility to evaluate the outcomes of the very same academic courses carried out virtually and traditionally. The purpose of the present study was therefore to assess the progress in Italian language competences by comparing the results of final exams in the academic year 2018/2019 (in-class lessons) and in 2020/21 (online classes), by examining impressions on students' performance of the very lecturers who taught in remote mode, by investigating students' view on their experience with e-learning, and by measuring emotions connected to computer-mediated education. The research methods included secondary data analysis, desk research, online survey, Zoom interviews, (online) participant observation, and sentiment analysis. The findings of the study may be useful to project the optimisation of curricula, to outline cost-reducing strategies for educational institutions, and to formulate helpful self-study recommendations for students.

1. Introduction and background of the study

In the mid '60s, we all watched *The Jetsons*, a successful American animated sitcom produced by Hanna-Barbera Productions, with eyes wide open[1]. The family lived in a comical version of a century in the future, with elaborate robotic contraptions, holograms, 'smart' devices, and whimsical inventions, and the teenage daughter Judy attended Orbit High School, where the whole process of teaching/learning was digitized. This fun cartoon, set 100 years in the future (that is in 2062), was ahead of its time, but surprisingly the technology imagined then is now ahead of its predictions. And with the pandemic, we moved closer and faster to this futuristic vision also in the social and interpersonal dimensions.

The recent experience of the pandemic has resulted in an increased interest in the impact of the novel situation on societies' and individuals' lives. Understandably, student and pedagogical staff life has been greatly affected by changes in their schedules, 'smart education' mode, restrictions, and lockdowns. Although the situation is unprecedented and the matter undeniably new, several studies have already scrutinized the early effects of the COVID-19 on the domain of education. An international team of scholars conducted a study on using Internet resources for remote English language learning. The results of a survey consisting of nine questions among 650 students from Chinese and Russian universities showed that students had a positive attitude toward distance English learning, but consider it insufficiently represented in their educational institutions (see Liu, Spitsyna, Zubanova, Vekilova 2020). Researchers from Japan investigated the e-readiness among Japanese students for language learning: the focus was placed on students' self-analysis (measured with a self-reported online survey) of their abilities to use their smart devices for remote language learning activities (see Hirata 2021). The findings of the study highlighted that while students had few difficulties using the university e-learning software provided and felt confident about using technologies for studying purposes, their enthusiasm and aptitude for the online classes were rather limited. Another research aimed at better understanding of the students' experience with online learning was conducted in Oman. The study examined remote learning as perceived by undergraduate English as a Foreign Language (EFL) students of a higher education institution in Oman (a total number of 112 students responded to a computer-assisted questionnaire). The survey covered the following themes: overall evaluation of first-time online language learning experience and the courses, effectiveness of online teaching and delivery, utilization and

[1] The sitcom originally aired from September 23rd 1962 to March 17th 1963. New episodes were produced from 1985 to 1987.

usefulness of electronic learning devices, and newly acquired e-learning language skills (see Salih and Omar 2021). The present study is therefore not the only one dedicated to this subject, but is original due to its composure: it combines quantitative (based on "hard" and replicable data) and qualitative (based on "soft" and "deep" data) approach. We examined the educational process of the very same curriculum taught in traditional in-class mode and virtual mode, compared the final outcomes of the exams, and examined students' and educators' opinions on their first-time experience with e-education. We believe that the strength of the present research consists in taking into consideration the "insider" perspectives of both interested sides having experience in both teaching/learning modes. Moreover, the research was completed with sentiment analysis conducted using NLP tool. A systematic identification and study of affective states of teachers and students during pandemic period is definitely worth performing. Such methodology has never been applied to this kind of dataset, although public opinions about online learning during COVID-19 have been studied (see Arambepola 2020; Bhagat, Mishra, Dixit and Chang 2021).

The focus in our study goes to the experiences with language learning/teaching in remote learning mode. It is important to briefly outline the historical developments in the methodology of language education. In the last decades we observed the process of changes in the methods of language teaching and saw approaches, principles and techniques evolve from the grammar translations through the communicative language teaching towards the natural approach and the so-called 'post methods era' (see Richards and Rodgers 2014; Henderson, Selwyn and Aston 2015). The newest editions of textbooks and guides for teachers are frequently updated with chapters on the use of digital technology (see Larsen-Freeman and Anderson 2011). A good manual provides a teacher-in-training with a comprehensive overview of the theoretical viewpoints that have shaped language teaching over the decades and shows the future imminent challenges in the relation educator-student and the use of new technologies to be included in teaching (Brown 2014). We want to point out that while the digital language learning was not unknown prior to the pandemic and has actually slowly started to play an important role in modern study of foreign languages over the last years (see Hampel and Hauck 2006; Thomas, Reinders and Warschauer 2012 and Hamilton 2014), it's true to state that its scale was much smaller. Simply put, the phenomenon of distance education was limited to the individuals who for a variety of reasons chose to homeschool (especially after the movement of *worldschooling* and *unschooling* became more popular), to the school systems that were using remote learning in case of frequent or persistent inclement weather throughout

the year (for instance Alaska, Iceland, Greenland), and to the autodidacts. If there was any digital language learning within the traditional language education, "the burden of innovation has mostly relied on the good will of individual teachers who have decided – sometimes in perfect isolation – to take advantage of the new technologies made available", as accurately remarked by Viviana Gaballo (2019, p. 444). The teachers had to be self-motivated, (self) trained, and eager to work with the new tools as there are multiple platforms, programs and websites on the market to successfully use in language teaching. Giuliana Fiorentino (2015, 220–230) noticed that there is still a lot of room for innovation and creativity through the use of new computer-assisted programs to work with the students and presented several underestimated options available for teachers to support students' writing skills: *20 lines*, *MySchoolsNetwork*, *Storybird*, *Fan fiction*, *Wikispaces*. Nevertheless, before we embrace the digital language learning forms with too much enthusiasm, let's consider that the effectiveness of using the Internet resources for language learning (exclusively or adjunctively to traditional methods and materials) remains unclear to a great extent: the teaching effects and achieved learning goals were even harder to assess[2]. Our study was designed to fill in this blank as we have hard data to impartially compare the progress in language competence. Similar to other higher education institutions, the University of Warsaw had to switch to remote learning/teaching mode. While the academic year 2019/2020 was suddenly interrupted in early spring and resumed conditionally in virtual mode (with exams being cancelled, postponed, or conducted in different ways), the academic year 2020/2021 was prepared beforehand and started in full remote mode. Following the safety protocols, the Department of Italian Studies offered online courses to its students at all levels throughout both winter and summer semesters. The particular aspect of this philological department is that its first-year students start at the total beginner's level (0-A1) and are supposed to reach the linguistic competences of B1, referred to as 'threshold', by the end of a two-semester language course (with a total of 390 hours; composed of lessons in different specialized fields; held by different instructors[3]) in order to be able to successfully participate

[2] The book of Miranda Hamilton describes the use of a Virtual Learning Environment (VLE) by a group of advanced English language learners in Mexico, comparing what students thought and what they did (all self-reported) in response to the technology. There is little data geared to measure the actual progress in competences in digital language learning (see Hamilton 2014).

[3] According to study plans for the students of the 1st year BA, there are 300 hours of exercises in Practical Italian Language course and 90 hours of Descriptive Grammar course: 30 hours of lectures and 15 hours of exercises in Phonetics, and 30 hours of lecture and 15 hours of exercises in Morphology. www.italianistyka.uw.edu.pl

in the subsequent classes conducted in Italian language only in the further years of study. The process of language acquisition in first-year-students is therefore much invested into and strictly controlled by several lecturers in the mid-term tests and a final exam consisting of written and oral parts. The situation created by the pandemic offers a unique possibility to evaluate the outcomes of an intensive course carried out fully virtually (academic year 2020/21) and enables a comparison to the effects of the very same course in traditional teaching/learning mode in the previous years (academic year 2018/19 was entirely with in-person instruction; while the academic year 2019/20 was in mixed modes due to the lockdown).

There are several important factors that represent study limitations and require mention. Although students are admitted every year based on the same recruitment process, we cannot rule out some individual differences in their preliminary abilities. Also, psychological aspects were not taken into consideration and it is highly expected that students' mental health has been largely affected by restrictions and lockdowns and learning outcome may be correlated with one's state of mind. Moreover, it is worth looking at the nature of the process of second language acquisition itself. As pointed out by many specialists in the field, there is a variety of internal (individual) and external factors that influence the ultimate success in language learning, including attitude and motivation of the student, experience in language learning, age, characteristics of the target language, learning settings, teaching methods, etc. (see Bettoni 2017, 116–169; De Marco 2005, 61–80; Komorowska 2005, 118–135; Lorenzi 2008; Lightbown and Spada 2013). The traditional 'glottodidactic system' (which is a term first coined by Franciszek Grucza in the '70s) was repeatedly extended and updated and each of the following elements accounts for variability in the intended mastery of the target language: learner, teacher, language, materials, methods of learning/teaching, settings, and communication channels (see Wagner 2001, 19–27). In the present study we try to explore in isolation the impact of the last element, the medium used for the communication between the students and teachers, on the final results in language education but it is obvious that we cannot fully control the invariability of the other elements. We can generally assume that our students belong to the generation of 'digital natives', to use the notion invented by an American expert on education Marc Prensky in the beginning of the 21st century. He defined them as "native speakers of the digital language of computers, video games and the Internet" (Napiórkowska 2015, 245). However, our learners' technological and organizational preparation, lifestyle, and e-readiness may not be identical. Also, some of our teachers are undoubtedly still 'digital immigrants', if we adopt Prensky's terminology: born and raised

in the era before computers dominated our educational system, and their e-readiness may be even more differentiated.

2. Methodology of the research

In the present paper, we addressed the increment in Italian language competences and extra-linguistic abilities in students of the first year of Italian Philology who participated in traditional in-person versus computer-mediated courses. The topic can be best investigated by using a combination of both quantitative and qualitative research approaches. The methodology included secondary data analysis, desk research, online survey, zoom interviews, (online) participant observation, and sentiment analysis. Thus, the triangulation of the sources was achieved.

As for quantitative study, we used the analysis of archival protocols of the exams. For the purpose of the research, we projected a study to compare the results in the final exam[4] after the course in Practical Italian Language of all students attending the course in two academic years (AY): 2018/2019 (held in traditional in-class mode) and 2020/2011 (held in remote mode)[5]. We analysed the data of a total number of 44 students (AY 2018/2019) and 63 students (AY 2020/2021), that is, of all students matriculated in the academic years in question. The study was carried out in July 2021. The data was processed by use of SPSS for quantitative statistical analysis. Students' personal information was coded. We chose to present students' achievements based on the number of points obtained in the final exams (not grades; we had to

[4] In line with officially recognized exams for Italian Language certifications (see Grego Bolli and Spiti 1993; Minciarelli and Comodi 2005), the Department of Italian Studies prepares every year the final exams that consist of several sections in order to assess the acquisition of both productive and receptive language skills in students. The written exam with a maximum of 180 points is composed of: oral comprehension/listening, reading comprehension, use of language (vocabulary, grammar, pragmatics and idioms) and written production. The oral exam is worth 20 points and consists of two parts: a dialogue and a monologue, and several elements are being evaluated: effectiveness of the communication, correctness, accuracy and richness of language, pronunciation and intonation. Additionally, we decided to include in the study the results of exams in descriptive grammar: phonetics and morphology.

[5] As mentioned in the introduction, we decided to eliminate from the study the academic year 2019/2020. In early March, because of the lockdown, the traditional face-to-face language instruction was abruptly disrupted and the teachers had to switch to crisis-prompted remote learning, which included modifying the course contents, their teaching forms and styles as well as the final evaluation methods. Nobody was truly prepared for this unprecedented situation and the results could have been biased.

adjust the number of points to the scale of 100 in order to proceed to the statistical analysis).

For the qualitative part of our research, we prepared a computer-assisted survey for students of the recently finished academic year, targeted to explore their first-time online Italian language learning experience. The questionnaire included both open-ended and closed-ended questions. We also conducted interviews (using WhatsApp, FaceTime and/or Google Meet applications) with all seven academic teachers who were in charge of the first-year students in the academic year in question. The questionnaire used to collect data from lecturers consisted of fifteen open-ended questions concerning various aspects of online teaching process. The surveys and interviews were conducted in June and July, 2021. The collected empirical material was content-analysed and trustworthiness criteria were applied. The textual data was processed by use of Atlas.ti for qualitative analysis. The closed-ended questions were automatically valued by a tool incorporated in the online Google Form and pie charts were created for better data visualization. The output data collected from the open-ended questions were also examined in terms of sentiment analysis (opinion mining) carried out using Wydźwięk, an NLP tool for the analysis of emotional overtone in Polish texts (see Piasecki, Młynarczyk and Kocoń 2017; Janz, Kocoń, Piasecki and Zaśko-Zielińska 2017).

We had the following research questions in mind:

2.1. How do the results of final exams compare?
2.2. How do the lecturers assess the language teaching outcomes obtained in remote mode?
2.3. How do the students evaluate their experience with virtual language learning?
2.4. What emotions were detectable in the utterances on e-learning of the lecturers and students?

3. Results

3.1. Comparison of the results of final exams in in-class and remote language learning/teaching modes

In 2019, 44 people took the Phonetics exam, 38 people took the Morphology exam, 37 people took the Oral and Written exam. In 2021, 63 people took the Phonetics exam, 46 people took the Morphology exam, 53 people took the Written exam, and 49 people took the Oral exam. Basic statistics of all exams are presented in Table 1. A different number of students took the individual parts of the exam because of personal reasons, which were not further investigated (students' absence is excused in case of illness or family

matters). However, it is interesting to point out that fewer students were unable to show up (virtually) for an exam in 2021 than (in person) in 2019.

	Phonetics	Morphology	Written Part	Oral Part
	2019/ 2021	**2019/2021**	**2019/ 2021**	**2019/ 2021**
Number of students	44/ 63	38/ 46	37/ 53	37/ 49
Means	72,20/ 67,87	76,14/ 81,04	76,74/ 82,10	82,52/ 76,05
Skewness	-1,443/ -0,585	-0,635/-0,663	0,595/ -1,579	-0,718/-1,964
Kurtosis	2,424/ -0,161	0,181/-0,101	-0,564/ 2,739	-0,098/ 5,891
Standard deviation	20,31/ 13,36	9,63/ 11,94	9,78/ 10,71	12,43/ 20,65

Table 1. Basic exam statistics in 2019 and 2021

The highest average in 2019 was recorded for the oral exam (82,52), and the lowest for the phonetics exam (72,20). The greatest differentiation of results was observed in the case of the Phonetics exam (20,31), the least differentiated results were characteristic of the Morphology exam (9,63), but the Written exam was characterized by an equally low level of differentiation of points obtained by students (9,78). In 2021, the Written exam (82,10) had the highest mean, and the Phonetics exam the lowest (67,87). The greatest variation in results was observed in the case of the Oral exam (20,65), the least varied results were found in the Written exam (10,71). Compared to 2019, the differences in the results of the Morphology, Written, and Oral examinations increased.

The final results obtained by students in 2019 and 2021 differ arithmetically. In 2021, students obtained on average fewer points in the Phonetics and Oral examinations, and more in the Morphology and Written tests (see Chart 1).

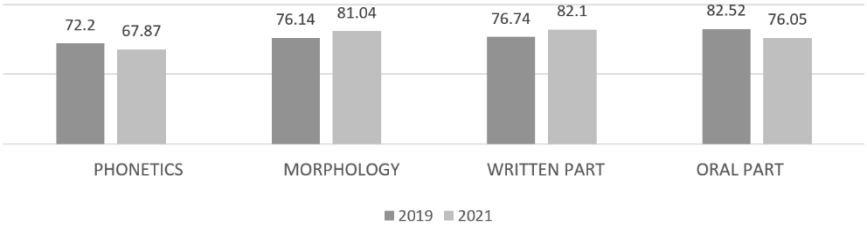

Chart 1. Average results by number of points obtained in different parts of the final exams in 2019 and 2021

The internal differentiation of the results had also changed. In 2021, there was less variation in the results for the phonetics exam, and greater for the Oral exam. This means that in 2021 students in the Phonetics exam obtained more similar results than in 2019. On the other hand, the range of results in the oral exam has significantly increased (see Chart 2).

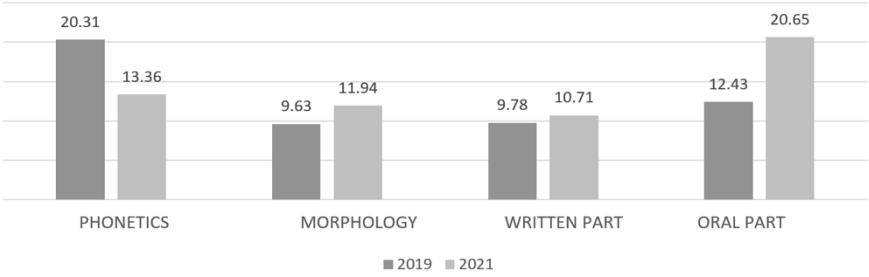

Chart 2. Standard deviation for results in different parts of the examinations in 2019 and 2021

In order to check the statistical significance of differences in the mean exam results, the student's t-test was performed for independent samples. The analysis of the results included Levene's test of homogeneity of variance. The results show that the differences in the results of the 2019 and 2021 exams are statistically significant for the morphology exam and the written exam (p=0,044 and p=0,018, respectively). In the case of the morphology exam, students in 2021 obtained an average of 4,9 points more than in 2019. Also, the written exam in 2021 was completed on average by 5,35 points better than in 2019. The difference in the obtained results is strongest in the case of the written exam, as shown by Cohen's d statistic, which in this case equals 0,518 (see Table 2).

	Phonetics	**Morphology**	**Written part**	**Oral part**
Cohen's d statistics	0,261	0,447	**0,518**	0,367

Table 2. Cohen's d statistics for exams in 2019 and 2021

The findings of the statistical analysis do not show unequivocally that any group of students performed significantly better: different parts of the final exams had higher or lower scores in 2019 and 2021.

3.2. Virtual language learning/teaching from lecturers' perspective

The results of the qualitative data analysis revealed that the majority of teachers had positive attitudes towards the experience of remote language teaching, although they expressed their needs for some modifications in students' behaviour, teaching process, limitation of the tools offered by the university, and access to technical support. The main problems mentioned by all of the interviewed lecturers concerned the initial stress and anxiety due to, possible or real, technical problems (mostly with internet connection, latency, and poor quality of audio and video). However, five out of seven informants emphasized that these psychological stress symptoms were significantly reduced over time. Distracting student behaviour, such as tardiness, keeping cameras off, and disconnecting during the lesson, were observed by six out of seven teachers. Three teachers noticed problems with building a sense of community between learners and teachers, less sense of affiliation and involvement. One teacher confessed: "In the beginning it was extremely challenging to have a friendly atmosphere in the class. We were like aliens. The students treated me like a bad cop, a person whose only aim is to fail them at the final exam. There was absolutely no connection between us. It improved drastically – thankfully for better – over time." One person emphasized the impact of students' socioeconomic status on their academic achievement.

Major benefits of remote teaching mentioned by the informants can be classified in two groups: work-life balance and personal development. All interviewed teachers agreed that home learning contributes to time saving for both sides (e.g., no commuting, more effective use of the breaks between classes). Distance education was beneficial for the condition of teachers' vocal cords and larynx. As noted by one of our informants: "Teaching from home helped me keep my voice healthy and avoid seasonal colds and flu. I used breaks to make myself a cup of tea and didn't have to rush between Obożna and Dobra[6]." Five informants drew attention to the possibility of improving their technical skills and learning about new tools supporting teaching process. Two lecturers claimed that online courses improved their creativity since keeping students' thoughtfully engaged and motivated seemed more difficult than during in-person lessons. Furthermore, among the advantages of remote teaching, informants mentioned the possibility of mixing synchronous and asynchronous classes, using additional interactive tasks, and employing automatically graded quizzes.

[6] Obożna and Dobra are names of the streets where classes are held under normal circumstances. The classrooms at the disposal of Italian Faculty are indeed quite far away from each other: approximately 10-minute walk.

The teachers declared that they were able to successfully complete the same teaching contents with the students and achieve the same educational goals as in the previous years. Nobody reported any concerns about following the curriculum, meeting the content standards, reaching "milestones", and managing rearranged tasks. They appreciated the possibility of providing the students with homework and assignments which were automatically corrected by the system. However, teachers experienced some difficulties with scheduling the performance reviews (tests) in remote learning mode. It was also observed that, if possible, the final exams should be conducted during in-class mode with social distancing procedures in place (with exception to students unable to come for medical reasons). The teachers were mostly concerned with being unable to monitor if the students used any extra aids during the tests.

Also, some courses and activities were considered to be more challenging while conducted online. Phonetics classes (especially dictations and transcriptions) turned out to be much more demanding and time-consuming. Dialogues, conversations, and discussions within speaking courses became more difficult due to network latency, new rules of conversational turn-taking, and new demands of interactional competences.

Interestingly, as for the overall evaluation of the experience with the virtual teaching, only 2 out of 7 interviewed academic teachers looked forward to switching back to in-person classes. The others were eager to work in a hybrid mode because it can bring the best results.

3.3. Remote language learning/teaching from students' perspective

The following charts (3–6) show students' opinions about, respectively, their level of concentration during online classes (see Chart 3), their engagement/activity level in the virtual classroom (see Chart 4), the satisfaction with the results achieved (see Chart 5), and skills acquired (see Chart 6).

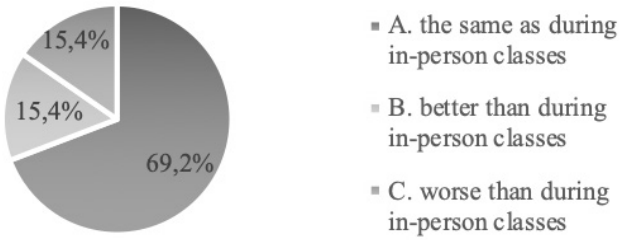

Chart 3. Level of concentration during online and in-person classes

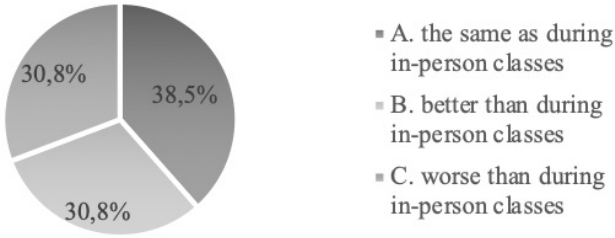

Chart 4. Level of engagement during online and in-person classes

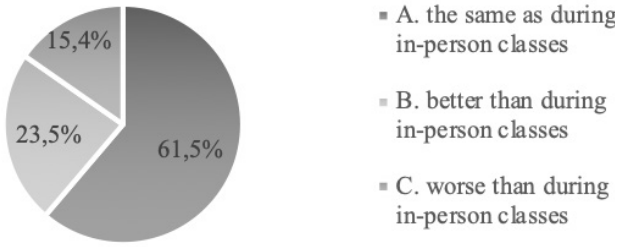

Chart 5. Satisfaction with the results achieved during online and in-person classes

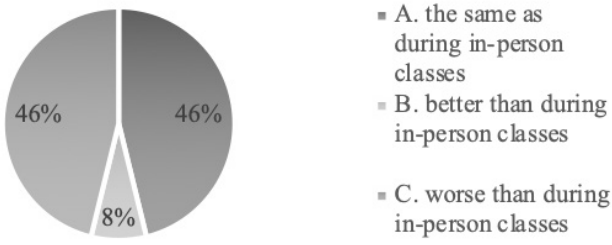

Chart 6. Satisfaction with the skills achieved during online and in-person classes

Undoubtedly, students who take online classes are exposed to many distracting factors due to both multitasking behaviour using digital devices and external distractions (background noises). Almost 70% of the respondents admitted that their level of concentration was lower than during in-person classes. However, the levels of engagement, and the satisfaction with the result achieved and skills acquired, seemed to be comparable to traditional classes.

Chart 7 presents language-learning preferences of the interviewed group according to the modality of learning: remote, in-person, and hybrid. Hybrid education ranked first (46% of students) as the modality this group found most suitable for themselves.

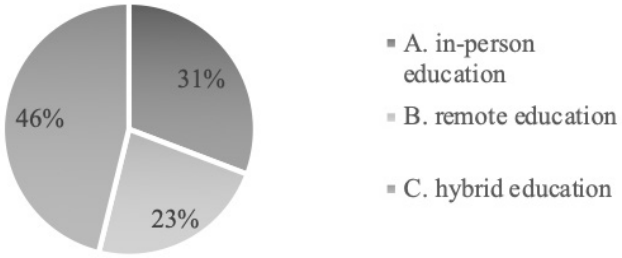

Chart 7. Language-learning modality preferences

Student responses and comments clearly demonstrated appreciation for many aspects of online learning, and showed they would like to continue to learn from home at least partially; nearly half of students indicated blended education as their preferred learning modality.

As far as the advantages of the online education are concerned, the interviewed students listed better time management (for example, no need to commute) and positive economic factors (for example, they spend less money on transportation and educational materials, and they don't need to rent a room/flat in Warsaw to be close to campus). The informants appreciated university's learning platforms (Kampus and Google Classroom), and their role in archiving materials in an eco-friendly way (no need to photocopy or print all teaching materials) and in testing (regular quizzes and interactive activities allowed them to learn at their own pace). Online teaching and a more comfortable learning environment provided an opportunity for introverted students to feel confident enough to ask questions and to overcome shyness.

As for the main disadvantages, all of the respondents emphasized the highly disruptive effect of isolation on their mental health and social life. Loneliness and absence of direct human contact resulted in lack of motivation and – in their opinion – less effective learning. However, at the same time, difficult conditions fostered integration of the first-year students. As noted by one of our respondents, "Against all odds, integration and interaction among students was even better than in pre-pandemic days. I noticed that we were more willing to help each other and to collaborate. We used Google collaborative document editing to take notes together and to study together." Almost 40% of the informants indicated technical problems as the main disadvantage of distance education and rated teachers' technical skills as insufficient. Difficulties with conversational turn-taking while speaking into the microphone were observed by 30% of the students, while a requirement

of switching the camera on (as a way to increase motivation and engagement) was postulated by 40%.

3.4. Sentiment analysis of teachers' and students' opinions

In order to expand the qualitative part of our research, and to systematically evaluate teachers' and students' attitudes towards distance education, we processed the data collected using Wydźwięk. As the first step we focused on polarity categories (positive-negative) to check the general overtone of the expressed opinions (see Table 3).

	Teachers (T)	Students (S)
Positive Score	173	139
Negative Score	54	89

Table 3. Sentiment scores in the teachers' and students' responses. Polarity analysis

Secondly, we extracted single contexts to identify types of emotions using a lexicon-based approach on annotated corpus (see Charts 8 and 9).

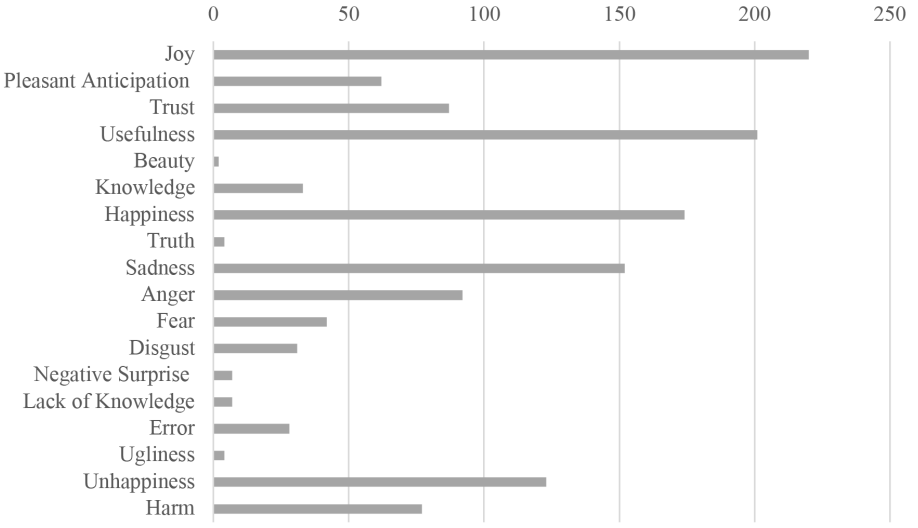

Chart 8. Sentiment scores in teachers' responses. Emotions detection

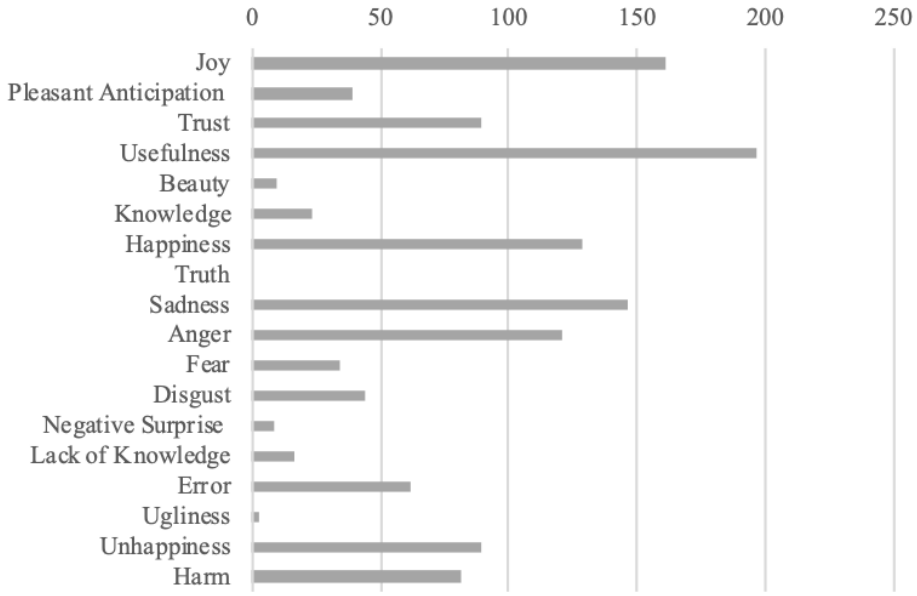

Chart 9. Sentiment scores in students' responses. Emotions detection

The results of sentiment analysis confirmed a positive attitude to remote teaching and learning both among lecturers (positive overtone is higher than negative by a factor of 3,2) and students (positive overtone is higher than negative by a factor of 1,5), although the latter seem less enthusiastic. In both groups, the dominant sentiments are joy (T 220, S 161) and usefulness (T 197, S 201). The third largest score was positive in the group of teachers (happiness, 174), but negative in the students' group (sadness, 146). Sentiments and emotions labelled as 'sadness' reflected one of the major drawbacks of remote learning: the feeling of loneliness and lack of social activities.

4. Conclusions and recommendations

Taking all research findings into consideration, we can report that the overall experience with remote language learning/teaching was valued by both students and lecturers as rather positive and, most importantly, there was no obvious negative aftermath of completing the academic year in virtual mode only. We are not particularly surprised by students' positive experiences with remote learning. As mentioned in the introduction, our students belong to the generation of 'digital natives'. However, teachers, technically the generation of 'digital immigrants', seem even more enthusiastic about distance learning according to the sentiment analysis.

The results of the final exam in Italian were generally comparable, with students taught and assessed in virtual mode performing somewhat better in morphology and in the written part, and students taught and assessed in in-person mode performing somewhat better in phonetics and in the oral part. The final language competence to be achieved according to the curriculum had been developed in case of both teaching modes. Lecturers admitted to have successfully completed the same teaching contents with the students regardless of the teaching mode. We are positively amazed by the fact that nobody reported any concerns about curriculum plan, syllabi, resources, materials, or time management. The transition to remote mode required some additional work, adjusting the materials and performance reviews, and extra planning, but the teachers described it in motivational terms. It is true to say that everybody improved extra-linguistic competences, like time management skills and technological skills (adequately to wherever their starting skills were at).

It was interesting to discover that 46% of students selected blended education as their preferred learning modality. Perhaps, to satisfy these needs, we should consider introducing a HyFlex (Hybrid-Flexible) teaching mode, which is a student-centred model of class delivery that can integrate both in-class instruction, online synchronous video session, and asynchronous content delivery. For instance, three days a week could be held as traditional in-person classes and two days as remote instruction. We should bear in mind that some courses are better suited to be offered in virtual mode, while others are less. Similarly, some teachers feel more confident with teaching online, some less.

The main advantages and disadvantages of distance learning discussed above do not provide us with a clear picture – the same fact is sometimes seen as a pro and sometimes as a con, which is a common artefact in all social studies. To give an example, we can cite the question of printouts: some students are pleased that the educational materials are online only, while some regret not working with paper copies, which help them better memorize the contents. The one aspect that seemed to be frequently highlighted as a big asset of distance education was time saving. It was noticed by almost all respondents, although somebody said that "this gained time is a lost time anyway," and one student missed the time spent daily on the train, since "this was a perfect occasion to revise the vocabulary." We find it intriguing that only a few informants mentioned 'staying healthy' as a key advantage. The biggest disadvantages seem to be linked to mental health, lack of traditional face-to-face direct interactions, and missing the feeling of "what academic life is all about."

There were several study outcomes that we would like to address polemically. Taking the results of the final exams in 2019 and 2021 into account, it is impossible to ascertain which group of students had overall better final scores and learning outcomes as different parts of the exams showed alternately better results. For example, students taught and assessed in virtual mode performed somewhat better at the written final exams. We cannot help but wonder: was it because of the familiar ambience and the in-home tranquillity, or more due to hidden aids like cheat sheets, which cannot be – unfortunately – fully excluded given the boundaries that remote testing presents. On the other hand, arithmetically, students taught and evaluated in remote mode scored less points in oral exams. At this point we started to wonder what role the students' connections and student-teacher face-to-face interactions play, and to what extent they can influence the performance on the final exam. Under traditional circumstances, students know each other very well after a year-long course and form pairs for the dialogical part of the oral exam based on their friendships. They also get to know their teachers in real life. In remote mode, all these relationships are different and it may have an impact on the quality of the utterances.

We would like to briefly discuss the problematic aspect of mandating the use of cameras during the classes. All academic teachers agree that they prefer to see the students instead of looking at the black screens, which felt "strange", "unpleasant", or "disturbing", to cite the terms used by our informants. With video included, they can better relate to their audience, assess students' participation (and even presence), get feedback, and evaluate reactions. Interestingly, the benefits of using video communication were also observed by a student: "If I were a teacher in the pandemic times, I would force all students to keep their cameras on. When the cameras are off, we all stay in our pyjamas till noon and browse memes instead of listening to the teacher." In light of this, it would certainly be beneficial to oblige the students to switch the cameras on and keep them on for the duration of the class. Nevertheless, serious technical difficulties were encountered due to the use of cameras. Students reported that the loss of connection or screen freezing episodes were much more frequent when they tried to use the cameras. This was also the main reason why they decided to turn the cameras off – they preferred to at least hear the class.

Finally, it is important to highlight that in our study we were not able to pay enough attention to the socio-emotional-psychological aspects of the remote learning/teaching mode. As linguists and sociolinguists, we do not possess adequate tools to assess the connections between personal wellbeing, the need for affiliation, and academic performance. We know for a fact that the lecturers observed several worrying behaviours and potential first symptoms

of nervous breakdown, depression, or burn-out. One teacher reported that a student burst into tears during the class. It was sporadically noticed that some students excused themselves and left the digital classroom before the lesson ended.

Based on our research findings, among recommendations for a better functioning of the virtual education we should enumerate:

- providing best possible technological tools to the teachers and trainings on how to use them;
- finding a working solution to the problem of the use of cameras;
- establishing clear ground rules at the very beginning of each course;
- requiring punctuality from everybody;
- practicing sound on/sound off modes to streamline the conversations and facilitate better instructor-student communication;
- providing access to psychological assistance, both to students and teachers, to prevent and combat the development of mental health problems;
- introducing positive community building practices, such as limiting time spent lecturing and adding more activities that facilitate interaction among students;
- determining which classes should be prioritized as in-person lessons – the most challenging classes, such as phonetics and conversations, should be treated with particular attention, held in-class and, if not possible, redesigned for remote teaching needs;
- pointing out the need of developing individual time management techniques and strategies to help use the "gained" time: to-do lists, time blocking methods, time tracking, goal setting, task prioritizing, installing keystone habits, setting time limits, etc.

The findings of the study may be useful to project the optimisation of curricula and study plans in language learning and possibly in different fields of study, and to outline cost-reducing strategies to be implemented by educational institutions. Further in-depth study, both on results obtained and skills achieved, could shed more light on specific differences between in-person and distance education. Extending the conducted research in time and considering students' results from two consecutive years of remote learning (and/or blended learning) would allow examinations of the development of the most productive learning and teaching strategies. Two areas are particularly worth further studies: the impact of distance education on students' motivation, and the sentiments and emotions of teachers and students alike throughout an academic year held in online mode. The same methodology and AI sentiment analysis tool could be used for processing larger aggregated datasets collected in the following years.

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