# Chapter 5
# Students' Perceptions of Distance Learning During the COVID-19 Pandemic, and Its Effects on Academic Integrity


**Mariya Chankova**

**Abstract** Anti-COVID-19 measures for Bulgarian universities included adopting distance learning, partially or completely, over the course of the last five semesters. This contribution probes into Bulgarian students' experience of distance learning with special emphasis on how integrity and learning are affected by online classes. Data were collected in two rounds of questionnaires, supplemented by the results of online testing for contrast. The results indicate that while the respondents express a preference for online classes and exams, they are not unaware of some detrimental effects on their learning outcomes. In conflicting cases, the students opt for comfort and commodity, not shying away from an opportunity to cheat. Online classes and exams during the COVID-19 pandemic may have contributed to altering the students' frame of expectations regarding their learning process.

**Keywords** Distance learning · COVID-19 pandemic education · Academic integrity · Cheating

## Introduction

In the current situation of a global COVID-19 epidemic, many universities have either completely or partially adopted distance education to better respond to sanitary requirements. Most universities in Bulgaria spent 13 months (3 months during each semester starting from summer 2020 until winter 2021, and 6 weeks in summer 2022) in distance education classes. Under the terms of distance education, classes and exams had to be adapted to take place online. After an initial adaptation period, during which instructors were free to choose the medium of delivering online education at the author's affiliated university, a centralized online platform (Blackboard) and an associated conferencing tool (BigBlueButton) were set up for

M. Chankova (✉)
South-West University N. Rilski, Blagoevgrad, Bulgaria



S. Bjelobaba et al. (eds.), *Academic Integrity: Broadening Practices, Technologies, and the Role of Students*, Ethics and Integrity in Educational Contexts 4, https://doi.org/10.1007/978-3-031-16976-2_5

those instructors who wished to use them; instructors were still free in their choice of online platform. After the first lockdown, both students and instructors seemed to have settled in a routine.

It was the perfect situation, the pandemic notwithstanding, to rush higher education in Bulgaria into the post-digital era (the term is from Negroponte, 1998): after all, troves of Google Gen students already went through higher education, and enthusiastic commentators considered the traditional educational setting ill-adapted for them (e.g., Prensky, 2001). Rowlands et al. (2008, p. 291) define Google Generation as the generation born after 1993 who have "little or no recollection of life before the web". Even if one takes Prensky's calls for change with a grain of salt – after all, he admitted to a certain overstatement (see Prensky, 2009) – significant changes in the pedagogical approaches throughout the secondary education have accompanied the adoption of Information and Communication Technology tools (hereafter: ICT) in the classroom, with a far-reaching impact upon the student cohorts entering higher education. Not only that, but also an area which was considered lagging behind in Bulgaria would correspondingly be brought up to date by the necessity created by the pandemic: finally, both instructors and students will use ICT tools predominantly for educational purposes, which would allow instructors to move instruction into a more natural environment for the Google Gen students. Surely, it must have a positive effect on students, and the learning outcomes should correspondingly improve.

It is unclear what exactly such expectations could be based on. After an enthusiastic initial phase, it has become evident that students have unevenly developed digital competencies (Rowlands et al., 2008; Chankova, 2020a) and lack solid skills in information exploitation (Chankova, 2020b). The results of many studies, both long- and short-term, suggest that exposure to ICT tools, which are mostly used for recreational purposes (Bauerlein, 2008), has a general negative effect on cognition: a recent overview of relevant studies comprising more than a 1000 references was done by Desmurget (2019). Studies reported inconclusive benefits for learning related to the increased use of ICT tools (Biagi & Loi, 2013) or that ICT use is linked with poorer cognitive results (Saarinen et al., 2021). Taking Desmurget's report for reference, young adults have quite an important screen consumption; now that they have to use screens for school as well, they are likely to feel screen fatigue, cognitive fatigue, be distracted more and lose focus more easily. In what follows, I am not going to be concerned with the various negative effects which tend to accumulate over time spent on screen consumption: beside the cognitive effects mentioned above, there are psychological and physical effects documented in research (see Desmurget, 2019); nor am I going to delve into debunking the myth of the special brain that Google Gen students supposedly have – this is done marvelously well by neuroscientists (on neuroplasticity and the changes induced by any repetitive activity, see Costandi, 2016; for a discussion – Desmurget, 2019). I shall contextualize and evaluate the effects of distance education as reported by the students who I see in tertiary education, taking into account the context of the COVID-19 pandemic. I shall also look into distance education assessment and how it impacts students' academic integrity.

## The Digital Student and Integrity

The technological marvel that rushed human society into a new post-digital era (the term marks a "contemporary disenchantment with the digital systems and electronic gadgets" Cramer, 2015) has inevitably touched us all. The very expression "online" has become anachronistic (Berry, 2014), as the ever-multiplying technological gadgets make sure we are constantly connected in some way. Screen consumption time has increased manifold, including ever-younger children in the fold of consumers (Desmurget, 2019). Interesting new affordances and possibilities (Tapscott, 2008) go side by side with dependencies and addictions (Kardaras, 2016). Some authors choose to warn about negative effects of neglecting some brain developing activities, such as reading and in particular deep reading, hand-writing and other fine-motor activities (Carr, 2011), over others which provide over-stimulation and cut reflection time (Desmurget, 2019).

Scholars have been rigorously researching the question of the celebrated technological savviness of Google Gen students to find that they do not display any particular technological prowess that should set them apart from older ICT users (Rowlands et al., 2008; Selwyn, 2009; Chankova, 2020b) – empirical data was collected through screen capture and deep log analysis. Being exposed to technology does not automatically lead to great digital skills, and scholars insist that no inherent digital skills can be identified for the Google Gen students (Lorenzo & Dziuban, 2006; Helsper & Eynon, 2010). The impact on learning and on developing efficient learning techniques and habits has rather been detrimental: not only do Google Gen students appear to have a poor understanding of their information needs (Rowlands et al., 2008) and their ICT-aided searches are often inept, shallow and disengaged (Chankova, 2020a), but also they lack structured instruction in digital literacies, especially where information search is concerned (Coombes, 2009). Their use of ICT tools is unimaginative and basic, and is linked with a far-reaching impact on concentration and attention deficits (Desmurget, 2019, for a detailed overview of relevant studies). The hopes that technology would bring general improvement of skill and knowledge if introduced in classrooms at early stages were lost with reports showing that technology did not improve the pupils' results (PISA Results in focus, 2015).

The COVID-19 pandemic was met in different ways across the globe; in Bulgaria, schools and universities have now spent quite a substantial amount of time in online education. Technical difficulties notwithstanding, both teachers and students in the secondary were unprepared for the situation; at the tertiary level, there were enough problems to be coping with. Even though university instructors have long since appropriated ICT tools as classroom support (laptops, slide projectors, audio systems complete with computers for language classes, cloud repositories, to name a few), the first lockdown required quick action and the elaboration of online education protocols which the instructors did not have in advance. The students' uneven technical skills made it difficult for them to adapt to online education. What students had to adapt to from a technical point of view: activating a hyperlink sent to their own email

inbox in order to sign in to the virtual classroom, typing in names to identify themselves, setting up basic features (microphone on/off, video on/off, headset), downloading attachments from emails, attaching files to emails, work with text processing programs to produce assignments, accessing the e-learning platform (typing in usernames and passwords) to read additional material, search the internet for additional information. This also meant that students had to mobilize resources for autonomous learning in comparison with on-site classes, but also that the level of control over the proceedings and individual performances became severely limited for instructors.

The issue of having the adequate technology to be able to participate effectively in online instruction and testing, such as personal computers, laptops or tablets should not be neglected: students may be in difficult financial positions and lack the necessary equipment, and have difficulties to access data (Verhoef & Coetser, 2021). Start of term questionnaires reveal that a non-negligible portion of students rely on their smartphones for access to virtual learning spaces; even before the pandemic, handouts were not taken in paper form by the students, but photographed with their hand-held devices. How the students organize and manage the vast amounts of data, especially if they only access it via their phone, is unclear.

Behind the screen, the students are unmonitored. They do not perceive the instructor's gaze in the same way: online classes may feature the instructor's talking head in a corner of the screen, next to the visual aid they necessarily display. Online classes and exams were seen by some as greatly facilitating cheating (Sarwar et al., 2018; Birks et al., 2020; Kennedy et al., 2000); others consider that no significant increase is seen in online courses (Watson & Sottile, 2010; Grijalva et al., 2006) – of course, the comparison should take into account the special context of online education during a pandemic, such as the long periods of time involved, the compulsory character of the education and the fact that it is highly unusual for secondary students to be involved in such an educational format, and problems with motivation. Some studies conducted during the pandemic show that both students and instructors feel insecure about the novel situation, with a feeling of distrust emerging between them, as well as clearly negative emotions towards online exams (Amzalag et al., 2021). Others focus more on the learning outcomes and the effects of ICT use in instruction on the learning process of students, which has been correlated to weaker cognitive learning outcomes for students in Finland (Saarinen et al., 2021). It is especially worrisome since the pedagogical approach which provides the groundwork for the use of ICT technologies is the student-centered approach, which has gradually gained momentum around European schools: it diminishes the role of the teacher and tends to transfer the responsibility for the learning process to the student instead. This idea is believed to be misguided by some researchers (e.g., Mascolo, 2009), and it can affect the students' expectations about the learning process. Corollary effects linked with the use of ICT tools – such as distractions, multitasking, concentration breaks – were noted by recent research by Saarinen et al. (2021), with predictably poor cognitive learning outcomes.

Even though motivation is quite difficult to assess directly, there are some features which may correlate with motivation, such as class attendance, course assignment submission, correspondence with instructors, class participation, etc. Earlier

studies (for example, Grijalva et al., 2006) found that stronger motivation is negatively correlated with cheating: in a situation where the student chooses to enrol in an online class, the older they are and the more motivation they have, the less likely they are to cheat. Interestingly, some studies did not find any correlation between motivation and dishonesty (Wahyuni et al., 2021), but found a stronger correlation between perceived opportunity and cheating, especially in the pandemic period. The important difference is that distance education as an anti-COVID-19 measure is not something that either the students or the instructors can pick and choose. Equally, in pre-COVID-19 situations, instructors seemed reluctant to engage in online testing and examination because they thought that online testing is either not suitable or does not present any advantages as an evaluation method, with some expressing concern over cheating (Rogers, 2006). During the pandemic, the instructors have to adapt their evaluation methods to the online format, regardless of how they may estimate the benefits or the suitability of online evaluation for the specific course.

Cheating and other kinds of dishonest behaviour tend to be transferred from one aspect of life to others (Audet, 2011); they have been shown to have important consequences on work environments (Barbaranelli et al., 2018). Therein lies equally its social character: studies have found that the more students cheat, the more they see cheating in others and vice versa: Miller and Young-Jones (2012) have found that such behaviour can propagate and is largely learnt. Dishonest behaviour has been strongly correlated with poor learning habits (Chankova, 2020c): slacking off, unsystematic learning schedules, lack of structure and steady learning habits translate to insecurity and tend to perpetuate cheating. Especially vulnerable to these are young first- and second-year students who may be in a situation which increases the risk of falling into that behaviour, having just moved out of home, changed towns, being emotionally affected. The reasons for dishonest behaviour are quite diverse: Verhoef and Coetser (2021) report among the strongest reasons for cheating the availability of easy answers online, feelings of stress and pressure, including pandemic-related stress, and lack of monitoring.

## Aims of the Study

By looking into the students' evaluation of their experience with emergency online instruction, their learning outcomes and difficulties, I wish to explore aspects of academic integrity in an emergency situation of distance education in a qualitative study. The primary practical motivation for choosing to distribute a questionnaire was to probe the students' experiences of the novel format in order to cater for any gaps in online instruction in later periods. The students' perceptions about two propositions are tested in the course of the study:

- Online classes lead/do not lead to better learning outcomes for students.
- Online classes lead/do not lead to an increase in cheating

Data were collected, first, through two online questionnaires, one conducted in June 2020 ($n = 16$) and one in January 2021 ($n = 45$), probing into the students' perceptions about their online classes, as well as about their learning and engagement. The questionnaires were realized in Google Forms and administered through a clickable hyperlink sent to the groups' emails. The self-report data were later supplemented with objective data on students' participation in online classes (such as presence logs and chat sessions, for instance) and the responses to online course assessment tests and written assignments to see how they fared in terms of dishonest behaviour. This step was inspired by methodological triangulation (Denzin, 1970) which involves several different methods of data collection and which, despite being more time consuming, promotes confidence in the research results. By taking part in the questionnaire, the students consented to have the data used in an opinion survey. The students were asked for their consent to use written course production, which was anonymized before the analysis.

## Results and Discussion

The number of students who took part in the questionnaires is respectively 16 and 45. They were third and fourth-year BA students for Questionnaire 1, and second, third and fourth-year BA students and MA students for Questionnaire 2. Out of those, 40 were female, 18 male and 3 undeclared. It is important to emphasize that the two cohorts had a different experience with online classes, as the first group had gone through 3 months' worth of online instruction during the emergency lockdown in 2020; whereas the second group had amassed 6 months of online classes by the time the questionnaire was administered. The questionnaire sets the context and probes into the respondents' perceptions and experiences with online classes, laying the foundations of these cohorts of students' engagement and motivation for learning, as well as their attitudes connected to online instruction implemented as an emergency measure. Quotes from the respondents' answers are provided, preserving the original grammar and spelling; additions are indicated in square brackets.

### *Overall Experience with Online Classes*

Figure 5.1 presents the comparative answers from the two rounds of questionnaires.

In round 1, the students were rather cautious about evaluations or did not have any clear negative or positive experiences (or were unaware of them), whereas in round 2, the preference split is more clearly marked. As they moved through two semesters of online classes, they could assess more clearly their experiences. In accordance with other studies (Margaryan et al., 2011), students demonstrate their attachment to more traditional settings; nevertheless, the majority of the

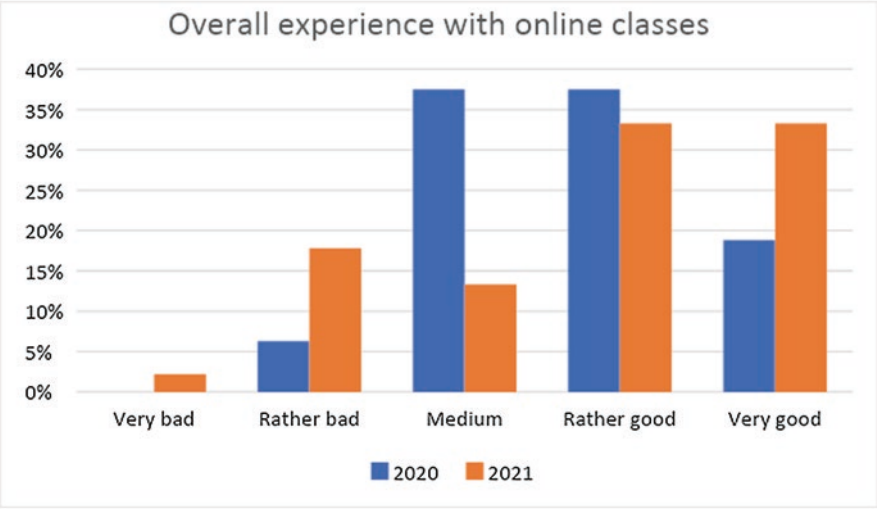


**Fig. 5.1** How would you rate your overall experience with online classes (Likert scale from 1 – very bad to 5 – very good)

respondents rated positively their experience with online classes, regardless of the negative aspects they have noted about them.

In both rounds, there is a clear core of students who report that the format of the classes does not affect their class attendance, as they always attend classes (Fig. 5.2). But in round 2 there is a substantial group of students who reported attending online classes more than on-site classes. This spike in online class attendance is new in comparison to Q1, and is in line with the more pronounced preference for online classes expressed by the respondents. An important distinction between online and on-site classes in terms of attendance logs is that while on-site very few instructors keep a formal attendance log (by university regulations, they are not required to do so); while in online instruction, attendance logs are a built-in feature of the platform. The students' awareness of the logs may act as a disciplining feature to encourage attendance.

Attendance logs to classes animated by the author (7 in summer 2020 and 4 in winter 2020) show the following: small study groups have close to 100% attendance rate regardless of the type of class (lecture or practice seminar); large and composite groups have largely variable attendance rates, ranging between 19% and 38%. The logs demonstrate quite different results from the ones reported by the students, underlining the uneven degree of reliability of self-reports. It should be noted that I do not claim that these logs are representative of how the students attend all of their classes.

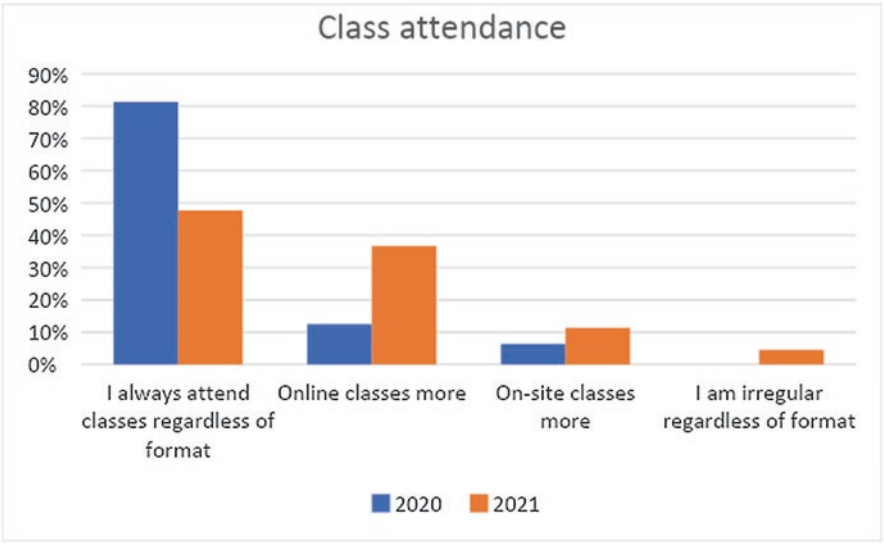


**Fig. 5.2** Has your attendance improved for online classes (objective response question)

## *Online or On-Site Class Preferences*

The question about the students' preferences was phrased in different terms in the two questionnaires: in Q1, a more general phrasing was used, to allow students to explore a wide range of reasons that may underlie their preferences for the class format. In Q2, the question focused on content, method of delivery, engagement with instructor and peers etc. The change was made in order to allow for a more thorough exploration of the students' attitude towards the learning process and their engagement in it. Figure 5.3 shows that the ratio between online and on-site classes has improved in favour of on-site classes in the second round of questionnaires. In round 2, the students express a clear preference (the slot for "no preference" is empty), with online classes being more popular than on-site classes by a small margin.

Only 7 responses were collected in Q1 concerning the reasons for the expressed preference. Out of those, two responses provided justification in favour of on-site classes, underlining the face-to-face contact with both instructor and peers, peer support and ease in communicating with instructors, as well as technical and connectivity problems in online classes. The other five responses justified a preference for online classes, with one drawback that did not involve the technical side, but the perceived workload and insufficient communication with instructors.

For Q2, 32 responses were collected. The answers problematized not only the delivery method, content, learning possibilities etc., but also underlined issues of personal comfort and communication. In favour of online classes (15), respondents have noted that the online format presented more opportunities for interaction and study (3), and easier access to visual supports such as videos, presentations etc. for

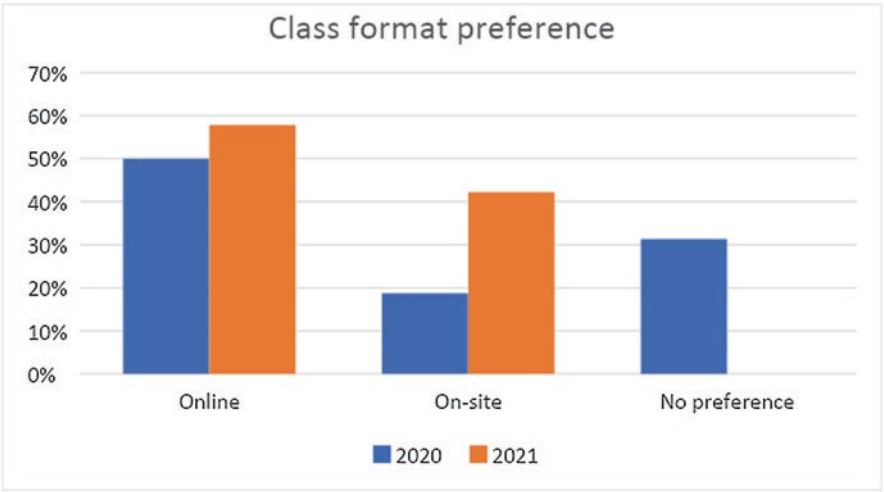


**Fig. 5.3** Class format preference

both students and instructors (6) and that they had more time to study (1). Four respondents noted that they were more focused in online classes, and one respondent reported feeling more focused on-site. Three respondents provided a more nuanced response, noting that online classes were easier, but raising the question of the quality of the learning process they had engaged in.

Among the other responses that did not touch upon content and method of delivery included no travel/commute problems (3), lack of personal contact with peers and instructors was deplored (11), ICT-related fatigue (eye strain and the like – 3), and one response each for greater freedom, multitasking, feeling more comfortable at home.

When asked to list five positive and five negative aspects of online classes, the respondents presented a more detailed picture of their experiences. Those were categorized in Table 5.1.

Among the top positive aspects, home comfort and convenience is listed in both rounds of questionnaires. Time management and time saved from having spared the commute time are valued as positive aspects by students. The availability of digital materials, access to information and other ICT tools affordances (such as class recordings) are valued and taken as improvements in comparison to on-site classes. Notably, during the first round of questionnaires the positive aspects were not as varied as in the second round, where the students noted time and money saved, less stress and pressure, class flexibility and protection from COVID-19. Only one type of positive aspect they associate with online classes pertains to the methods of content delivery or the possibilities to approach material differently.

Interestingly, negative aspects were much more diverse (probably because negative information is more concrete and from a psychological point of view it is easier to remember). The differences between the two rounds of questionnaires are also

**Table 5.1** List five positive and five negative aspects of your online class experience (open-ended questions)

| Pros online classes | Q1 n = 11 | Q2 n = 32 | Cons online classes | Q1 n = 13 | Q2 n = 32 |
|---|---|---|---|---|---|
| Home comfort, convenience | 7 | 19 | Miss face-to-face interaction | 1 | 12 |
| Better time management, more time for class | 5 | 12 | ICT fatigue | 1 | 7 |
| Time saved | – | 9 | Technical problems | 5 | 9 |
| Access to media, ICT tools, class recordings | 4 | 11 | Too much homework | 6 | 14 |
| Less stress, less pressure | – | 6 | Insufficient instruction, bad learning habits | 4 | 8 |
| More opportunities to participate | 2 | 1 | Impaired communication | 1 | 5 |
| Shorter classes | 2 | – | Cheating and integrity issues | – | 4 |
| Save money | – | 3 | Boredom, lack of motivation | – | 2 |
| Protected from COVID-19 | – | 3 | Peers who monopolize microphone time | – | 2 |
| Flexibility | – | 3 | Getting up early | – | 2 |
| | | | No negative aspects to list | 1 | 3 |

notable in that the second cohort of respondents, who have had online classes for a longer period of time, noted the lack of face-to-face interaction in which they socialize with their peers as well as their instructors very frequently; whereas for Q1 respondents, technical problems and perceived increase in the workload were mostly at the root of bad experiences. The responses also indicate that some of the students in the second round have gradually come to the position that in the long run, online classes appear to have a detrimental effect on both their motivation and learning outcomes. This transpires in responses such as "no habit for doing homework or learning" and "You can study online classes only for 2 weeks or a month then [it] is useless" (five responses with similar points), but also in the perception of information overload reported by the students, the perception of inadequate instruction, the feeling of boredom and proclivity to dishonest behaviour, coupled with frustration and stress related to technical issues which do not paint a glorious picture of day-to-day online education. The question about the quality of their learning process voiced by some respondents finds its roots in these students' strong reliance on their instructor to motivate them to work (something which is more commonly the case in primary and secondary education). It might be that they feel unsupported by the instructors and have problems self-monitoring their own learning process.

For some students, online classes provided the ground for dishonest behaviour and cheating as they feel they have less responsibility for their learning, are unmonitored and unsupported. Even though they report that most of the classes were held in viva online (and the rest were supervised via email), they feel that instruction was

inadequate, that they lacked support from the instructors. The sentiment of being trapped and suffering from the seclusion due to anti-COVID-19 measures was explicitly voiced by one student:

> I have zero to no interaction with people outside of my family. I lose motivation when it comes to preparation for the classes as well as attending them. When the time for the exams come, I will [be] under pressure and anxious about them for I had not been studying the past semester which we were online. For a person with depression the online classes only cause trouble. The little thing could cause you trouble mentaly [sic]. Missed a class, had not done an assignment, etc. Only makes the mental issues harder for us.

The same sentiment may be inferred from the reports of missing face-to-face interaction and contact with peers and instructors.

Contrary to other studies' findings (e.g., Verhoef & Coetser, 2021), in which students reported that they worked worse at home as they associated it with a place for relaxation, the relative weight of positive feelings related to online classes is slightly bigger: the respondents list home comfort most frequently, which here is read as an advantage they associate with online classes. Under the heading "Home comfort" many different items have been included: staying in bed while logging into class, drinking coffee and wearing pyjamas while being logged into class, doing other things at the same time, multitasking. This category highlights a very peculiar dimension, revelatory about this cohort's understanding of what classes are; physical comfort is the last preoccupation in the context of on-site classes (with heating, seating and adequate desks available, with the possibility to take inside beverages such as water bottles and coffee mugs, it is never an issue) as the focus is elsewhere – make sure the students can see and hear well what is going on, that they can participate in the proceedings and they can concentrate on learning.

Again, contrary to other studies, respondents report better time management as an advantage in online classes. The time management refers not to the class itself, but the overall perception of time management throughout the day: specifications ranged from having more time to do homework to having time to engage in other activities, including during online classes. This self-report does not correlate well with the ICT fatigue reported by the students.

Here is a response from Q1 that raises the question about the integrity of the instructors in upholding their part of responsibility in online classes:

1. Most of the online classes consisted of just email instructions and sending/receiving assignments.
2. Often the instructions were insufficient.
3. Too much homework.
4. Sameday [sic] deadlines for assignments from multiple classes.
5. Technical dificulties [sic] often got in the way.

This report indicates that online instructions did not achieve its intended goals in terms of student engagement and learning outcomes. This is also validated by another question (Did all of your classes switch to online instruction?). In Q1, only 2 students responded that all of their classes switched to online instruction, 11 answered that not all of the classes were held *in viva* using an online conferencing

platform to connect instructor and students in real time and that some classes took place through email correspondence in the form of set assignments for the students to complete. In Q2, more students reported that all of their classes switched to online instruction (23), but a still important number of students answered that some classes took place through email correspondence (21). This indicates that even after the initial period of emergency adaptation to the novel environment, some instructors appear to have neglected their part of responsibility for a successful transition to digital learning. This result also serves as a reminder that academic integrity is also reflected in the teaching duties and the care that instructors are willing to put into those duties.

## *ICT Tools in Online Classes*

The respondents' ambiguous relationship with ICT tools is further demonstrated by their ratings of the amount of ICT tools used in online classes. Presented with a rating scale, the following responses were obtained:

Figure 5.4 shows the students' evaluation of the amount of ICT tools used for online classes. Q1 shows that despite the emergency switch to online classes due to the sanitary lockdown, the students did not think that the amount of ICT tools which they had to use for class was excessively large. In Q2, the weight of ratings above the average increased, indicating that the students had the impression that the amount of ICT tools used for class had increased. This perception is probably due to ICT fatigue and is not really rooted in reality: after the introduction of university

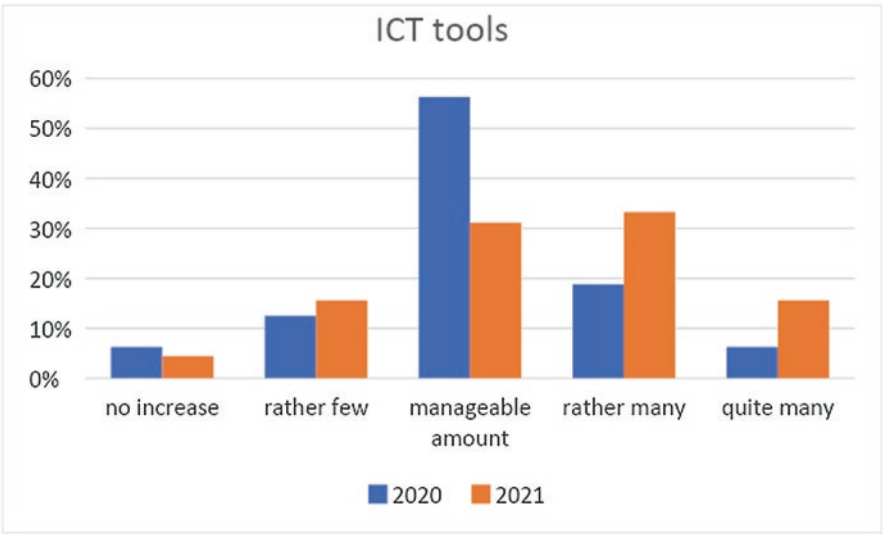


**Fig. 5.4** Rate the amount of ICT tools (Likert scale)

platforms for virtual spaces and classrooms, many instructors opted in favour of using them, rather than compiling many different software programs. What is more, for conferencing software (BBB, Zoom, MSTeams), no installation is required in order to participate in online classes, but only activating a hyperlink, sent by the instructor, and typing in a name to identify oneself. In the second round of questionnaires, the students were asked to rate their knowledge of ICT tools and responded that their knowledge has improved (35 out of 44 reported a perceived increase, contrary to 9 who reported not having any increase in their ICT tools knowledge). Bearing in mind that engagement with ICT tools is a highly individual manner, both in terms of use and in terms of effects on learning (Selwyn, 2009; Wan et al., 2008), this assessment may show only that the students felt they were exposed to more tools as a result of the intensity of the exposure. Figure 5.5. shows the answers on the type of tools they had to engage with.

## *Cheating in Online Evaluation Tests*

Two open-ended questions about English orthography, part of an online evaluation test on English punctuation and orthography class, are showcased in the last segment. The data are taken from two online evaluation tests which were conducted in January 2021 with the cohort of students some of whom took part in Q2. The open-ended questions were meant to provide the students with the opportunity to reflect on the knowledge they gained in the class and put it into perspective. The data were

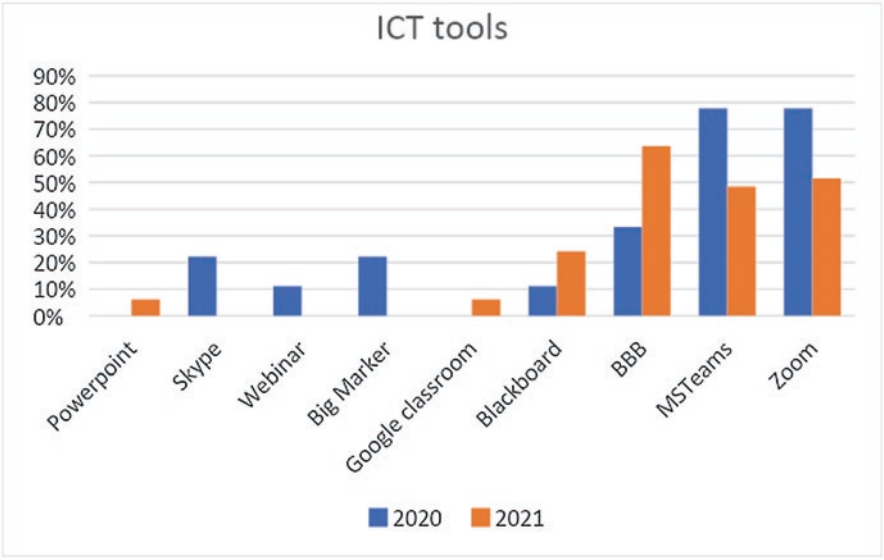


**Fig. 5.5** Which ICT tools were used in your classes (open-ended question)

included in this study as a snapshot of how a number of the students who took part in the survey behaved in their course evaluation in an effort to contrast the self-reported data with objective observations on what they do. Course evaluations are conducted with the expectation of integrity on the part of the student, namely to provide the answers to the best of their knowledge and ability, using their own words. To the author's knowledge, Bulgarian universities have not implemented a proctor system for online examinations.

Q1: Why are there silent letters in the spelling of some words of English? Name at least three reasons.
Q2: What are the reasons that underlie the English spelling system?

The two questions are related, as one is a particular case of spelling peculiarity, which reflects most of the underlying principles of the spelling system; so in the ideal case, the student should be able to identify the two questions as related and transfer knowledge from one to the other either in an inductive or in a deductive type of reasoning. The answers were categorized into four types of responses: free variations (genuine answers by the students themselves), blanks (no answer was provided), copied slides (the students copied word for word from the class slides or other class handouts), copied from the net (the students copied word for word from a website online).

The results are presented in separate graphs for the two questions in Figs. 5.6 and 5.7.

One very notable difference is the lack of free variation answers for the more general question 2; the rate of blanks is also much higher for question 2, indicating that the students were unable to generalize and transfer ideas that they have learned from the particular case to the general case. Repeating paragraphs and passages that

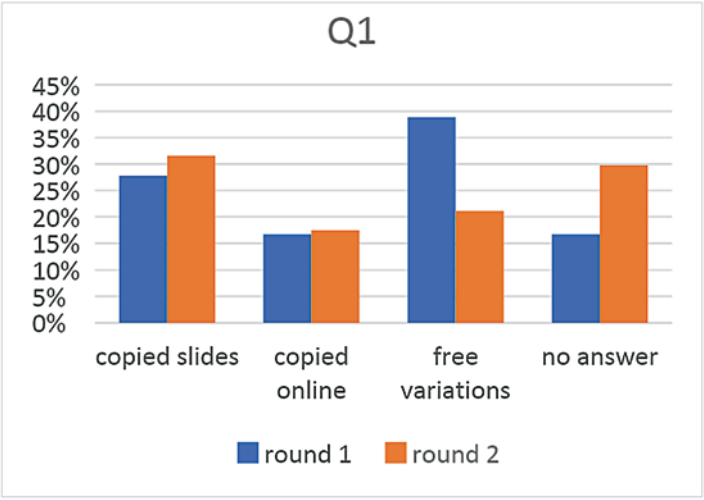


**Fig. 5.6** Answers to Q1

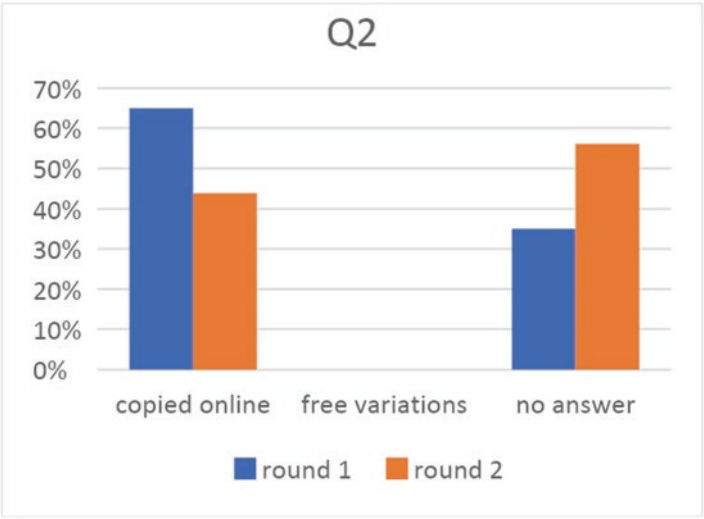


**Fig. 5.7** Answers to Q2

were irrelevant to the question alerted the author to proceed to a text-matching check-up. These results show that some of the students – half of the students in Round 1 and two thirds of the students in Round 2 – seized the opportunity to cheat, quite casually resorting to copy-pasting to pass the test. It is all the more surprising because the other items on the test were practical exercises which probed into how well the students can apply the principles of punctuation use and how well they have appropriated spelling peculiarities (whenever regularities of phonological, morphological or etymological order can be observed). As it has been demonstrated by other studies, students are generally aware that using external sources (by searching on the web, for example) is unethical and inappropriate in online testing (Douglas et al., 2015). It appears that the casual attitude towards cheating (noted in Chankova, 2020c), coupled with the perceived opportunity to cheat is behind those results. It should also be noted that those were the only two questions on the evaluation test which did not preclude in a categorical way the possibility to cheat. The same cohort of students presented acceptable work on home assignments, specially crafted to restrict the possibilities to cheat.

## Conclusions

The exceptional circumstances of the anti-COVID-19 pandemic measures have taken a toll on student cohorts who have the perception of having to work more and harder in online classes. Contrary to other studies (e.g., Verhoef & Coetser, 2021), the respondents in this study do not report in large numbers feelings of stress,

overwhelming fear and insecurity and the majority of them state that they prefer online classes. They appear to be quite sensitive to the negative effects this format has on them, especially after having spent 6 months in online education by the time the second round of the questionnaire was administered. Online education appears to have given them the opportunity to reevaluate the use of ICT tools (which many instructors were already using in traditional on-site classes), undoubtedly due to the high intensity of ICT tools exposure and the use of unfamiliar software (such as the conferencing software of the type of Zoom or BigBlueButton). Again, contrary to other studies (Amzalag et al., 2021), they do not appear to dislike online testing: they connect it with less exam pressure; in fact, a large portion of them appear to seize the opportunity to cheat.

The latter result goes in line with earlier research on cheating (Breuer et al., 2020; Chankova, 2017), but it does not appear that cheating is overwhelmingly present in students' production. I suggest that while online education does not allow for a dramatic increase in cheating or otherwise dishonest behaviour (I am excluding here cases of 'phantom students' – those who log in and do not manifest themselves vocally or by writing in the chat session – those cases might be difficult to ascertain) in accordance with earlier research (Watson & Sottile, 2010; Grijalva et al., 2006), it creates a different frame of expectations in students. This altered frame of expectations leads to assuming that online access to a vast quantity of materials directly translates as having the corresponding knowledge and skills.

The results of the questionnaire analysis demonstrate that online classes have a reported mild positive influence on attendance, do not really act as an interest boost for students, are a source of conflicting emotions in students and affirm some students' need for face-to-face interaction and personal socialization of the kind provided by on-site classes, especially after the cumulative ICT fatigue. Students tend to be less interested in the quality of their learning process, tend to list "comfort" as the one important thing they like about online classes (eating and drinking coffee during class, being in PJs, multitasking and "doing other things while listening to the instructor") and tend to assess the workload as definitely increased in comparison to on-site classes. The major negative aspect of online classes listed after the lack of face-to-face interaction is the technical aspect: bad connectivity, poor or inexistent connection, platform saturation, delays in speech and video, power outages, battery malfunctions and other technical problems. The question about having the appropriate technology for studying (a desktop or laptop computer rather than a smartphone) hasn't been addressed by this study, but is certainly an important one.

There is a substantial difference between the results from the two questionnaires, which could be accounted for at least in part by the experience accumulated by both instructors and students alike in dealing with online instruction. Cheating is seldom directly named as an issue (consistent with the author's earlier findings, Chankova, 2020c); students will talk instead of "less stress at exams", and of "less pressure". Now that the novelty of the experience has run off, the students appear ever uncertain about the digital instruction and appear to struggle with the new responsibility, torn between feelings of work overload and ICT fatigue and the perceived facility of online classes. ICT fatigue might well be a serious obstacle in elaborating learning

techniques adapted to digital instruction. The uncertainty and the confusion are apparent in the conflicting reports on preferences and the detailed negative evaluations provided about distance education experience. The results of this study appear to reinforce the idea that no amount of ICT tools can substitute for effort, on both the students' and the instructors' part.

## Appendix

### *Online Classes in a Situation of a Global Pandemic*

The questionnaire aims to collect personal experiences and perceptions on the effectiveness of online classes at the tertiary level. By answering you agree that the results of this questionnaire be used for a research study on online classes. The questionnaire is anonymous. Thank you for answering as fully and sincerely as you can.

Academic year:

Sex: male, female, prefer not to say
Age range: 18–20, 20–22, 22–25, 25–30, above 30
How would you describe your overall experience with online classes?

(Very bad) 1 2 3 4 5 (Very good)

Has your attendance improved for online classes?

Yes, I attend online classes more often than I did on-site classes
I always attend classes and their format has no influence over my attendance
No, I attended on-site classes more often than I do online classes
I am irregular in my attendance regardless of the class format

Do you prefer online classes or on-site classes?

Online classes
On-site classes
I have no preference

Please justify the answer to the previous question.

Please list five things you enjoyed about online classes. Be as specific as possible.

Please list five things you hated about online classes. Be as specific as possible.

Did all of your classes switch to online instruction?

Yes, all of them did.
Most of them did; for the rest, we had an email correspondence to receive and send back assignments.
Few of them did; we had classes which were not covered in any way in distance learning.

How would you evaluate the workload connected to online classes?

How would you rate the amount of ICT tools (platforms, media formats, etc.) used in your online classes?

(few, no increase in ICT tools) 1 2 3 4 5 (many, too many ICT tools).

Please list the ICT tools you have used in your online classes.

## References


Amzalag, M., Shapira, N., & Dolev, N. (2021). Two sides of the coin: Lack of academic integrity in exams during the corona pandemic, students' and lecturers' perceptions. *Journal of Academic Ethics*, 1–21. https://doi.org/10.1007/s10805-021-09413-5

Audet, L. (2011). *Les pratiques et défis de l'évaluation en ligne*. Montréal, Document préparé pour le REFAD. https://archives.refad.ca/evaluation_en_ligne.pdf?msclkid=2feb5d42baf911ec91959347438c97b0

Barbaranelli, C., Farnese, M. L., Tramontano, C., Fida, R., Ghezzi, V., Paciello, M., & Long, P. (2018). Machiavellian ways to academic cheating: A mediational and interactional model. *Frontiers in Psychology, 9*, 695. https://doi.org/10.3389/fpsyg.2018.00695

Bauerlein, M. (2008). *The dumbest generation—How the digital age stupefies Young Americans and jeopardizes our future (or don't trust anyone under 30)*. Jeremy P. Tarcher/Penguin.

Berry, D. M. (2014). Post-digital humanities: computation and cultural critique in the arts and humanities. *Educause, 49*(3), 22–26.

Biagi, F., & Loi, M. (2013). Measuring ICT use and learning outcomes: Evidence from recent econometric studies. *European Journal of Education, 48*(1), 28–42. https://doi.org/10.1111/ejed.12016

Birks, M., Mills, J., Allen, S., & Tee, S. (2020). Managing the mutations: Academic misconduct Australia, New Zealand and the UK. *International Journal for Educational Integrity, 16*(1), 1–15.

Breuer, E., Chankova, M., & Vassileva, I. (2020). University students' information search behaviour in the digital age. In I. Vassileva, M. Chankova, E. Breuer, & K. P. Schneider (Eds.), *Digital scholar: Academic communication in multimedia environment* (pp. 93–124). Frank & Timme.

Carr, N. (2011). *The shallows: What the internet is doing to our brains*. W.W. Norton & Co.

Chankova, M. (2017). Dealing with students' plagiarism pre-emptively through teaching proper information exploitation. *International Journal for the Scholarship of Teaching and Learning, 11*(2). https://doi.org/10.20429/ijsotl.2017.110204

Chankova, M. (2020a). Hyperlinks and weaving meanings on the internet. How far are the new affordances exploited in the participative Web 2.0 by the "digital natives"? In I. Vassileva, M. Chankova, E. Breuer, & K. P. Schneider (Eds.), *Digital scholar: Academic communication in multimedia environment* (pp. 217–240). Frank & Timme.

Chankova, M. (2020b). The Google generation's use of the multimedia environment for academic purposes. A qualitative approach. In I. Vassileva, M. Chankova, E. Breuer, & K. P. Schneider (Eds.), *Digital scholar: Academic communication in multimedia environment* (pp. 153–198). Frank & Timme.

Chankova, M. (2020c). Teaching academic integrity: The missing link. *Journal of Academic Ethics, 18*(2), 155–173. https://doi.org/10.1007/s10805-019-09356-y

Coombes, B. (2009). Generation Y: Are they really digital natives or more like digital refugees? *Synergy, 7*(1), 31–40.

Costandi, M. (2016). *Neuroplasticity*. MIT Press.

Cramer, F. (2015). What is 'post-digital'? In D. M. Berry et al. (Eds.), *Postdigital aesthetics* (pp. 12–26). Palgrave Macmillan.

Denzin, N. K. (1970). *The research act: A theoretical introduction to sociological methods*. Aldine.

Desmurget, M. (2019). *La fabrique du crétin digital*. Seuil.

Douglas, D. M., Paullet, K., & Chawdhry, A. (2015). Student perspectives of cheating in online classes. *Issues in Information Systems, 16*(4), 215–223. https://doi.org/10.48009/4_iis_2015_215-223

Grijalva, T. C., Kerkvliet, J., & Nowell, C. (2006). Academic honesty and online courses. *College Student Journal, 40*(1), 180–185.

Helsper, E. J., & Eynon, R. (2010). Digital natives: Where is the evidence? *British Educational Research Journal, 36*(3), 503–520.

Kardaras, N. (2016). *Glow kids: How screen addiction is hijacking our kids - and how to break the trance*. St. Martin's Press.

Kennedy, K., Nowak, S., Raghuraman, R., Thomas, J., & Davis, S. (2000). Academic dishonesty and distance learning: Student and faculty views. *College Student Journal, 34*(2), 309–314.

Lorenzo, G., & Dziuban, C. (2006). Ensuring the net generation is net savvy. In D. Oblinger (Ed.), *Educause learning initiative* (pp. 290–310). Educause.

Margaryan, A., Littlejohn, A., & Vojt, G. (2011). Are digital natives a myth or reality? University students' use of digital technologies. *Computers & Education, 56*(2), 429–440.

Mascolo, M. F. (2009). Beyond student-centered and teacher-centered pedagogy: Teaching and learning as guided participation. *Pedagogy and the Human Sciences, 1*(1), 3–27. Retrieved from https://scholarworks.merrimack.edu/phs/vol1/iss1/6

Miller, A., & Young-Jones, A. D. (2012). Academic integrity: Online classes compared to face-to-face classes. *Journal of Instructional Psychology, 39*(3), 138–145.

Negroponte, N. (1998, January 12). Beyond digital. *Wired*. Retrieved from http://www.wired.com/wired/archive/6.12/negroponte.html

PISA Results in Focus. (2015). pisa-2015-results-in-focus.pdf (oecd.org). Retrieved in September 2021.

Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon, 9*(5), 1–6.

Prensky, M. (2009). H. sapiens digital: From digital immigrants and digital natives to digital wisdom. *Innovate: Journal of Online Education, 5*(3). Article 1. Retrieved on August 11, 2015 from https://nsuworks.nova.edu/innovate/vol.5/iss3/1

Rogers, C. F. (2006). Faculty perceptions about e-cheating during online testing. *Journal of Computing Sciences in Colleges, 22*(2), 206–212.

Rowlands, I., Nicholas, D., Williams, P., Huntington, P., Fieldhouse, M., Gunter, B., Withey, R., Jamali, H., Dobrowolski, T., & Tenopir, C. (2008). The Google generation: The information behaviour of the researcher of the future. *Aslib Proceedings: New Information Perspectives, 60*(4), 290–310.

Saarinen, A. I., Lipsanen, J., Hintsanen, M., Huotilainen, M., & Keltikangas-Järvinen, L. (2021). The use of digital technologies at school and cognitive learning outcomes: A population-based study in Finland. *International Journal of Educational Psychology, 10*(1), 1–26.

Sarwar, S., Idris, Z. M., & Ali, S. M. (2018). Paid academic writing services: A perceptional study of business students. *International Journal of Experiential Learning & Case Studies, 3*(1), 73–83.

Selwyn, N. (2009). The digital native–myth and reality. *Aslib Proceedings: New Information Perspectives, 61*(4), 364–379.

Tapscott, D. (2008). *Grown up digital*. McGraw-Hill Education.

Verhoef, A. H., & Coetser, Y. M. (2021). Academic integrity of university students during emergency remote online assessment: An exploration of student voices. *Transformation in Higher Education, 6*(12). https://doi.org/10.4102/the.v6i0.132

Wahyuni, G. S., Fontanella, A. & Sukartini, T. (2021). Factors affecting student's academic dishonesty during Covid-19 pandemic. In *International conference on applied science and technology on social science (ICAST-SS 2020)* (pp. 429–432). Atlantis Press. https://doi.org/10.2991/assehr.k.210424.083

Wan, Z., Wang, Y., & Haggerty, N. (2008). Why people benefit from e-learning differently: The effects of psychological processes on e-learning outcomes. *Information & Management, 45*(8), 513–521. https://doi.org/10.1016/j.im.2008.08.003

Watson, G. R., & Sottile, J. (2010). Cheating in the digital age: Do students cheat more in online courses? *Online Journal of Distance Learning Administration, 13*(1). Retrieved in August 2021 from https://mds.marshall.edu/eft_faculty/1/