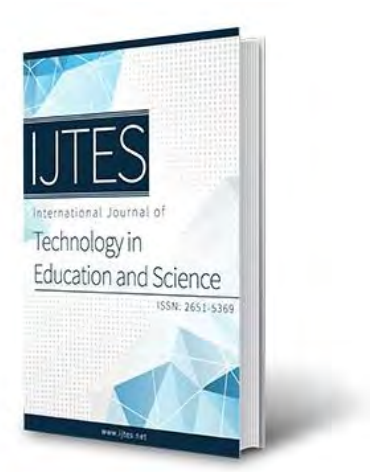

What Form of Online Teaching Do High School Students Prefer?

Predrag Brođanac
University of Zagreb, Croatia

Josip Novak
University of Zagreb, Croatia

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What Form of Online Teaching Do High School Students Prefer?

Predrag Brođanac, Josip Novak

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Abstract

Due to the COVID-19 pandemic, teaching has moved overnight from a traditional classroom setting to a virtual setting. This has been a great challenge for students, and especially for teachers. Most teachers have not had a lot of experience teaching in a virtual setting. In the course of only a few days, teachers were forced to fully devise and organize teaching subjects without receiving any particular training. Previously, numerous advantages and disadvantages of online teaching compared to traditional forms of teaching have been elaborated. There are three basic forms of online teaching: synchronous teaching, asynchronous teaching based on materials prepared in advance and individually tutoring students. The paper describes research involving 56 9th grade student concerning their attitudes towards online teaching and preferred forms of online teaching. The results suggest students slightly prefer traditional forms of teaching over online teaching. In addition, students appear to favor the asynchronous form of online teaching based on recorded resources as well as teacher availability for prompt feedback. Overall, the conclusion is that, despite some disadvantages of online teaching, it also has some positive features that can possibly be retained in the future.

Introduction

The COVID-19 pandemic is having a big impact on all areas of life. It has also become manifest in educational processes at all levels. The closing of schools has led to moving from standardized and well-organized classroom teaching to an online setting. Though most students have previously utilized various digital resources and aids, full online teaching is something altogether new. Organizing this form of teaching has been a big challenge for teachers. They were literally forced overnight to devise and organize the entire teaching process in an altogether different setting. This paper describes a particular form of online teaching which took place in teaching information technology at the Fifth Grammar School in Zagreb and presents results of the research. The paper is organized into four sections:

- Online teaching – brief overview of papers on the topic of online teaching,
- Conducted research – brief overview of the implemented form of online teaching and description of the research,
- Results – describes the results of the conducted research,
- Conclusion.

A majority teachers have become accustomed to holding a larger part of teaching where the teacher and students

are simultaneously located in the same place (classroom). This is the standard approach to teaching, i.e., face-to-face teaching, and is the oldest and most common form of teaching. With the advent of technology, especially the Internet, new opportunities for other forms of teaching have appeared. (Wang & Wang, 2020) list four basic forms of teaching: *classroom teaching*, *asynchronous teaching via online conferences*, *asynchronous teaching via online forums* and *autonomous learning by students without teacher interaction*. The last three forms are mostly used in online teaching.

Generally speaking, online teaching refers to an education process taking place solely via the Internet (Kim, 2020). This means a form of teaching where students and teachers need not be simultaneously located in the same place (Guilar & Loring, 2008). Today, blended forms of teaching are very common, where teaching takes place in a traditional classroom and online teaching is used only as a supplementary dimension to further improve the teaching process (Volery & Lord, 2000; Peimani & Kamalipour, 2021).

Online teaching gained its impetus in the 1990s with the coming of the Internet (Mitchell, 2014). In the meantime, numerous systems directed to online teaching appeared (Schmidt, 2004). This includes systems for mass use such as YouTube or specialized teaching systems such as Udemy, Skillshare and Coursera (Das & Das, 2020). In addition to standard forms of teaching, many universities also offer online learning. In the 2006/2007 academic year, almost two-thirds of American universities offered online courses (Kebritchi, 2014).

Ordinarily, online teaching is well thought out; however, the COVID-19 pandemic has forced teachers and students to unexpectedly transform face-to-face teaching into online teaching in only a few days. (Gelles, Lord, Hoople, Chen, & Mejia, 2020) call this type of online teaching *emergency remote teaching.* It refers to a particular form of online teaching which is temporary in nature and not planned in advance. This unplanned transition to online teaching has occurred in the past (Murphy, 2020). In the autumn of 2009, due to the H1N1 virus, some universities moved over to online teaching. Moreover, in 2005, after the Katrina hurricane which had inflicted physical damage to tens of American faculties, 153 faculties reacted promptly and devised more than 1,300 online courses.

As is with any other form of teaching, online teaching has its advantages and disadvantages (Fedynich, 2014), and some of the advantages are flexibility for students, especially those who are industrious; financially more acceptable for students (no travel and accommodation costs) and for faculties (those attending are not spatially limited and a larger number of students can enrol into a particular course). Some of the underlying disadvantages include computer illiteracy, Internet speeds and the fact that online courses should be more flexible and more adapted to various types of students. A problem associated with this form of online teaching is also adequate space for students to undertake learning (Gupta, et al., 2020). Students can be distracted by their brothers and sisters, burdened by their family situation and uncertainty concerning their overall situation. (Peimani & Kamalipour, 2021) believe that both online and face-to-face teaching have their advantages and disadvantages. One of the conclusions from this research is that students in an online setting are less inclined towards cooperative learning and discussions with colleagues compared to standard forms of teaching. Nonetheless, they believe that online teaching offers a lot of advantages, for instance, when devising lecture timetables or reserving classrooms for

lectures, therefore the authors refer to a blended form of teaching, which offers positive elements of both forms of teaching. (Prensky, 2001) notes that students have changed radically and that the current education system is not tailored for today's students. Contemporary students have grown up with technology, and besides their aptitude with technology, they have also adopted a difference approach to learning. The style of learning of today's students includes the use of different media, adopting a collaborative learn via various platforms where they jointly collect, share and synthesize their experiences.

Classical form of teaching involves a classroom setting in which students interact face-to-face with the teacher and one another. The interaction consists of synchronous questions and answers that the teacher and students exchange. In the classical form of teaching, discussions and nonverbal communication are among the important aspects that can result in improvement of cooperation skills. On the other hand, online form of teaching often enables students to set pace, select how they will get study materials and achieve study goals. Teaching is carried out using information and communication technology tools, such as forums, video conferences, or shared documents. The students get to choose when, what, and how they will learn.

Therefore, the transition to online learning has been especially challenging for teachers (Cassibba, et al., 2020). The authors describe their research which covered 27 university mathematics lecturers from Sicily, noting that a majority of lecturers said that online teaching has led to the loss of body language, considered by those lecturers in the research to be an important aspect of teaching. Holding classes remotely is especially contentious in terms of holding laboratory exercises. (Gamage, et al., 2020) describe their experience in recording short videos with detailed steps in laboratory exercises in the area of the technical sciences.

Basic Forms of Online Teaching

Wang & Wang (2020) describe two basic forms of online learning:

- Synchronous teaching is a form of online teaching where all participants are online simultaneously, and teachers and students receive instant feedback. It relies on the use of computers and software for taking audiovisual calls and correspondence.
- Asynchronous communication is online teaching where participants need not be online simultaneously. It most often takes place via forums, emails and especially websites.

Asynchronous forms of online teaching are viewed as an autonomous form of work where students receive tasks (mostly in written form) and autonomously solve the tasks using literature, technology and the like. Another form of asynchronous online teaching is via shot video learning resources. These resources can be in-house or resources taken from someone else. These resources can, for instance, show the steps needed in performing a particular experiment (Gamage, et al., 2020) or a detailed procedure in solving a task (Cassibba, et al., 2020). Among the top ten recommendations for online teaching (Anderson, 2020) are in-house recorded resources. The opinion is that students prefer short videos rather than written instructions. Students prefer video-based mini-lessons in addition to written instructions. Most students are accustomed to hearing and seeing their teachers' lessons and demonstrations. Therefore, encourage teachers to create videos using screen capturing software or simple cameras (e.g. mobile phone cameras) to explain and demonstrate lesson content or assignments.

A useful form of asynchronous teaching is online discussions which encourage students to adopt critical thinking (Wang & Woo, 2007), and importantly the time allocated for online discussions should be longer than discussions taking place live. Students are able to better prepare and present arguments in support of their answers in discussions taking place online, because they can utilize sources which they would otherwise not have had at their disposal during discussions in traditional classroom settings. On the other hand, a live discussion can be much more dynamic, cover various aspects and is more time efficient. During online discussions, students who are otherwise introverted and shy are also given the chance to present their thoughts (Wang & Wang, 2020). Experience in asynchronous forms of teaching though the use of conceptual maps is described by (Lau, Chua, Teow, & Xue, 2020), who note that 88% of students consider conceptual maps to be useful in such forms of teaching.

A detailed description of moving from traditional teaching to online teaching is described by Morgan (2020). The first steps require establishing communication with students and parents. Creating and sending detailed instructions on how to log into learning systems, how to seek assistance and the like. The next step in organizing student-centered teaching. Besides passive use of technology, students also use it actively for researching, giving presentations, sharing experiences, etc.. This means that they are also able to utilize resources which they would otherwise not use in a traditional classroom setting, such as virtual tours (for instance, a tour of Mars or the Great Wall of China).

The results of previous research (Muthuprasad, Aiswarya, Aditya, & Girish, 2021) indicate that the main advantages of online teaching are the flexibility in terms of time, more comfortable environment and greater ability to concentrate. One of the biggest problem of online education is lack of connectivity, data limit and internet speed. Bickle, Rucker, and Burnsed, (2019) discovered that student's attitudes on an online course depended on continual communication with an instructor. (Basuony, EmadEldeen, Farghaly, El-Bassiouny, & Mohamed, 2020) have found that students in Muslim countries prefer synchronous teaching methods using different platforms. Student satisfaction with online teaching was shown to be affected by factors such as platform, class time, motivation, etc. Findings of (Hew, Hu, Qiao, & Tang, 2020) suggest course instructor, content, assessment, and schedule predict student satisfaction, while course structure, major, duration, video, interaction, perceived course workload and perceived difficulty are irrelevant predictors for MOOC learners. Furthermore, quality of instructor, course design, prompt feedback, and expectation of students positively impact students satisfaction on online classes (Gopal, Singh, & Aggarwal, 2021) and students satisfaction positively affect students' performance. The most influencing factor that affect the student's satisfaction was instructor's quality, followed by students' expectation, prompt feedback. The factor that least affects the students' satisfaction was course design.

Study Purpose and Contribution

It appears there is a lack of research on Croatian high school student attitudes about online teaching, especially during the COVID-19 pandemic. Also, there is a general lack of research on which forms of teaching students find the most acceptable. Therefore, the purpose of this study is to investigate what forms of online teaching do

Croatian high school students prefer.

Methods

Study Context

On 13 March 2020, the Croatian Government made the decision that all teaching in primary and secondary schools in the Republic of Croatia are to be transferred to online from 16 March 2020 (Education, 2020). Teachers had only three days to fully devise and prepare online teaching. The platforms available for holding online teaching include MS Teams, MS Yammer and LMS Loomen. They are all systems centralized at the national level. These systems had existed previously and were used only by some teachers. Once most of the students and teachers in the Republic of Croatia began using these online systems, operational problems arose with the systems due to overloads, with the subsequent recommendation to avoid using video calls and that teaching be distributed uniformly throughout the entire day.

The Fifth Grammar School in Zagreb is a school specializing in science and mathematics where teachers and students are well versed in various technologies, and hence there were no major problems in moving over to online teaching. The basic system chosen for communicating with students as well as the official communication channel between school personnel was MS Teams. The way teachers organized their classes was left to their own discretion. Most of the teachers used Zoom for holding real-time video classes due to problems with MS Teams. The emphasis further on in this paper will be placed on teaching the information technology subject at this school, and an overview of the conducted research will be given.

Students take the information technology subject over a period of four years. The research included some students from junior years in the 2019/2020 and 2020/2021 school years, and targeted the information technology subject. Given that moving from a traditional classroom setting to online teaching was to occur in only a few days, there was not enough time to carefully devise and plan in detail the implementation as noted by (Guilar & Loring, 2008).

Sample

A convenience sample was used that consists of 56 students from the Fifth Grammar School in Zagreb. The participation was completely voluntary, and no reward was offered for participation. Students anonymously filled out an online survey prepared in MS Forms. The survey was completed accounting for 72% of all students who participated in online teaching. Sample structure is displayed in Table 1.

Table 1. Profile of Respondents with respect to School Year and Gender

School year	Male	Female	Other	Total
2019/20	5	11	1	17
2020/21	23	15	1	39

Materials

Moreover, there was no time to carefully prepare resources and the best approach to preparing sources as mentioned by (Mishra, Gupta, & Shree, 2020). Given the limited resources and recommendation to avoid using video calls, teaching was organised to take place mostly asynchronously. This form of teaching required use of the following tools:

- MS Teams for communicating with students,
- MS OneNote for distributing exercises and video resources as well as using it as a sort of notebook in which students took important notes from prepared resources and into which they entered their homework,
- Loomen as a centralised LMS for brief knowledge tests,
- Evaluator as a proprietary system for automatically testing programs which students use in doing computer programming tasks and immediately getting feedback as to whether their answers are correct.

Student attitude survey, consisting of demographic items and the following items pertaining to attitudes, the first six being categorical with five categories (described in brackets), and the last two being open-ended:

(1) *To what extent do you like the traditional approach to learning more than the online approach? (1 – "I do not prefer the traditional approach at all.", 5 – "I prefer the traditional approach.")*
(2) *Which manner of presenting new syllabus content do you find better? ("online teaching"*, "*online conferences in real time"*, "*recorded resources"*, "*autonomous work using the resources"*, "*other")*
(3) *Is the syllabus content taught in a clear and understandable way? (*1 – 'the syllabus content was taught in a completely unclear and not understandable way.', 5 – 'the syllabus content was taught in an exceptionally clear and understandable way.'*)*
(4) *The tasks you receive are suitable and help you better understand the syllabus content? (*1 'The tasks were not suitable at all.', 5 – 'The tasks were completely suitable.'*)*
(5) *Did you receive detailed explanations and feedback? (*1 – 'I totally disagree.', 5 – 'I totally agree.'*)*
(6) *What do you think about the taught syllabus?* ('We are taught too little syllabus content.', 'We are taught a little less syllabus content than ordinarily.', 'We are taught the optimal quantity of syllabus content.', 'We are taught a little more syllabus content than ordinarily.', 'We are taught too much syllabus content.')
(7) *What do you particularly like about this online teaching approach?*
(8) *What would you change in this online teaching approach?*

Procedure

Given that it involved primarily computer programming classes, students received precisely defined tasks in MS OneNote which were to be done during particular classes as well as instructions on how to solve the tasks. The process most often incorporated two types of tasks:

- Watching a prepared video most often providing an explanation for a part of the syllabus which students had not yet covered (e.g., branching statements, for loop) or a detailed explanation of an example key for understanding a specific section of the syllabus. All resources were prepared by the teachers to be

optimally suitable for the specific level of student knowledge (Morgan, 2020). The quantity of recorded video resources depended on the type of class but on average was about 20 minutes of recorded video for each class hour (of 45 minutes). The recorded resources were created using the Screencast-O-Matic tool to record content from the screen where the teacher provided various explanations for the syllabus,

- Answers to questions relating to video resources and solutions to tasks similar to those explained in the video instructions.
- Teaching in real time via video conferencing took place to a lesser extent (approx. 10%).

Each class hour had homework comprising tasks similar to those done during the actual class. If they were tasks requiring students to write a program, they were recommended to use a system for automatically testing software programs (Evaluator), not only for solving tasks given during classes but also for tasks given as homework. Entering the solutions into the system for automatically testing solutions provided students with immediate feedback on the correctness of their solutions and directions as to what to look out for if their solutions were incomplete. All student activities relating to whether the student performed the task given during class and done his or her homework or not were recorded and became publicly accessible. These records were maintained in a common document accessible to everyone.

The bigger problem with online teaching was the exams, because doing exams online offered a greater possibility of copying answers. (Zayapragassarazan, 2020) recommends sitting for a number of exams over a shorter-time span and giving students different types of tasks. Accordingly, short quizzes were given using LMS Loomen. Loomen enables teachers to create knowledge tests by creating different variants of the same question. This enables a teacher to give almost every student a different exam. Moreover, sitting for the exams is well allocated in terms of available time, where even those good students did not have a lot of 'excess' time to complete the exams.

Online teaching enables but also requires an individual approach to students (Kim, 2020). A great danger with online teaching is that students may not properly follow online lessons. This is particularly true for asynchronous online teaching. Therefore, this form of online teaching demands particular care in communicating with students in order to convey a sense of importance and greater motivation for work (Guilar & Loring, 2008). Accordingly, schoolwork undertaken by students in this research project was regularly checked (and which they had to enter into OneNote or a system for automatically testing software programs) as well as homework. Students received personal feedback for each piece of schoolwork they had done and which often included praise or reward in the form of an excellent grade, exempting them from written exams, and the like. Students who were unsuccessful in completing their obligations were offered assistance in the form of additional consultations and students seldom even sought such assistance, which rarely occurs during standard classes in a classroom setting. All this indicates that interaction between students and teachers is far more intensive than for the standard form of teaching, as described by (Volery & Lord, 2000) where the mentorship role of teachers becomes clear. Furthermore, teacher involvement is significantly greater than in standard (traditional) classes, also confirmed in research by (Fedynich, 2014) in which it was ascertained that 77% of university teaching personnel in the USA considered that online teaching requires significantly more time than traditional classroom teaching.

(Mishra, Gupta, & Shree, 2020) pointed out that getting feedback on online classes from students is important for online teaching. In this particular study, feedback was sought from students about a month after the commencement of online teaching. The participation in the survey was voluntary and students were informed the results will be completely anonymous.

Results

The questions and corresponding results from the conducted survey are given below. Table 2 clearly shows that not a single student preferred the traditional approach compared to the online approach, and the largest group of students (35.72%) found online teaching to be equally acceptable as face-to-face teaching. Furthermore, the majority of students (66%) preferred the asynchronous form of teaching using recorded resources. Also, students generally consider that the syllabus content is taught in a clear and understandable way as well as that they are given sufficient amount of feedback. Finally, the majority of students (64%) believe that the quantity of syllabus content is optimal, whereas 37% of students think that more syllabus content is taught than ordinarily.

Table 2. Student Responses to the First Six Questions

1) To what extent do you like the traditional approach to learning more than the online approach?		
Category	***Number of students***	***Percentage***
1	0	0.00%
2	5	8.93%
3	20	35.72%
4	19	33.93%
5	12	21.43%
2) Which manner of presenting new syllabus content do you find better?		
Category	***Number of students***	***Percentage***
Online teaching	7	12.50%
Online conferences in real time	7	12.50%
Recoreded resources	37	66.07%
Autonomous work using the resources	3	5.36%
Other	2	3.57%
3) Is the syllabus content is taught in a clear and understandable way?		
Category	***Number of students***	***Percentage***
1	0	0.00%
2	1	1.79%
3	7	12.5%
4	16	28.58%
5	32	57.15%
4) The tasks you receive are suitable and help you better understand the syllabus content?		
Category	***Number of students***	***Percentage***
1	0	0.00%

2	1	1.79%
3	7	12.5%
4	12	21.43%
5	36	64.29%

5) Did you receive detailed explanations and feedback?

Category	***Number of students***	***Percentage***
1	0	0.00%
2	1	1.79%
3	1	1.79%
4	7	12.5%
5	47	83.93%

6) What do you think about the taught syllabus?

Category	***Number of students***	***Percentage***
We are taught too little syllabus content	0	0.00%
We are taught a little less syllabus content than ordinarily	3	5.36%
We are taught the optimal quantity of syllabus content	36	64.29%
We are taught a little more syllabus content than ordinarily	15	26.79%
We are taught too much syllabus content	2	3.57%

What is important to note is that no statistically significant difference was noticed in the results given the age group of respondents (Kruskal-Wallis chi-squared = 0.41756, df = 1, p-value = 0.5182). Furthermore, no difference was noticed regarding the gender of students (Kruskal-Wallis chi-squared = 1.2465, df = 2, p-value = 0.5362).

In Table 3, the frequency of specific aspects of online teaching mentioned in answers to question seven are provided.

Table 3. What do students like about online teaching?

Element of online teaching	**Number of students citing the particular element**
Video resources	27
Communication with students	17
Efforts on explaining the syllabus	9
Background music in the video resources	8
Feedback for performed tasks	3
Everything	3
Good estimate of the necessary quantity of syllabus content for classes	3
Evaluator	1
Nothing	1

A large majority of students when mentioning video resources highlighted the importance of recording in-house video resources. Interestingly, none of the 2019/2020 generation of students mentioned background music in video resources whereas 8 students from the 2020/2021 generation mentioned it. Some of the responses by students are:

- *"good quality video resources, I think it would be useful to send them to us even when we get back to school, but not as something obligatory but to use in helping those who don't understand what is taught"*
- *"The fact that we can always seek assistance if we have any problems concerning the syllabus and the fact that you record the lesson instead of holding a videoconference."*
- *"I think the way of teaching using recorded videos or in real time is really good. The syllabus is interesting, the presentation is clear. I think the online approach is perfect."*
- *"I really like the fact that you've recorded the resources and we can watch them at any time in the day when it suits me. Also, I really like that you are very involved and that I can ask questions if needed."*

These and other responses lead to the conclusion that the students really value an individual approach, quick responses from teachers, feedback and the overall effort from teachers. In Table 4, the frequency of specific aspects of online teaching mentioned in answers to question eight are provided.

Table 4. What would students change in online teaching?

Element of online teaching	**Number of students citing the particular element**
Nothing	24
More video instructions	6
Too load background music in the video resources	5
Give less homework	4
Sometimes the tasks are not that clear	3
More often short videoconferences	3
More time for solving exams	2
More tasks as exercises	2
Recommendations for other online syllabus content or literature	1
Strictly adhering to deadlines	1

"The teaching approach is excellent, perhaps it would be better if got together on a Teams videoconference for 10 minutes to go through previous tasks if something is unclear. Also, the music in the video recordings is very present and deconcentrates me, so I have to watch a video sometimes twice."
"I which I had more time to solve tasks and the survey (and exams) on Loomen because the page is relatively difficult, and some students (like me) are not that familiar with the syllabus content from information technology to think about and answer a question properly. It would be good if we had more time for handing in assignments and easier tasks along with more solved examples of more complex tasks. Also, it would be excellent if we got say 10 tasks as exercises (from new syllabus content) and have

a little more time to go over them and try to solve them."

"Perhaps it would be better if you gave some more exercises from programming which are not compulsory so that those who want to can go through the syllabus as much as they can."

Based on the mentioned responses from students, the conclusion is that they are mostly satisfied with this form of online teaching. Only a few (5%) would like to have videoconferences more often where they could response to questions from students. Interestingly, some students think they get too many exercises, whereas other thinks that there should be more tasks for autonomous work.

Discussion

Based on the mentioned results, it is clear that despite the inadequate planning and organization of online teaching, students consider this form of online teaching acceptable. This can be concluded on the basis of responses to questions as to whether they prefer more online teaching or the traditional form of face-to-face teaching where a larger number of students (35.77%) said that it is all the same, however, generally speaking, most students prefer the traditional form of teaching. When referring to the form of online teaching preferred by students, a majority or 66% of students prefer recorded resources. Some of the arguments for this attitude lie in the fact that the resources can be used at any time, independently of actual class times, which coincides with This is also exceptionally important due to limited continual seating positions in front of available computers, which can have an unfavorable effect (Anderson, 2020). A no less important fact, in favor of the prepared video resources, is that they can be viewed a number of times, rewound back in time, sections can be skipped, all with the aim of better understanding what is taught in the videos. Students particularly value teacher effort in preparing in-house video resources. A large majority (approx. 90%) accounting for 27 students said that they like having the resources sent to them and appreciated preparation of the in-house resources. Creating the in-house resources is important due to the fact that students are accustomed to hearing the voices of their teachers (Anderson, 2020), and such resources best suit the knowledge and competences of the students (Morgan, 2020). Based on responses from students concerning the positive context of online teaching, it becomes clear that students find communication to be exceptionally important, including feedback on their work (class involvement, doing homework, additional exercises, and the like) which confirms that prompt feedback enhances student learning experience (Brownlee, Walker, Lennox, Exley, & Pearce, 2009) also it boost students satisfaction (O'Donovan, 2017). Therefore, students like to see that their teacher is also involved, that their teacher also fulfils his or her obligations properly and on time. They like to see that teachers think students are important, they like to receive personalized messages, that teachers notice good solutions to exercises and like to receive appreciation and possible rewards, that teachers identify student problems in understanding the syllabus, when a teacher offers individual consultation to a student and then actually has the consultation with the students. Online teaching should definitely not neglect the aspect concerning quantity of exercises given to students during online classes. In referring to video resources used for the 45-minute classes, in this case it was on average about 20 minutes of video resources, which the students considered to be reasonable. Based on comments from students, what is also clear is the great importance necessary to clarify given exercises (Anderson, 2020; Wang & Woo, 2007).

This feedback from students is exceptionally important for teachers because, for instance, given the comment that background music is too loud, the music in the video instructions created after the conducted research was reduced by 7% but was not eliminated altogether because 14% of students said that they like it in the video resources. Also, more synchronized time slots for video calls were introduced, which can now be held without greater technical difficulties, as opposed to the period when online teaching had only commenced. A larger number of teachers have become familiar with the necessary technology and discovered other teaching methods. In previous research (Cassibba, et al., 2020), 58% of teachers said that they want to continue using MS Teams for teaching, even though they had previously not use the tool. Similar views were expressed by some students in this research, expressing the desire that video resources for teaching be offered to students even when teaching returns to the traditional setting.

Conclusion

Once teachers had found themselves to be in a completely different setting for holding classes and having overcome the initial shock, they were quick to meet the challenge of holding online classes. The paper provided an overview of a certain form of teaching which took place at the science and mathematics high school in Zagreb. The specific subject was information technology in 1st year of high school (9th year of schooling) and students provided their views on the specific form of online teaching.

It is interesting to note that the respondents found the traditional form of teaching only somewhat more to their liking that online classes. When referring to online teaching, students mostly preferred the asynchronous form of online teaching based on recorded resources. One of the greater advantages of recorded video resources, which students noted in the survey, and later in informal conversations, is the ability to view the materials a number of times in order to gain a better understanding of the syllabus (Gupta, et al., 2020). In addition to the prepared video resources, students also liked a lot of feedback for their work, teacher availability, and responses to their questions within a reasonable time frame which confirms that one of most influencing factor that affect students' satisfaction is prompt feedback (Gopal, Singh, & Aggarwal, 2021). All this requires exceptional involvement form teachers which for online teaching is far greater than in traditional classes (Gelles, Lord, Hoople, Chen, & Mejia, 2020). It appears that, besides the numerous problems brought on by moving over to online teaching, it certainly has some positive aspects.

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Author Information

Predrag Brođanac
https://orcid.org/0000-0001-8314-5405
Faculty of Science
University of Zagreb
Bijenička cesta 30, Zagreb
Croatia
Contact e-mail: *predrag.brodanac@skole.hr*

Josip Novak
https://orcid.org/0000-0003-4738-8666
Faculty of Humanities and Social Sciences
University of Zagreb
Ivana Lučića 3, Zagreb
Croatia