

The impact of intensive use of ICT tools on the quality of learning outcomes and communication skills: Based on the example of online foreign language teaching during the COVID-19 pandemic in Croatia

Tanja BAKSA

Media and Communication, University North
Koprivnica, 48000, Croatia

Ljerka LUIĆ

Media and Communication, University North
Koprivnica, 48000, Croatia

ABSTRACT

The Covid-19 pandemic shifted most schools from face-to-face teaching to distance teaching and learning resulting in the use of a variety of ICT tools. Different learning platforms for course management have been used in teaching and learning since the pandemic, especially at the beginning, in March 2020. However, later many teachers started using video calls through various ICT tools such as zoom, MS Teams, Google Meet etc. Different countries had different problems during the distance teaching and learning: internet access and connection, necessary devices, digital literacy. But motivation, communication and achievement of learning outcomes also proved to be a big problem. To investigate the impact of intensive use of ICT tools during the COVID 19 pandemic is the aim of this paper. As teachers have used ICT tools in foreign language teaching before, but not to such an extent, the aim of this research was to examine students and teachers how intensive use and online teaching and learning has an impact on communication and learning outcomes, and whether in the opinion of teachers and students' communication satisfaction and satisfaction with their communication skills in foreign language and learning outcomes were achieved.

Keywords: impact of ICT tools, teaching, foreign languages, learning outcomes, communications skills

1. INTRODUCTION

The use of ICT tools, especially in foreign language teaching and learning, has long been present in educational institutions around the world. When it comes to intensity and the way the ICT tools are used, following e-learning forms differ: classical teaching with support of slides like PowerPoint, teaching and learning with help and support of ICT tools (exercises, exams, games on smartboard which are solved and played by the students), hybrid, mixed or blended learning model (partially in the physical classrooms and partially online, from home, when students learn with materials distributed through a computer network (Moodle, MS Teams, etc.), and fully online – when the educational process takes place only online, through electronic, computer or telecommunication technology. Computer mediated communication (CMC) can be used in many ways: e-mail, video-conferences, interactive messaging, different ICT tools, synchronously or asynchronously [1]. When teaching and learning foreign languages Internet and different ICT tools provide many benefits, such as authentic materials which can be used for improving different skills, such as

searching and finding the right information, where critical thinking and analysis are needed, since they are not relying on the teacher to decide for them. Students can also practice their listening, reading, speaking, writing skills with the help of different ICT tools, and can learn with authentic materials. These tools also serve to increase learning motivation and interest [2]. More advantages are personalization, effectiveness, affordability, no geographic boundaries, but online learning and teaching comes also with some risks like health problems, communications problems, social exclusion, conflicts, trying to solve a problem in the shortest way, without understanding, looking for instant solutions for example spell checker, without learning how to spell correctly, etc. [3].

Due to the Covid 19 pandemic many countries made a transition to the remote teaching and learning. In the spring 2020, schools began with distance learning using different tools and platforms, such as MS Teams, Google Classroom, Moodle, Loomen (in Croatia). With the quick transition to the remote learning and teaching due to Covid 19 came a new term by Hodges et al.– ERL – Emergency Remote Learning. Countries and educational institutions didn't want to interrupt the educational process, so from one day to another teachers and students had to switch to distance teaching and learning [4]. Since the modules and curriculum weren't developed and created for distance learning during the pandemic, what needs a big amount of time to be developed and created suitable, Hodges et al. recommended to use ERL only when needed and for a not very long period of time.

But during the time of distance learning about at least 43 million students were cut off from remote learning, according to UNICEF report [5]. Although new technologies and ICT tools motivate the students to engage more, many researchers conclude that the use of ICT tools, new technologies and mobile devices do not necessarily increase the learning outcomes [6]. The Ministry of Education in Croatia gave the

teachers teaching models (A, B and C model – face-to-face, hybrid, distance) and recommendations for asynchronous distance learning. At first the Ministry of Education in Croatia was against synchronous teaching due to students and their Internet connection, or / and the lack of devices for distance learning [7]. To help the teachers and students even more, video lessons were made for elementary and high school students with many extra exercises for learning and achieving learning outcomes. On the Croatian state television there were lessons for younger students (age 7 to 10) [8].

During the school year 2018/2019 in Croatia began the curricular reform (School for life). During the reform teachers and students learned to work with different kind of ICT tools, so many teachers and students were even before the pandemic familiar with ICT tools and online learning. [9] In the first wave (March – June 2020) the remote learning and teaching was held mostly asynchronously, teachers and students were satisfied with the remote teaching and learning content and ICT tools for teaching and learning, but the students criticized too many tasks and too much time spent in front of the computer to do all tasks and homework they got from their teachers.

They also answered that the learning outcomes weren't achieved. Communication with teachers was good, since the students could reach their teacher in the first wave all the time, via e-mail, messenger apps etc. But they had to wait for teacher's answer and feedback, when they didn't understand something, so the students suggested to have more videoconferences, so that they could ask the teacher directly if they didn't understand learning materials [10].

In the next school year 2020 / 2021 teachers of foreign languages switched mostly to synchronous teaching, via video conferences, when the school were closed. Teachers and students organized their time better; teacher applied the ICT tools which were detected for better achievement of learning outcomes and for better communication, mainly the use of

ICT tools for videoconferences, that is, synchronous teaching and learning. Student like working with ICT tools, but when it is not too intense, only as enhancement for lessons [11].

2. METHODOLOGY

The aim of this research was to examine students and teachers how intensive use of ICT tools and online teaching affects communication skills and learning outcomes, and if students and teachers think that students' communication skills are better and learning outcomes have been achieved.

The research sample consisted of high school students (from 14 to 19 years old) and foreign language teachers. It involved 134 respondents, 60 teachers of German and English in Croatian high schools. Among the teacher respondents (N = 54) are female and (N=6) male, from 29 to 60 years old and from 5 to 35 years of working experience in teaching foreign languages in different types of schools (grammar schools, vocational schools). The 74 student respondents (N=54 female and N=20 male) attend grammar schools (N=36) and vocational schools (N=38). Most of them (60,8%) learn English and German (English as a first foreign language, and German as a second language).

Multiple-choice and open-ended questions were used for the research, to which teachers and students answered anonymously through a questionnaire submitted to them through digital communication channels (Facebook Messenger, Viber, Facebook groups, e-mail). The survey was conducted during April / May / June 2021 via the Google Form.

In accordance with the research goals, the following hypotheses were formed:

H1:

The intensive use of ICT tools during the remote learning increases communication skills in foreign languages.

H2:

The intensive use of ICT tools during the remote learning doesn't have a great impact on the achievement of learning outcomes.

3. RESULTS

ICT tools and communication skills

During the remote learning and teaching students and teachers used different ICT tools, such as LearningApps, Padlet, Genially, Quizzis. For communication the mostly used ICT tools were messenger, learning platform, videoconference tools. When asked how the intensive use of ICT tools changed their communications skills, only 15 students (20%) say they are better (Figure 1). 25% think they are worse. They also don't think they understand new learning materials better when using ICT. Moreover, they think they speak less (43%).

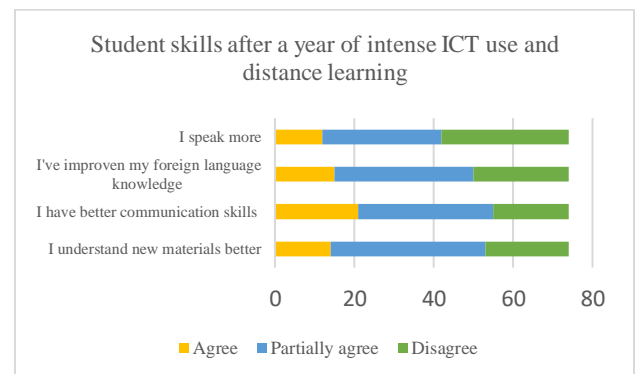


Figure 1. Student skills after a year of intense use of ICT tools and distance learning

The teachers (25%) also find student communication skills decreased, since many of them didn't want to communicate online (due to technical problems or no motivation). The rest didn't see the difference. When asked to describe the problems, the students wrote that teachers assess their communication skills better than they are. Some don't like evaluations of their communication skills online, since they don't show what they really know. Students are also afraid to ask their teachers online when they don't understand something and prefer communication face-to-

face. Thus, H1 isn't true, since the most students and teachers think student communication skills didn't get better when using ICT tools in distance learning.

ICT tools and learning outcomes

After a year of intense use of ICT tools, students think they are more independent in learning (39%), 53% think that that changed only partially, and only 9% think nothing has changed. When it comes to motivation, 50% of the students think they are more motivated when learning with ICT tools, and 23% answered ICT tools don't motivate them (Figure 2).



Figure 2. ICT tools and motivation to learn

The teachers (25%) answered students were not interested in any work, unmotivated and didn't achieve the learning outcomes (8%). More than half of the teacher respondents (58%) think that the learning outcomes were mostly achieved, and 35% only partially.

The most students (79%) think they achieved all or the most learning outcomes, 4% think they didn't achieve any or a few learning outcomes. So, we can conclude that the most students did all their tasks and achieved the learning outcomes. With more use of ICT tools, they could also better manage their time and find the best ICT tools for their teaching and learning style. Some students (10%) mentioned online quizzes like Kahoot or Quizzis good for achieving learning outcomes, some didn't like them. Thus, the H2 is true, since the intense use of ICT tools didn't have a larger effect on the learning outcomes.

Remote teaching and learning disadvantages and advantages

Teachers and students were asked in open-ended questions, to write about problems they had/have with distance learning and intense use of ICT tools. Some teachers mentioned health issues like insomnia, headache, problems with vision and back problems. Problems with students were also due to lack of interest, motivation, technical problems. Some students didn't want to speak online or turn their cameras on. Students also copied homework from other students. They also did that when writing a test. When the students came back to school (September 2020), some teachers answered the learning outcomes from the first wave (March – June 2020) weren't achieved, and they had to repeat all what was done online.

Students mentioned problems such as not enough time to do their homework, teachers posted materials too late, they didn't understand the materials, they also didn't always get feedback from other students or teachers, too much time spend on videoconferences (via Zoom, or MS Teams), that is in front of the computer.

When it comes to advantages of distance learning and use of ICT tools, students and teachers both replied they have learned how to use different kind of ICT tools and make their own materials, they managed their time better, and now they appreciate the face-to-face teaching and learning more. Both teacher and students also think when online, then videoconference, since this is the best teaching and learning environment when online, and the most similar one to face-to-face and normal teaching and learning in schools.

4. CONCLUSIONS

ICT tools in foreign language teaching and learning have many advantages, like availability (students can learn any time and at their own pace), autonomy (they can choose what they

want to learn and exercise more), authenticity (learning materials are authentic), they are student centered, help teachers, one can use them for self-assessment. Students like working with computers and mobile devices and that is one of the reasons, they are motivated to learn with ICT tools [12]. But this research has shown that, that the intensive use of online teaching, both for students and teachers, has led to digital load and saturation, affected their psychophysical health, intensity, manner and quality of communication, which they indicated as the biggest problem of distance learning. On the other hand, insufficient motivation, which proved to be the biggest problem for students, resulted with the lack of interest and untimely or no solving of tasks by the students, and thus the weaker learning outcomes. While students and teachers assess the achievement of outcomes during online classes as satisfactory, returning to the schools showed “lack” of knowledge created during distance learning and teaching. How to solve this problem, how to achieve an optimal correlation between online distance learning and face-to-face classroom teaching and achieve the same quality of learning outcomes and improve communications skills of students are the questions for future research to which the authors plan to seek answers in collaboration with fellow researchers.

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