FRI-ONLINE-1-LL-04

ONLINE EDUCATION – MISSION (IM) POSSIBLE[7]

Tanya Borisova, PhD student
Department of Bulgarian language, literature and art,
University of Ruse
E-mail: tborisova@uni-ruse.bg

Martin Ridley
St Peter's Catholic Academy
Bournemouth, United Kingdom
E-mail:ri@st-peters.bournemouth.sch.uk

Valerija Karba
OŠ Ivana Cankarja, Vrhnika Slovenia
E-mail: vkarba@11sola.si

Abstract: The paper reviews the results of research on Generation Z's attitude to digital education in distance learning, teenagers' access to the internet and personal digital devices availability. The research was part of the school eTwinning project "Online education- mission (im)Possible" which was run in the period October 2020 and April 2021. Schools from five countries expressed their readiness to enter the project however, only three of them took part in the survey: Bulgaria (the National school of Arts "Prof. Vesselin Stoyanov", Ruse), the UK (St Peter's Catholic Academy, Bournemouth, United Kingdom) and Slovenia (OŠ Ivana Cankarja, Vrhnika, Slovenia). The project and the research relate to certain Goals set by the UN, such as "Quality Education"," No Poverty","Gender equality","Good Health and well-being".

Keywords: General education, Online Learning, Generation Z, UN's Global Goals.

INTRODUCTION

Online learning and teaching gained its popularity with the rise of internet access and the availability of personal digital devices for both students and teachers towards the end of the XX century.. Several technologies have appeared since then but the educational tools and platforms, known as web2.0, marked its rising point. Web2.0 tools allow synchronous and asynchronous teaching-learning process in collaboration, sharing any types of information (visual, textual, audio and video) which can be effectively used for conversations, presentations, quizzes, tests, drawing, writing, listening, mapping and so on (Rowe & Chapel, 2020). Online education and digitalisation are part of the EU's Digital Education Action Plan (European Commission, 2020). It was found that before the pandemic of Covid-19 online education was more limited (European Commission, 2020). Despite the fact that digital devices and technology are extremely popular among teenagers nowadays, often referred to as representatives of Generation Z and who are related to as the "most tech-savvy generation of all to date" (Loleland, 2017) it is dubious that they would prefer to use technologies for educational purposes in distance learning. However, the pandemic period led to several socially important changes as social distancing and online learning, increasing the amount of time which teachers and students spend on their digital devices for educational purposes. In the period of sudden educational environment changes several questions needed to be answered as: Is online education accessible for all? Are all parties involved in the process equipped with devices? What are the difficulties which both teachers and students meet in their everyday online studying practice? Are both students and teachers aware how to participate in online education? Do both students and teachers have the needed skills and competences to cope with the challenges which

---

[7]Докладът е представен на конференция на Русенския университет на 29 октомври 2021 г. в секция Езикознание и литературознание с оригинално заглавие на български език: ОНЛАЙН ОБРАЗОВАНИЕ – МИСИЯТА (НЕ) ВЪЗМОЖНА.

they are facing? Knowing and understanding students' and teachers' readiness for online education will help educators to take steps towards better educational outcomes and the development and the achievement of UN's Global goals and mainly Goal 4 -" Quality Education". Goal 1 "No Poverty"; Goal 5 " Gender equality"; Goal 3 "Good Health and well-being"; Goal 11 "Sustainable cities and communities" (UN Genral Assembly, 2015).

EXPOSITION

Materials and methods

The research was based on surveys conducted in three educational institutions in three countries: Bulgaria (the National school of Arts "Prof. Vesselin Stoyanov", Ruse); the UK (St Peter's Catholic Academy, Bournemouth, United Kingdom) and Slovenia (OŠ Ivana Cankarja, Vrhnika, Slovenia) and 131 responses were received. The survey consisted of four main questions:

1. Concerning the country they come from and their age

2. Teenagers' online daily habits (how much time they spend online in general and for school work, what is the personal device they use most often and if they possess a personal one, what technology problems they have if any, what their favourite online activities are).

3. Their personal attitude (how confident they feel using Microsoft Office apps, if it is more stressful to complete their work on their own online or at school, if they think they learn more or less online than being at school). Self-reflection questions were also included (why they learn more or less online than when at school and if they feel they have the necessary digital skills for learning at home).

4. What conditions do pupils work under (whether or not the school prepared them for learning online, if the school provides their digital devices, what type of educational process happens most often during the pandemic period)

The questionnaire consisted of 20 questions of which 3 had open answers (mostly as short paragraphs) and 17 were multiple choice type questions. One question encouraged more than one response and 7 questions were based on the Likert scale (based on their personal attitude with positive, neutral and negative assessment). The survey was conducted online using Google forms, asynchronously but in a period of one month (April 2021).

Results and Discussion

A total number of 131 students completed the survey. The shares per country are presented in Table 1.

Table 1. Respondents

№	Country	Number of respondents
1	Bulgaria	26
2	Slovenia	75
3	The UK	30

The age groups of the respondents are between 12 and 19 with 14-year-olds as the most common age group. The proportions in age groups are as follows: 14 years old: 64 (48.9 %),15 years old: 32 (24.4%),12 years old: 20 (15.3%),13 years old: 11(8.4%), 18 years old: 3 (2.3 %), 19 years old: 1 (0.8%). The representation of age groups is defined by the schools' profiles and, as the school in Slovenia is a basic school, the respondents there are aged predominantly 12-14 years old. The Bulgarian school is a high school and a whole class of 14-year-old students were questioned as well as a few volunteers from the last high school class (numbering 12). The school in the UK is also a high school and the range of students who were enquired is between 13-15. Thus, the age groups are formed by the Generation Z representatives.

Students' online daily habits

The students were asked how much time they spend online and how much time a day they spend for their school work. Bearing in mind that the survey was conveyed during the period of

isolation and online study, all the students were at home and had their school work done mainly online. The results are not surprising (shown in Fig.1). Nearly half of the respondents (45.8% or 60 out of 131 students) spend more than 5 hours online and nearly one third or 27.5% (36 out of 131students) spend between 3 and 5 hours online. The other large part of the respondents spends between 1 and 3 hours online which was stated by 24 students out of 131. 9 students answered that they spend less than an hour online and one student claimed that they do not spend any time online. It would be a considered as a negative trend as we know that teenage students should spend more time off the screens and any digital devices, as advised by the health related specialists children should limit screen time to 1-to 2 hours per day and adults to try to limit screen time outside of work hours (Mosley, 2020). Negative impacts from spending excessive time online and on a screen include a drop in mental and physical health (Pandika, 2016)
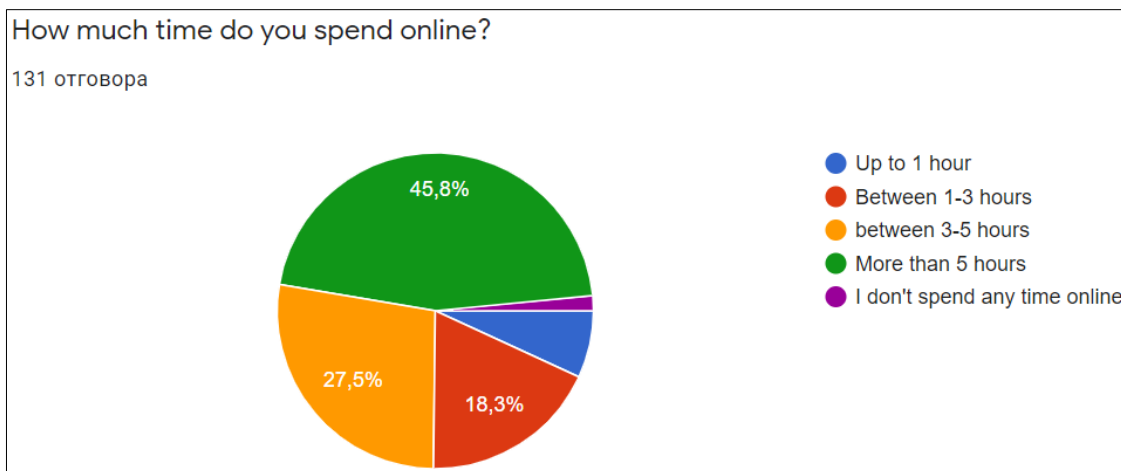

Fig.1.Time online

However, the time which students spend online doing their school work takes a greater part of the time online in general. According to the answers (*Fig. 2*) 34.4% - 43students spend between 3 and 5 hours online for schooling, 32% - 40 students between 1and 3 hours and 16 students answered that they spend more than 5 hours online for schooling. Nearly one fifth -19.2 % - 24 students answered that they only spend up to an hour for school activities. The question was answered by 125 students, 6 of the respondents didn't answer that particular question. As a contextual note, students in Bulgaria were obliged to have real-time, online lessons synchronously and according to their school timetable. They usually had to spend more than 6-7 hours in front of the screen first to attend the online lessons and after that to prepare their work and to present it to the teachers for corrections and assessment. The time teenagers spend online is mainly for entertainment – playing computer games, social networks, listening to music and videos.
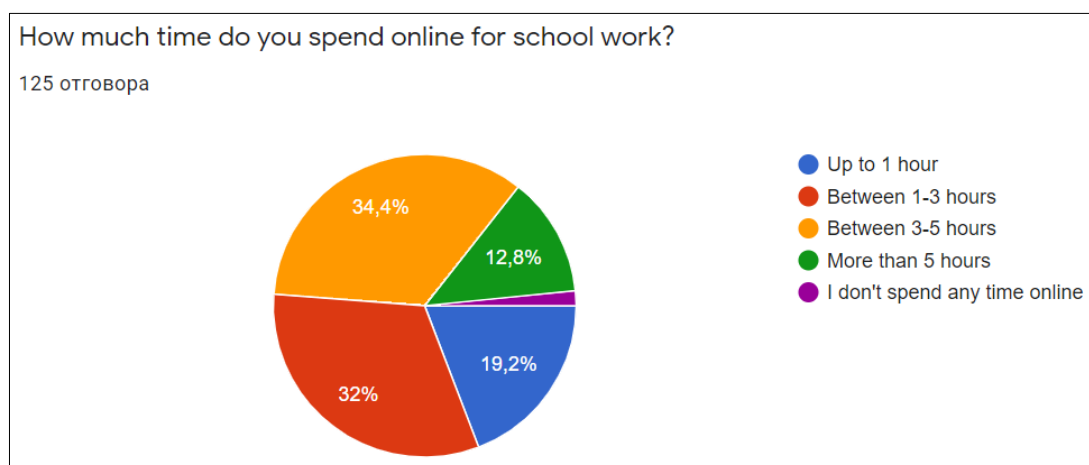

Fig.2. Time online for school work

The research found out that there are students who do not possess any digital device but had to share one (11.5%). The main technology which teenagers use to get online is a laptop computer 43.5% of the respondents – 57 out of 131 students; followed by a smart phone – 37.4% 49 students and 16 % use a desktop computer. Only one student 0.8% uses a tablet and 3 students do not use any of the devices mentioned. To the question of whether the school provides devices for their schoolwork, the answers are "Yes" – 54.2% and "No" – 45.8%. However, the question did not specify if it is about providing them computers for learning at home during the pandemics or in general when working at school. So, for further clarification, further research needs to be done as the educational policies in the three countries differ and so do the profiles of the schools.

Students' skills and Technology Equipment

It is understood that learning online during the pandemic was the only alternative for a great part of the European population - but it hadn't been planned for on such a large scale. The sudden educational transition from classroom learning to online learning put a serious stress on all parties involved in the process. The respondents assessed the types of problems which they encountered online and most of them found that poor internet connection was a major problem 45% - 59 out of 131; Some students think they had older equipment which worked poorly (6.9%) or they lacked a device (4.6%) or skills (4.6%). There are students who had limited internet access or even lack of it (2.3%) and a very large part of the respondents answered that they had faced other technology problems (36.6% - 48 students out of 131) (*Fig. 3*).
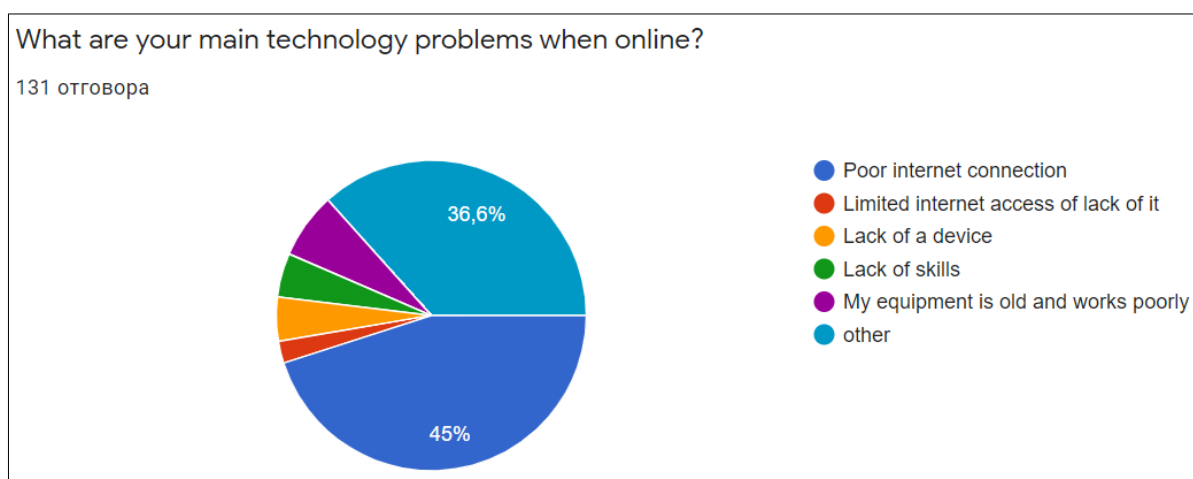

Fig.3.Technology related problems

In order to provide quality education online both teachers and students need certain digital skills and knowing a series of web2.0 or web3.0 tools and applications and how to use them. Pitifully, although the Generation Z is recognized as the most tech-savvy of all, a big part of the respondents stated that they feel less confident than they think they should. 13% assessed their confidence when using Microsoft Office apps with the lowest grade and 6.9% with grade 2 out of five, where 1 is the lowest and five is the highest. The number of students who feel neutral about their confidence are 22.1% and the rest more than 50 % altogether have a higher level of confidence (*Fig. 4*).
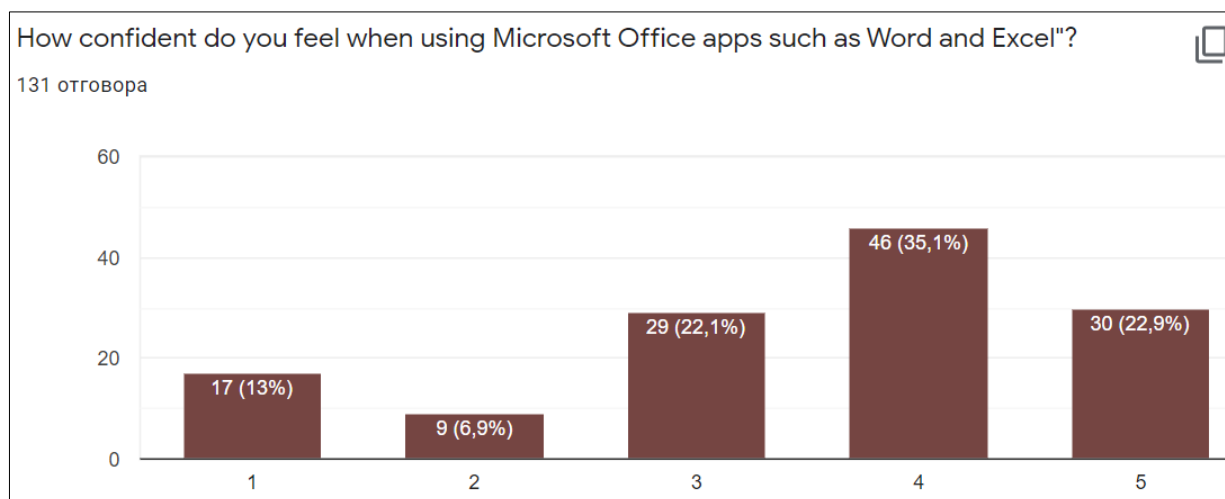
Fig.4. Confidence about using Microsoft Office

The majority of students feel they have the necessary digital skills for learning at home 73,3 % and 20.6% say they have those skills to some extent, but 6.1 % state they do not. (***Fig. 5***)
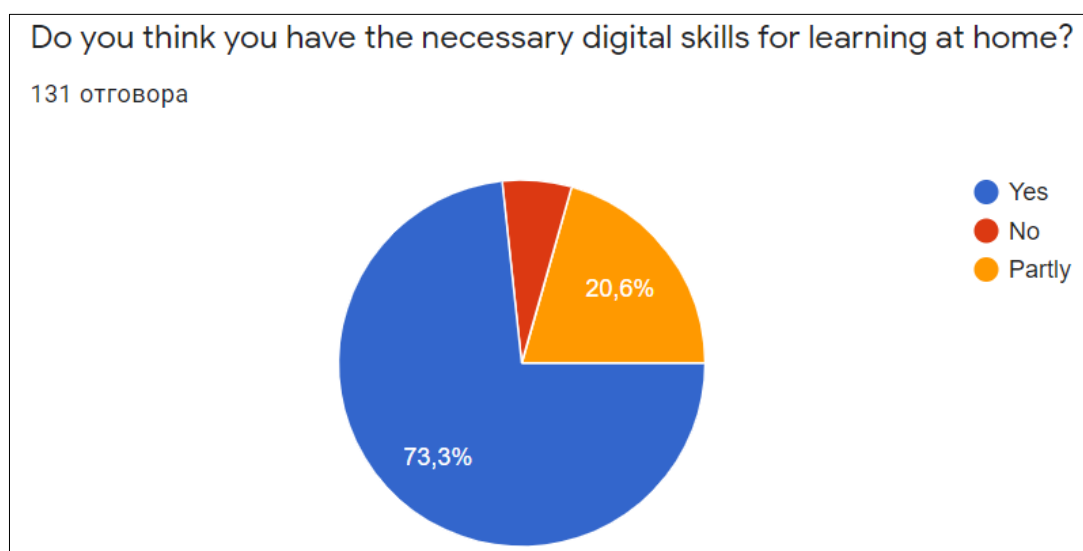

Fig.5. Digital skills

Although it is expected from students to be able to apply their digital skills for school work, it is under question to what extent the school teaches them those skills. IT and computer studies are involved in all school curricula but yet students find out that most of the knowledge and digital skills needed for learning online they acquired out of school and the school just helps them with it as 22.9% only said that "Yes"- the school prepares them for online learning, where as 35.1% say "No", and other 42% admit that it prepares them "Somehow".

Students' attitude and feelings

Students' digital skills are important for their academic success and subsequent qualifications but they also develop students' self-confidence. The lack of this, along with other factors such as technology reliability and access, can generate stress. In a scale of 1 to 5 students assessed how stressful learning from home is for them and the number of those who think it is stressful or very stressful corresponds to those who feel lack of skills. (***Fig. 6.)***
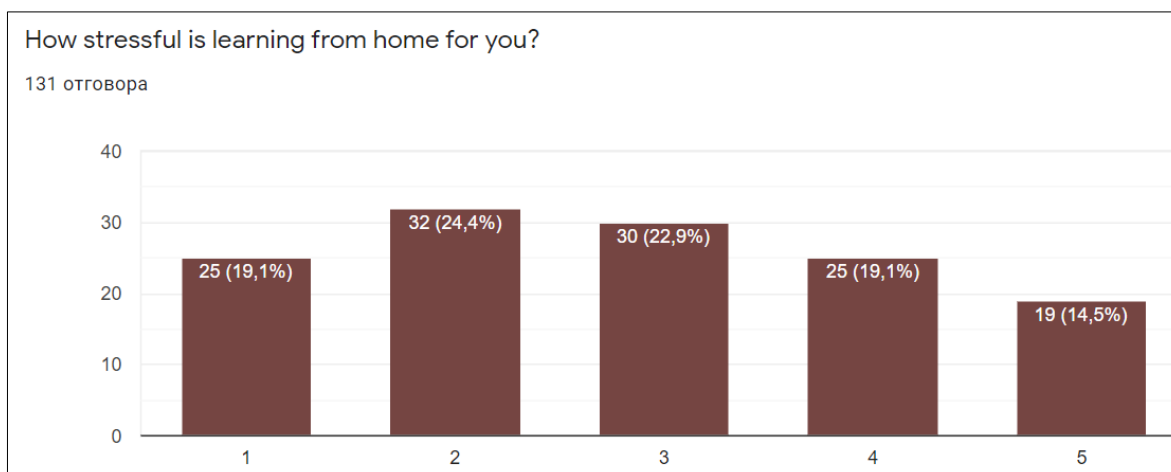
Fig.6. Stress related to online learning from home

On the one hand it is appraisable that the teenagers learn independently and acquire digital skills individually and out of the school, but the adults and teachers should consider a better educational scheme for their digital literacy and adequate preparation for independent learning online.

The rest of the questions were aimed to find out about students' personal attitudes towards online learning and self-reflection [of how well they think they learn online]. An alarming number of 70.2% - 92 out of 131 students state that they learn less than in the classroom, 21,4% think they learn the same and only 8.4%- 11 students feel that they learn more than when attending the school (*Fig. 7*).
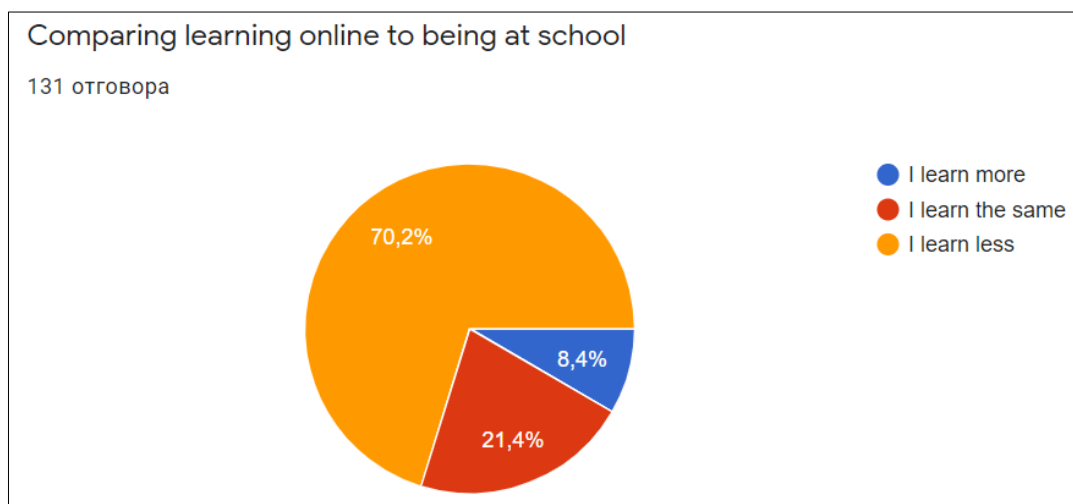

Fig.6. Learning online

A similar distribution of answers appeared when considering what students think about what methods should be applied at school. Two thirds (61.1% or 80%) think that traditional learning at school is better, about one third think that a combination of traditional and online learning is better and just 8.4% (11 students) find that online learning is better for them. (*Fig. 8*)
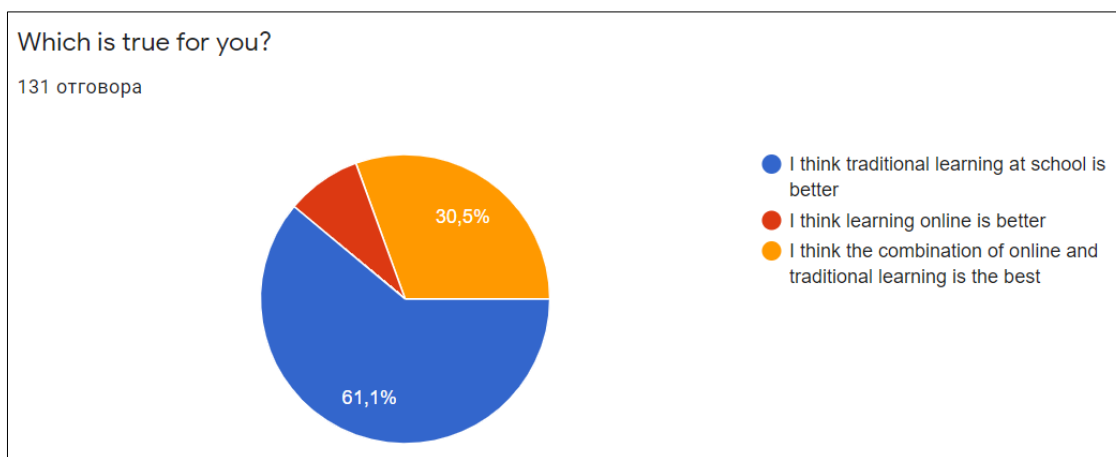
Fig.8. Preferred school methods

CONCLUSION

Although the representatives of Generation Z are considered digitally native and "tech-savvy" and they were expected to easily meet the educational requirements in online environment, they tend to feel much more secure, confident and feel they learn more in the traditional school environment in the classroom among their schoolmates and get face-to-face teaching instruction. The problems which teenagers face when studying online at home are related not only to technology issues but also to several other socially important and subjective issues such as personal attitudes and feelings about it. The nowadays teenagers are the ones who will enter universities in a couple of years and university teachers should consider the Generation Z' characteristics and not to overestimate their digital skills and willingness to learn online. Future employers should recognise that Generation Z have many positive qualities such as multitasking. However, they may need 'chunked' tasks as their attention span is smaller and they may need more breaks as a result.

REFERENCES

European Commission. (20 09 2020 r.). *Digital Education Action Plan 2021-2027*. Brussels: COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS. retreived on1 8 2021 r. from https://ec.europa.eu/education/sites/default/files/document-library-docs/deap-communication-sept2020_en.pdf.

Loleland, E. (2017). Instant Generation. *The Journal of College Admission*(235), 34-38. retreived on 31 07 2021 r. from ERIC - EJ1142068 - Instant Generation, Journal of College Admission, 2017 (ed.gov).

Mosley, D. A. (10 October 2020 r.). The Negative Effects of Screen Time for Adults and Children. *Beavioral Health Services. Mental Health, Wellness Now*. retreived on 1 08 2021 r. from https://blog.valleywisehealth.org/negative-effect-of-screen-time-adults-children/.

Pandika, M. (26 September 2016 r.). The Unexpected Effects of all That Screen Time. *Rally Health*. retreived on 1 08 2021 r. from https://www.rallyhealth.com/health/unexpected-effects-screen-time.

Rowe, E., & Chapel, L. (2020). Web2.0 Tools for Education. *Study.com*. retreived on 31 07 2021 r. from https://study.com/academy/lesson/web-20-tools-for-education.html.

UN Genral Assembly. (21 October 2015 r.). Transforming our world. *The 2030 Agenda for Sustainbale Development, A/RES/70/1*. retreived on 31 07 2021 r. from https://www.refworld.org/docid/57b6e3e44.html**.**