Digital Solutions for Trainers and Educators (DIGISOL)

ERASMUS PLUS PROJECT: 2019-1-LV01-KA202-060434

Trainers' Self-assessment Questionnaire and Training Participants' Assessment Questionnaire on Adult Educator's ICT Competences

Analysis and presentation of the results of the survey in Latvia
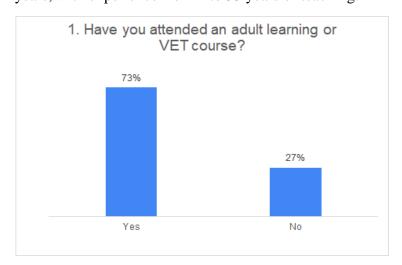
Trainers' and Learners' Assessment Questionnaire Results

DZC prepared summary of the collected answers

Within the ERASMUS+ funded project "Digital solutions for trainers and educators - DIGISOL" (project No. 2019-1-LV01-KA202-060434) a study was conducted on the experience of participants and teachers in adult training programs using information and communication technologies. In cooperation with project partners from Latvia, Germany and Estonia, a questionnaire was created, the aim of which was to help create the best possible teacher training programs on information and communication technologies, which will be available to all interested parties after the development of the course.

Information and communication technologies (ICT) are diverse sets of technological tools and resources that can be used for learning purposes (research, writing papers, delivering projects) as well as to communicate and share materials with trainers and other students. These technological tools and resources include computers, the Internet (websites, databases, emails), live or recorded broadcasting technologies (webinars, podcasts) and different web-based data visualization platforms (presentations, infographics).

A survey conducted by Datorzinību Centrs (DCZ) involved 183 students and 266 teachers. The most interviewed students were under 20 years old (46%), but nearly equal numbers included participants aged 20 to 30 years (27%) and older than 31 year (26%). Most of the students surveyed were with secondary school education (51%) followed by primary school education (26%), but the least had higher education (23%). Teachers who participated in the survey were aged from 23 to 74 years, with experience from 1 to 53 years of teaching.
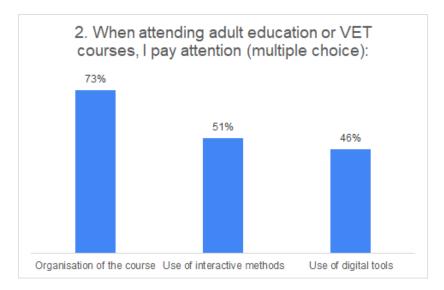

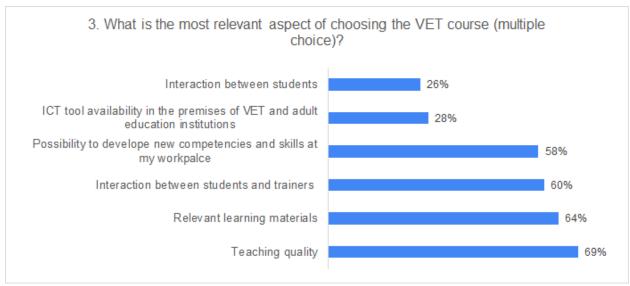*Pic. 1 The attendance of adult learning or VET courses*

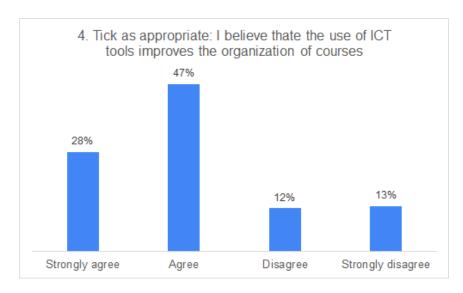*Pic. 2 Elements to which students pay attention when attending adult or VET courses*

Pic. 3 Aspects to which students pay attention when choosing courses

73% of the respondents indicated that they had attended adult or vocational training courses, while 27% responded to the contrary (see pic. 1). Students of adult or VET courses recognize that the most frequent focus is on the organization of the courses (75%), a bit fewer respondents answered that they focus on the use of interactive technologies and a little less than half – the use of digital tools (see pic. 2). However, when choosing courses, the most important aspect is the teaching quality (69%), slightly less – relevant learning materials and interaction between students and trainers, as well as the possibility to develop new competencies and skills at my workplace (58%), but most rarely students focus their attention on the availability of ICT tools in the premises of VET and adult education institutions and interaction between students (pic. 3).
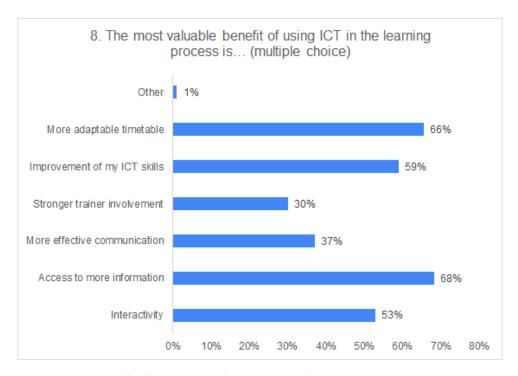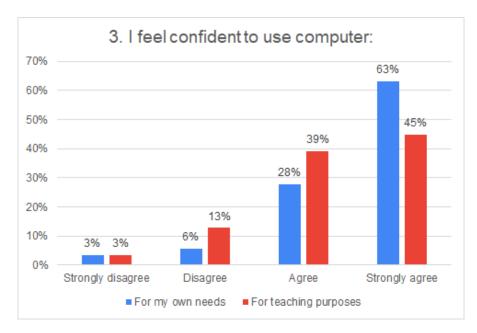
4. Tick as appropriate: I believe thate the use of ICT tools improves the organization of courses

Pic. 4 Students' views on the use of ICT tools

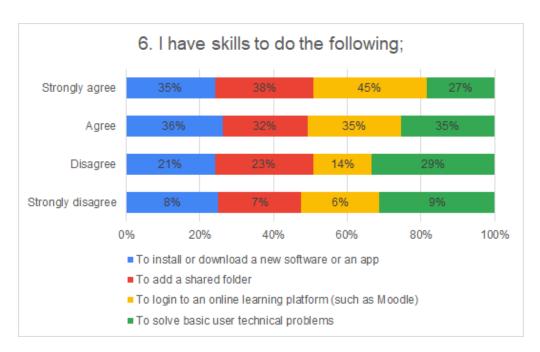8. The most valuable benefit of using ICT in the learning process is... (multiple choice)

Pic. 5 Major benefits for students from the use of ICT toolsin the learning process

In general, students mostly agree (47%) or strongly agree (28%) that the use of ICT tools improves the organization of training courses, but 13 % strongly disagree and 12% disagree with this statement (see pic 4.). As the biggest benefit of the use of ICT in the learning process, students mention the availability for more information and the possibility to adapt the learning schedule to their schedule (see pic. 5).

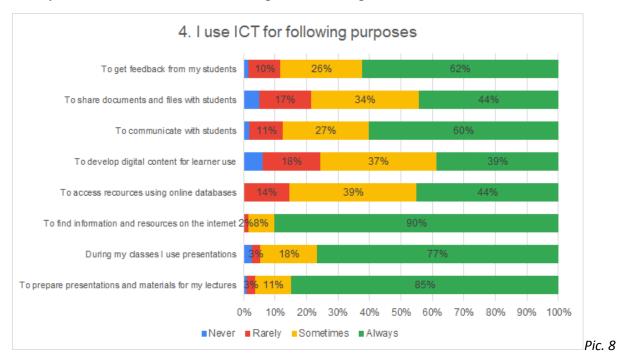*Pic. 6 Self-assessment of computer using skills*

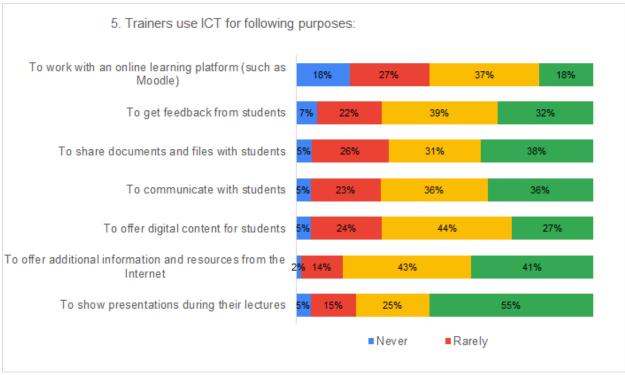
Pic. 7 Self-assessment of computer skills

Mostly adult or vocational education teachers feel fully confident about their computer skills for their own needs (63%) and for teaching purposes (45%). On the other hand, 39% of teachers are more sure than unsure about their computer skills for teaching purposes and 28% - for their own needs. In fewer cases, teachers are more uncertain about their computer skills for teaching purposes and their own needs. Similarly, some of the teachers surveyed feel unsure about their ability to work with computer for their own needs and teaching purposes (3%) (see pic. 6). The

study showed that a little less than half of the teachers say that they can easily login to an online learning platform. Slightly fewer teachers admit that they can add a shared folder and download or install new software or an app. However, less than one-third of the surveyed teachers admit that they can resolve basic user technical problems (see pic. 7).
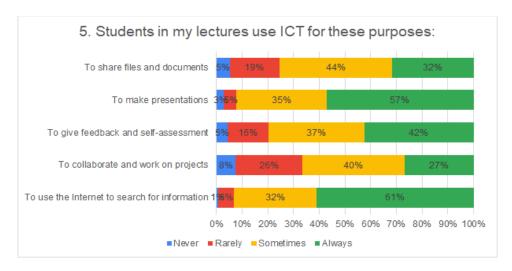

Pic. 8

Trainers use of ICT tools

Pic. 9 Aims why trainers use ICT tools in the learning process
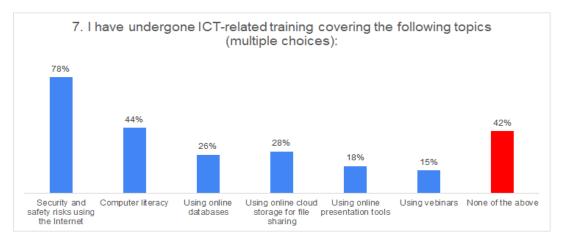
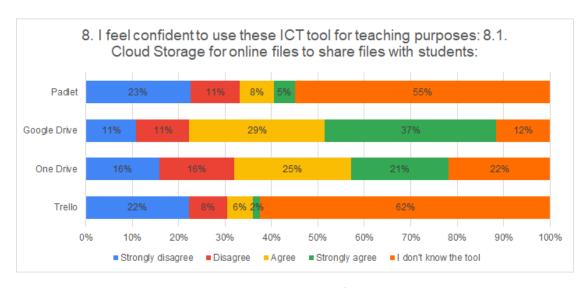*Pic. 10 Objectives for students to use ICT tools*

Teachers acknowledge that ICT tools are most commonly used to search the Internet for information and resources (90%), followed by the preparation of materials and presentations for lectures (85%), as well as showing the presentations during the lectures (77%). ICT is also used to provide feedback from students (62%) and to communicate with them (60%), to access resources in online databases (44%), and to share files and documents with students (44%). Most rarely, ICT are used to offer digital learning content for students (39%) (see pic. 8). Students have observed that trainers use ICT mostly to show presentations during lectures, to offer additional information and resources from the Internet, as well as to share files and documents with students and to communicate with them. Students admit that less frequently trainers use tools to get feedback from students (32%), to provide digital learning content (27%), and to work with an online learning platform (18%) (see pic. 9). Trainers have also observed trends among students in the use of ICT tools. Most commonly, students use them to search for information on the Internet (61%), as well as to create presentations (57%), and provide feedback and self-assessment (42%). Less frequently, students use ICT to share files and documents and to collaborate with other students while working together on a project (see pic. 10).
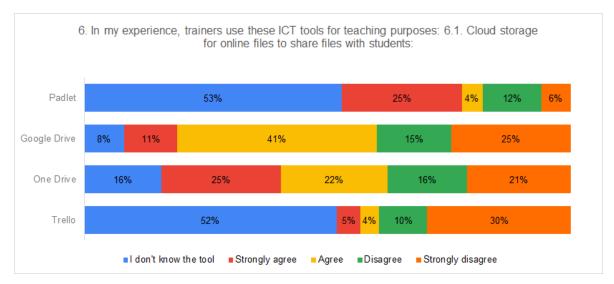

Pic. 11 ICT related courses attended by teachers

The surveyed teachers have mostly attended different ICT related training courses. In 78% of cases, these courses have been about security risks using the internet. 44% have indicated that they have attended basic computer literacy courses. The use of online databases and the use of online cloud storage for file sharing has been a little less frequently attended courses. Most rarely, Teachers have attended courses on using online presentation tools and using webinars. However, in 42% of cases teachers have indicated that they have not attended any courses relating to these themes about ICT courses (see pic. 11).

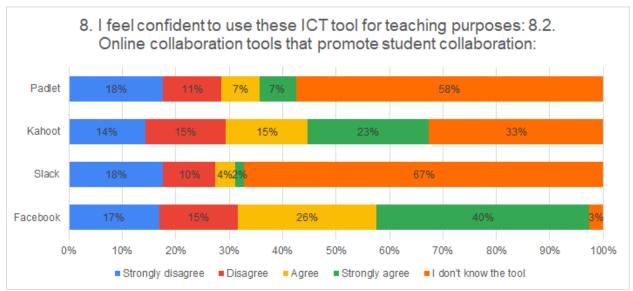

Pic. 12 Cloud storage skills for trainers

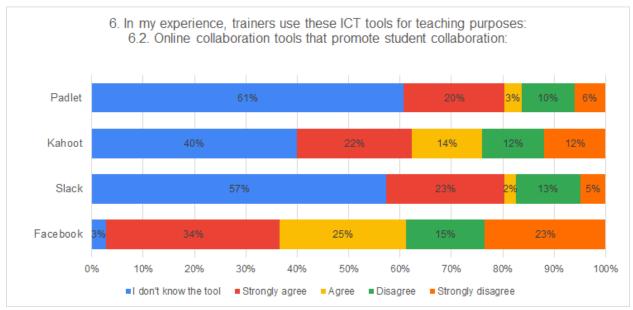*Pic. 13 Use of cloud storages in courses*

In terms of online tools, the experience of using them is very different for students and trainers. Students have noted that teachers use cloud storage sites such as One Drive (47%) and Google Drive (52%) to share files. Teachers also confirm that these two tools are best known to them.

But most rarely students and teachers know about such cloud storages as Padlet and Trello (see pic. 12 and pic. 13).
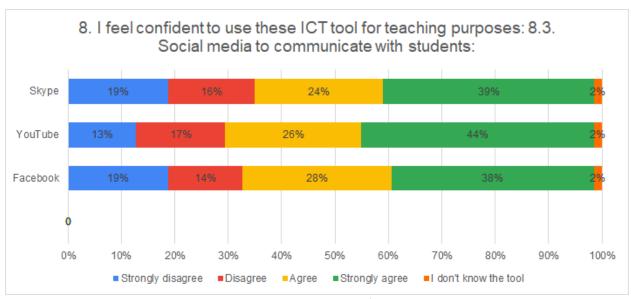

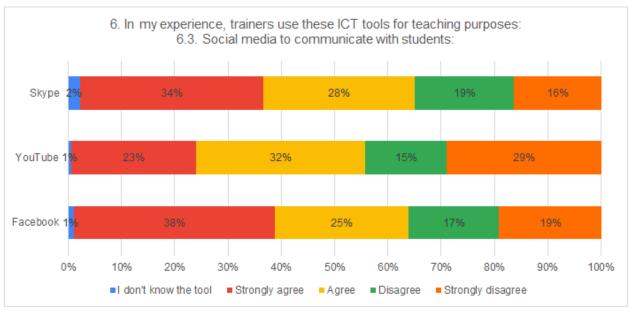*Pic. 14 Online collaboration tool skills for trainers*

Pic. 15 The use of collaboration tools in courses

Teachers most frequently use Facebook (59%) to promote collaboration between students. Kahoot is used less frequently – 36% of cases. But most rarely, students and trainers have heard of collaborative tools such as Padlet and Slack (see pic. 14 and pic. 15).

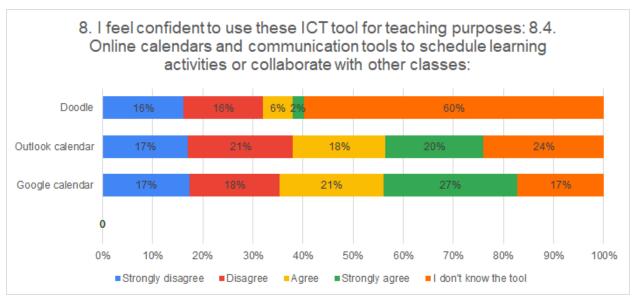Pic. 16 Social network skills for trainers
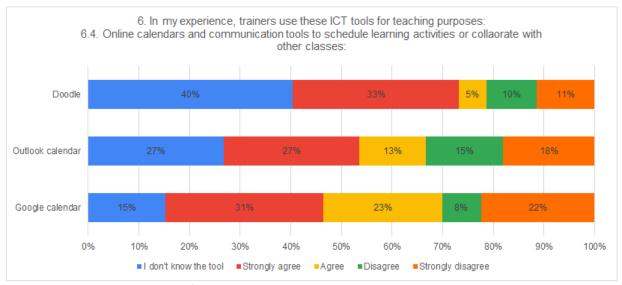

Pic. 17 Use of social networks in courses

For communication with students for teaching purposes, teachers tend to use Facebook (63%), according to learners. Teachers acknowledge that YouTube (77%) is the most suitable tool for social networking. Skype as a communication tool is used most rarely. These tools are mostly known to those surveyed (see pic. 16 and pic. 17).

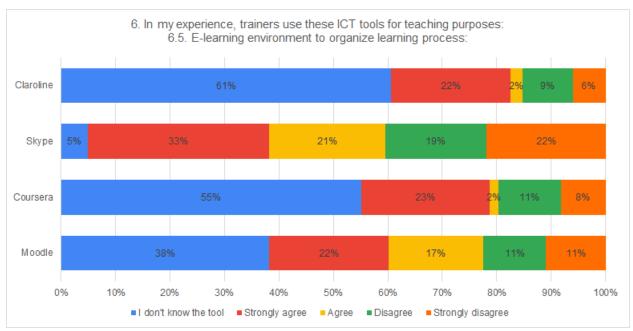*Pic. 18 Online calendar and communication tool skills for trainers*

Pic. 19 Use of online calendars and communication tools in courses

The training and learning process includes site planning and collaboration with other training groups with tools such as Doodle, Outlook Calendar, and Google Calendar. Out of these tools, teachers know Google Calendar (48%) the best, which students say is the most common use for teachers (54%). The least-known planning and collaboration tool in the student and teacher cycle is Doodle (see pic. 18 and pic. 19)
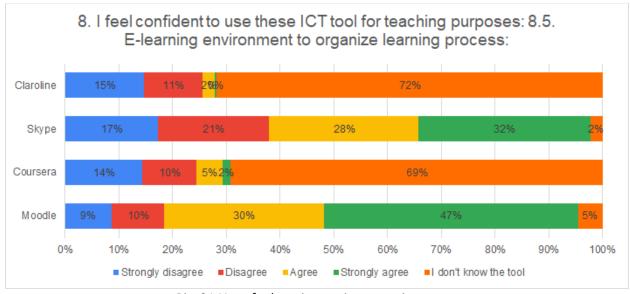
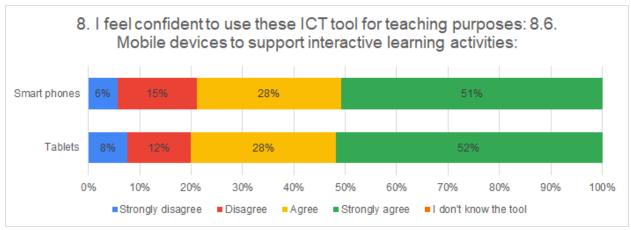*Pic. 20 E-learning environment skills for trainers*

Pic. 21 Use of e-learning environment in courses

These days, e-learning environments are often used to organize the learning process. The most popular are Claroline, Skype, Coursera and Moodle. Teachers acknowledge that the best-known tool is Moodle (77%) as well as Skype (60%). Students have observed that teachers are most likely to use Skype (54%) to organize the learning process. The most obscure e-learning environment tools among students and trainers are Claroline and Coursera (see pic. 20 and pic. 21).
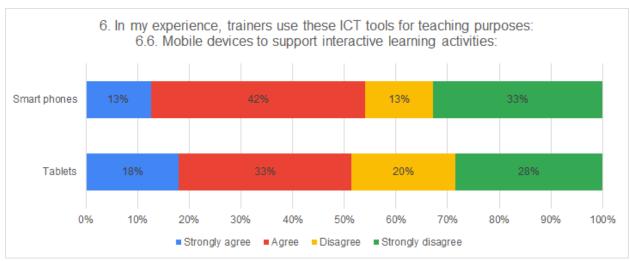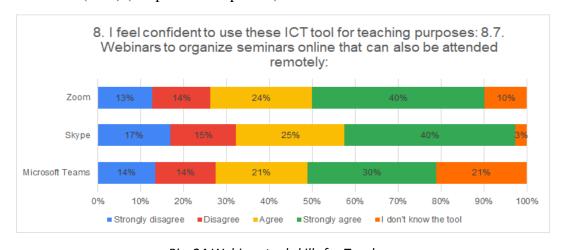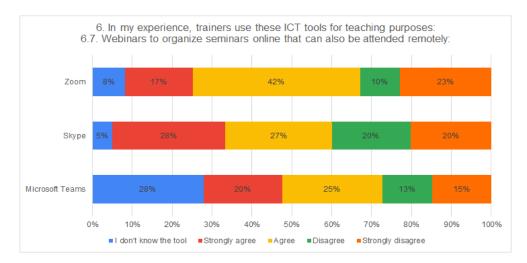
Pic. 22 Mobile device skills for trainers

Pic. 23 Use of mobile devices in courses

In order to ensure the interactivity of training, students have experienced mostly the use of smartphones in 55% of the cases, but a bit more teachers admit that they are more familiar with the use of tablets (80%) (see pic. 22 and pic. 23).
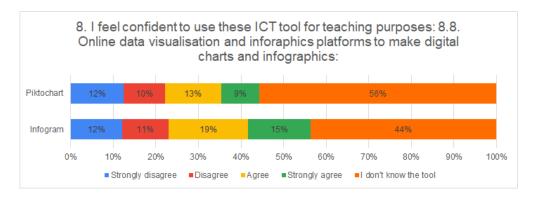

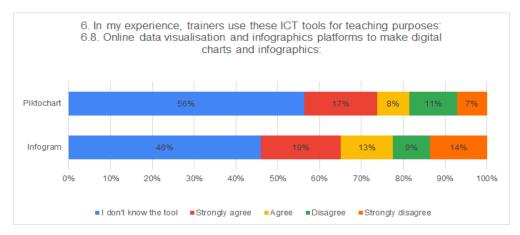Pic. 24 Webinar tool skills for Teachers

Pic. 25 Use of webinar tools in courses

Webinars have gained huge popularity these days. Among teachers, the most used tools for organizing webinars are Skype (65%) and Zoom (64%). On the other hand, students have observed that the most used webinar tool is Zoom (59%). Most rarely, students and trainers have heard about Microsoft Teams (see pic. 24 and pic. 25).
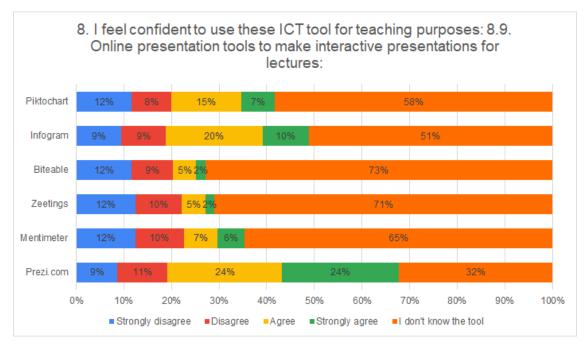

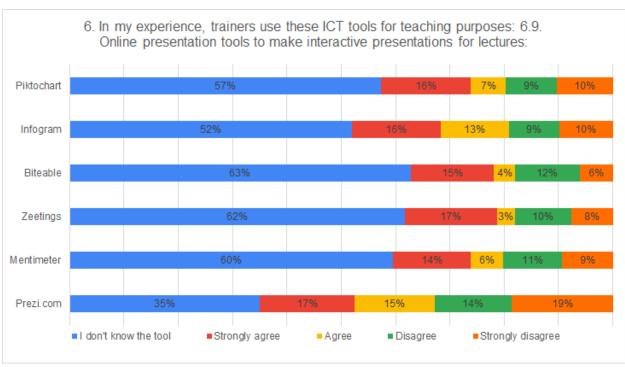*Pic. 26 Online data visualization and infographic platform skills for trainers*

Pic. 27 Using online data visualization and infographic platforms in courses

Data visualization and infographics platforms aren't too popular in the process of organizing adult learning. The most popular platforms are Pictochart and Infogram students and teachers know little about. Infogram is slightly more popular in the teaching environment and is known by 34% of surveyed teachers and mostly used by 31% of the teachers as said by students (see pic. 26 and pic. 27).

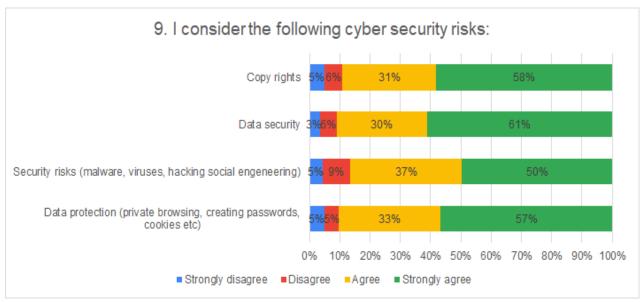*Pic. 28 Online presentation tool skills for teachers*

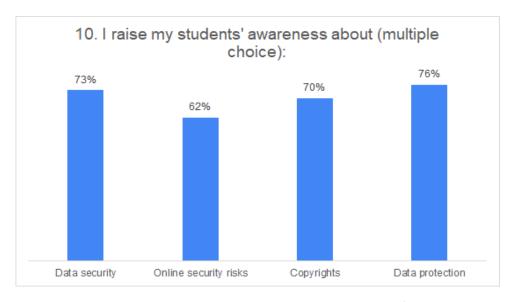*Pic. 29 Using online presentation tools in courses*

There is quite a choice for online presentation tools to make your presentations more interactive, but most of the surveyed teachers and students have not heard of them. Relatively most popular online presentation tool among teachers is Prezi.com, which is used by 32% of the teachers as students have observed, while 48% of teachers say they are familiar and know how to use this tool. The leas known online presentation tool among students and trainers is Biteable (see pic. 28 and pic. 29).
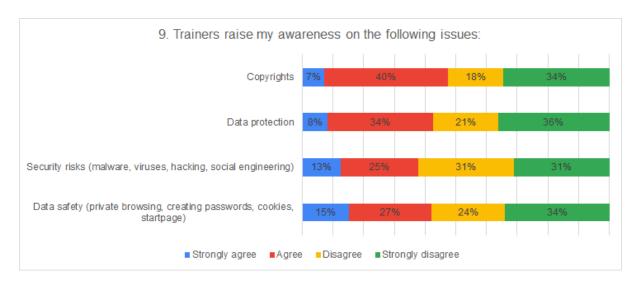

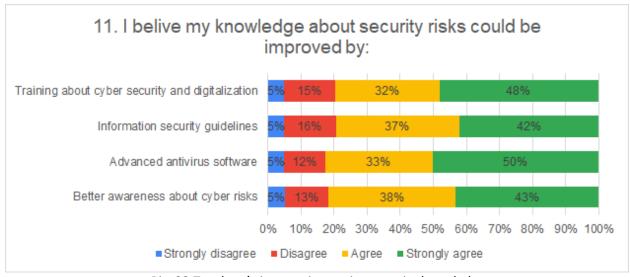*Pic. 30 Cyber security risks that teachers pay attention to*

Pic. 31 Cyber security risks to which teachers draw students' attention

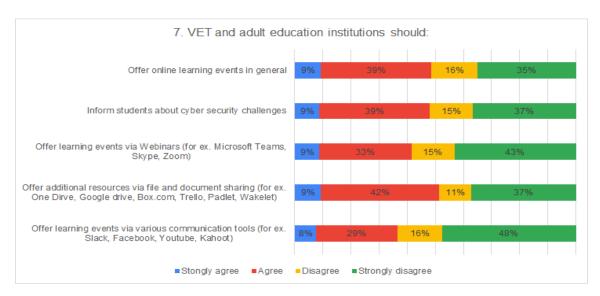*Pic. 32 Challenges to which teachers pay students' attention*

Pic. 33 Teachers' views on improving security knowledge

The teachers who took part in the survey are very well informed about the risk of cyber security. When organizing training, they pay attention to risks such as data security (61%), copy rights (58%), data protection (57%) and security risks (50%) (see pic. 30). Teachers also draw students' attention to cyber security risks such as data protection (76%), data security (73%), copy right issues (70%) and security risks using online tools (62%) (see pic. 31). Students have observed that teachers pay their attention to copyright issue, less – to data security and data protection (see pic. 32). Despite the high level of knowledge of teachers about cyber security risks, they are ready to widen their knowledge, which could be widened by an improved antivirus program (50%), training about cyber security and digitalization (48%), better awareness about cyber risks (43%) and information security guidelines (42%) (see pic. 33).

Pic. 34 Student recommendations for education institution

Students believe that adult and professional education institutions should offer online learning events, as well as inform students about cyber security challenges and offer additional materials when sharing files and documents. However, learning events via various communication tools is not such a necessary element (see pic. 34).

Although the use of ICT tools in the learning process is not a priority for students, most of them find ICT tools useful and an improvement to the learning process. The biggest recognized advantage of ICT tool use in the learning process is that it improves availability for information, as well as provides an opportunity to adapt and diversify the learning process. Based on the experience of students and trainers, they most often use these tools for searching for information, as well as for demonstrating and creating presentations. Teachers feel quite confident in their ICT skills, so it is natural that relatively large number of teachers has not attended courses regarding to ICT tools and their use. The most popular ICT tools are social networks used by teachers to communicate with students (Skype, YouTube, Facebook), as well as webinar organizing tools (Skype, Microsoft Teams and Zoom). Less well known are the tools for creating infographics and data reports (Inforgram, Pictochart), as well as online tools for creating presentations (pictochart, Infogram, Biteable, Zeetings, Mentimeter, Prezi.com). ICT and cyber security are very related concepts, which are also understood by teachers, who pay attention to it in the learning process and draw students' attention to it in the learning process. Nonetheless, teachers are interested to know more about cyber security. Interestingly, many participants have indicated that they would like to receive more information on cyber security risks to be provided in adult and VET institutions.

Based on the results obtained, it can be concluded that the use of ICT in adult and vocational education courses would improve the quality of learning and teaching. Trainers are ready to use ICT tools, so during the DIGIOL project, we should develop materials on the following topis: cyber security and digitalization, webinars and other communication tools, file and document sharing tools.