

## Questionnaire and Interviews „Digital Tutors“

(Lithuania, March, 2021)

A comprehensive 25 questions questionnaire and interviews about teaching online processes was conducted on March, 2021 during the 2<sup>nd</sup> quarantine which started on October, 2021 due to COVID-19 pandemic in Lithuania.

During the first wave of COVID-19 pandemic, the education and training of children (primary, basic - lower secondary and upper secondary, vocational education) had to be refocused to distance learning quite hastily. For both teachers and children, this was a challenging phase. That was a process that required good remote communication skills, digital competencies, knowledge of various hardware and software, and more.

With the questionnaire were collected information about teachers' demographic indicators, experience in distance teaching and learning, aspects of distance teaching they are implementing, skills and competencies needed for online teaching, difficulties teachers experiences and support they need. Also gathered data was compared with [Digital Competence Framework for Educators \(DigiCompEdu\)](#) which describes what it means for educators to be digitally competent. Findings and recommendations were made.

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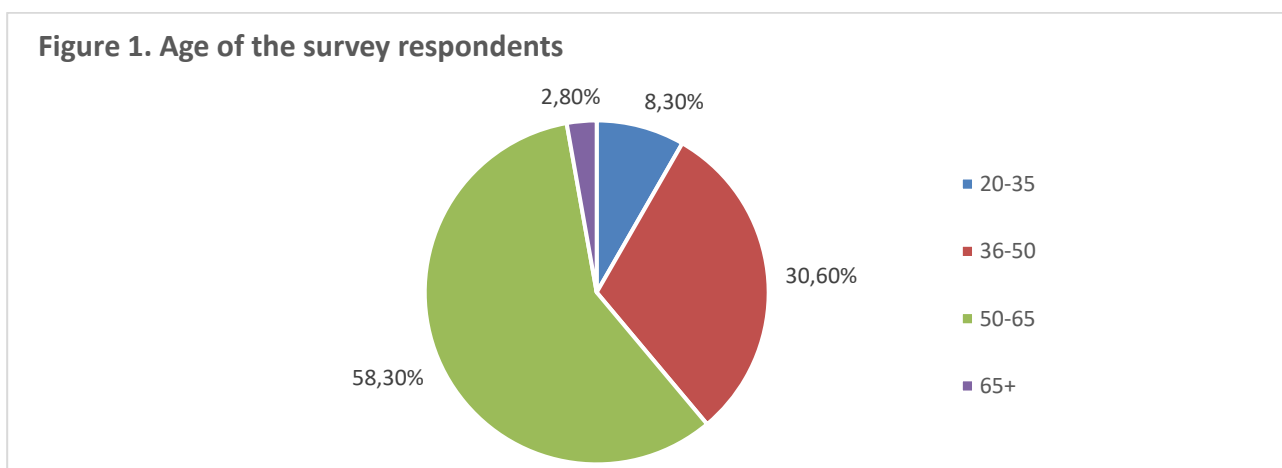
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## 1. Main information about respondents and their previous experience

109 teachers and administrative staff from different types of 16 Lithuanian schools participated in the survey “Digital Tutor”.

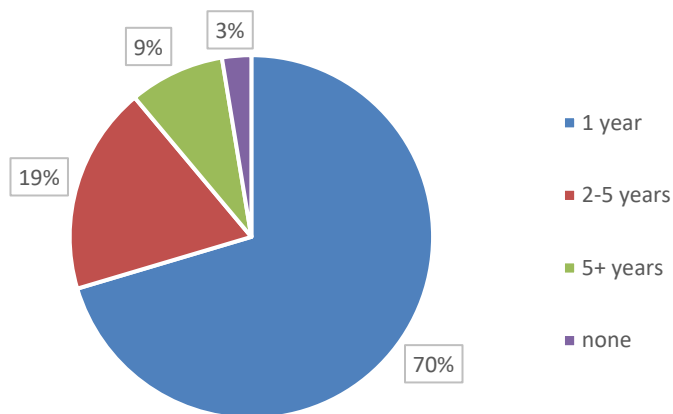
Prevailing type of school that respondents represent was secondary school – 61 % of all respondents and VET centre – 29 %. Other types of schools were: primary school, art gymnasium, gymnasium, secondary school, etc.

Majority of teachers were from 50-65 years old range (58,5 %) and one third of them (30,6 %) – 36-50 years old. One fifth of the respondents were men (17 % - men, 83 % - women). It could be said that teachers position is more popular among Lithuanian women and younger teachers are entering this labour market field very slowly.



Most of teachers in Lithuania gained experience in organising online lessons during the quarantine which started in the middle of March, 2020. The results of this survey confirmed that at the moment the biggest part of respondents (70 %) already have 1 year of experience in organising or/and implementing online/distance teaching. 28 % of respondents already were using online or distance teaching before quarantine and more than 2 years.

**Figure 3. What kind of experience do you have in organizing or/and implementing online/distance teaching?**



## 2. Tools and methods used by respondents in teaching online

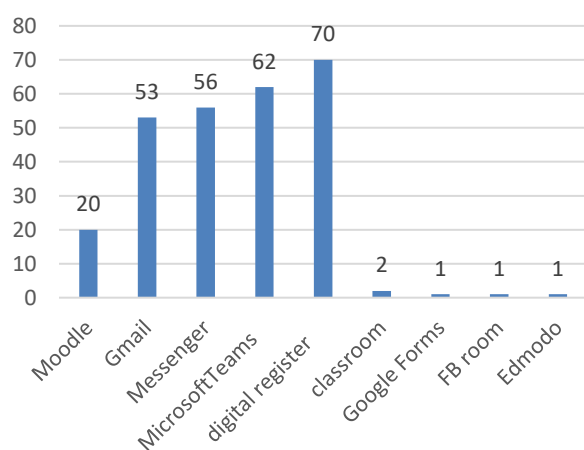
When there were instantly announced distance teaching in Lithuania on spring 2020 there were no regulations, even no general recommendations what platforms can be used, how often to make live lessons on virtual meeting, etc. Here stepped in Zoom as reliable and easy using tool for video conferencing. It was open for free of charge as an Education Plan for all educational institutions without time limits. And it maintained also very popular with the second wave of pandemic till now, despite the fact that Free Zoom plan has limitations (group meeting duration up to 40 min). In the results of survey can be seen habits from the previous harsh period of first quarantine and that big part of the teachers use most comfortable tools that they are used to: for assignments and material to exchange teachers use slightly more Digital Register (electronic school diary used national wide for filling students' absence, assignments, homeworks, messages for parents, etc.) than Teams (Digital Register – 70, Teams – 62 respondents) and for live lessons just a lit bit more teachers use Zoom than Teams (Zoom – 66, Teams – 64 respondents).

With the new after-pandemic study year most of Lithuanian schools decided to use Microsoft Teams as paid 365 package by Ministry of Education, Science and Sport of Lithuania. Microsoft Teams is a communication platform developed by Microsoft, as part of the Microsoft 365 family of products. Microsoft Teams offering instant chat and videoconferencing, file storage, assignments and application integration

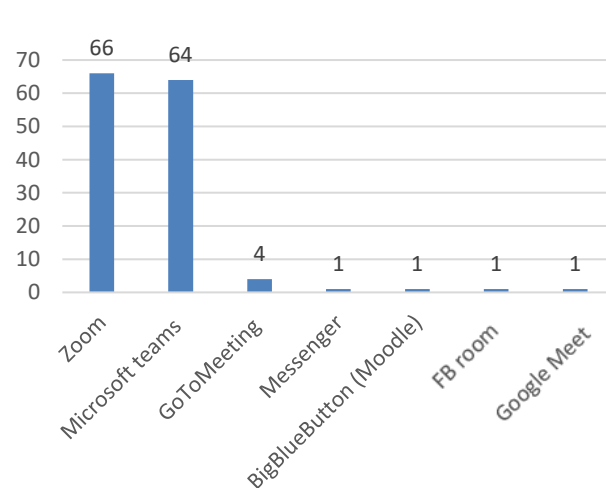
and it developed very much from the beginning of massive usage during first wave of quarantine (added extra functionality and increased it's quality for video conferencing). From the survey results there can be seen that it is the most popular platform now which covers more aspects for distance teaching. Microsoft Teams is used by almost 60 percent of respondents (62 and 64 respondents for exchanging the material and video conferencing).

Google products as Gmail, Messenger, Facebook Room are used by more than 50 teachers who filled the questionnaire. But mostly it is combined with other tools like Digital Register, Microsoft Teams, Moodle, etc. So, there can be seen that there are used different kind of platforms and teachers adapt this according their comfort, skills, need, schools regulations, etc.

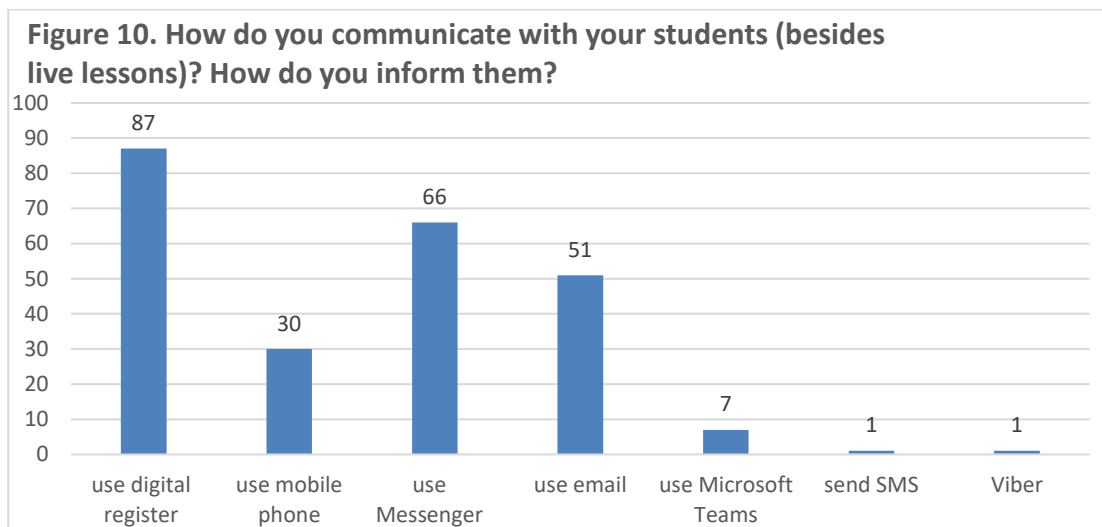
**Figure 8. What platform do you use for exchange assignments/material with students?**



**Figure 9. What platform do you use for video conferences (for live lessons)?**



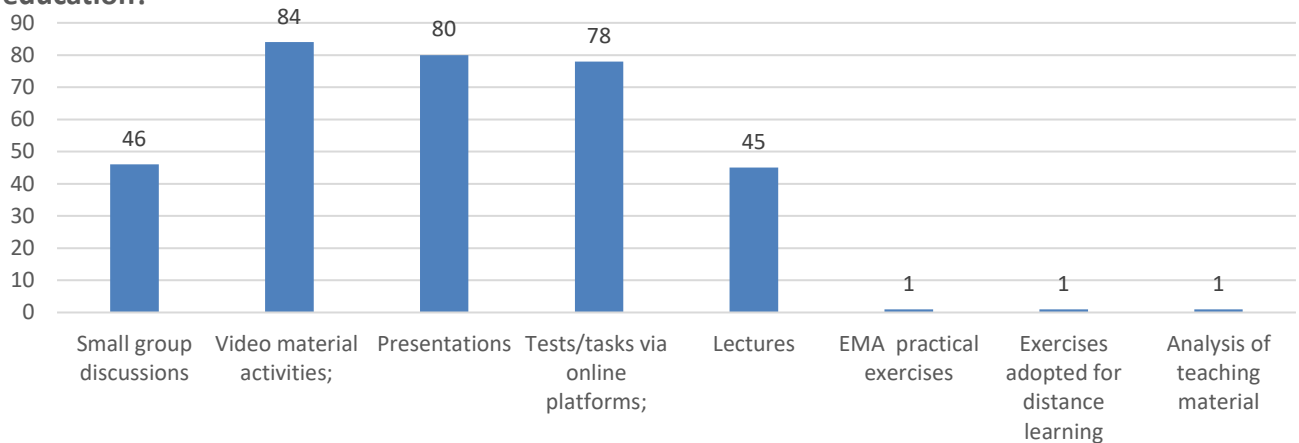
Communication with students teachers maintain also through various communication channels, but mostly Digital Register, Messenger, email or mobile phone. These digital communication tools ensure possibilities for teacher to react quickly to learners' questions and doubts. Here Microsoft Teams are not used often despite the fact functionality gives opportunity for instant chatting, calling with or without video.



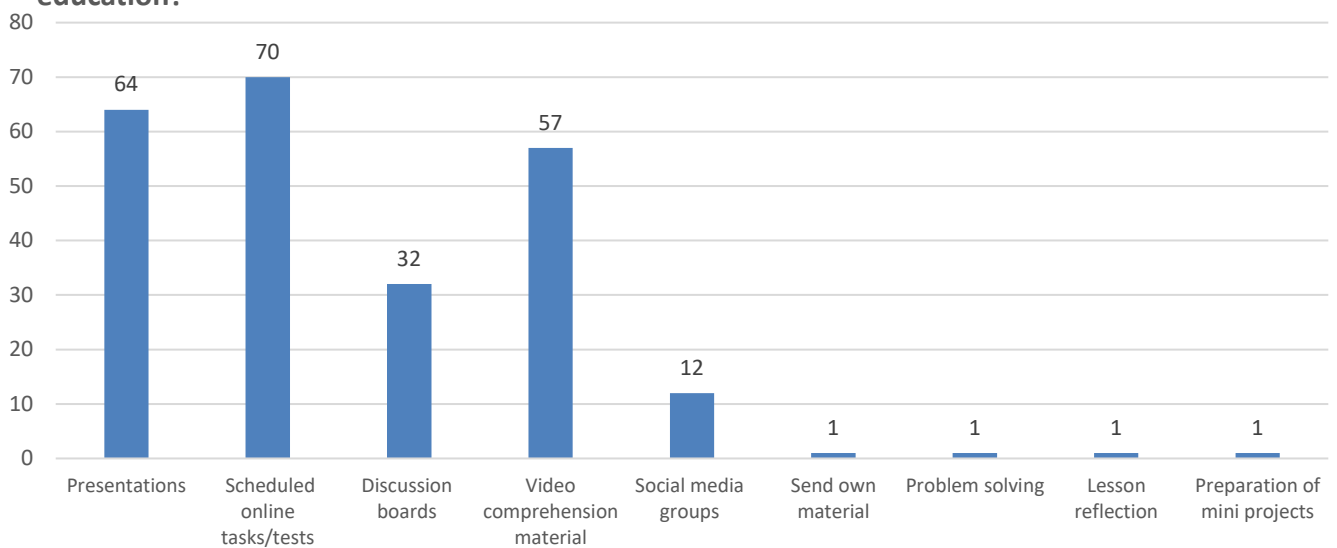
Obvious that online teaching schedule is planned mostly according the school schedule (79 % of respondents, (Figure 15 in Annex No. 1) as well as frequency of meeting with students (66 % of respondents, Figure 7 in Annex No. 1). But just approximately one fifth of teachers who participated in the survey conduct online lessons and meetings with students taken into account learners' needs (accordingly 23 % and 18 %). Just one respondents mentioned about subject consultations. That may indicate that teaching organising process do not fulfil students needs, but also it could be shown lack of initiative, motivation by them to ask for more meetings, consultations. Keeping in mind that schools should have revised their teaching schedule which should be according online teaching recommendations (compliance of recommended duration of working by computer, etc.).

82 % of respondents (89 teachers) are combining synchronous and asynchronous teaching ways according the given tasks and applied methods: when there are two lessons in a row, when there is a need of individual work, tests and homeworks (asynchronous) and analysis, consultations and discussions (synchronous) (Figure 4 in Annex No. 1). Examples of synchronous and asynchronous education teaching/learning activities used during online lessons are given in the charts below.

**Figure 5. What teaching/learning activities are implemented in the synchronous education?**



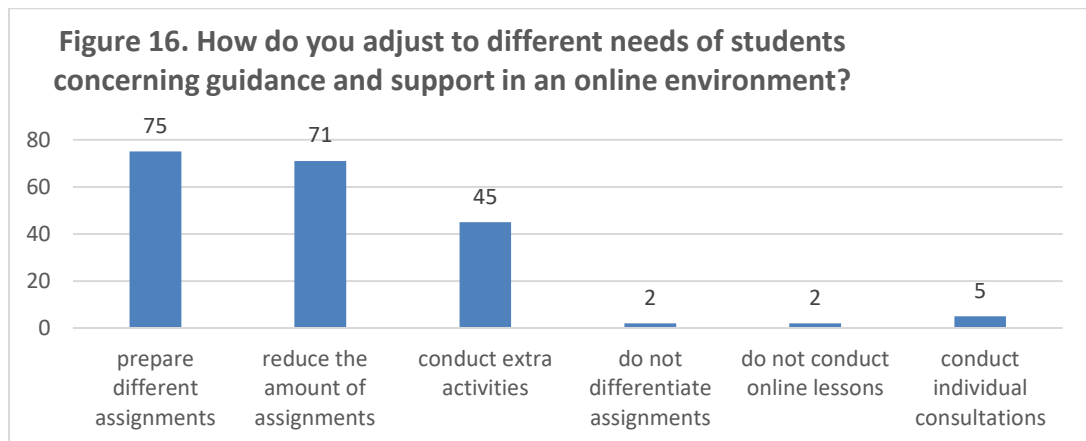
**Figure 6. What teaching/learning activities are implemented in asynchronous education?**



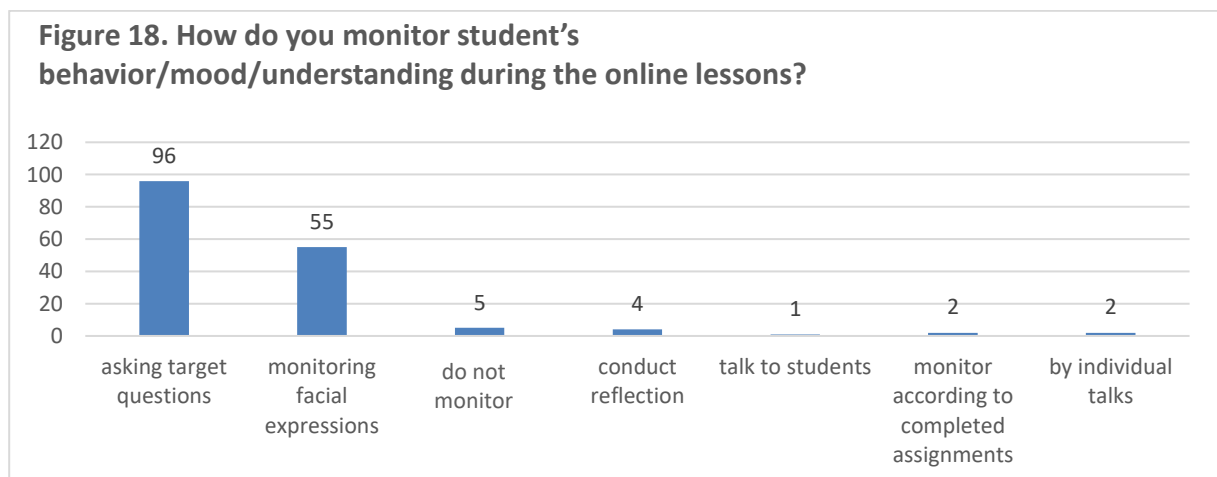
Mostly teachers are using video material, presentations, tests/tasks via online platforms while teaching activities are conducted during the lesson all together (in synchronous lessons). Presentations, scheduled online tasks/tests and video with comprehension material are used when students need to work without connecting to online lesson (in asynchronous lessons). Less of methods which develop students' soft skills are used in both teaching scenarios: discussions, group works.

In order to adjust to different needs of students, teachers prepare different assignments (69 %), reduce amount of the assignments (65 %), conduct extra activities (41 %). Which shows that different

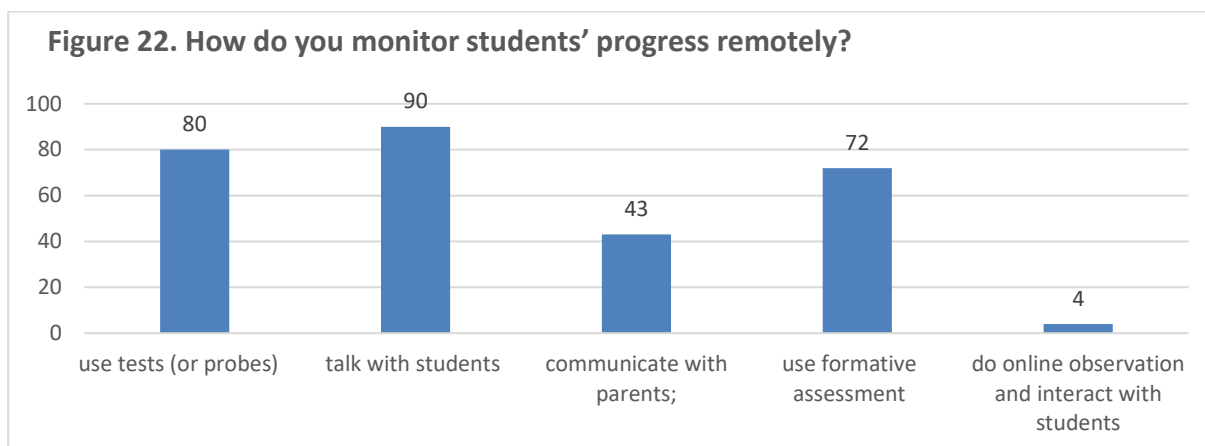
educational skills students are provided with adapted tasks giving the opportunity for them to work in their learning pace.



Reflection is one of the most useful part of the teaching for teachers but also for students. Reflective practise according DigiCompEdu is one of the professional engagement competencies. From survey results seems that teachers are focussed on teaching and for reflection and reflective methods it is not given so much attention. Just asking target questions and monitoring facial expressions are most used by respondents (88 % and 50 %). And just 4 respondents are conducting reflection.



Teachers talk individually (83 %), use tests (probes) (73 %) and use formative assessment (66 %) to monitor students' progress remotely.



### 3. Competences in the framework

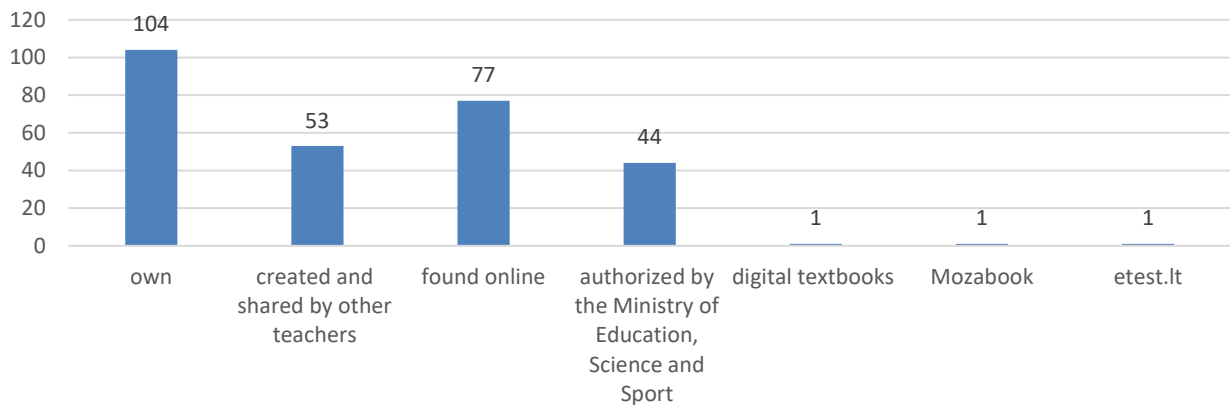
Most of the respondents highlighted basic computer skills (91 %) and creativity (88 %) as the most important skills for the online teaching. Also a lot of respondents agreed that electronic presentation (79 %), social networking (75 %) and database management (68 %) skills are also very important in order to implement sufficient and fluent online teaching (Figure 12 in Annex No. 1).

These skills stand for [Digital Competence Framework for Educators \(DigiCompEdu\)](#) educator's competencies of digital resources like Selecting digital resources, Creating and modifying digital resources, Managing, protecting and sharing digital resources. Although, hard skills as IT knowledge development should be continuously fostered in order to boost soft skills such as creativity.

95 % of teachers use their own created material which of course takes most of the time to create it. Also material from the internet and created and shared by other teachers is used (71 % and 49 %). 40 % of the respondents use authorized material by the Ministry of Education, Science and Sport of Lithuania. Respondents did not indicate what software (programs, digital tools) they are using for digital content creation or modification. So on average 56 % of respondents effectively select digital resources for their lessons. Although Figure 11 shows that a big part of respondents are using their time, creativity and their ICT skills in order to create their own learning/teaching material. Which also correlates with the guidance competence (3.2) to be confident in experimenting and developing teaching material.

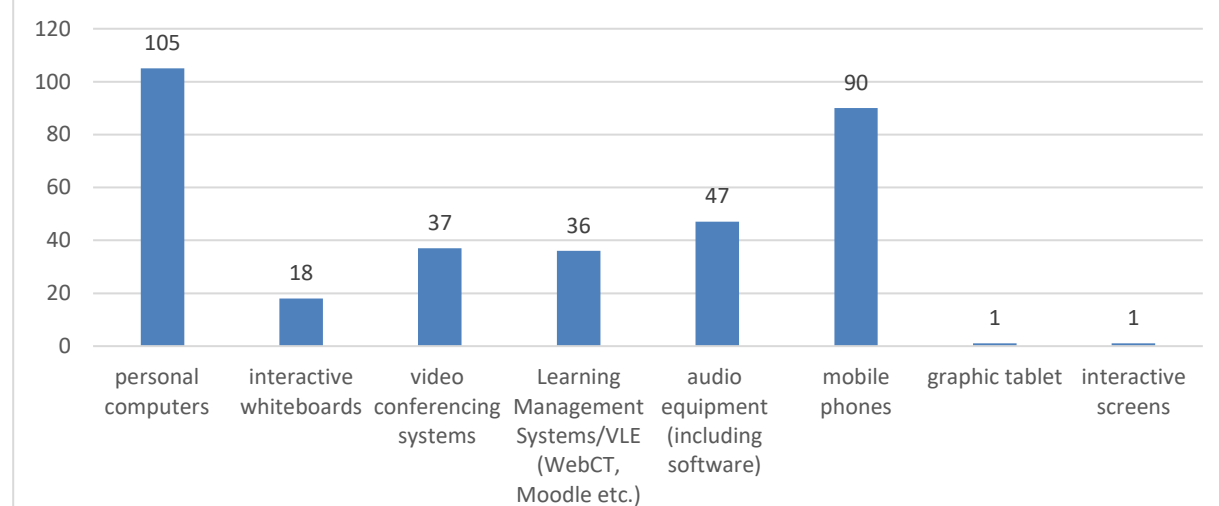


**Figure 11. What learning/teaching content do you use?**



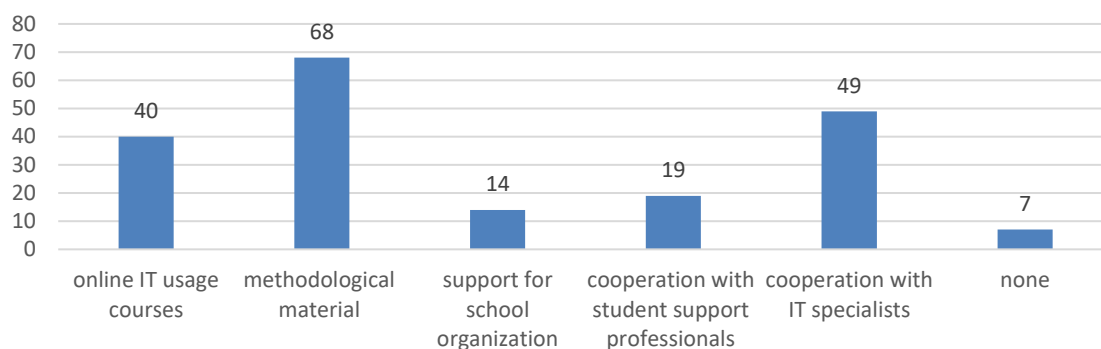
Majority of respondents have access to various technical equipment. Personal computer and phones are most used (96 % and 83 %). Other equipment like audio equipment, video conferencing systems, learning management systems and interactive whiteboards is accessed by less of respondents. Theoretical question remains if accessibility tells about the skills that respondents have in using this equipment.

**Figure 13. What kind of technical equipment is accessible for you?**



For organizing and implementing online teaching teachers would like to receive methodological support (62 %), closer cooperation with IT specialists (45 %) and online courses on IT (37 %). This needed support is related to competencies which should be developed and fostered. Figure 14 results may show the lack of competencies on those aspects but also may reveal that after a year of online teaching educators feels necessity of continuous learning of new IT functionalities, access new methodological material which ensure their confident in using IT and enriching their teaching process.

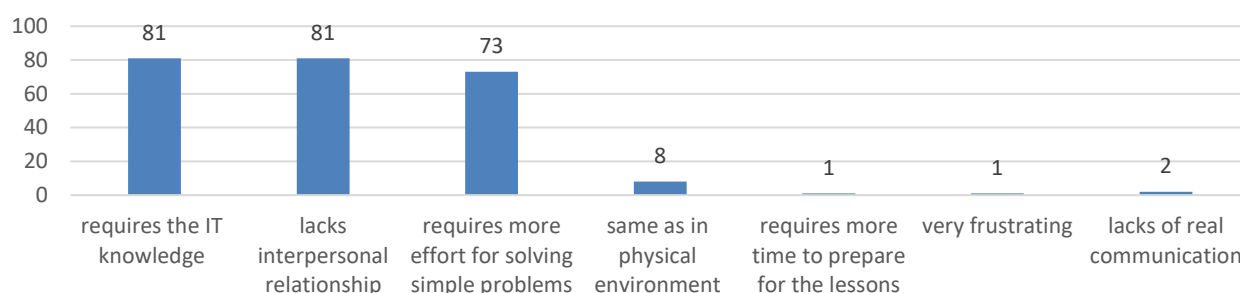
**Figure 14. What support do you need in organizing and implementing online teaching?**



Pedagogical ICT support is evaluated very good or good (34 % and 40 %, Figure 19 in Annex No. 1) which means that during very hard time of quarantine when digital tools had to become main teaching tools for teachers despite differences of skills they have, they received ICT specialist's support effectively and had or gained IT knowledge through practice during quarantine.

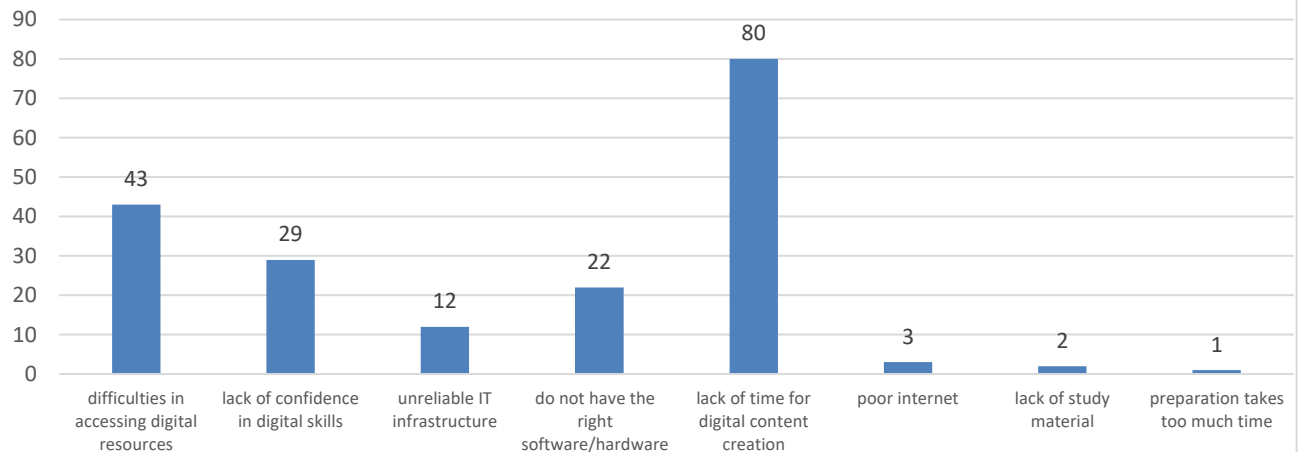
According to respondents' opinion digital collaboration differs from working in the physical environment in a way that it requires the IT knowledge (74 %), lacks interpersonal relationship (74 %) and requires more effort for solving simple problems (67 %). Just for 8 respondents (7 %) digital collaboration is the same as working in traditional class. That shows that majority of teachers face obstacles and challenges in online teaching and of course have more experience in teaching in frontal lessons.

**Figure 17. How is digital collaboration different than that in a physical environment?**



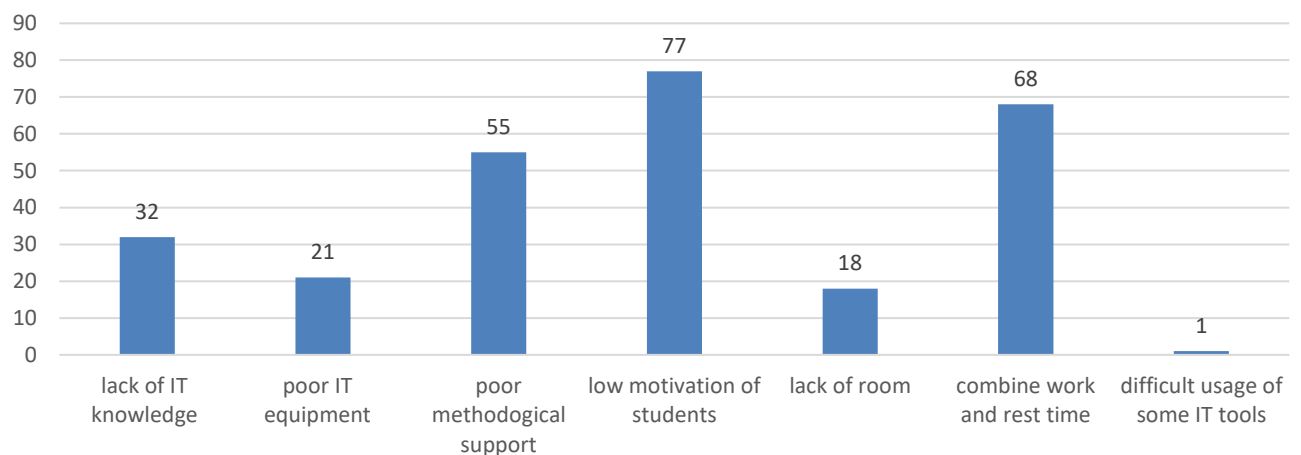
Teachers indicate the lack of time for the digital content creation (73 %) as the crucial obstacle to use digital technologies in distance/teaching learning, they also have difficulties to access to digital content (39 %). During the quarantine teachers had to adapt their teaching material and methods from traditional teaching to online teaching and caused increased workload.

**Figure 20. Which of the following do you consider as barriers to using technology in learning?**



Generally, difficulties which occur while implementing online teaching respondents noted low motivation of students (71 %), balancing work and rest time (62 %) and poor methodological support (50 %). To motivate students is one of the bigger difficulties which comes up transferring lessons to online, as students realise that they relax as nobody is watching and cannot check what they do at the given time. Also more developed experience by teachers in frontal lessons gives stress to shift teaching methods, material and time management into virtual teaching is a challenge and needs more time for more practice.

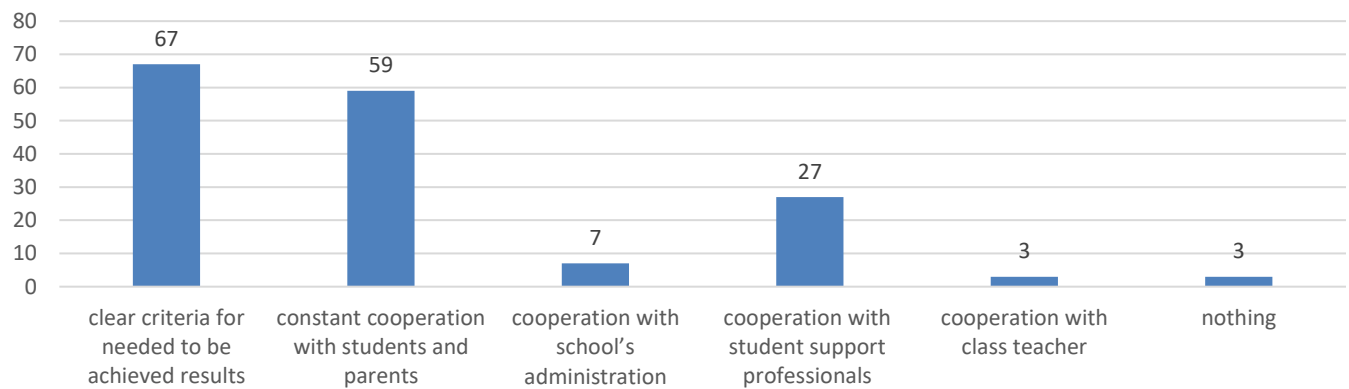
**Figure 21. What difficulties do you experience when you organize and implement online teaching?**



Respondents need clear criteria of results needed to be achieved (61 %) and constant cooperation with students and parents (54 %) in order to monitor progress remotely and intervene when necessary.

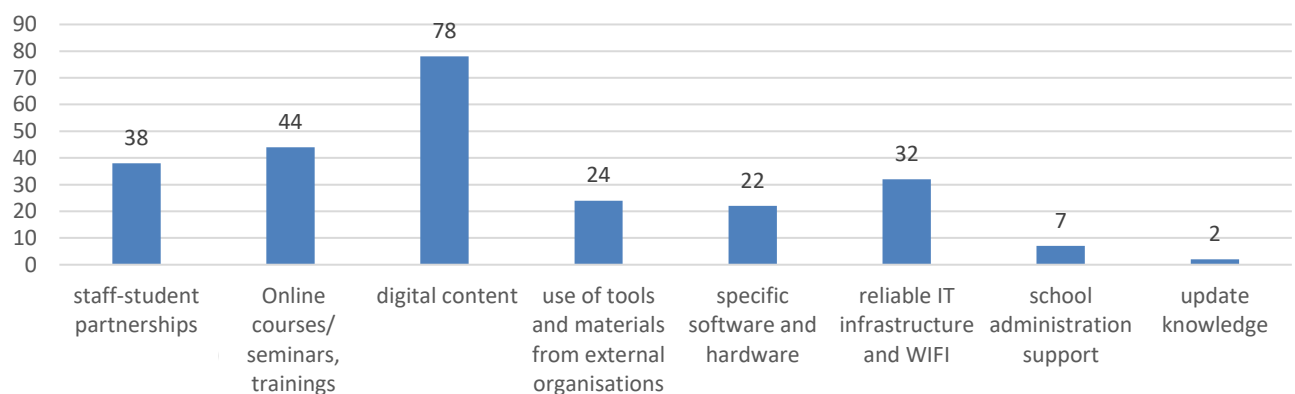
One fourth of respondents also need cooperation with student support professionals. If school community has great collaboration all student's progress monitor goes fluently.

**Figure 23. What do you need as a teacher to monitor progress remotely and intervene when necessary?**



Respondents assume that digital content (72 % of teachers) and availability of proper online courses (40 %) will help to improve/develop capabilities concerning tutoring in an online environment.

**Figure 24. What do you need to further improve/develop your capabilities concerning tutoring students in an online environment?**



## 4. Digital Tutor definition and it's perception by respondents

In the end of questionnaire respondents were introduced to Digital Tutor definition and were asked to evaluate and comment it. Digital Tutor definition:

*A Digital Tutor is a teacher who teaches and tutors in an online environment with the goal to enable students to develop and learn online in an effective, engaging and inclusive way. The Digital Tutor has all*

*the competences\* that a 'live' tutor or teacher has, plus the additional competences required to tutor online.*

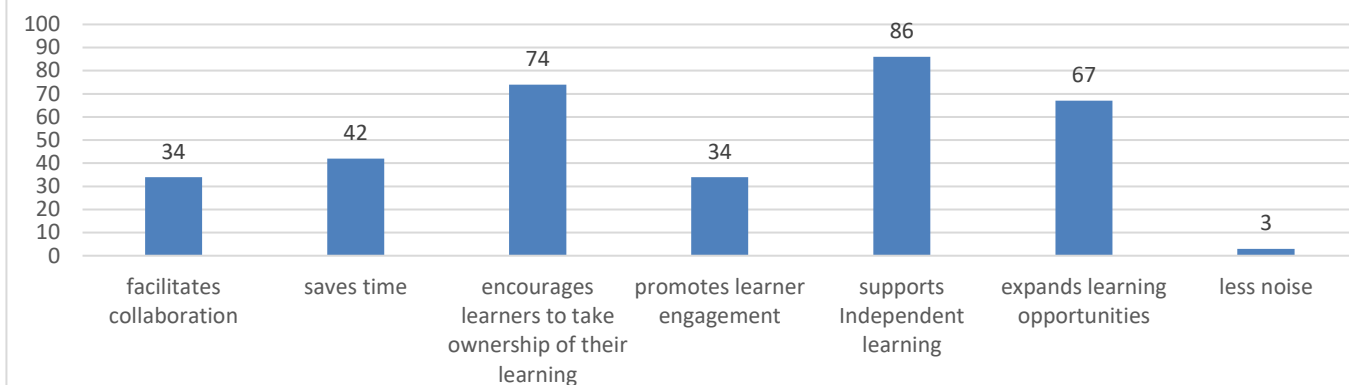
*\* all competences mentioned in the input of the partners, including the competences in the DigiCompEdu framework\**

60 % of respondents agreed with this definition, indicating that it is correct, clear, comprehensive. Some respondents (12 %) wrote that they do not have an opinion or refrained from expressing the opinion. Few comments were that the definition could be shorter, more concrete and one remarked that "teacher does not have so many powers". 23 % of respondents provided their opinion expressing the following answers:

<b>Comments referring to teachers digitalisation</b>
<ul style="list-style-type: none"> <li>– „I think the teacher is a Man, not a "digital tutor".</li> <li>– „I don't want to name teacher as a "digital tutor", a teacher to me is a teacher with certain, expanded competencies, but he / she is certainly not "digital".</li> <li>– „It seems that the teacher has to become a robot, but with an open and loving heart“.</li> </ul>
<b>Comments which fulfil given definition with additional or emphasized competencies</b>
<ul style="list-style-type: none"> <li>– „The teacher also has the role of content creator“.</li> <li>– „A digital tutors does not have all the competencies of a teacher or tutor who conduct the lessons face to face“.</li> <li>– „It is a very broad definition and covers a great deal, but the main thing is IT mastery, knowledge of modern technology“.</li> <li>– „A digital tutors is a teacher who works in a virtual space“.</li> </ul>
<b>Comments about obstacles of conducting lessons online</b>
<ul style="list-style-type: none"> <li>– „I agree with the definition, but not all lessons (especially those dominated not by the theoretical but by the practical part) can also be qualitatively conducted in the digital space. So far, we're not all walking around with virtual reality glasses“.</li> <li>– „I see the definition as an elusive and unrealistic ideal so far“.</li> <li>– „I agree, but without live feedback (when you see not only the face, observe body language, hear, feel), we will not make progress with most students“.</li> </ul>
<b>Comments oriented to learners</b>
<ul style="list-style-type: none"> <li>– „I agree with definition, but not only teachers had to have competencies to conduct online teaching. Students lack them more“.</li> <li>– „This is difficult with primary school students“.</li> <li>– „A digital tutors works twice as much as a digital learner“.</li> </ul>

All respondents see the benefits of online teaching expressing mostly that this supports independent students learning (79 %), encourages learners to take responsibility of their own education (68 %) and expands learning opportunities (61 %).

**Figure 25. What of the following could be the digital learning benefits?**



In conclusion could be said that majority of respondents agreed with the definition of Digital Tutor but around one fifth of respondents were critically about this definition having in mind that such educator should work harder, compares teacher with the robot, sees obstacles for existence of such educator because he/she has to have more competencies, practical lessons are impossible to organise digitally, there is lack of equipment, also not all students has enough skills, etc. This smaller part of critical respondents may be even smaller after various courses, seminars which develop their competencies in IT and online teaching fields. Especially taking in mind that all respondents see the benefits of digital learning for students.

## 5. Findings

This questionnaire was oriented to 3.2 guidance competence according [Digital Competence Framework for Educators \(DigiCompEdu\)](#): To use digital technologies and services to enhance the interaction with learners, individually and collectively, within and outside the learning session. To use digital technologies to offer timely and targeted guidance and assistance. To experiment with and develop new forms and formats for offering guidance and support.

In order to assess this teachers' digital competence below is given 6 main points concerning this based of analysed answers of 109 respondents from Lithuania where majority are female teachers 50-65 years old from secondary education and VET institutions. Most of respondents have 1 year online teaching experience which duration coincide with quarantine period in Lithuania (from March, 2020 till March, 2021), when most of this time study year were conducted online. Already can be noticed that

teachers' competences are partly in line with those described in the framework, but there is a need to improve them.

**1. To use digital communication tools to respond promptly to learners' questions and doubts, e.g. on homework, assignments.**

- Teachers conduct online teaching process and communicate with students using various **systems and channels**. Most popular ones and combination of them: Digital Register, Microsoft Teams, Zoom, Messenger, email or mobile phone. These digital communication tools ensure possibilities for teacher to react quickly to learners' questions and doubts.
- Most of teachers **combines synchronous and asynchronous teaching ways, while online teaching schedule** is planned mostly according the school schedule. Just around 20 % of respondents conduct online lessons and meetings with students according their needs. That may indicate that teaching organising process do not fulfil students' needs, but also it could be shown lack of initiative, motivation by students to ask for more meetings, consultations.

**2. To set up learning activities in digital environments, having foreseen learners' needs for guidance and catering for them.**

- In order to give opportunity for students to learn in their own pace and to respond **different** their **learning needs** teachers prepare different assignments, reduce amount of the assignments, conduct extra activities.

**3. To interact with learners in collaborative digital environments**

- Mostly teachers are using video material, presentations, tests/tasks via online platforms for online lessons. Less of **methods** (like discussions, group works) which develop students' soft skills are used.
- According to questionnaire results **digital collaboration differs** from working in the physical environment. It requires the IT knowledge, lacks of interpersonal relationship and requires more effort for solving simple problems. Less than 10 % of respondents says that digital collaboration is the same as working in traditional class. That shows that **majority of teachers face obstacles and challenges in online teaching** and of course have more experience in teaching in frontal lessons.

**4. To digitally monitor student behaviour in class and offer guidance when needed.**

- Questionnaire results shows that teachers are focussed on teaching and for reflection is not given so much attention. Mostly teachers ask target questions and watch facial expressions for monitoring students' behaviour, mood, understanding. Just 4 respondents are conducting reflection.

**5. To use digital technologies to remotely monitor student progress and intervene when needed, while allowing for self-regulation.**

- To monitor students' progress remotely most of respondents talk individually with student, use tests (probes) and use formative assessment.
- Respondents indicated that they need clear criteria of results needed to be achieved and constant cooperation with students and parents in order to monitor progress remotely and intervene when necessary. One fourth of respondents also need cooperation with student support professionals. If school community has great collaboration all student's progress monitor goes fluently.

**6. To experiment with and develop new forms and formats for offering guidance and support, using digital technologies.**

- 95 % of teachers use their own created material (correspond to guidance competence (3.2) according DigiCompEdu).
- 56 % of respondents uses the efficient selection of digital resources competence (2.1) according DigiCompEdu, choosing the most appropriate material from already created ones.
- For implementing online teaching teachers specified that they need mostly methodological support, closer cooperation with IT specialists and useful online courses in IT field. It may show the lack of competencies but also may reveal that after a year of online teaching educators feels necessity of continuous learning of new IT functionalities, access new methodological material which ensure their confident in using IT and enriching their teaching process.
- The barriers to use digital technologies respondents specified the lack of time for the digital content creation and having difficulties to access to digital content.
- Difficulties that respondents face while implementing online teaching respondents: low motivation of students, balancing work and rest time and poor methodological support.
- Respondents assume that digital content and availability of proper online courses would be helpful for improving and developing capabilities concerning tutoring in an online environment.



## 6. Recommendations

For fluent online teaching respondents highlighted basic computer skills and creativity. Although, hard skills as IT knowledge development should be continuously fostered in order to boost soft skills such as creativity.

As survey results reveals that respondents mostly would like to get **methodological support and proper online courses in IT field** in order to use digital resources, feel confident and have less obstacles in conducting online teaching process. Therefore, it would be useful to offer training, seminar about interactive teaching tools, databases of teaching and learning material, digital assessment opportunities and IT backgrounds which they are missing.

All respondents of the survey see the benefits of online teaching because it supports independent students learning, encourages learners to take responsibility of their own education and expands learning opportunities. This point of view could be the motivation for teachers to develop their competencies as digital tutors.

## 7. Appendix No. 1

### DIGITAL TUTOR: FACING THE NEW GENERATION AND CHALLENGES

### SURVEY „DIGITAL TUTOR“ REVIEW



Figure 1. Age of the survey respondents

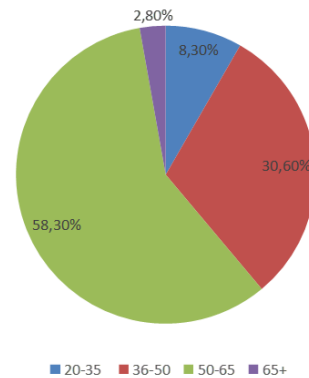


Figure 2. Sex of survey participants

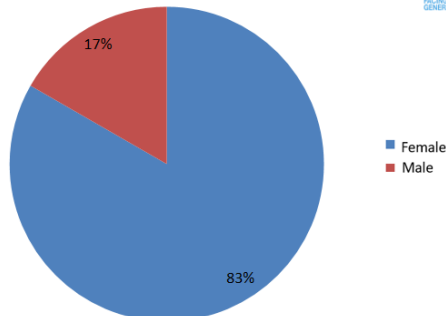


Figure 3. What kind of experience do you have in organizing or/and implementing online/distance teaching?

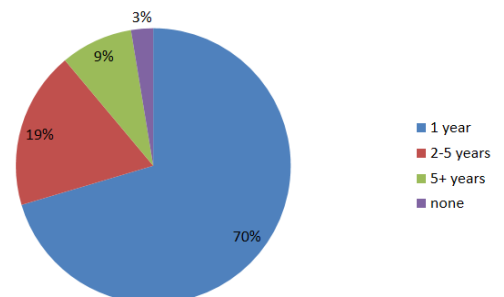
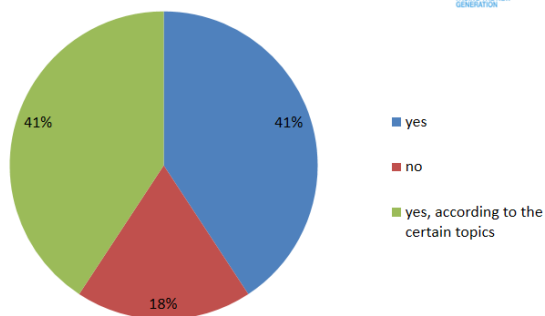


Figure 4. Do you combine synchronous and asynchronous education?



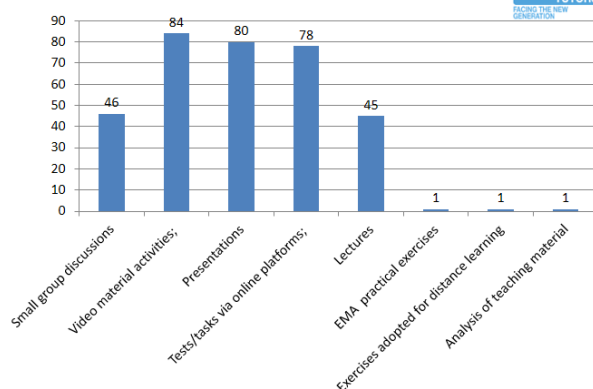
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If you chose "yes" and you can share your experience, make your comments on the question above

- "When there are two lessons in a row, one lesson is conducted synchronously, and for the other lesson, tasks are sent and it is specified when they have to be completed and sent. The student plans the performance time himself/herself."
- "Analysis of literature works (synchronous) and selected individual aspects of the work (asynchronous)."
- "I conduct remote consultations on selected topics."
- "Individual consultations, thematic discussions, individual work with SEN students, home teaching."
- "Tests and homework are performed asynchronously."

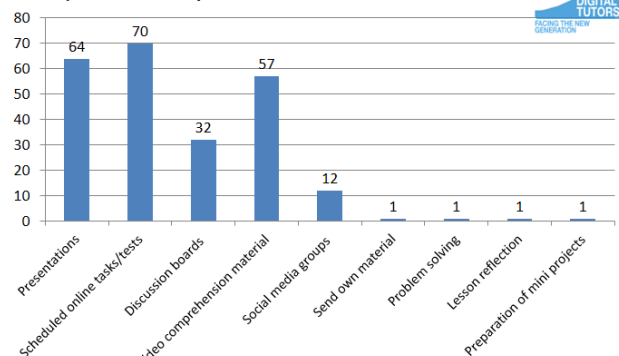
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Figure 5. What teaching/learning activities are implemented in the synchronous education?



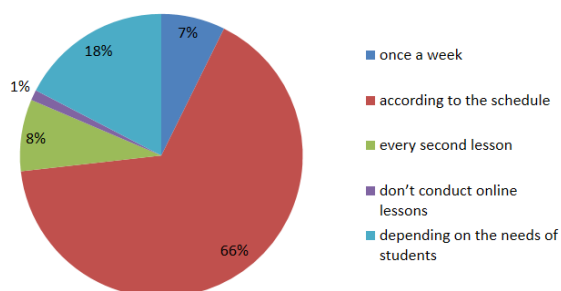
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Figure 6. What teaching/learning activities are implemented in asynchronous education?



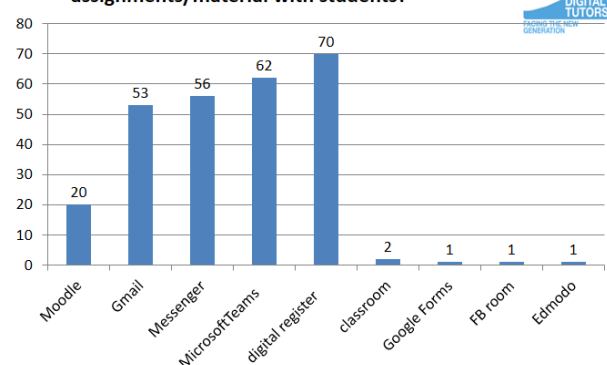
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Figure 7. How often do you meet the students online?



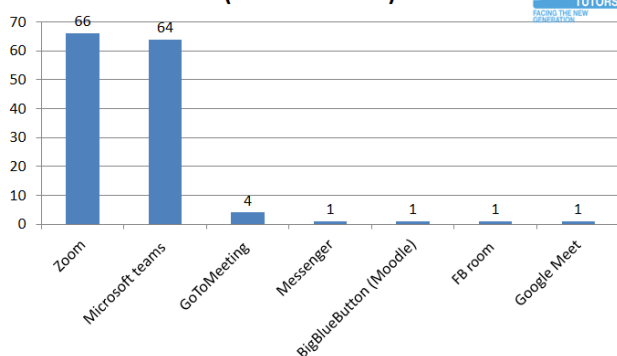
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Figure 8. What platform do you use for exchange assignments/material with students?



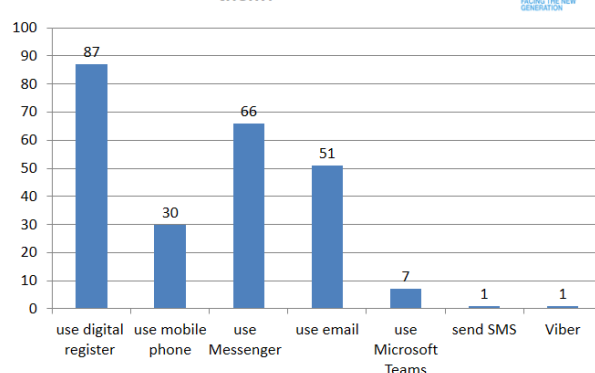
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**Figure 9. What platform do you use for video conferences (for live lessons)?**



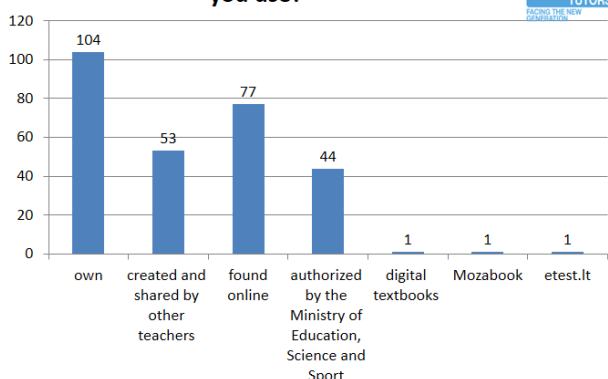
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**Figure 10. How do you communicate with your students (besides live lessons)? How do you inform them?**



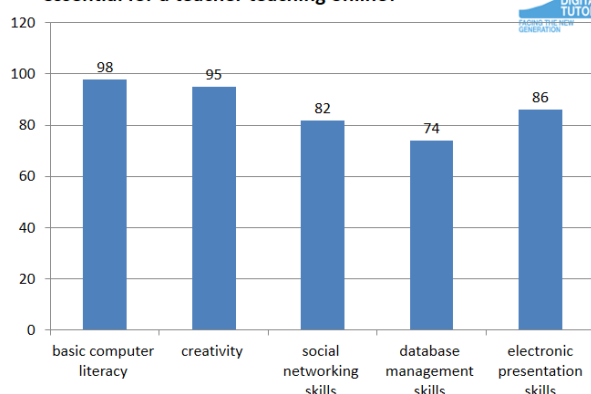
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**Figure 11. What learning/teaching content do you use?**



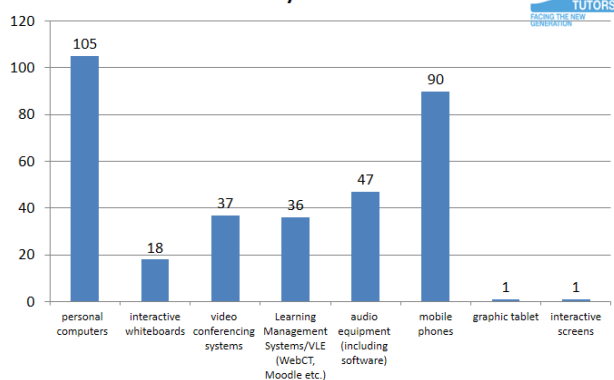
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**Figure 12. What computer literacy skills are essential for a teacher teaching online?**



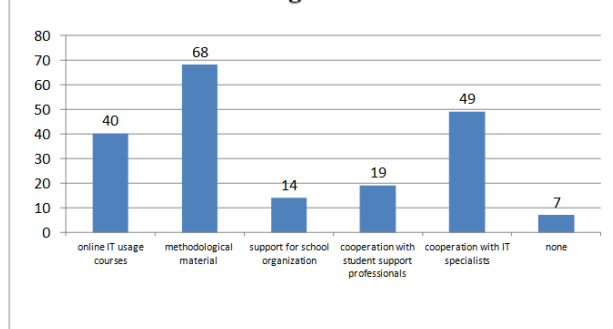
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**Figure 13. What kind of technical equipment is accessible for you?**



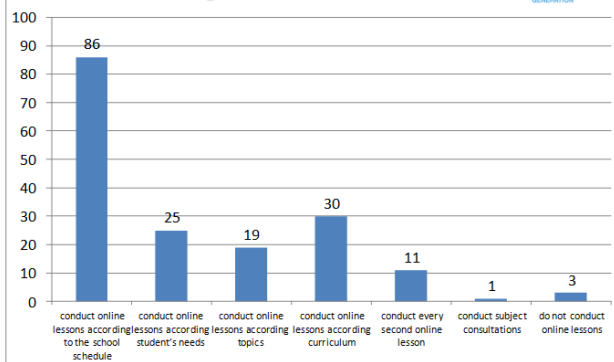
15

**Figure 14. What support do you need in organizing and implementing online teaching?**



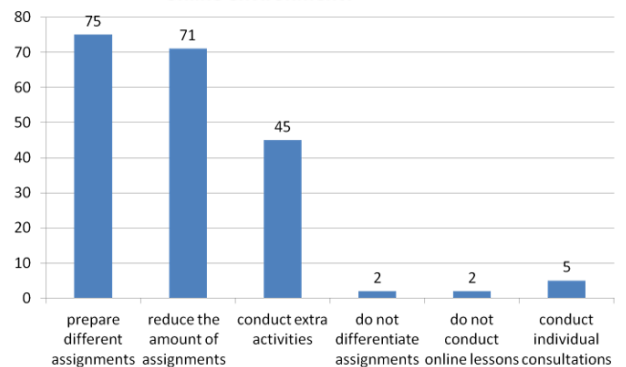
16

**Figure 15. How do you plan an online teaching schedule?**



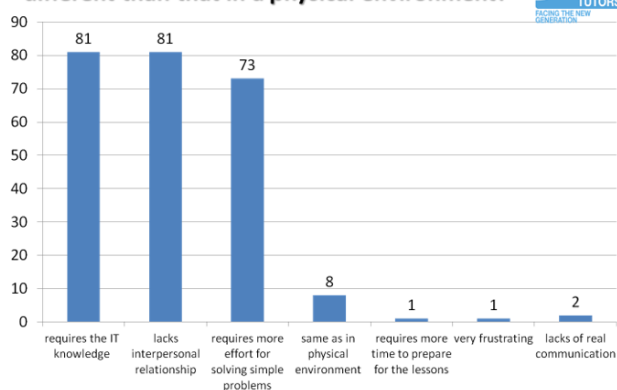
17

**Figure 16. How do you adjust to different needs of students concerning guidance and support in an online environment?**



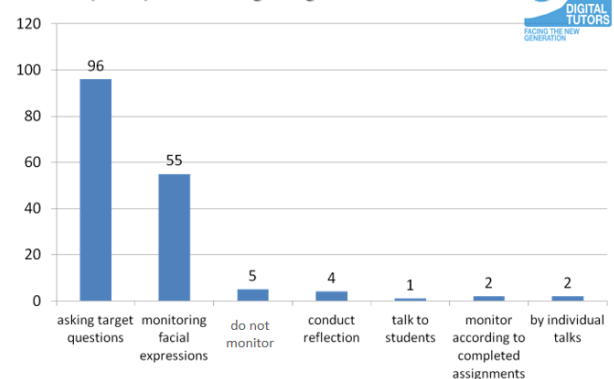
18

**Figure 17. How is digital collaboration different than that in a physical environment?**



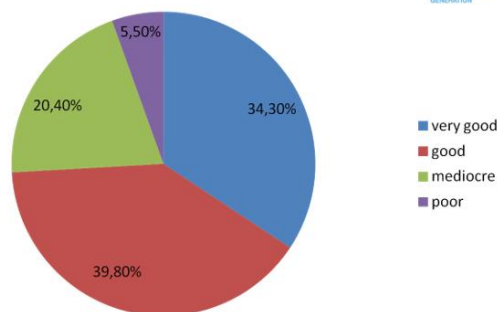
19

**Figure 18. How do you monitor student's behavior/mood/understanding during the online lessons?**



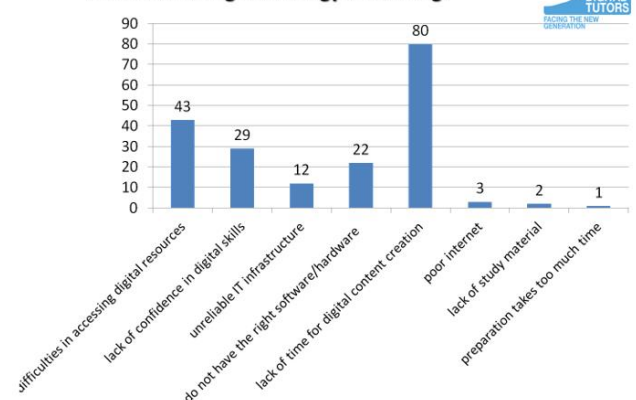
20

**Figure 19. How would you rate the quality of the pedagogical ICT support?**



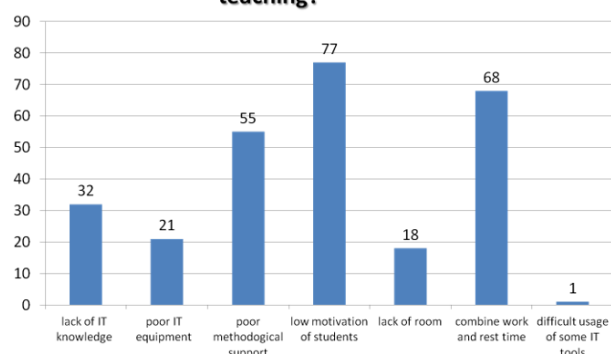
21

**Figure 20. Which of the following do you consider as barriers to using technology in learning?**



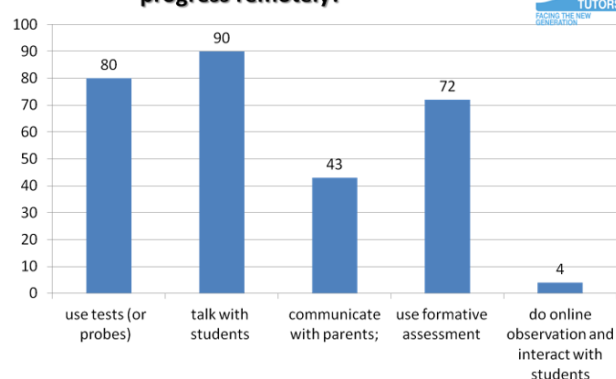
22

**Figure 21. What difficulties do you experience when you organize and implement online teaching?**



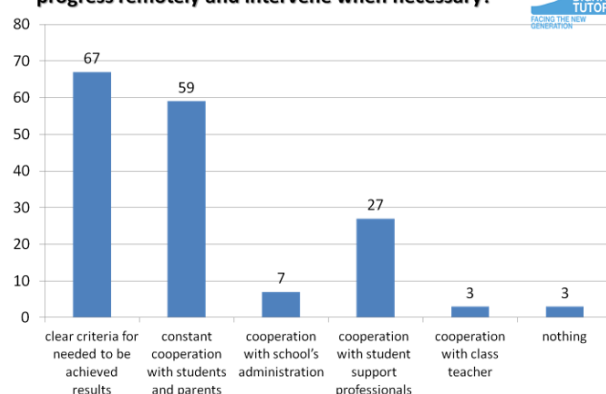
23

**Figure 22. How do you monitor students' progress remotely?**



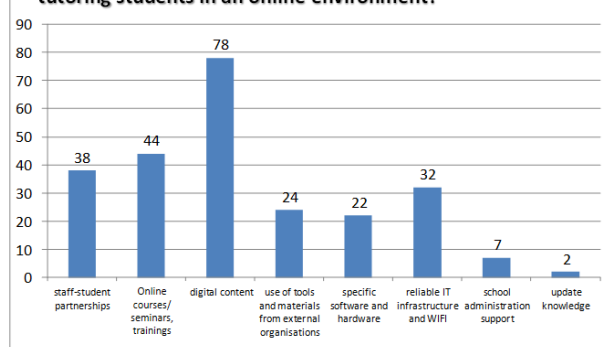
24

**Figure 23. What do you need as a teacher to monitor progress remotely and intervene when necessary?**



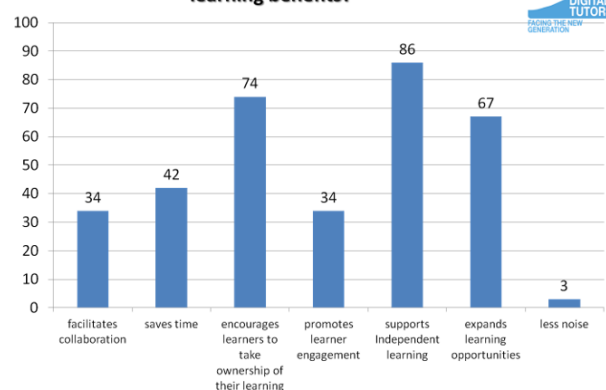
25

**Figure 24. What do you need to further improve/develop your capabilities concerning tutoring students in an online environment?**



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**Figure 25. What of the following could be the digital learning benefits?**



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## Conclusions

- A comprehensive **25 questions questionnaire** and interviews about teaching online processes was conducted on March, 2021 during the second quarantine that started on October, 2021 due to COVID-19 pandemic in Lithuania.
- During the covid-19 pandemic**, the education and training of children (primary, basic - lower secondary and upper secondary, vocational education) had to be refocused to distance learning quite hastily. For both teachers and children, this is a challenging phase and process that requires good remote communication skills, digital competencies, knowledge of various hardware and software, and more.
- The questionnaire collects information about teachers' demographic indicators, experience in distance teaching and learning, aspects of distance teaching they are implementing, skills and competencies needed for online teaching, difficulties teachers experiences, support needed.
- 109 teachers and administrative staff** from different types of **Lithuanian schools** participated in the survey "Digital Tutor".
- Prevailing type of school that respondents represent is **secondary school** – 61 %, **VET centre** – 29 %. Other types of schools were: primary school, art gymnasium, gymnasium, basic school, etc.
- Biggest group of survey participants (Figure 1) were of the **age group 50-65 year old**. Second largest group 35-50 y.o. That means younger teachers are entering this labour market field very slowly.

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## Conclusions



- 83 % of respondents were **women** (Figure 2) which shows the shortage of male pedagogues in the education system.
- Most of the respondents (70 %) singled out the **distance teaching experience of one year** (Figure 3). 19 % of respondents have **2-5 years experience of online teaching**. That means that most of them didn't have any previous experience before the COVID -19 pandemic.
- 82 % responded that they **combine synchronous and asynchronous education** (Figure 4)
- The most used methods in synchronous learning are **video material activities, presentations and tasks, tests from the internet** (Figure 5).
- As for asynchronous teaching **presentations and scheduled tests/tasks** were among the most frequent answers (Figure 6).
- Most of the respondents conduct online lessons **according to the school schedule** (Figure 7, Figure 15). This means that schools organize the joint scheduling of lessons online (during COVID -19 pandemic).
- 18 % of respondents meet their students online, depending on the needs of students.

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## Conclusions



### Hardware and software, digital tools and resources

- Respondents use mostly **personal computers** (97 %) and **mobile phones** (83 %) for the online lessons, only 12 % have access to the **smart whiteboards** (Figure 13).
- Most teachers use **Zoom** and **Microsoft Teams** for the online lessons (Figure 9), while they use **Messenger, Digital Register and Microsoft Teams** for exchanging material with students and communication (Figures 8, Figure 10).
- Most teachers use their **own created material** (Figure 11), **also material from the internet** is used. 40 % of the respondents use **authorized material** by the Ministry of Education, Science and Sport.

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## Conclusions



### Skills for online teaching

- Most of the respondents highlighted **basic computer skills** (91 %) and **creativity** (88 %) as the basic skills **for the online teaching** and also electronic presentation, social networking and database management skills as very important for in order to implement online teaching (Figure 12).

### Different needs of students

- Teachers prepare different assignments (69 %), reduce amount of the assignments (65 %), conduct extra activities (41 %) in order adjust to different needs of students (Figure 16).

### Monitoring learning process

- In order to **monitor students' understanding** during the online lessons (Figure 18) teachers ask **target questions** (88 %), **monitor facial expressions** (50 %), and 5 respondents do not monitor students understanding in any way. Teachers use **tests (probes)** (73 %) and **talked individually** (83 %), 66 % of the respondents use **formative assessment** to monitor students' progress remotely (Figure 22).

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## Conclusions



### Online teaching difficulties and challenges faced by teachers

- Teachers indicate the **lack of time for the digital content creation** (73 %) as the **crucial obstacle to use digital technologies in distance /teaching learning**, they also have difficulties to **access to digital content** (39 %) (Figure 20).
- Survey respondents noted **low motivation of students** (71 %), **to combine work and rest time** (62 %) and **poor methodological support** (50 %) as they key difficulties, while implementing distance education (Figure 21).
- 75 % of the respondents stated that **digital collaboration requires IT knowledge and lacks interpersonal relations**, also **more time is needed to solve problems** (Figure 17).

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## Conclusions



### What support teachers stated as necessary in order to improve online teaching and learning

- Teachers and administrative staff assume that **digital content** (72 % of the respondents) and availability of proper online courses (40 %) will help to improve/develop capabilities concerning tutoring in an online environment (Figure 24).
- Respondents need **clear criteria of results needed to be achieved** (61 %) and **constant cooperation with students and parents** (54 %) in order to monitor progress remotely and intervene when necessary (Figure 23).
- For organizing and implementing online teaching teachers would like to receive **methodological support** (62 %), **online courses on IT** (37 %) and **closer cooperation with IT specialists** (45 %) (Figure 14).
- 74 % of respondents rated the quality of the pedagogical ICT support as very good or good, only 5 % assume it as poor (Figure 19).

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