



Blended teaching and learning in VET schools  
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**"Blended teaching and learning in VET schools"**  
**Analysis of the results of the teachers'survey**  
**IC Piramida Maribor Slovenia**

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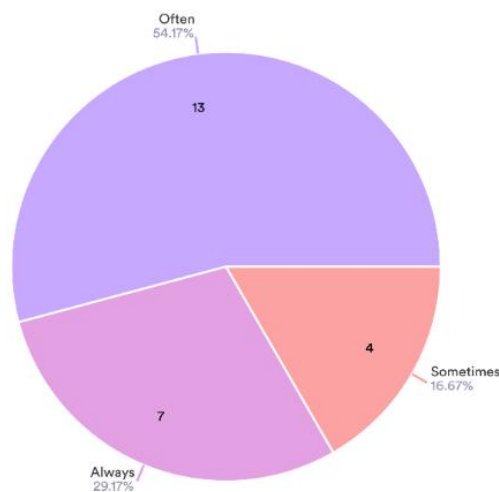
# 1 RESULTS OF THE SURVEY FOR TEACHERS

## 1.1 Introduction

The survey among Slovenian teachers was conducted in September 2021 via the Jotform web portal within the project "Blended teaching and learning in VET schools" (No.2020-1-LV01-KA226-VET-094501). 24 teachers of professional theoretical and general subjects at IC Piramida Maribor participated in the survey. The purpose of the survey was to determine the use of different pedagogical methods of work, the educational tools, techniques used and the response of students to individual method of work in the classroom in order to assess the quality of teaching.

## 1.2 Analysis of responses

More than half of the teachers surveyed (54%) use interactive tools (pictures, videos, quizzes, graphics, etc.) in class often, 29% use them regularly and only 17% of the respondents use interactive tools only occasionally. None of the teachers use interactive tools rarely or never (see Figure 1). The opinion of the majority of teachers (75%) is that interactive tools greatly increase students' interest in learning, only 25% of teachers believe that students' interest only to a small extent.



**Figure 1:** Answers to the question: "How often do you use interactive tools (images, videos, quizzes, graphics etc.) when you teach?"

When asked whether the existing work techniques are more suitable for the individual methods of work, teachers answered as shown in Table 1:

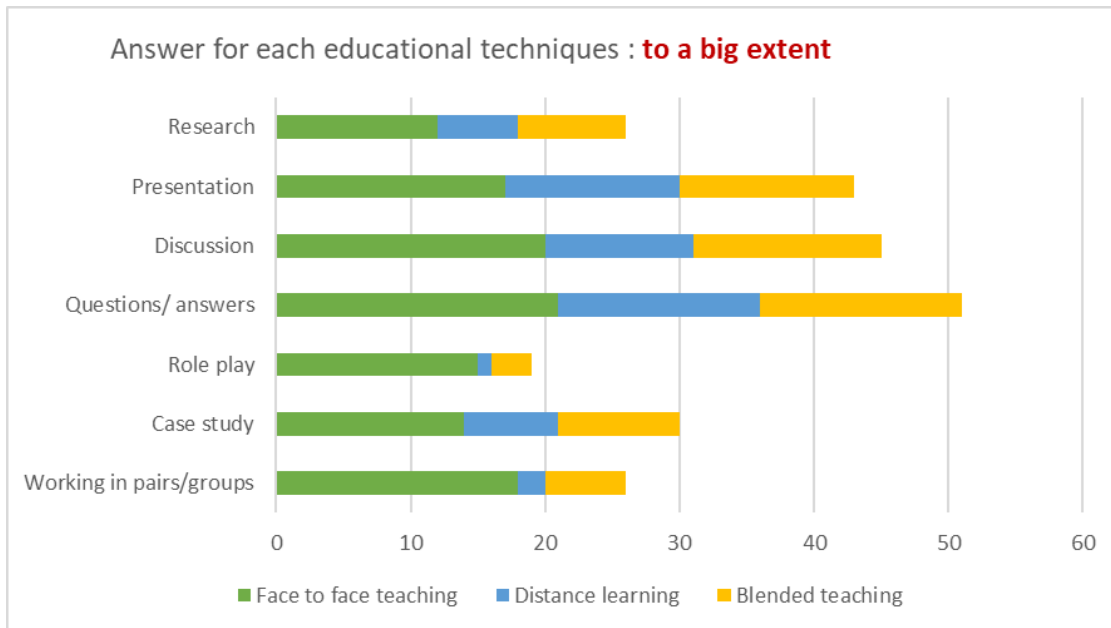
**Table 1:** Frequency of the answers to the questions: »Do you think that some educational techniques (working in pairs/groups, case study, role play, questions/answers, discussion, presentation, research etc.) are more suitable for a specific teaching method?«

	Face to face teaching			Distance learning			Blended teaching		
	Not at all	To a small extent	To a big extent	Not at all	To a small extent	To a big extent	Not at all	To a small extent	To a big extent
Working in pairs/groups	0	6	<b>18</b>	8	14	2	1	17	6
Case study	1	9	14	3	14	7	2	13	9
Role play	1	8	15	7	16	1	6	15	3
Questions/answers	1	2	<b>21</b>	3	6	<b>15</b>	2	7	<b>15</b>
Discussion	1	3	<b>20</b>	1	12	<b>11</b>	2	8	<b>14</b>
Presentation	2	5	<b>17</b>	4	7	<b>13</b>	2	9	<b>13</b>
Research	1	11	12	2	16	6	1	15	8

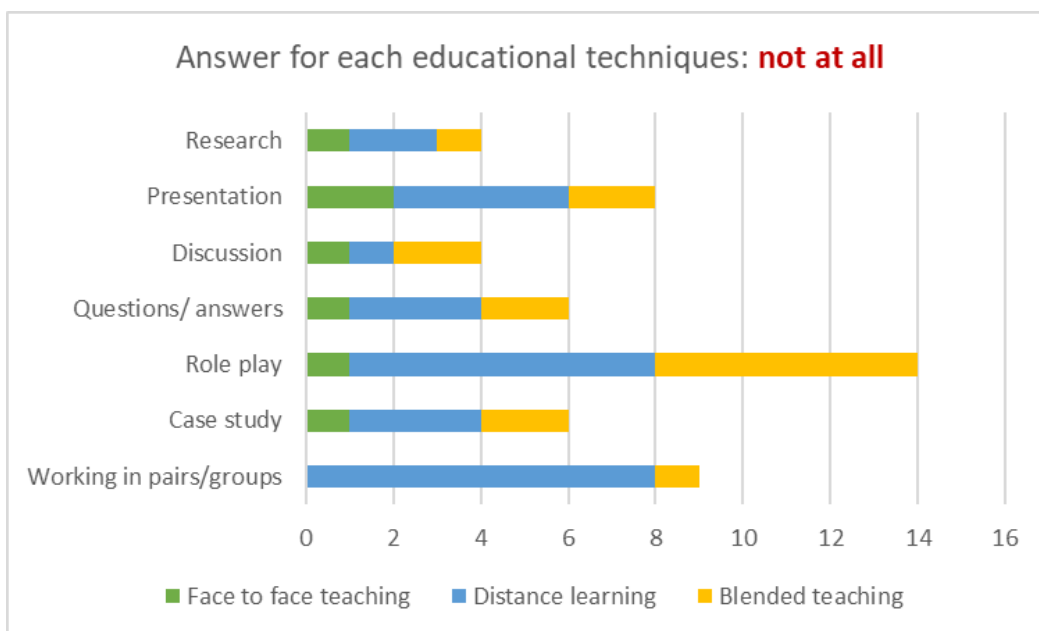
As can be seen in Figure 2, the most appropriate work techniques for the **face to face teaching method** chosen by the teachers were questions/answers (89%), discussion (83%), group work (75%) and presentations (71%). Very few teachers (less than 8%) decided that a particular technique was not suitable for the face to face learning method (see Figure 3).

For the **distance learning method**, teachers answered that work techniques were appropriate to a lesser extent. As the most appropriate work technique the question/answer technique (63%), presentations (54%) and discussion (46%) were chosen (see Figure 2). On average 17% of the teachers answered that that individual work techniques have no effect on efficiency for the distance learning method. Pair/group work (33% of teachers) and role play (29% of teachers) were chosen as the least suitable techniques for distance learning (Figure 3).

Teachers were more in favor of **blended teaching** than of distance learning, however to a lesser extent than face-to-face teaching. As the most appropriate work techniques for the blended teaching method, teachers chose: questions/answers (63%), discussion (58%) and presentations (54%), followed by a case study (38%) and research (33%) (see Figure 2). Most often, teachers chose a role-play technique (25%) as a technique that is not suitable for a blended teaching method (see Figure 3).



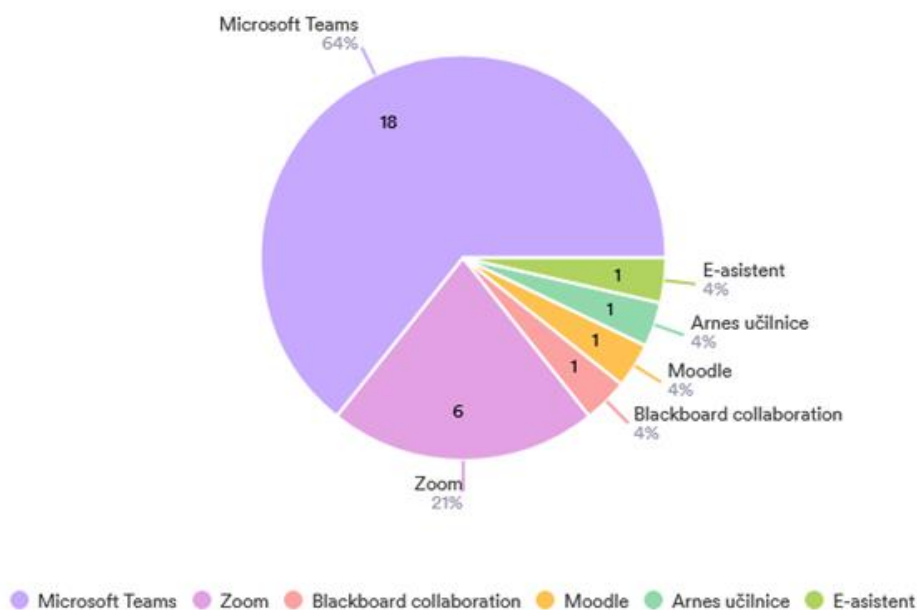
**Figure 2:** Presentation of answers to questions related to individual work techniques regarding their suitability for the individual teaching methods.



**Figure 3:** Presentation of answers to the questions related to individual work techniques that do not have an impact on individual teaching methods.

The most frequently used platform for remote work was Microsoft Teams (MT), used by 64% of teachers. In addition to the Moodle classroom (also called the Arnes classroom - 8% of teachers), the MT platform was also the official platform of the Slovenian Ministry of Education (MIZŠ). Along with this platform, teachers commonly used Zoom (21% of teachers) - as shown in Figure 4.

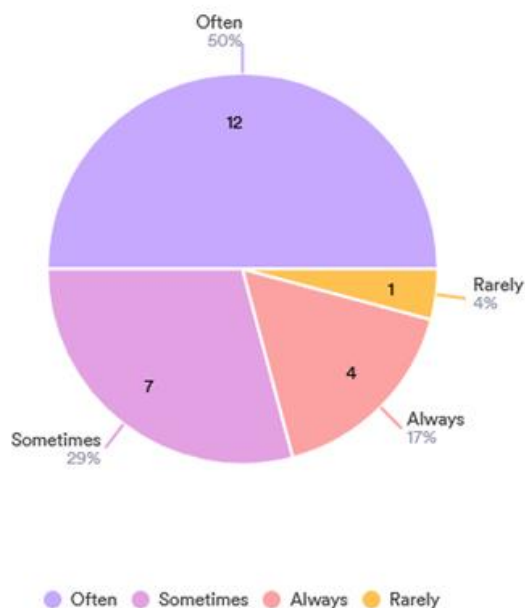
Due to the Covid 19 epidemic and the associated months of remote work, all teachers were forced to use e-platforms for remote work. 5 teachers, however, responded that they had never used e-platforms for teaching.



**Figure 4:** Answers to the question: »Which programs or platforms did you use?«

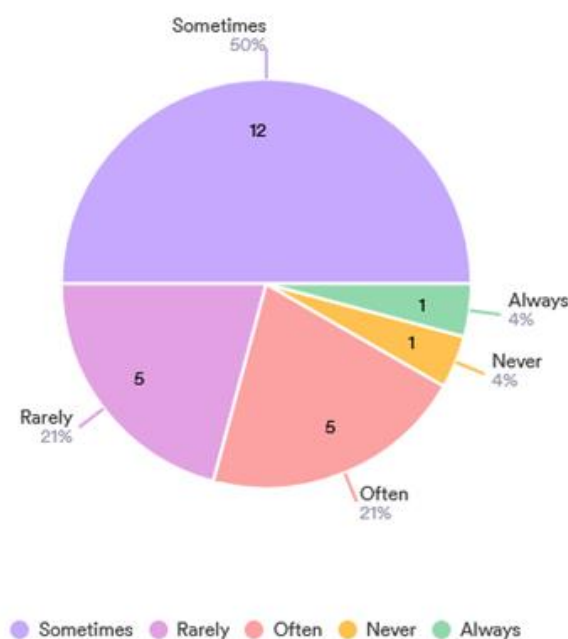
When using the e-learning platform, 37% of teachers assign homework to their students – always (5%) or often (32%), which is only slightly more than in face-to-face learning, when 25% of teachers assign homework often or always.

The Internet has become indispensable in finding information in our daily lives. At school, 67% of teachers often or regularly instruct students to use the Internet in order to search for information, and 33% suggest this only rarely or occasionally (see Figure 5).



**Figure 5:** Answers to the question: »How often do you suggest to your students to use the internet for the purposes of research and finding information?«

On the other hand, the use of practical examples in teaching is widespread as it is used by 96% of surveyed teachers. Only one of them stated that he does not use this method of teaching. 92% of the teachers are also convinced that practical examples help students to have a better understanding of the subject. The same percent of teachers believe that cooperation between students in the learning/teaching process is extremely or very important. Nevertheless, only a quarter of teachers encourage their students to work in projects in with the aim to develop their participation skills always (4%) or often (21%) (see Figure 6).



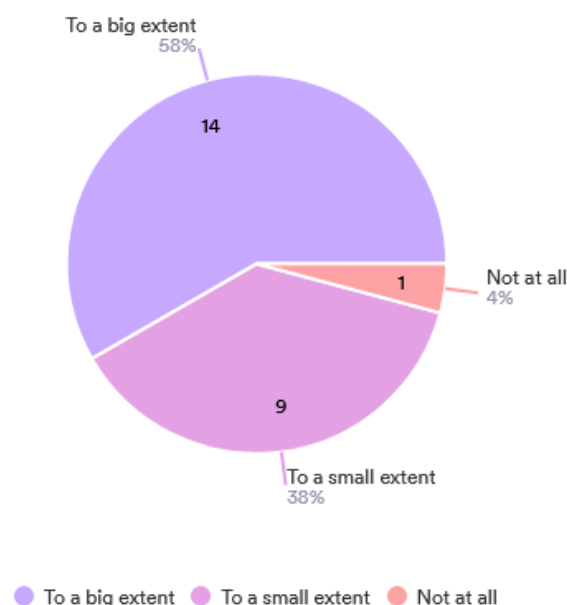
**Figure 6:** Answers to the question: »Do you assign to your students projects, where teamwork is involved, to develop their collaborative skills?«

When asked: "Which teaching method (blended, asynchronous distance learning, synchronous distance learning, teaching in-person) do you think encourages students to participate more actively the most?", the teachers were divided into two groups - the first group believes it is the blended teaching method (58% of teachers); the second, slightly smaller group believes it is the face to face teaching (48% of teachers). None of the teachers opted for the distance learning method.

83% of teachers get students' feedback on the teaching methods used and its effectiveness. All of the teachers, who obtain this information, take the opinions of the students into account. All teachers find personal contacts between teachers and students in the learning/teaching process extremely (67%) or very important (33%).

88% of teachers surveyed are convinced that personal teaching/learning can be combined with distance learning/teaching.

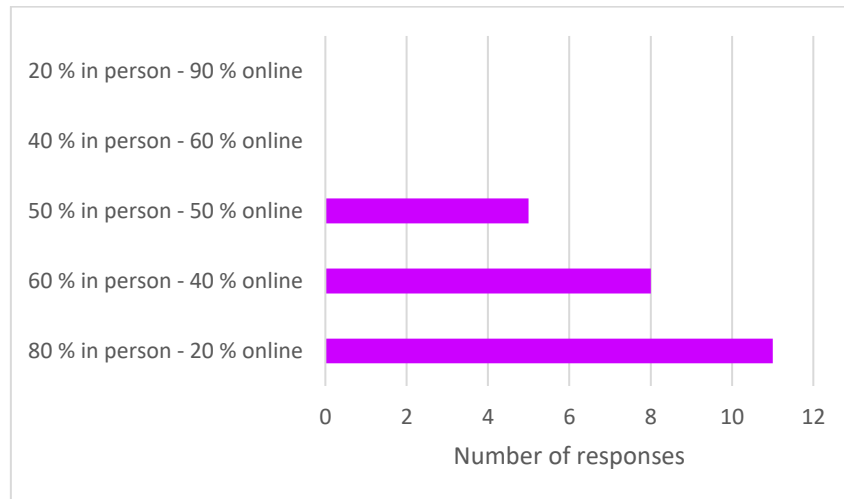
To the question »To what extent do you know how to merge the individual ingredients of blended teaching (face to face teaching, online teaching, the use of various interactive tools in the class, independent study, simulations, assessment and feedback, one on one coaching) to make the blended lesson consistent and effective?« only 58% of teachers were convinced that this could be done largely successfully, 38% answered that such a lesson would be done successfully to a lesser extent, 4 % (1 teacher), however, believe that the lesson would not have been completed successfully (see Figure 7). Thus, it is understandable that half of the teachers (50%) believe that they need training in the field of blended teaching; the other half believes that such training is not needed.



**Figure 7:** Answers to the question: »To what extent do you know how to blend (merge) the individual ingredients of blended teaching (face to face teaching, online teaching, the use of various interactive tools in the class, independent study, simulations, assessment and feedback, one on one coaching) to make the blended lesson consistent and effective?«

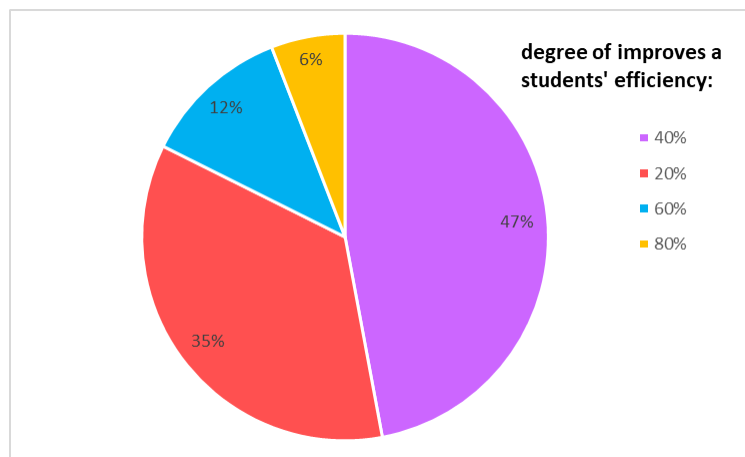


If training in blended teaching methods was possible, most teachers would like to have more hours of training face-to-face (in person) than remotely: 46% of teachers would prefer a ratio of 80% in person - 20% online; and 33% of teachers in a ratio 60% in person: - 40% online. None of the teachers would like to have more hours of training remote than in person, 21% would like to have 50% - 50% (see Figure 8).



**Figure 8:** Answers to the question: »If you had to design a blended teaching/learning course, what percent would it be in person, and what percent would it be online – remote?«

The majority of teachers (71%) believes that participating in training on blended teaching could improve students' learning efficiency. Teachers ascribe, on average, a possible increase in student efficiency by as much as 38% (from a minimum of 20% to a maximum of 80%) (see Figure 9).



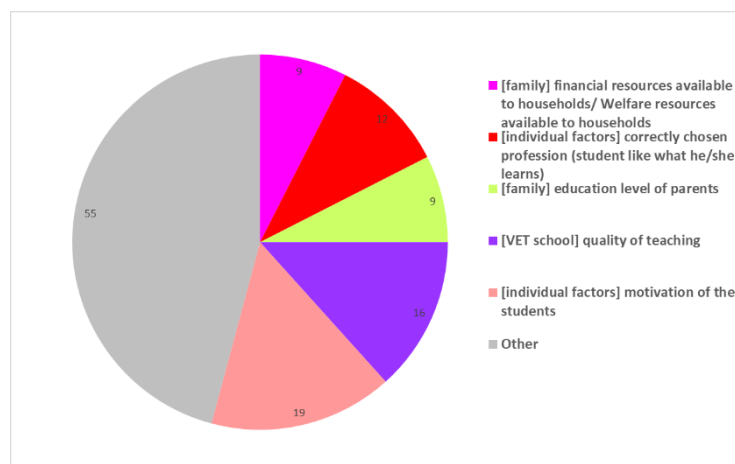
**Figure 9:** Distribution of answers to the question: »In your opinion, being able to attend a course at his/her own time and convenience (time, place, path, pace), would your participation at the course improve students' performance and efficiency? To what degree?«

A large proportion of teachers (42%) believe that distance learning reduces the role of the teacher in the learning process.

When asked “What factors do affect the quality of the educational process?”, the teachers chose between family factors, school-related factors and personal factors:

- [family] financial resources available to households/ Welfare resources available to households;
- [family] education level of parents;
- [family] the profession of parents is related to science / natural sciences;
- [family] educational resources available to the household;
- [family] cultural resources available to the household;
- [VET school] quality of teaching;
- [VET school] curriculum quality;
- [VET school] participation in the projects;
- [VET school] shortage of teachers;[VET school] amount of IT equipment, educational licenses for training in relation to the size of the school;
- [VET school] preparing for a career in science at school;
- [VET school] percentage of students –dropouts;
- [VET school] the image of the school;
- [individual factors] correctly chosen profession (student like what he/she learns);
- [individual factors] extra curricula activities concerning the chosen profession;
- [individual factors] motivation of the students;
- [individual factors] personal effectiveness;
- [individual factors] time devoted to the acquisition of a profession at school;
- [individual factors] the time devoted to the acquisition of the profession independently.

The teachers were able to identify 5 most important factors. Among the five most frequently selected factors were: two personal factors (motivation of the students) - 16% of responses and correctly chosen profession (student likes what he/she learns) - 10% of responses; two family factors (financial resources available to households / welfare resources available to households - 8% of responses and education level of parents - 8% of responses; only one factor related to school (quality of teaching) - 13% of responses (See Figure 10). Figure 10 shows 5 most common answers – 54% of all answers; the remaining 46% of answers are shown in the share - Other.



**Figure 10:** Answers to the question: »What factors do affect quality of educational process? (Teachers ticked the five most important factors.)

### 1.3 Conclusion

- Most teachers attribute great importance to interactive tools to improve the active work of students.
- As the most appropriate work techniques for all three teaching methods (face-to-face teaching, distance learning and blended teaching), teachers list: questions/answers, discussion and presentation; in the face-to-face learning method also group work.
- Teachers evaluate distance learning as a method that is less effective even with different work techniques. 42% of teachers believe that distance learning reduces the role of the teacher in the learning process.
- More than half of the teachers (58%) cite the blended learning method as the most effective method. Just as many of them believe that they could successfully conduct a lesson with the ingredients of such a method. The majority of teachers (71%) would attend training on blended forms of teaching, which, according to them, could increase the effectiveness of students by an average of 38%.
- According to the teachers surveyed, the factors that influence the quality of the learning process the most are the motivation of students, the quality of teaching, correctly chosen profession for which the student is studying, educational level of parents and financial/welfare resources available to households.