

STUDENTS' AND TEACHERS' PERCEPTIONS OF EMERGENCY REMOTE TEACHING AND LEARNING IN MONTENEGRIN HIGHER EDUCATION DURING THE COVID-19 PANDEMIC

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The Goals

To identify the perceptions of students and teachers of how ERE was delivered during the pandemic.



In the research, we checked our respondents' perceptions of teaching and learning during ERE, as well as the difficulties they faced during ERE, preferences towards different teaching models (face-to-face, online or blended), and the need for trainings.

Online questionnaire

Closed-ended and open-ended questions.

Closed-ended questions supplied data on the sample characteristics, i.e., independent variables: gender, university, level of studies (for students), gender, university, academic title, years of service (for academic staff).

All questions concretizing the hypotheses were scaled as a five-point Likert-type scale where 1 is the lowest and 5 is the highest value.

The questionnaire also contained several open-ended questions used to collect the data on the respondents' perceptions of difficulties, obstacles, and other relevant aspects

The data obtained with open-ended questions were processed in line with the qualitative research methodology rules, while the data obtained with closed-ended questions were processed in accordance with the quantitative methodology and with the use of statistics. IBM SPSS Statistics 23 was employed for data analysis. The statistical measures used include: M (Mean), SD (Standard Deviation), skewness, chi-square test, p (asymptotic significance), df (degrees of freedom), and C (contingency coefficient). Percentages were used to present the data.

Research sample

- ❖ A total of 446 respondents completed the questionnaire, of which 377 students and 69 academic staff members.
- ❖ The sample includes one public (University of Montenegro) and two private universities (University of Donja Gorica and Mediterranean University).



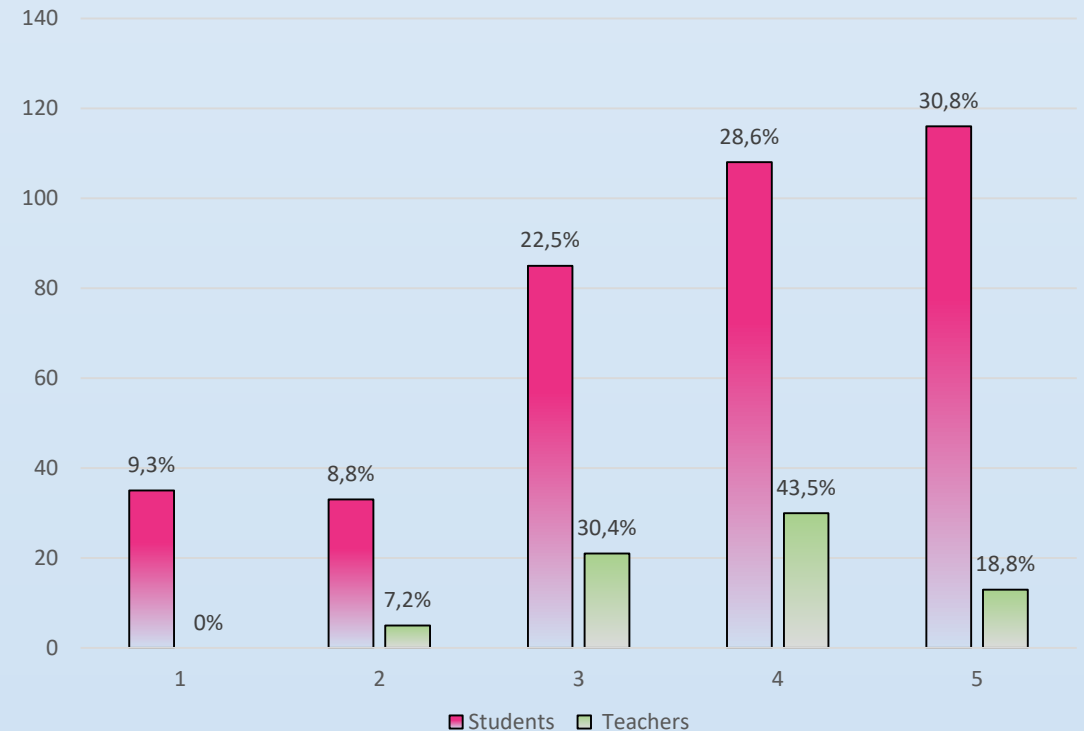
Results of the research

Perceptions of delivered teaching and learning during emergency remote education (ERE).

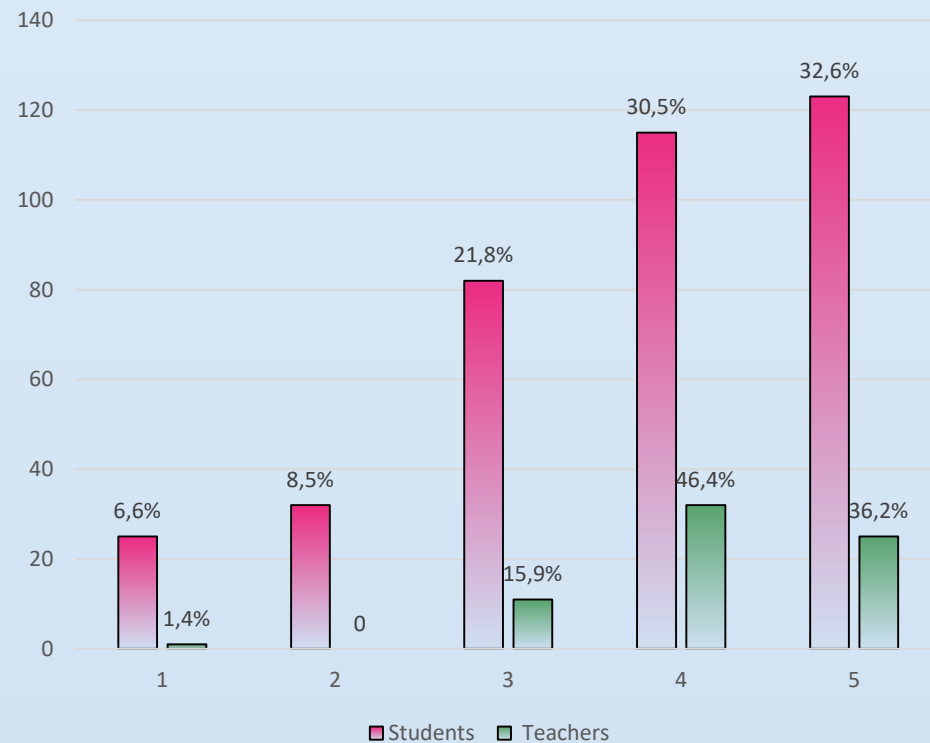
At the students' subsample we got an average $M=3.63$, with $SD=1.20$ and a slight skewness (-0.67) of results toward higher values.

Teachers gave very positive score, so $M=4.03$, $SD=0.91$.

Statistically significant differences were established for $p=0.004$, $\chi^2=15.104$, with $df=4$, and contingency coefficient of $C=0.18$.



Perceptions of the quality of lectures

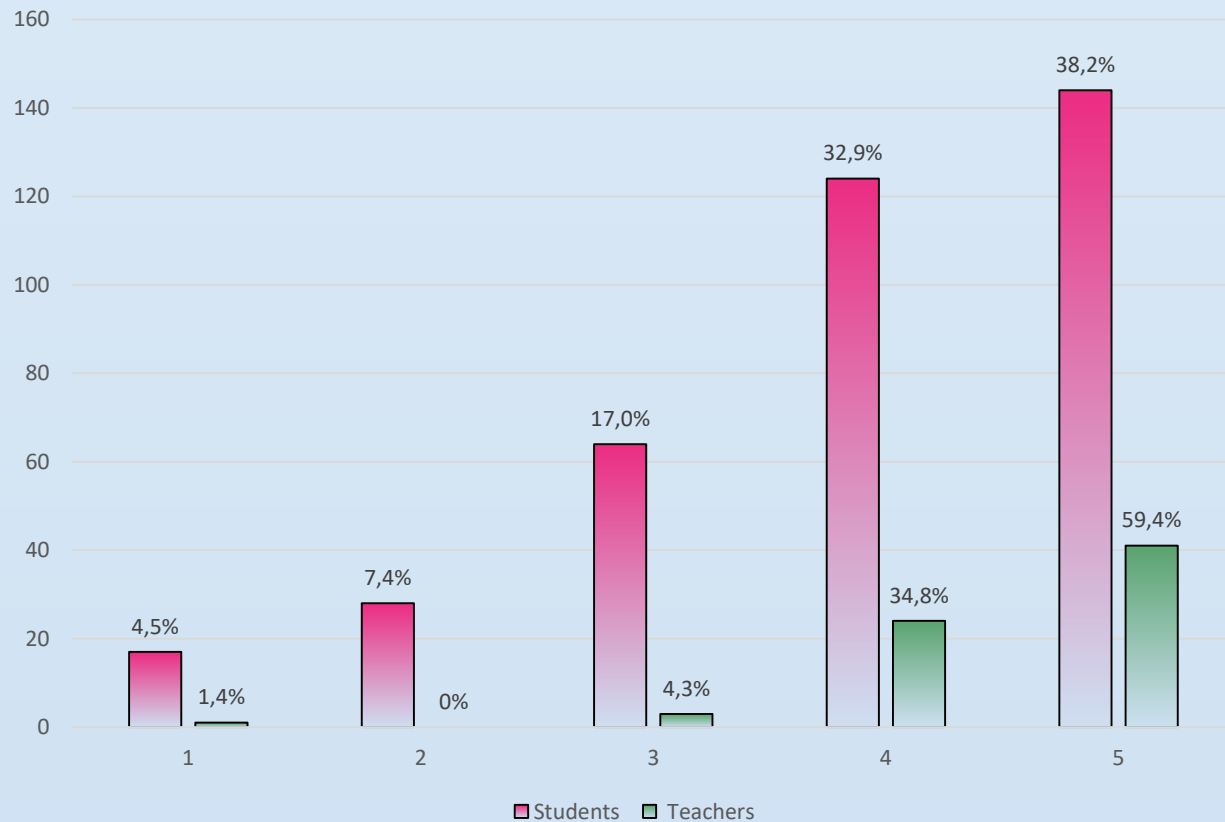


Students have positive perceptions of the lectures they listen to in DLE, so their responses have $M=3.74$, with $SD=1.19$.

The teachers' perception is even more pronounced, because for their sample $M=4.16$, with $SD=0.8$.

At the statistical significance level $p<0.01$, differences were identified, with the following values: $\chi^2=21.06$, $df=4$, $C=0.21$.

Perceptions of the whole curriculum delivery

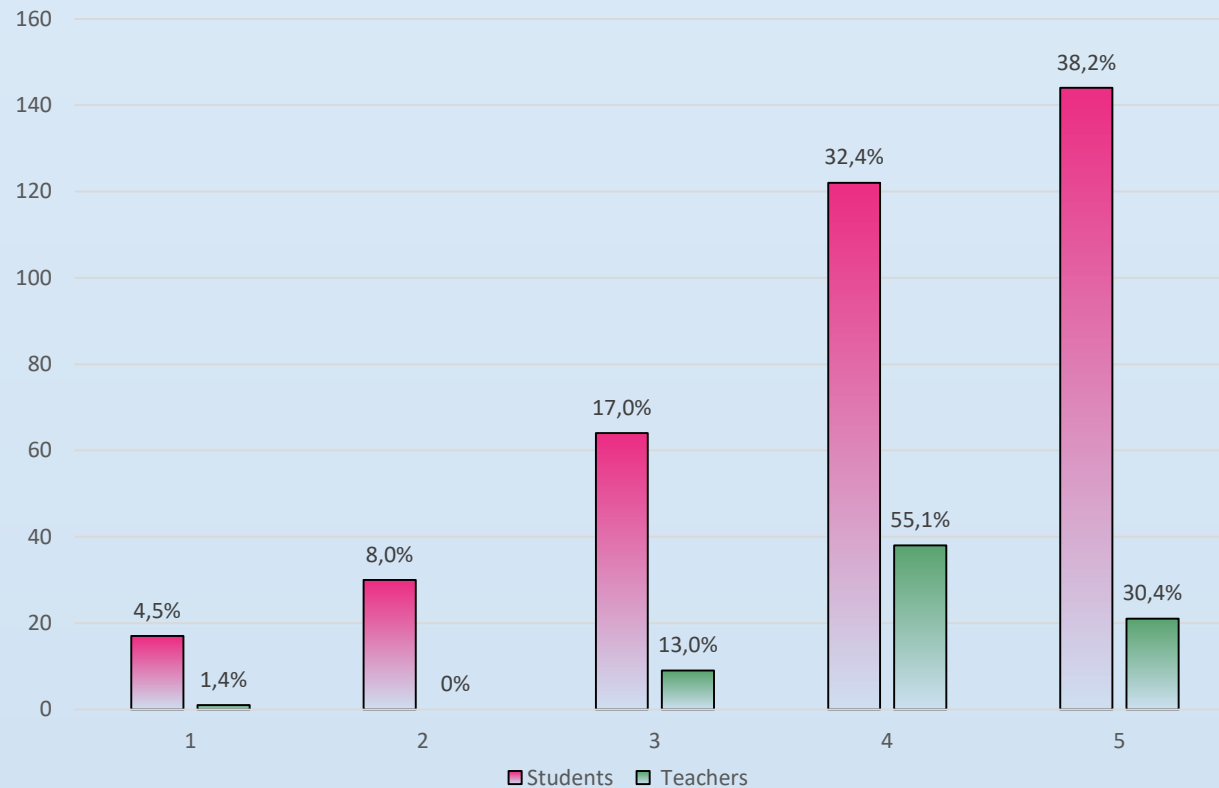


Students deem that the curricula were successfully and fully delivered ($M=3.93$, $SD=1.12$), and assessments given by teachers are even more favourable in this regard: $M=4.5$, $SD=0.72$.

The teachers' responses are notably skewed toward higher values (skewness=-2.1).

Statistically significant differences were established and the following values obtained: $p=0.01$, $\chi^2=19.07$, $df=4$, $C=0.20$.

Perceptions of the learning content mastering by students

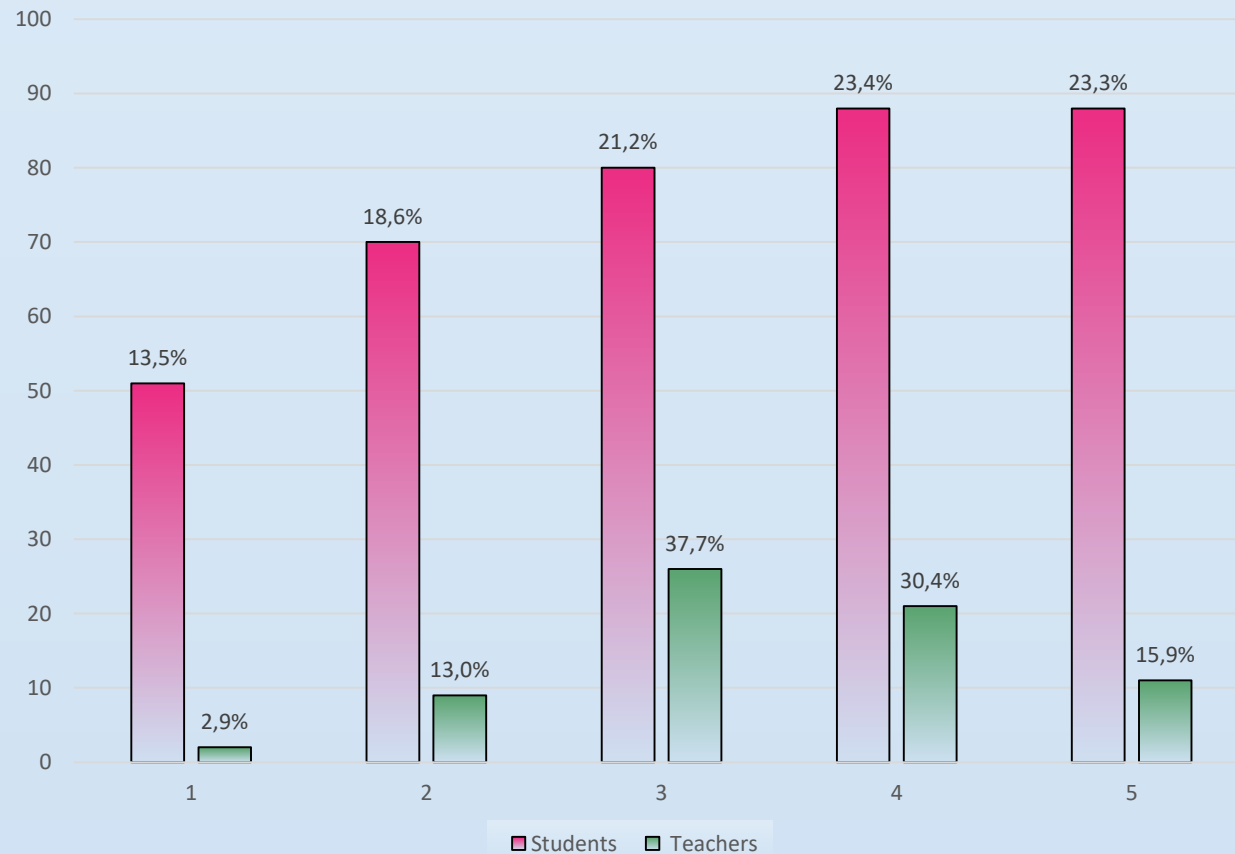


The question of perceptions of the learning content mastered by students received high scores from students, so $M=3.92$; $SD=1.13$.

For this question, teachers gave even more favourable assessments, $M=4.38$, with a fairly obvious homogeneity of results $SD=0.82$.

Statistically significant differences were identified among subsamples, with the following values obtained: $p=0.021$, $\chi^2=11.53$, $df=4$, $C=0.16$.

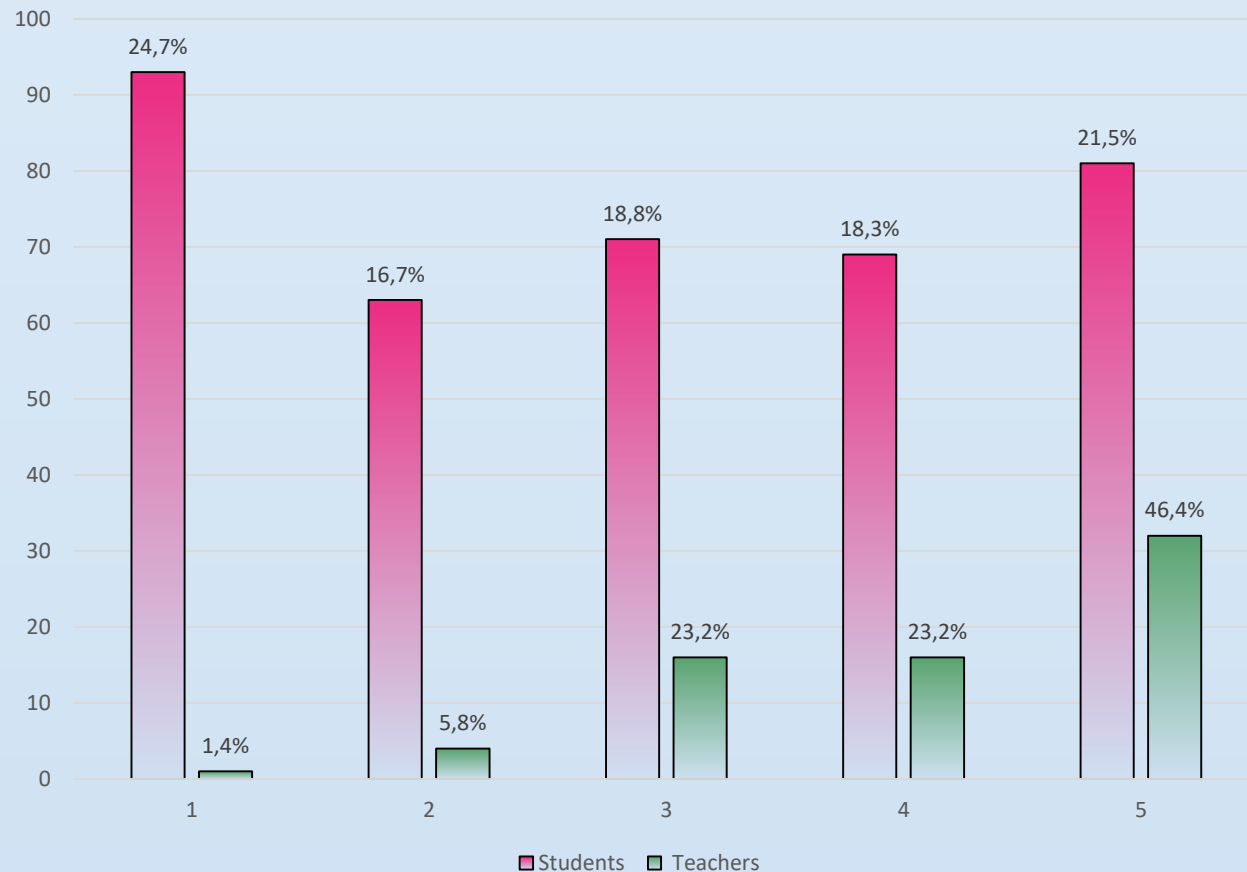
Perceptions of interaction during teaching in DLE



Students are moderately satisfied with the level of interaction they could achieve in DLE (M=3.24, SD=1.36), and teachers' scores are also solid (M=3.43, SD=1.0).

Statistically significant differences between respondent groups were established for $p=0.03$. At that value, $\chi^2=15.84$, $df=4$ and $C=0.18$.

Perceptions of students' concentration during lectures in DLE

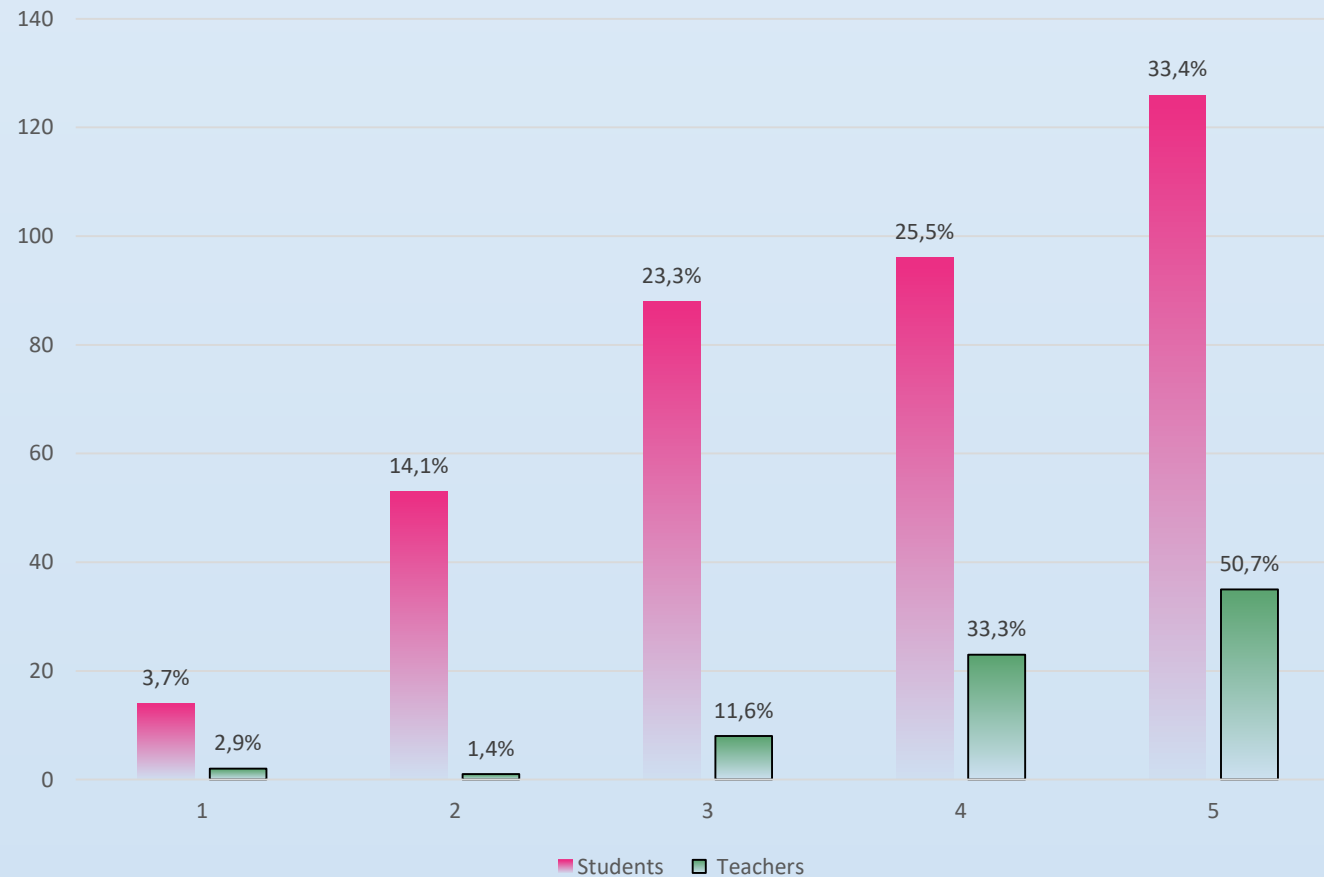


The only question students gave lower scores to than to any other question was the assessment of concentration. In their group, $M=2.95$ was obtained, with a fairly high dispersion of responses $SD=1.48$ and a slight frequency distribution skewness toward lower scale values (skewness=0.23).

Teachers perceptions were more positive, so $M=4.07$, $SD=1.03$.

Statistically significant differences were identified for $p<0.01$, chi-square is 35.105, with $df=4$. The contingency coefficient $C=0.27$ has a relatively high value.

Perceptions of teachers' activities to engage students

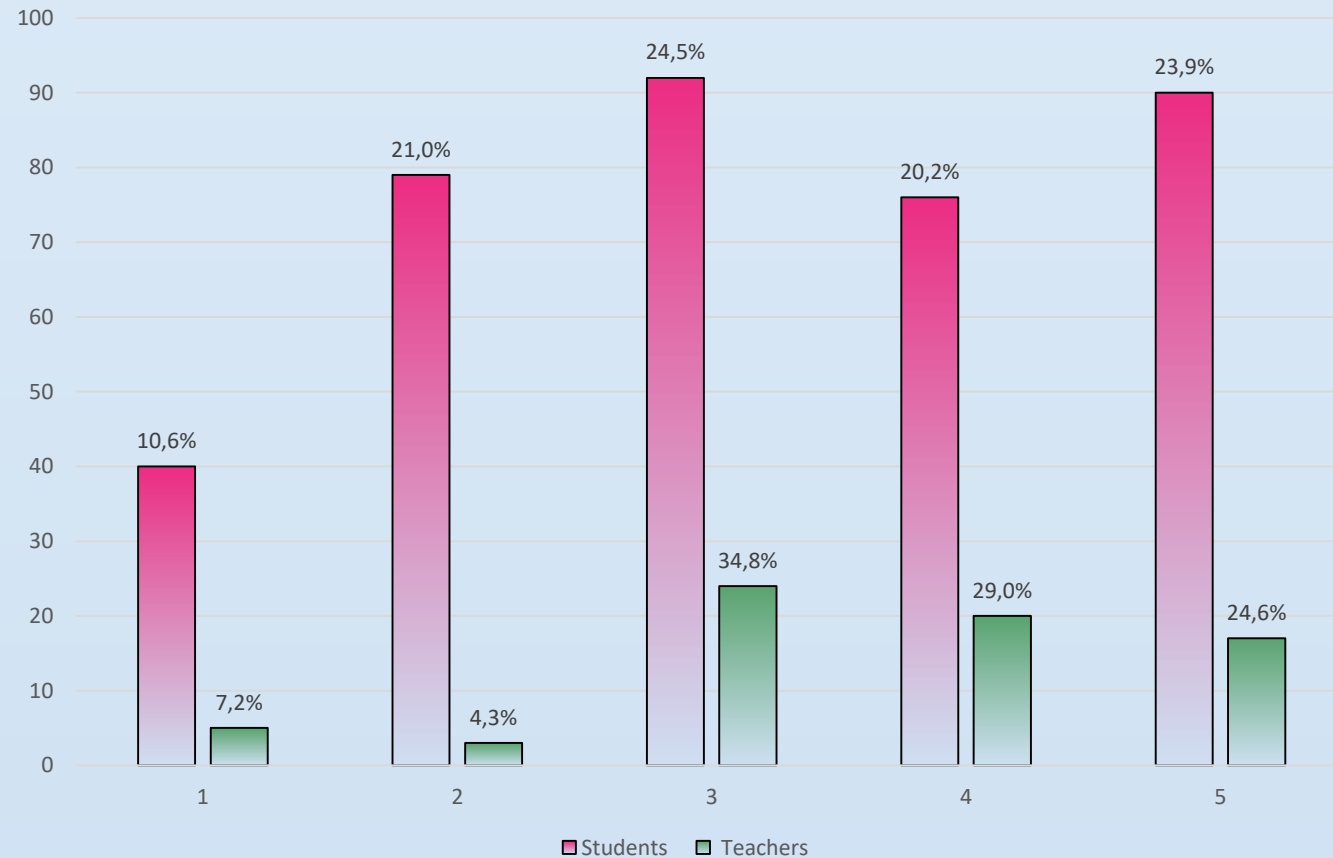


The mean value of students' responses to the question how they were encouraged by teachers to engage in the work is $M=3.71$, but with a higher dispersion of results, $SD=1.18$.

Teachers' perceptions were more positive, so in their sample $M=4.27$, with a slightly lower dispersion $SD=0.94$ and higher skewness of distribution towards positive assessments.

For $p=0.001$, the values identified were $\chi^2=17.7$, $df=4$, and $C=0.19$, which suggests differences in assessments between the two subsamples

Perceptions of the students' engagement in DLE

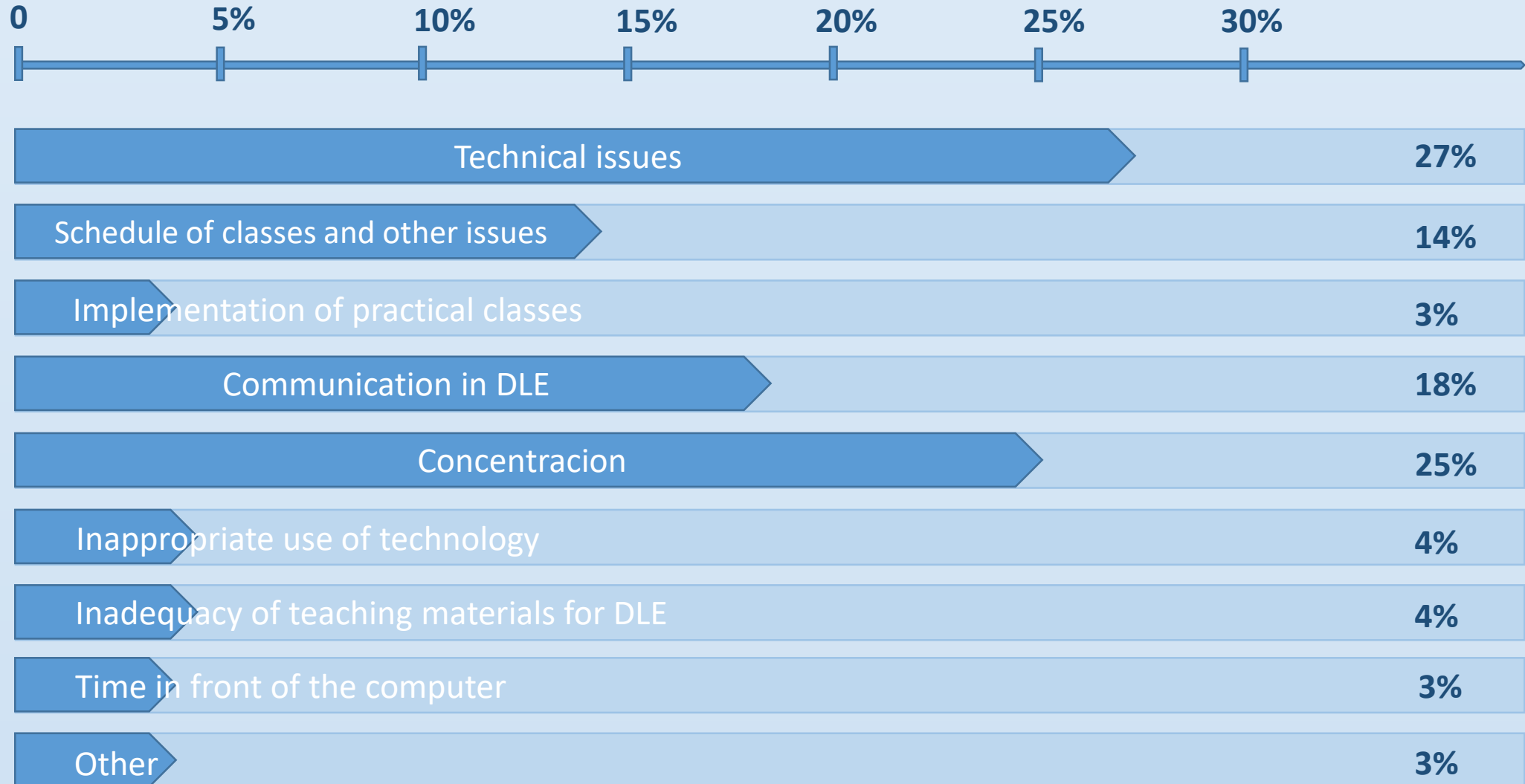


Students deem they were actively engaged in the work. The mean value of their assessment is $M=3.26$, with a dispersion of $SD=1.31$, which is relatively high if the total scale range is taken into account.

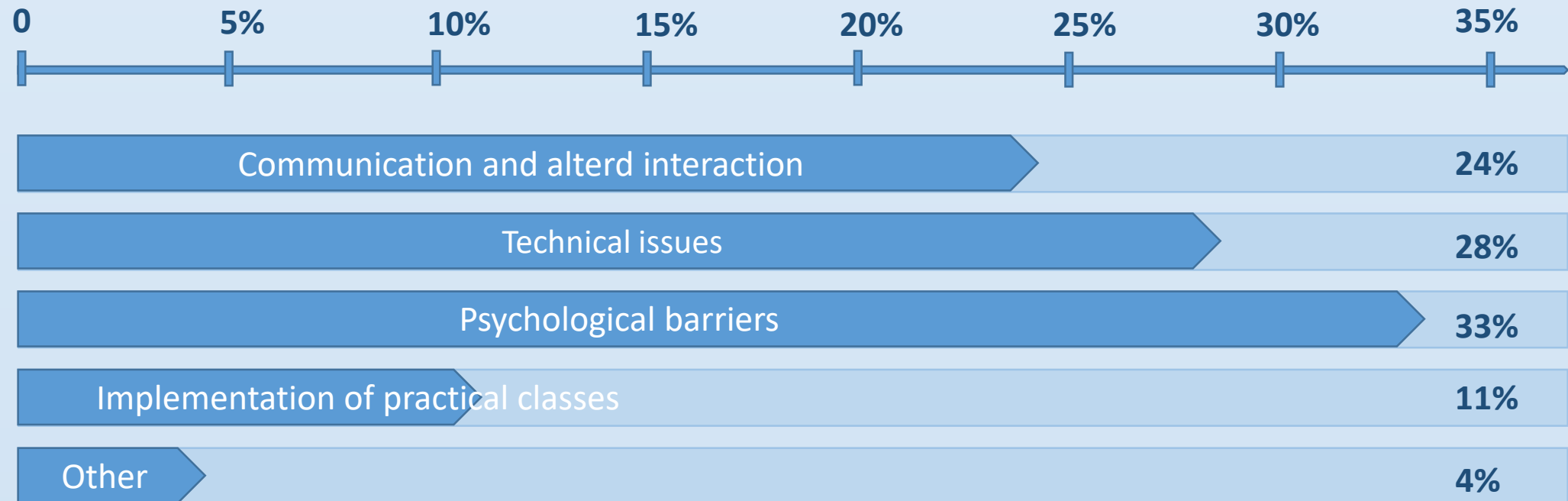
Teachers' assessments are more favourable for this item, as well, so $M=3.59$, $SD=1.13$.

Statistically significant differences were identified: $p=0.007$, $\chi^2=13.94$, $df=4$, $C=0.17$.

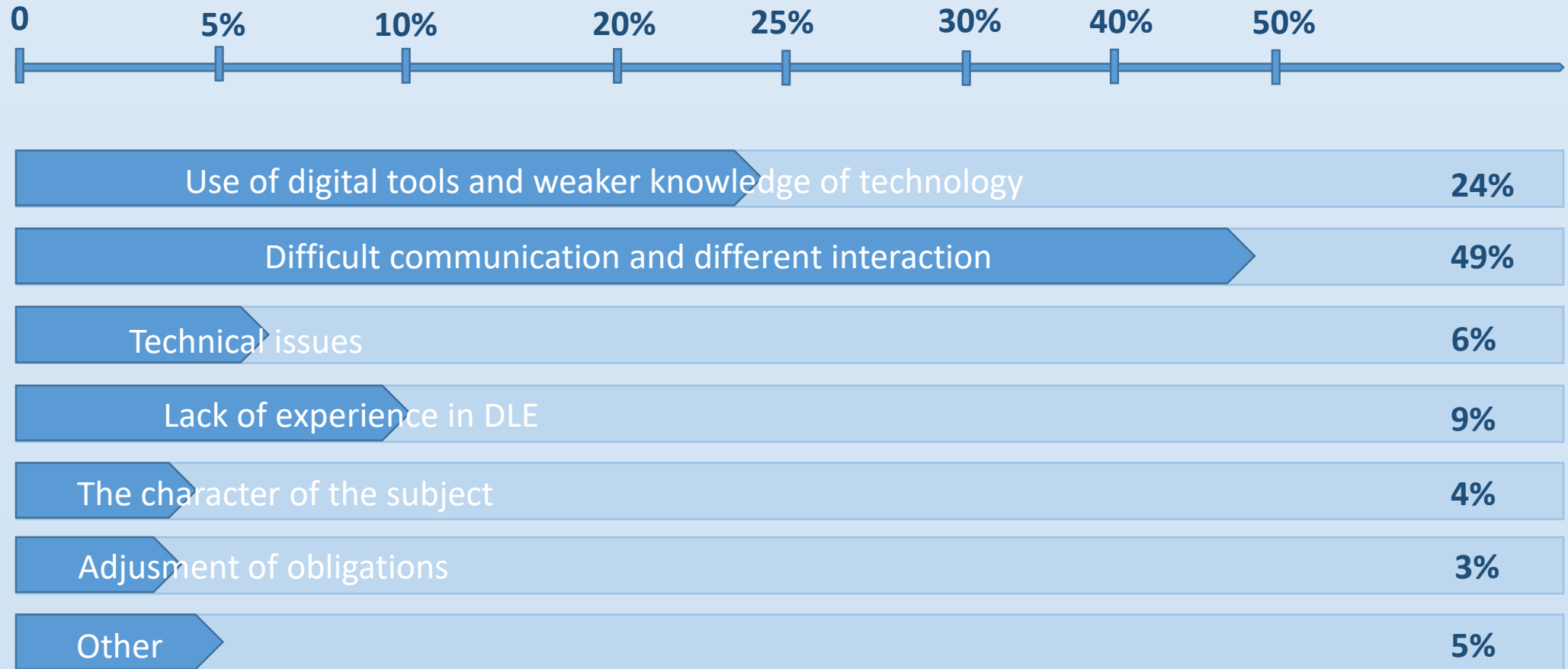
Difficulties of students during ERE (self-perceptions)



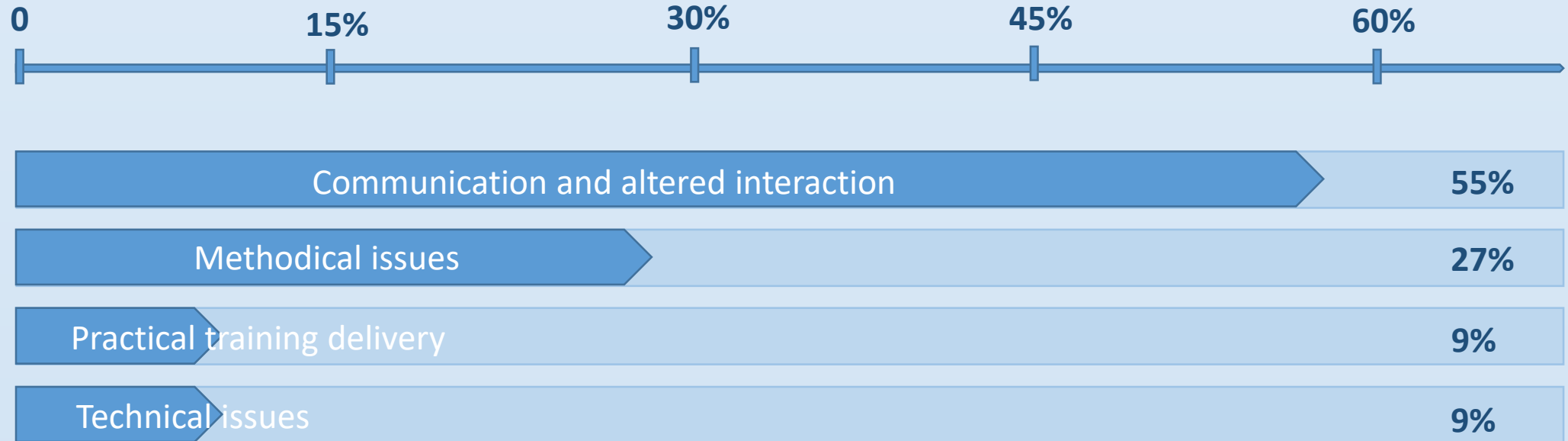
Students' difficulties during ERE, teachers' perceptions



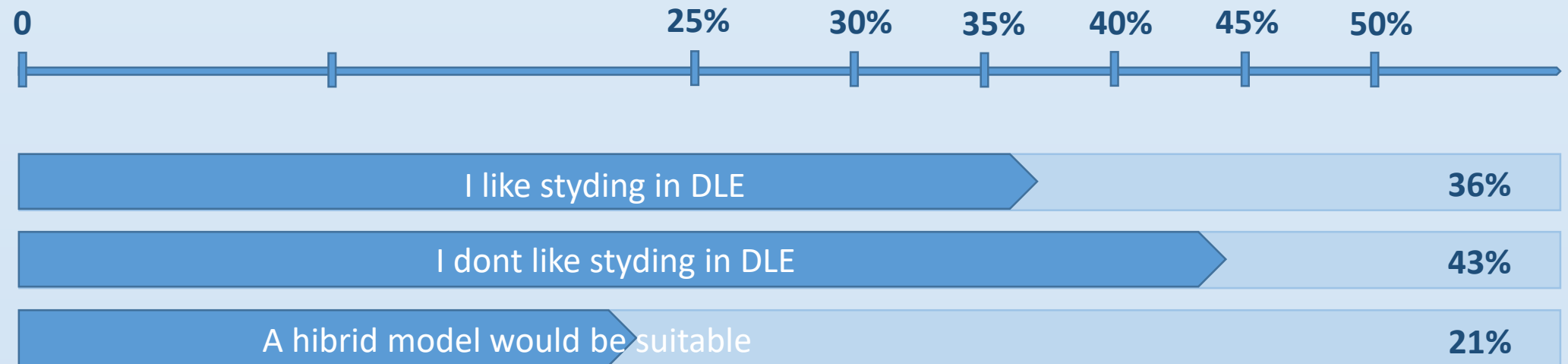
Difficulties of teachers during ERE, students' perceptions



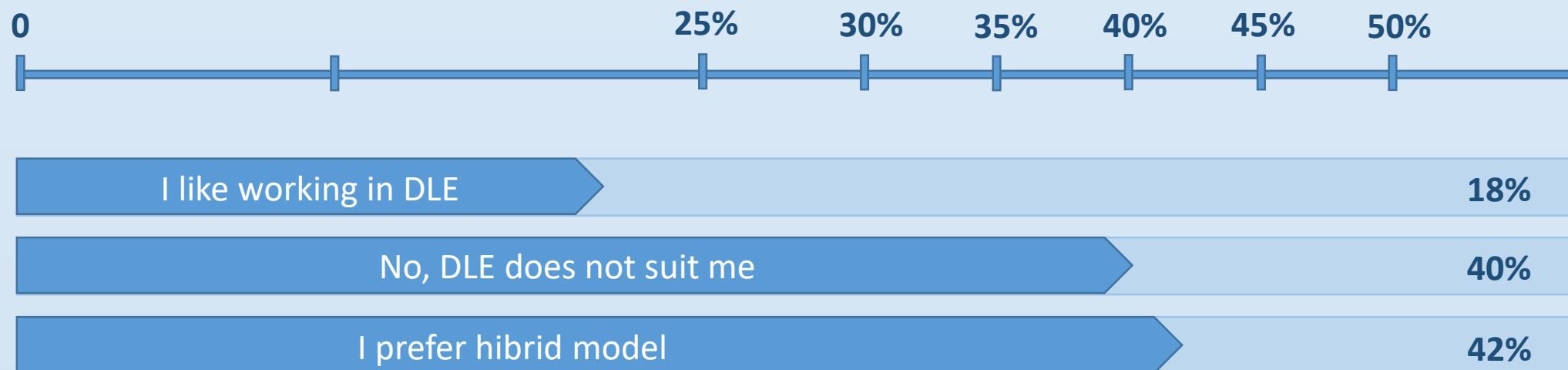
Difficulties of teachers during ERE, self-assessment



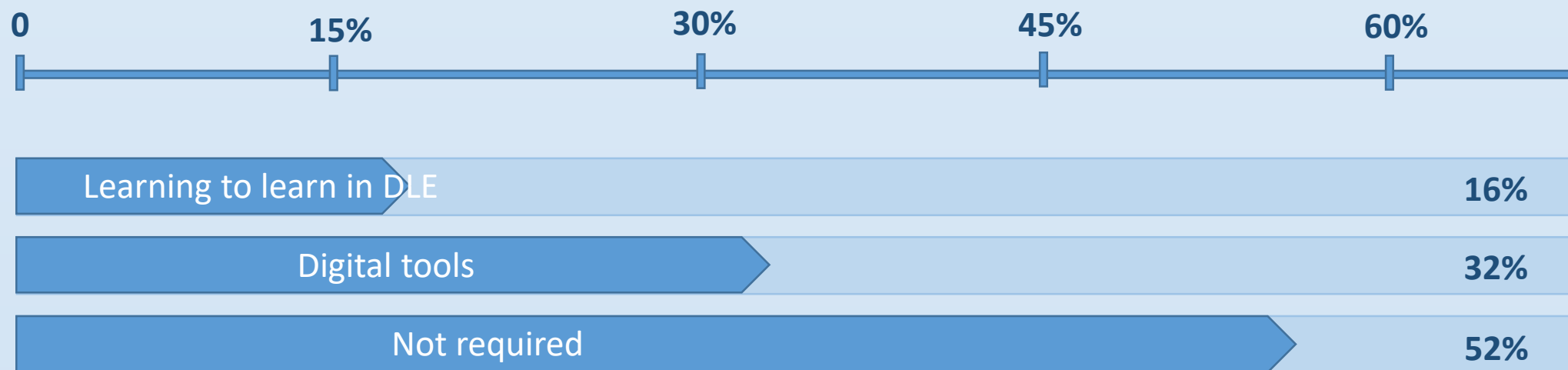
Students' attitudes towards DLE



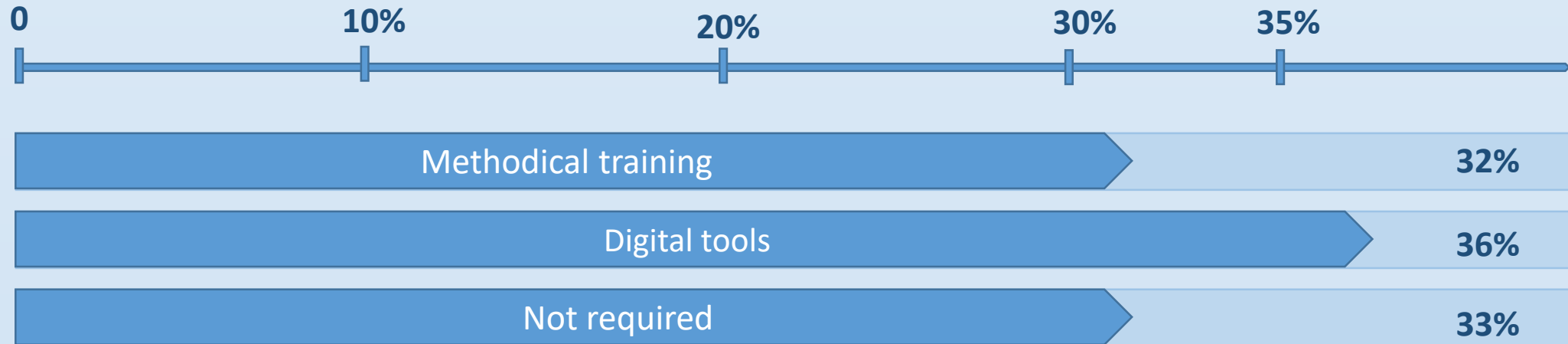
Teachers' attitudes towards DLE



Students' training needs



Teachers' training needs



CONCLUSIONS

1

The results of this survey suggest a rather positive perception of ERE delivered in Montenegro's HEIs during the COVID-19 pandemic bearing in mind a lack of previous experiences with DLE.

2

However, the hypothesis on the positive perceptions of realized ERE could not have been accepted as one of the auxiliary hypothesis (on concentration during the lectures) had a slightly lower average value in the students sample (2.95). In this regard, the results indicate that there was room for improvement of the quality of teaching and learning in DLE.

3

Assessing the difficulties of students and teachers during ERE, both subsamples pointed to similar codes, and the most common problems of students belonged to a group of psychological factors (concentration), factors concerning communication, and aspects related to the practical part of the teaching and learning. Teachers' difficulties also concern communication (more specifically – frequent lack of feedback), lack of teaching methodology skills for work in DLE, practical training delivery issues.

4

Both subsamples note that a hybrid teaching model can be functional in the future, provided that the practical aspect of the teaching is kept exclusively for in-person teaching.

Recommendations



organise training for students and teachers related to the psychological characteristics of teaching and learning in DLE;



prepare teachers for delivery of teaching in DLE in terms of teaching methods;



improve the organisation of teaching in DLE – define the schedule more clearly, improve the communication of institutions with students, students with teachers and within student groups;



practical training in almost all conditions should be delivered in-person, in small groups of students.

THANK YOU FOR YOUR ATTENTION

