



TeComp
Strengthening Teaching Competences
in Higher Education
in Natural and Mathematical Sciences

Co-funded by the
Erasmus+ Programme
of the European Union



**Unified questionnaire for students
on new/innovated courses
school year 2021/2022**

August 2022



| | |
|----------------------------------|--|
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QUESTIONNAIRE FOR STUDENTS

STRATEGY FOR TEACHING STUDENTS

Data on general characteristics of a sample

1. University you are studying on:
2. Faculty you are studying on:
3. Year of studies: a) first b) second c) third d) fourth e) fifth f) doctoral studies
4. Sex: a) male b) female

Remote teaching

New work conditions resulted in higher education teachers adapting their courses to remote teaching. Tell us how common are these different types of remote teaching on subjects you were listening to in this semester.

| | I did not meet this type of teaching | Rarely used type of teaching | Often used type of teaching | Dominant type of teaching |
|---|--------------------------------------|------------------------------|-----------------------------|---------------------------|
| Teachers pointed us towards the literature of the subject | 1 | 2 | 3 | 4 |
| Teachers published additional learning materials (for example videos, presentations, quizzes) to platforms such as Moodle or Google classroom | 1 | 2 | 3 | 4 |
| Teacher were available for consultations in regard to learning materials via email or other methods. | 1 | 2 | 3 | 4 |
| Teachers realized lectures via video conferencing apps (for example ZOOM) | 1 | 2 | 3 | 4 |

If you have experienced some other ways of realization for remote teaching, please state them:

Learning ambience

5. Did you change your learning ambience due to the innovation in study programmes?
1) Yes 2) No

6. In which way did the change in your teaching ambience impact your learning?
- 1) Made it significantly harder
 - 2) Made it slightly harder
 - 3) Did not make a great impact
 - 4) Made it a bit easier
 - 5) Made it significantly easier

If there was an impact on your learning activities, state three key changes that happened in your surroundings, that impacted your learning.

1. _____
2. _____
3. _____

Teaching contents

- 1) Some of the teachers adapted the teaching content to the current situation during the transition period, e.g., citing examples that are relevant to the current context, designing pre-exam tasks that are related to the current context. Did your teachers adapt the learning content to the current context?

- 1) Yes
- 2) No

If you said yes, state an example of content adaptation:

From your point of view, how would you rate that content adaptation?

| Adaptation of teaching contents to new methods | | | | | | |
|--|----|----|---|----|----|-----------------|
| Making easy | -2 | -1 | 0 | +1 | +2 | Making hard |
| Interesting | -2 | -1 | 0 | +1 | +2 | Not interesting |
| Useful | -2 | -1 | 0 | +1 | +2 | Useless |
| Makes sense | -2 | -1 | 0 | +1 | +2 | Makes no sense |
| Fun | -2 | -1 | 0 | +1 | +2 | Stressful |

Approach to teaching

Assess the demands of distance learning compared to regular classes. For each of the offered criteria, evaluate which learning approach is more demanding, requires more (regardless of whether it suits you personally) or makes no difference. Enter the number 1, 2 or 3 in the columns.

1. Remote teaching is harder; 2. Both approaches are equal in terms of difficulty; 3. Regular teaching is harder

| | Teaching/learning remotely is harder | Both approaches are equally difficult | Regular teaching is harder |
|--|--------------------------------------|---------------------------------------|----------------------------|
| Time required for realization of before-exam exercises | 1 | 2 | 3 |
| Reading/writing in realization of before-exam exercises | 1 | 2 | 3 |
| The amount of planning on-your-own in realization of before-exam exercises | 1 | 2 | 3 |
| The amount of on-your-own learning | 1 | 2 | 3 |
| Corrections of teaching approach | 1 | 2 | 3 |
| Managing learning different subjects | 1 | 2 | 3 |
| Using literature and other sources of information | 1 | 2 | 3 |
| Something else: | 1 | 2 | 3 |

Look back at the past period, which characteristics of remote teaching had positive effect of your teaching, and which had negative effects

Generally speaking, remote teaching compared to regular is:

1. Harder
2. Easier

Did the changes in realization method in this semester change your approach to learning?

1. Yes
2. No

If you answered yes, do you see those changes as negative or positive?

1. Positive
2. Negative

How do these changes manifest?

Motivation for learning

How would you rate your average motivation for learning during regular classes?

| Motivation for learning | | | | | | |
|-------------------------|----|----|---|----|----|-----|
| High | -2 | -1 | 0 | +1 | +2 | Low |

In which ways did you motivate yourself during regular classes?

How would you wage your motivation for learning during remote classes?

| Motivation for learning | | | | | | |
|-------------------------|----|----|---|----|----|-----|
| High | -2 | -1 | 0 | +1 | +2 | Low |

In which ways did you motivate yourself to learn during remote classes?

If there was a change in learning motivation, which factors impacted that?

Communication with teachers

Assess communication with teachers in regular teaching/learning and distance teaching/learning. For each of the indicators of communication with the teacher, evaluate how it was implemented in the two approaches to learning. Enter the number 1, 2 or 3 in the columns.

1. The indicator of communication with the teacher is more present in distance learning; 2. The indicator of communication with the teacher is more present in regular teaching 3. The indicator of communication with the teacher is equally present in both approaches to teaching/learning.

| | |
|---|---|
| | 1. Communication with teachers is more present during remote classes 2. Communication with teachers is more present during regular classes 3. Communication with teachers is equally present during all classes |
| Giving instructions to before-exam exercises | |
| Giving explanations important for teaching | |
| Consultations for group works | |
| Explanation of content without student requests | |
| Explanation of content on student requests | |
| Sharing additional material (videos, images, digital textbooks, parts of own scientific work, etc..) on modern learning platforms | |
| Giving feedback on finished exercises | |

RESULTS OF THE PROVIDED SURVEY

Moderators: Jelena Ignjatovic and Zorana Jancic

Evaluation of new teaching methods

The aim of the research is to determine how students adapted their learning strategies to the newly modernised subjects and teaching methods.

The research used an online questionnaire that was distributed to several universities in Serbia (Belgrade, Novi Sad, Niš, Kragujevac). 521 students from different faculties (Natural science-mathematical groups) participated in the research, for the school year 2021/2022.

Distribution across universities

| | |
|--------------------------|-------------|
| | |
| University of Belgrade | 248 (47,6%) |
| University of Novi Sad | 21 (4,03%) |
| University of Kragujevac | 211 (40,5%) |
| University of Niš | 30 (5,76%) |
| Some other university | 11 (2,11%) |

Distribution by the years of study

| | |
|-------------------|---------------|
| first | 154 (29,56 %) |
| second | 108 (20,73 %) |
| third | 113 (21,69 %) |
| fourth | 102 (19,58 %) |
| fifth | 34 (6,53 %) |
| sixth | 5 (0,96 %) |
| doctorial studies | 5 (0,96 %) |

Distribution by sex

| | |
|--------|---------------|
| Male | 152 (29,17 %) |
| Female | 369 (70,83 %) |

Literature availability:

1. Teachers pointed us towards available literature via email

| | |
|--|---------------|
| I did not encounter this way of teaching | 42 (8,06 %) |
| Rarely used method of teaching | 140 (26,87 %) |
| Often used method of teaching | 217 (41,65 %) |
| Dominant method of teaching | 122 (23,42 %) |

2. (Platform materials) Teachers published additional learning materials (e.g. videos, presentations, quizzes) on platforms such as, for example, Moodle, Google classroom

| | |
|--|---------------|
| I did not encounter this way of teaching | 41 (7,87 %) |
| Rarely used method of teaching | 149 (28,60 %) |
| Often used method of teaching | 210 (40,31 %) |
| Dominant method of teaching | 121 (23,22 %) |

3. (Mail consultations) Teachers were available for consultations regarding the material via e-mail or other means.

| | |
|--|---------------|
| I did not encounter this way of teaching | 24 (4,61 %) |
| Rarely used method of teaching | 75 (14,40 %) |
| Often used method of teaching | 240 (46,07 %) |
| Dominant method of teaching | 182 (34,93 %) |

4. (Video Conferences) The teachers conducted classes through video conference platforms (e.g. Zoom).

| | |
|--|---------------|
| I did not encounter this way of teaching | 52 (9,98 %) |
| Rarely used method of teaching | 145 (27,83 %) |
| Often used method of teaching | 167 (32,05 %) |
| Dominant method of teaching | 1570,13 %) |

(Learning ambience) Did the altering of the teaching process change your learning ambience?

| | |
|------------|---------------|
| Yes | 302 (57,97 %) |
| No | 219 (42,03 %) |

In which way did the change to ambience impact your learning?

| | |
|--------------------------------------|---------------|
| It made it significantly harder | 81 (15,55 %) |
| It made it slightly harder | 162 (31,09 %) |
| Did not make significant differences | 205 (39,35 %) |
| It made it slightly easier | 47 (9,02 %) |
| It made it significantly easier | 26 (4,99 %) |

Did your teachers adapt the subject content to implement new methods and tools?

| | |
|------------|---------------|
| Yes | 224 (42,99 %) |
| No | 2977,01 %) |

Adaptation of content difficulty) -2 Harder; +2 Easier

| | |
|-----------------|---------------|
| (-2) - 2 | 78 (14,97 %) |
| (-1) -1 | 89 (17,08 %) |
| (0) 0 | 155 (29,75 %) |
| (1) +1 | 105 (20,15 %) |
| (2) +2 | 58 (11,13 %) |

Average: -0,05

(Adaptation of content fun factor) -2 Boring; +2 Interesting

| | |
|-----------------|---------------|
| (-2) - 2 | 62 (11,90 %) |
| (-1) -1 | 69 (13,24 %) |
| (0) 0 | 166 (31,86 %) |
| (1) +1 | 123 (23,61 %) |
| (2) +2 | 68 (13,05 %) |

Average: 0,13

(Adaptation of content usefulness) -2 Useless; +2 Useful

| | |
|-----------------|-------------|
| (-2) - 2 | 38 (7,29 %) |
| (-1) -1 | 49 (9,40 %) |

| | |
|--------|---------------|
| (0) 0 | 150 (28,79 %) |
| (1) +1 | 161 (30,90 %) |
| (2) +2 | 88 (16,89 %) |

Average: 0,41

(Adaptation of content meaningfulness) -2 Meaningless; +2 Meaningfull

| | |
|----------|---------------|
| (-2) - 2 | 43 (8,25 %) |
| (-1) -1 | 46 (8,83 %) |
| (0) 0 | 135 (25,91 %) |
| (1) +1 | 164 (31,48 %) |
| (2) +2 | 96 (18,43 %) |

Average: 0,43

(Adaptation of content stress induction level) -2 Stressful; +2 Fun

| | |
|----------|---------------|
| (-2) - 2 | 131 (25,14 %) |
| (-1) -1 | 78 (14,97 %) |
| (0) 0 | 143 (27,45 %) |
| (1) +1 | 66 (12,67 %) |
| (2) +2 | 68 (13,05 %) |

Average: -0,26

Time required for before-exam excercises

| | |
|--|---------------|
| Online teaching is harder | 215 (41,27 %) |
| Oba pristupa nastavi su jednako zahtevna | 191 (36,66 %) |
| Normal teaching is harder | 115 (22,07 %) |

Demandingness - Reading/writing in the realization of pre-exam tasks

| | |
|----------------------------|---------------|
| Online teaching is harder | 207 (39,73 %) |
| Both are equally difficult | 219 (42,03 %) |
| Normal teaching is harder | 95 (18,23 %) |

Demandingness - Independence in planning learning activities

| | |
|---------------------------|---------------|
| Online teaching is harder | 195 (37,43 %) |
|---------------------------|---------------|

| | |
|----------------------------|---------------|
| Both are equally difficult | 210 (40,31 %) |
| Normal teaching is harder | 116 (22,26 %) |

Demandingness - Independence in learning

| | |
|----------------------------|---------------|
| Online teaching is harder | 219 (42,03 %) |
| Both are equally difficult | 221 (42,42 %) |
| Normal teaching is harder | 81 (15,55 %) |

Demanding - a correction of the learning approach is required

| | |
|----------------------------|---------------|
| Online teaching is harder | 197 (37,81 %) |
| Both are equally difficult | 259 (49,71 %) |
| Normal teaching is harder | 65 (12,48 %) |

Demanding - Coordinating the learning of different subjects

| | |
|----------------------------|---------------|
| Online teaching is harder | 169 (32,44 %) |
| Both are equally difficult | 237 (45,49 %) |
| Normal teaching is harder | 115 (22,07 %) |

Requirement - Use of literature and other sources

| | |
|----------------------------|---------------|
| Online teaching is harder | 193 (37,04 %) |
| Both are equally difficult | 238 (45,68 %) |
| Normal teaching is harder | 90 (17,27 %) |

Generally speaking, online teaching compared to regular is:

| | |
|-----------------------|---------------|
| More difficult | 284 (54,51 %) |
| Less difficult | 237 (45,49 %) |

Did the changes in the ways of realization of teaching change your approach to learning?

| | |
|-----------------|---------------|
| No | 238 (45,68 %) |
| Yes, positively | 151 (28,98 %) |
| Yes, negatively | 132 (25,34 %) |

How would you rate your average motivation for learning during your studies? (-2 low motivation; +2 high motivation)

| | |
|----------------|---------------|
| (-2) -2 | 50 (9,60 %) |
| (-1) -1 | 55 (10,56 %) |
| (0) 0 | 113 (21,69 %) |
| (1) +1 | 205 (39,35 %) |
| (2) +2 | 98 (18,81 %) |

Average: 0,47

How would you rate your motivation to learn in an online environment? (-2 low motivation; +2 high motivation)

| | |
|----------------|---------------|
| (-2) -2 | 134 (25,72 %) |
| (-1) -1 | 118 (22,65 %) |
| (0) 0 | 93 (17,85 %) |
| (1) +1 | 110 (21,11 %) |
| (2) +2 | 66 (12,67 %) |

Average: -0,28

| Regular teaching | Online teaching | | | | | | | | | | | | | | | | | | | | |
|---|----------------------|--------------|----------------|---------------|--------------|---------------|---------------|---------------|---------------|--------------|---|----------------|---------------|----------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
| -2 Tense; +2 Relaxed | -2 Tense; +2 Relaxed | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td>(-2) -2</td> <td>72 (13,82 %)</td> </tr> <tr> <td>(-1) -1</td> <td>108 (20,73 %)</td> </tr> <tr> <td>(0) 0</td> <td>113 (21,69 %)</td> </tr> <tr> <td>(1) +1</td> <td>161 (30,90 %)</td> </tr> <tr> <td>(2) +2</td> <td>67 (12,86 %)</td> </tr> </table> <p>Average: 0,08</p> | (-2) -2 | 72 (13,82 %) | (-1) -1 | 108 (20,73 %) | (0) 0 | 113 (21,69 %) | (1) +1 | 161 (30,90 %) | (2) +2 | 67 (12,86 %) | <table border="1"> <tr> <td>(-2) -2</td> <td>108 (20,73 %)</td> </tr> <tr> <td>(-1) -1</td> <td>94 (18,04 %)</td> </tr> <tr> <td>(0) 0</td> <td>79 (15,16 %)</td> </tr> <tr> <td>(1) +1</td> <td>116 (22,26 %)</td> </tr> <tr> <td>(2) +2</td> <td>124 (23,80 %)</td> </tr> </table> <p>Average: 0,10</p> | (-2) -2 | 108 (20,73 %) | (-1) -1 | 94 (18,04 %) | (0) 0 | 79 (15,16 %) | (1) +1 | 116 (22,26 %) | (2) +2 | 124 (23,80 %) |
| (-2) -2 | 72 (13,82 %) | | | | | | | | | | | | | | | | | | | | |
| (-1) -1 | 108 (20,73 %) | | | | | | | | | | | | | | | | | | | | |
| (0) 0 | 113 (21,69 %) | | | | | | | | | | | | | | | | | | | | |
| (1) +1 | 161 (30,90 %) | | | | | | | | | | | | | | | | | | | | |
| (2) +2 | 67 (12,86 %) | | | | | | | | | | | | | | | | | | | | |
| (-2) -2 | 108 (20,73 %) | | | | | | | | | | | | | | | | | | | | |
| (-1) -1 | 94 (18,04 %) | | | | | | | | | | | | | | | | | | | | |
| (0) 0 | 79 (15,16 %) | | | | | | | | | | | | | | | | | | | | |
| (1) +1 | 116 (22,26 %) | | | | | | | | | | | | | | | | | | | | |
| (2) +2 | 124 (23,80 %) | | | | | | | | | | | | | | | | | | | | |

| Regular teaching | Online teaching | | | | | | | | | | | | | | | | | | | | | | |
|---|-----------------------|-------------|----------------|-------------|--------------|---------------|--|---------------|---------------|--|---------------|--------------|--|----------------|--------------|----------------|--------------|--------------|---------------|---------------|---------------|---------------|--------------|
| -2 Angry; +2 Peaceful | -2 Angry; +2 Peaceful | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td>(-2) -2</td> <td>31 (5,95 %)</td> </tr> <tr> <td>(-1) -1</td> <td>42 (8,06 %)</td> </tr> <tr> <td>(0) 0</td> <td>190 (36,47 %)</td> </tr> <tr> <td></td> <td>172 (33,01 %)</td> </tr> <tr> <td>(1) +1</td> <td></td> </tr> <tr> <td>(2) +2</td> <td>86 (16,51 %)</td> </tr> </table> <p>Average: 0,46</p> | (-2) -2 | 31 (5,95 %) | (-1) -1 | 42 (8,06 %) | (0) 0 | 190 (36,47 %) | | 172 (33,01 %) | (1) +1 | | (2) +2 | 86 (16,51 %) | <table border="1"> <tr> <td>(-2) -2</td> <td>71 (13,63 %)</td> </tr> <tr> <td>(-1) -1</td> <td>65 (12,48 %)</td> </tr> <tr> <td>(0) 0</td> <td>161 (30,90 %)</td> </tr> <tr> <td>(1) +1</td> <td>131 (25,14 %)</td> </tr> <tr> <td>(2) +2</td> <td>93 (17,85 %)</td> </tr> </table> <p>Average: 0,21</p> | (-2) -2 | 71 (13,63 %) | (-1) -1 | 65 (12,48 %) | (0) 0 | 161 (30,90 %) | (1) +1 | 131 (25,14 %) | (2) +2 | 93 (17,85 %) |
| (-2) -2 | 31 (5,95 %) | | | | | | | | | | | | | | | | | | | | | | |
| (-1) -1 | 42 (8,06 %) | | | | | | | | | | | | | | | | | | | | | | |
| (0) 0 | 190 (36,47 %) | | | | | | | | | | | | | | | | | | | | | | |
| | 172 (33,01 %) | | | | | | | | | | | | | | | | | | | | | | |
| (1) +1 | | | | | | | | | | | | | | | | | | | | | | | |
| (2) +2 | 86 (16,51 %) | | | | | | | | | | | | | | | | | | | | | | |
| (-2) -2 | 71 (13,63 %) | | | | | | | | | | | | | | | | | | | | | | |
| (-1) -1 | 65 (12,48 %) | | | | | | | | | | | | | | | | | | | | | | |
| (0) 0 | 161 (30,90 %) | | | | | | | | | | | | | | | | | | | | | | |
| (1) +1 | 131 (25,14 %) | | | | | | | | | | | | | | | | | | | | | | |
| (2) +2 | 93 (17,85 %) | | | | | | | | | | | | | | | | | | | | | | |

| Regular teaching | | Online teaching | |
|--------------------------|---------------|--------------------------|---------------|
| -2 Away; +2 Concentrated | | -2 Away; +2 Concentrated | |
| (-2) -2 | 64 (12,28 %) | (-2) -2 | 132 (25,34 %) |
| (-1) -1 | 85 (16,31 %) | (-1) -1 | 124 (23,80 %) |
| (0) 0 | 104 (19,96 %) | (0) 0 | 86 (16,51 %) |
| (1) +1 | 193 (37,04 %) | (1) +1 | 114 (21,88 %) |
| (2) +2 | 75 (14,40 %) | (2) +2 | 65 (12,48 %) |
| Average: 0,25 | | Average: -0,28 | |

| Regular teaching | | Online teaching | |
|------------------------|---------------|------------------------|---------------|
| -2 Tired; +2 Energetic | | -2 Tired; +2 Energetic | |
| (-2) -2 | 108 (20,73 %) | (-2) -2 | 114 (21,88 %) |
| (-1) -1 | 138 (26,49 %) | (-1) -1 | 85 (16,31 %) |
| (0) 0 | 127 (24,38 %) | (0) 0 | 148 (28,41 %) |
| (1) +1 | 107 (20,54 %) | (1) +1 | 112 (21,50 %) |
| (2) +2 | 41 (7,87 %) | (2) +2 | 62 (11,90 %) |
| Average: -0,32 | | Average: -0,15 | |

| Regular teaching | | Online teaching | |
|------------------------|---------------|------------------------|---------------|
| -2 Warned; +2 Careless | | -2 Warned; +2 Careless | |
| (-2) -2 | 75 (14,40 %) | (-2) -2 | 124 (23,80 %) |
| (-1) -1 | 129 (24,76 %) | (-1) -1 | 114 (21,88 %) |
| (0) 0 | 162 (31,09 %) | (0) 0 | 105 (20,15 %) |
| (1) +1 | 106 (20,35 %) | (1) +1 | 95 (18,23 %) |
| (2) +2 | 49 (9,40 %) | (2) +2 | 83 (15,93 %) |
| Average: -0,14 | | Average: -0,19 | |

| Regular teaching | | Online teaching | |
|---------------------------------|---------------|---------------------------------|---------------|
| -2 Not willing; +2 Enthusiastic | | -2 Not willing; +2 Enthusiastic | |
| (-2) -2 | 66 (12,67 %) | (-2) -2 | 111 (21,31 %) |
| (-1) -1 | 70 (13,44 %) | (-1) -1 | 96 (18,43 %) |
| (0) 0 | 160 (30,71 %) | (0) 0 | 134 (25,72 %) |
| (1) +1 | 165 (31,67 %) | (1) +1 | 119 (22,84 %) |
| (2) +2 | 60 (11,52 %) | (2) +2 | 61 (11,71 %) |

| | |
|----------------------|-----------------------|
| Average: 0,16 | Average: -0,15 |
|----------------------|-----------------------|

| Regular teaching | Online teaching |
|-------------------------|-------------------------|
| -2 Bored; +2 Interested | -2 Bored; +2 Interested |
| (-2) -2 41 (7,87 %) | (-2) -2 96 (18,43 %) |
| (-1) -1 46 (8,83 %) | (-1) -1 70 (13,44 %) |
| (0) 0 106 (20,35 %) | (0) 0 123 (23,61 %) |
| (1) +1 204 (39,16 %) | (1) +1 151 (28,98 %) |
| (2) +2 124 (23,80 %) | (2) +2 81 (15,55 %) |
| Average: 0,62 | Average: 0,10 |

| Regular teaching | Online teaching |
|-----------------------|-----------------------|
| -2 Nervous; +2 Calm | -2 Nervous; +2 Calm |
| (-2) -2 76 (14,59 %) | (-2) -2 112 (21,50 %) |
| (-1) -1 110 (21,11 %) | (-1) -1 92 (17,66 %) |
| (0) 0 149 (28,60 %) | (0) 0 116 (22,26 %) |
| (1) +1 118 (22,65 %) | (1) +1 92 (17,66 %) |
| (2) +2 68 (13,05 %) | (2) +2 109 (20,92 %) |
| Average: -0,02 | Average: -0,01 |

1. Giving instructions for before-exam exercises

| | |
|---|---------------|
| More pronounced in online teaching | 107 (20,54 %) |
| More pronounced in regular teaching | 162 (31,09 %) |
| Equally pronounced in both approaches to teaching/learning. | 252 (48,37 %) |

2. Giving important notifications and organization news

| | |
|---|---------------|
| More pronounced in online teaching | 139 (26,68 %) |
| More pronounced in regular teaching | 142 (27,26 %) |
| Equally pronounced in both approaches to teaching/learning. | 240 (46,07 %) |

3. Consulting on group work

| | |
|---|---------------|
| More pronounced in online teaching | 83 (15,93 %) |
| More pronounced in regular teaching | 193 (37,04 %) |
| Equally pronounced in both approaches to teaching/learning. | 245 (47,02 %) |

4. Content explanation without student requests

| | |
|---|---------------|
| More pronounced in online teaching | 114 (21,88 %) |
| More pronounced in regular teaching | 219 (42,03 %) |
| Equally pronounced in both approaches to teaching/learning. | 188 (36,08 %) |

5. Content explanation on student requests

| | |
|---|---------------|
| More pronounced in online teaching | 105 (20,15 %) |
| More pronounced in regular teaching | 136 (26,10 %) |
| Equally pronounced in both approaches to teaching/learning. | 280 (53,74 %) |

6. Sharing of additional materials (video clips, additional interesting things related to the teaching content, articles from scientific journals, etc.)

| | |
|---|---------------|
| More pronounced in online teaching | 293 (56,24 %) |
| More pronounced in regular teaching | 57 (10,94 %) |
| Equally pronounced in both approaches to teaching/learning. | 171 (32,82 %) |

7. Giving feedback for finished exercises

| | |
|---|---------------|
| More pronounced in online teaching | 171 (32,82 %) |
| More pronounced in regular teaching | 110 (21,11 %) |
| Equally pronounced in both approaches to teaching/learning. | 240 (46,07 %) |

The findings suggest that students have experienced the on-line learning as more demanding in comparison to face-to-face learning/teaching, indicating insufficient support from the HEIs in the process of transition from the 'normal' to the 'new normal'. On-line learning, student wellbeing, motivation for learning, and learning outcomes are enhanced by increasing the availability of HE support services. Moreover, HEIs aimed for increasing knowledge on the pedagogical and psychological aspects of teaching and learning is positively accepted by students. During the project we identified the knowledge gaps, limited resources, rigid structures of the educational systems, and underdeveloped parts of the social network in Serbia and Albania. It helped a lot in modernisation of study programmes. No significant results can be recognised still but it is early and we hope that through future generations situation will be much better.



Engagement of wide range of stakeholders, with the particular emphasis on students' engagement, is not important just at the data collection and systematization stage, but throughout the decision-making process related to the future interventions, its' implementation and monitoring. Moreover, it could be a step towards the intentional and planned long-term transformation of HE towards more resilient and more innovative HEIs.



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in Higher Education
in Natural and Mathematical Sciences

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