

# Report on students survay 

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Strengthening Teaching Competences
in Higher Education in Natural and

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WP1 - Preparation for strengthening teaching competences in the field of natural sciences and mathematics at the PC HEIs

P5- "Eqrem Çabej" University Gjirokastër ECUG
Quantitative analysis of teaching competences of young, newly hired university lecturers at the PC HEls

Detailed analysis of the use of modern educational technologies in teaching and learning at the PC HEls
v. 02

Final Draft
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Strengthening Teaching Competences in Higher Education in Natural and

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[^0]
## University in Serbia

## Structure of the sample

The questionnaire consisted of 79 questions. Respondents who answered less than 35 questions (in total 4 respondents) were excluded from the sample. The total number of questionnaires that were considered was 397. The survey was conducted electronically in April and May 2019.

Note: The average number of responses per questionnaire is 77.2 . Due to the small number of missing data, no filling was done, but the analysis was based directly on the answers given by students.

The questionnaire was filled out by students of four state universities: 185 students (making $46.6 \%$ of the sample) from the University of Belgrade, 47 students ( $11.8 \%$ of the sample) from the University of Kragujevac, 77 students (21.4\%) from the University of Nis and 80 (20.2\%) from the University of Novi Sad.

Note: The results in the reports are presented collectively for all four universities and the abbreviations (SRB) for the joint results are shown in the tables in black. In addition to the aggregated results, the results for each individual university were also given. The abbreviation BG was used for the University of Belgrade, and the results are shown in gray. The University of Kragujevac is marked with KG and in green color, the University of Niš with NIS and red color, and the University of Novi Sad with NS and blue.

The structure of the sample is based on gender, area of study, level of studies and year of studies is given in Tables 1-4. The charts are given for the whole sample, i.e., for SRB.

Strengthening Teaching Competences


Strengthening Teaching Competences

| Year | SRB | SRB\% | BG | BG $\%$ | KG | KG $\%$ | NIS | NIS\% | NS | NS\% |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1st | $\mathbf{1 5 1}$ | $\mathbf{3 8 . 0 \%}$ | 65 | $35.1 \%$ | 16 | $34.0 \%$ | 62 | $72.9 \%$ | 8 | $10.0 \%$ |
| 2nd | $\mathbf{8 5}$ | $\mathbf{2 1 . 4 \%}$ | 41 | $22.2 \%$ | 5 | $10.6 \%$ | 16 | $18.8 \%$ | 23 | $28.8 \%$ |
| 3rd | $\mathbf{6 8}$ | $\mathbf{1 7 . 1 \%}$ | 31 | $16.8 \%$ | 6 | $12.8 \%$ | 3 | $3.5 \%$ | 28 | $35.0 \%$ |
| 4th | $\mathbf{6 3}$ | $\mathbf{1 5 . 9 \%}$ | 29 | $15.7 \%$ | 19 | $40.4 \%$ | 3 | $3.5 \%$ | 12 | $15.0 \%$ |
| 5th | $\mathbf{3 0}$ | $\mathbf{7 . 6 \%}$ | 19 | $10.3 \%$ | 1 | $2.1 \%$ | 1 | $1.2 \%$ | 9 | $11.3 \%$ |

Table 4: Year of studies


## Evaluation of weekly engagement

|  | SRB |  | BG |  | KG |  | NIS |  | NS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Activity | average <br> hours | SD ${ }^{1}$ | average hours | SD | average <br> hours | SD | average <br> hours | SD | average <br> hours | SD |
| Presence at classes (lectures and exercises) | 12.91 | 8.06 | 12.11 | 7.93 | 17.39 | 7.74 | 12.69 | 7.45 | 12.37 | 8.49 |
| Creating homework and other activities | 4.75 | 5.16 | 4.80 | 4.86 | 4.07 | 3.59 | 4.00 | 4.96 | 5.81 | 6.49 |
| Self-study | 12.49 | 9.81 | 13.08 | 10.40 | 9.39 | 7.43 | 14.28 | 9.87 | 11.06 | 9.16 |
| Work (learning) with other students | 2.13 | 2.78 | 2.09 | 3.06 | 2.82 | 3.11 | 1.68 | 2.30 | 2.31 | 2.29 |
| Other activities that are realized at the faculty | 1.58 | 3.98 | 1.39 | 2.80 | 1.40 | 1.77 | 1.03 | 2.27 | 2.68 | 7.10 |
| Total | 33.61 | 18.27 | 31.75 | 18.92 | 33.50 | 17.66 | 32.80 | 16.52 | 34.10 | 19.11 |

${ }^{1}$ SD - standard deviation
Table 5: distribution of weekly engagement

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CONCLUSION: Looking at the total engagement of students, we notice that they have estimated their load at about 34 hours, which is slightly less than the anticipated load of 40 hours. However, a standard deviation of 18.27 hours indicates that student self-assessment is in a wide range (Figure 6). The largest number of students (one-fourth of the students) estimated their weekly workload in the range of 20 to 30 hours. The two activities taking most of the time are Presence at classes (lectures and exercises) and Self-study (Table 5 and Figure 5).

## Courses in methodology

|  | SRB |  | BG |  | KG |  | NIS |  | NS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| course | YES | NO | YES | NO | YES | NO | YES | NO | YES | NO |
| Electronic learning methodology | 88 | 307 | 24 | 161 | 12 | 34 | 13 | 72 | 39 | 40 |
| Teaching methods | 102 | 293 | 24 | 161 | 14 | 32 | 17 | 68 | 47 | 32 |

Table 6a: Absolute frequency of students who listened (or not) two courses in the methodology

|  | SRB\% |  | BG\% |  | KG\% |  | NIS\% |  | NS\% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| course | YES | NO | YES | NO | YES | NO | YES | NO | YES | NO |

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| Electronic learning methodology | $\mathbf{2 2 . 2 8 \%}$ | $\mathbf{7 7 . 7 2 \%}$ | $12.97 \%$ | $87.03 \%$ | $26.09 \%$ | $73.91 \%$ | $15.29 \%$ | $84.71 \%$ | $49.37 \%$ | $50.63 \%$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Teaching methods | $\mathbf{2 5 . 8 2 \%}$ | $\mathbf{7 4 . 1 8 \%}$ | $12.97 \%$ | $87.03 \%$ | $30.43 \%$ | $69.57 \%$ | $20.00 \%$ | $80.00 \%$ | $59.49 \%$ | $40.51 \%$ |

Table 6b: Percentage of students who listened (or not) two courses in the methodology


Figure 7a


Figure 7b
CONCLUSION: The answers to this question are in direct correlation with the study program and with the year of studies. Courses in the field of methodology are mandatory for teacher education programs. This is also the reason for the rather unevenness of the universities.

Types of disciplines of e-learning methodologies (which you had the opportunity to study at the studies)

|  | SRB |  | BG |  | KG |  | NIS |  | NS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| area | YES | NO | YES | NO | YES | NO | YES | NO | YES | NO |
| Electronic publishing (Latex, HTML, XML, PDF, and so on) | 151 | 223 | 45 | 128 | 29 | 14 | 28 | 52 | 49 | 29 |
| Online Technology in Teaching | 100 | 274 | 30 | 143 | 7 | 36 | 18 | 62 | 45 | 33 |
| Open-source software (MOODLE, Python, GeoGebra, MOOC, and so on) | 127 | 248 | 20 | 154 | 24 | 19 | 24 | 56 | 59 | 19 |
| I've never heard of any of these disciplines | 109 | 262 | 66 | 109 | 7 | 32 | 30 | 51 | 6 | 70 |

Table 7a: Absolute frequency of students

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|  | SRB\% |  | BG\% |  | KG\% |  | NIS\% |  | NS\% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| area | YES | NO | YES | NO | YES | NO | YES | NO | YES | NO |
| Electronic publishing (Latex, HTML, XML, PDF, and so on) | 40.37\% | 59.63\% | 26.01\% | 73.99\% | 67.44\% | 32.56\% | 35.00\% | 65.00\% | 62.82\% | 37.18\% |
| Online Technology in Teaching | 26.74\% | 73.26\% | 17.34\% | 82.66\% | 16.28\% | 83.72\% | 22.50\% | 77.50\% | 57.69\% | 42.31\% |
| Open-source software (MOODLE, Python, GeoGebra, MOOC, and so on) | 33.87\% | 66.13\% | 11.49\% | 88.51\% | 55.81\% | 44.19\% | 30.00\% | 70.00\% | 75.64\% | 24.36\% |
| I've never heard of any of these disciplines | 29.38\% | 70.62\% | 37.71\% | 62.29\% | 17.95\% | 82.05\% | 37.04\% | 62.96\% | 7.89\% | 92.11\% |

Table 7b: Percentage of students


Figure 8
CONCLUSION: The answers to this question largely depend on the field of study. Thus, students in the field of computer science and mathematics (KG, NS) answered these questions with YES, while students in other areas dominantly responded with NO

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You attended at least one English language lecture in your area of study. If yes, indicate when and where?

| SRB |  | BG |  | KG |  | NIS |  | NS |  |
| :---: | :--- | :---: | :--- | :---: | :---: | :---: | :--- | :--- | :--- |
| YES | $\%$ | YES | $\%$ | YES | $\%$ | YES | $\%$ | YES | $\%$ |
| 84 | $22.11 \%$ | 54 | $29.51 \%$ | 8 | $17.78 \%$ | 8 | $11.11 \%$ | 14 | $17.5 \%$ |

Table 8
Did you have opportunity to attend a course (or part of a course) that was realized on an electronic platform? If yes, please indicate on which platform

| SRB |  | BG |  | KG |  | NIS |  | NS |  |
| :---: | :--- | :---: | :--- | :---: | :---: | :---: | :--- | :---: | :--- |
| YES | $\%$ | YES | $\%$ | YES | $\%$ | YES | $\%$ | YES | $\%$ |
| 52 | $13.65 \%$ | 20 | $10.87 \%$ | 2 | $4.35 \%$ | 10 | $13.89 \%$ | 21 | $26.6 \%$ |

Table 9


Figure 9

CONCLUSION: The data show that students had very little experience in attending classes in English. Less than $1 / 4$ said they attended a lecture in English, and in most cases, it was one time only. Even more unfavorable situation is in attending a course on an electronic platform. This experience had less than $1 / 6$. Among students who have had the opportunity to attend online courses are mostly students of computer science.

New technologies - electronic materials (presentations), animations / films, online learning platforms, web conferences
Attitudes about the use of new technologies in teaching
Respondents answered how much the following claims are true for them on the five-level Lihter scale (1-It's not true at all; 2 - It's not true in general; 3-Equally true and not true; 4 - Generally true; 5. - Totally true).

| notation | statements |
| :---: | :--- |
| a1 | Using new technologies in teaching motivates students to get involved more actively in the learning process. |
| a2 | The use of new technologies in teaching helps students to acquire new knowledge more effectively. |
| a3 | Using modern technologies in higher education allows students to be more creative and imaginative. |
| a4 | The use of new technologies in teaching promotes the development of students' interpersonal skills (i.e., the ability to talk and work with others). |
| a5 | The use of modern technologies increases students' self-confidence to be more active at lessons. |
| a6 | Using the online platform allows students easier and faster access to relevant information. |
| a7 | Using the online learning platform contributes to the realization of the individualization of teaching. |
| a8 | The use of new technologies in teaching and learning is the essence of preparing students to live and work in the 21st century. |

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| a9 | Students are more respected by teachers who use modern teaching technologies. |
| :---: | :---: |
| a10 | It is very important that teachers are open to communicating with students through social networks (Facebook, Twitter, etc.). |
| a11 | Using the online learning platform reduces the amount of stress and nervousness of students. |
| a12 | The use of modern teaching technologies makes students less interested in the content of lessons. |


|  |  | a1 | a2 | a3 | a4 | a5 | a6 | a7 | a8 | a9 | a10 | a11 | a12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\stackrel{\infty}{\stackrel{\infty}{\sim}}$ | Average | 3.78 | 3.95 | 3.75 | 3.66 | 3.27 | 4.40 | 3.87 | 4.14 | 3.07 | 3.04 | 3.10 | 2.49 |
|  | Median | 4 | 4 | 4 | 4 | 3 | 5 | 4 | 4 | 3 | 3 | 3 | 2 |
|  | Mode | 4 | 4 | 4 | 4 | 3 | 5 | 4 | 5 | 3 | 3 | 3 | 2 |
| ৩৫ | Average | 3.68 | 3.92 | 3.59 | 3.45 | 3.08 | 4.43 | 3.87 | 4.01 | 3.09 | 2.78 | 3.03 | 2.35 |
|  | Median | 4 | 4 | 4 | 4 | 3 | 5 | 4 | 4 | 3 | 3 | 3 | 2 |
|  | Mode | 4 | 4 | 4 | 4 | 3 | 5 | 4 |  | 3 | 2 | 3 | 2 |
| ソ | Average | 3.53 | 3.83 | 3.64 | 3.54 | 3.43 | 4.16 | 3.65 | 4.22 | 3.00 | 3.23 | 3.15 | 2.53 |
|  | Median | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 5 | 3 | 3 | 3 | 3 |
|  | Mode |  | 4 | 4 | 4 | 3 | 5 | 4 | 5 | 3 | 3 | 3 | 1 |
| $\frac{n}{z}$ | Average | 3.96 | 4.02 | 3.92 | 3.94 | 3.35 | 4.41 | 3.77 | 4.21 | 3.05 | 3.33 | 3.24 | 2.63 |
|  | Median | 4 | 4 | 4 | 4 | 3 | 5 | 4 | 4 | 3 | 3 | 3 | 2.5 |
|  | Mode | 4 | 4 | 4 | 4 | 3 | 5 | 4 | 5 | 3 | 3 | 3 | 2 |
| $n$ | Average | 3.98 | 4.01 | 4.01 | 3.93 | 3.56 | 4.48 | 4.08 | 4.35 | 3.1 | 3.23 | 3.08 | 2.62 |
|  | Median | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 5 | 3 | 3 | 3 | 2 |
|  | Mode | 4 | 4 | 4 | 4 | 3 | 5 | 4 | 5 | 3 | 4 | 3 | 2 |



Figure 10
Table 10: Mean response values of the respondents

|  | SRB |  |  |  |  | BG |  |  |  |  | KG |  |  |  |  | NIS |  |  |  |  | NS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 |
| a1 | 9 | 27 | 89 | 188 | 84 | 5 | 14 | 45 | 92 | 29 | 3 | 5 | 14 | 14 | 11 | 0 | 4 | 17 | 42 | 22 | 1 | 4 | 13 | 40 | 22 |
| a2 | 6 | 20 | 76 | 181 | 114 | 4 | 12 | 31 | 86 | 52 | 1 | 4 | 9 | 21 | 12 | 0 | 0 | 21 | 41 | 23 | 1 | 4 | 15 | 33 | 27 |
| a3 | 13 | 24 | 114 | 141 | 103 | 9 | 15 | 57 | 65 | 39 | 3 | 3 | 14 | 15 | 12 | 0 | 4 | 23 | 33 | 24 | 1 | 2 | 20 | 28 | 28 |
| a4 | 11 | 35 | 114 | 152 | 84 | 6 | 24 | 62 | 66 | 27 | 2 | 7 | 11 | 16 | 10 | 1 | 2 | 24 | 32 | 26 | 2 | 2 | 17 | 38 | 21 |
| a5 | 20 | 67 | 148 | 103 | 56 | 11 | 46 | 64 | 44 | 19 | 3 | 7 | 14 | 11 | 11 | 3 | 10 | 39 | 20 | 13 | 3 | 4 | 31 | 28 | 13 |

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| a6 | 3 | 13 | 29 | 125 | 222 | 3 | 3 | 10 | 64 | 103 | 0 | 5 | 5 | 13 | 22 | 0 | 3 | 9 | 23 | 50 | 0 | 2 | 5 | 25 | 47 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| a7 | 7 | 24 | 94 | 156 | 111 | 4 | 12 | 39 | 76 | 52 | 3 | 3 | 12 | 17 | 11 | 0 | 6 | 28 | 29 | 21 | 0 | 3 | 15 | 34 | 27 |
| a8 | 7 | 19 | 57 | 137 | 172 | 3 | 15 | 29 | 68 | 69 | 2 | 2 | 5 | 12 | 25 | 1 | 0 | 17 | 28 | 38 | 1 | 2 | 6 | 29 | 40 |
| a9 | 54 | 62 | 136 | 85 | 57 | 25 | 31 | 58 | 42 | 28 | 8 | 6 | 16 | 12 | 5 | 11 | 11 | 38 | 11 | 13 | 10 | 14 | 24 | 20 | 11 |
| a10 | 61 | 80 | 102 | 83 | 68 | 36 | 47 | 46 | 29 | 25 | 7 | 6 | 13 | 11 | 10 | 9 | 11 | 27 | 19 | 19 | 9 | 16 | 16 | 24 | 14 |
| a11 | 49 | 67 | 133 | 89 | 57 | 29 | 30 | 59 | 39 | 27 | 4 | 11 | 14 | 10 | 8 | 7 | 13 | 33 | 17 | 15 | 9 | 13 | 27 | 23 | 7 |
| a12 | 79 | 136 | 110 | 46 | 23 | 40 | 70 | 51 | 15 | 8 | 15 | 7 | 13 | 9 | 3 | 13 | 29 | 24 | 12 | 6 | 11 | 30 | 22 | 10 | 6 |

Table 11: Distribution of the responses to the twelve observed claims
CONCLUSION: The students had the highest agreement (the average grade above 4) in relation to the claims a6 (Using the online platform allows students easier and faster access to relevant information.) and a8 (The use of new technologies in teaching and learning is the essence of preparing the students to live and work in the 21 st century.) The least agreement (the average score below 2.5) was shown by students in relation to the claim a12 (The use of modern teaching technologies makes students less interested in the content of lessons.) Students showed relatively low agreement (average grade of about 3) with claims a9 (Students are more respected by teachers who use modern teaching technologies), a10 (It is very important that teachers are open to communicating with students through social networks (Facebook, Twitter, etc.)) and a11 (Using the online learning platform reduces the amount of stress and nervousness of students).

The second group of consisted of statements about the use of modern technologies by teachers. The students assessed for how many teachers the statement is true, using the phrases: none of the teachers, a few teachers, majority of teachers, and all the teachers.

| notation | statement |
| :---: | :---: |
| b1 | Students can communicate with teachers via forums or other forms of online communication. |
| b2 | Teachers are open to communicating with students via social networks (Facebook, Twitter, etc.). |
| b3 | Teachers set test results, give assignments, and share other useful information with students online. |
| b4 | Teachers use electronic test systems to test students. |
| b5 | Teachers share with students electronic textbooks and use multimedia software and learning platforms (Moodle for example). |
| b6 | In the classes teachers use electronic material (presentations, animations / films, etc.) as teaching material. |
| b7 | Teachers encourage us to use electronic books, electronic textbooks, and other online educational materials. |
| b8 | Teachers encourage students to use online courses as educational materials. |
| b9 | Teachers use online learning platforms at their classes. |
| b10 | Teachers encourage students to work in teams, form groups, and discussion forums. |
| b11 | Students are given instructions on how to use online tools, learning platforms, and other electronic resources to help them complete their tasks more easily. |
| b12 | Teachers create online tests to ease student self-examination and enable them to check their own knowledge. |

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| b13 | Students get ready answers to questions from tests through online communication tools. |
| :--- | :--- |
| b14 | Teachers expect students to use collaborative software to communicate with them and other students (Google Docs, Wikis, etc.). |
| b15 | During classes, teachers use web conferences as teaching materials. |


|  | SRB |  |  |  |  | BG |  |  | KG |  |  |  |  | NIS |  |  | NS |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No one of teachers |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| b1 | 8.6\% | 31.4\% | 38.7\% | 21.3\% | 13.5\% | 36.8\% | 38.4\% | 11.4\% | 8.5\% | 29.8\% | 31.9\% | 29.8\% | 3.6\% | 29.8\% | 34.5\% | 32.1\% | 2.5\% | 21.5\% | 48.1\% | 27.8\% |
| b2 | 43.1\% | 40.6\% | 12.9\% | 3.3\% | 57.1\% | 38.0\% | 4.3\% | 0.5\% | 40.4\% | 42.6\% | 10.6\% | 6.4\% | 25.0\% | 38.1\% | 28.6\% | 8.3\% | 31.6\% | 48.1\% | 17.7\% | 2.5\% |
| b3 | 3.6\% | 19.8\% | 47.5\% | 29.2\% | 2.2\% | 28.3\% | 53.3\% | 16.3\% | 14.9\% | 27.7\% | 19.1\% | 38.3\% | 1.2\% | 11.9\% | 39.3\% | 47.6\% | 2.5\% | 3.8\% | 59.5\% | 34.2\% |
| b4 | 51.7\% | 36.8\% | 8.7\% | 2.8\% | 47.5\% | 47.0\% | 4.4\% | 1.1\% | 59.6\% | 29.8\% | 8.5\% | 2.1\% | 69.4\% | 17.6\% | 10.6\% | 2.4\% | 36.8\% | 38.2\% | 17.1\% | 7.9\% |
| b5 | 19.2\% | 41.3\% | 25.6\% | 13.9\% | 25.5\% | 53.8\% | 16.8\% | 3.8\% | 19.1\% | 44.7\% | 19.1\% | 17.0\% | 22.4\% | 32.9\% | 36.5\% | 8.2\% | 1.3\% | 19.0\% | 38.0\% | 41.8\% |
| b6 | 1.5\% | 17.6\% | 45.7\% | 35.2\% | 2.7\% | 10.4\% | 50.3\% | 36.6\% | 2.1\% | 31.9\% | 27.7\% | 38.3\% | 0.0\% | 26.5\% | 39.8\% | 33.7\% | 0.0\% | 16.5\% | 51.9\% | 31.6\% |
| b7 | 12.2\% | 35.6\% | 38.7\% | 13.5\% | 15.2\% | 40.2\% | 35.3\% | 9.2\% | 17.0\% | 40.4\% | 34.0\% | 8.5\% | 13.1\% | 32.1\% | 34.5\% | 20.2\% | 1.3\% | 25.6\% | 53.8\% | 19.2\% |
| b8 | 28.2\% | 40.2\% | 24.4\% | 7.1\% | 38.5\% | 40.1\% | 17.6\% | 3.8\% | 27.7\% | 42.6\% | 21.3\% | 8.5\% | 27.1\% | 38.8\% | 27.1\% | 7.1\% | 6.3\% | 40.5\% | 39.2\% | 13.9\% |
| b9 | 30.9\% | 42.6\% | 19.9\% | 6.6\% | 41.5\% | 46.4\% | 10.4\% | 1.6\% | 23.9\% | 45.7\% | 23.9\% | 6.5\% | 34.5\% | 35.7\% | 22.6\% | 7.1\% | 6.3\% | 39.2\% | 36.7\% | 17.7\% |
| b10 | 33.1\% | 37.2\% | 24.2\% | 5.6\% | 38.6\% | 40.8\% | 19.0\% | 1.6\% | 37.0\% | 37.0\% | 21.7\% | 4.3\% | 27.4\% | 39.3\% | 21.4\% | 11.9\% | 24.1\% | 26.6\% | 40.5\% | 8.9\% |
| b11 | 31.2\% | 41.4\% | 20.7\% | 6.6\% | 44.5\% | 39.6\% | 13.2\% | 2.7\% | 17.4\% | 52.2\% | 26.1\% | 4.3\% | 25.0\% | 52.4\% | 15.5\% | 7.1\% | 15.2\% | 27.8\% | 40.5\% | 16.5\% |
| b12 | 48.7\% | 35.8\% | 11.7\% | 3.8\% | 42.4\% | 50.5\% | 6.0\% | 1.1\% | 67.4\% | 21.7\% | 4.3\% | 6.5\% | 63.5\% | 17.6\% | 12.9\% | 5.9\% | 36.7\% | 29.1\% | 27.8\% | 6.3\% |
| b13 | 59.5\% | 26.2\% | 10.4\% | 3.8\% | 62.5\% | 28.3\% | 7.6\% | 1.6\% | 63.0\% | 23.9\% | 8.7\% | 4.3\% | 66.7\% | 16.7\% | 9.5\% | 7.1\% | 43.0\% | 32.9\% | 19.0\% | 5.1\% |
| b14 | 42.3\% | 32.1\% | 18.6\% | 6.9\% | 45.4\% | 30.1\% | 17.5\% | 7.1\% | 39.1\% | 43.5\% | 13.0\% | 4.3\% | 44.0\% | 31.0\% | 17.9\% | 7.1\% | 35.4\% | 31.6\% | 25.3\% | 7.6\% |
| b15 | 64.6\% | 22.1\% | 9.7\% | 3.6\% | 75.0\% | 20.1\% | 4.9\% | 0.0\% | 56.5\% | 26.1\% | 13.0\% | 4.3\% | 63.1\% | 20.2\% | 10.7\% | 6.0\% | 46.8\% | 26.6\% | 17.7\% | 8.9\% |

\%The yellow color indicates the field with the highest percentage of answers for each question and for each institution.

Table 12: Distribution of the responses to the fifteen observed claims

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Figure 11
CONCLUSION: The analysis of the student's response indicates that the claims in this group can be clustered into three groups. The first group of claims are those for which the students to a large extent (over 70\%) have declared that the claim applies to all or almost all teachers. This group includes only two claims: b3 and b6 (b3 - Teachers set test results, give assignments, and share other useful information with students online and b6-In class teachers use electronic material (presentations, animations / films, etc.)) as teaching material.) The second group of statements are the claims for which the students have indicated (over 70\%) that they are not used by any or several of the teachers. This group consists of b2, b4, b9, b10, b11, b12, b14, b13 and b15, to which more than $50 \%$ of students stated that a NO teacher does not practice. The third group of questions are other questions b1, b5, b7, b8.

In your opinion, what ratio (in percent) should be between teaching and learning in education to make education the most successful? To this question,

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Figure 12

Conclusion: The two thirds of the students choose the option of $50 \%-50 \%$, which agrees with the teachers' answers. However, the dominant choice of this option may indicate that neither teachers nor students understand what is meant by teaching and what is meant by learning.

Have you ever attended a course in one of the following disciplines during your previous school education?

| course | SRB | SRB\% | BGD | BGD $\%$ | KG | KG\% | NIS | NIS\% | NS | NS\% |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Pedagogy | 108 | $28.27 \%$ | 25 | $13.81 \%$ | 13 | $28.89 \%$ | 29 | $35.37 \%$ | 41 | $55.41 \%$ |
| Psychology | 104 | $27.30 \%$ | 25 | $13.89 \%$ | 13 | $28.89 \%$ | 35 | $42.68 \%$ | 31 | $41.89 \%$ |
| Teaching methodology | 53 | $14.10 \%$ | 14 | $7.91 \%$ | 9 | $20.00 \%$ | 10 | $12.20 \%$ | 20 | $27.78 \%$ |
| Application of new technologies in teaching | 68 | $18.28 \%$ | 15 | $8.47 \%$ | 9 | $20.45 \%$ | 15 | $18.52 \%$ | 29 | $41.43 \%$ |
| English language | 235 | $60.72 \%$ | 76 | $41.99 \%$ | 44 | $95.65 \%$ | 50 | $60.24 \%$ | 65 | $84.42 \%$ |
| You have not learned any of these disciplines | 69 | $20.97 \%$ | 54 | $33.54 \%$ | 2 | $5.88 \%$ | 9 | $12.86 \%$ | 4 | $6.25 \%$ |

Conclusion: The answer to the attendance of the English course is very variable according to the university. In BG, only $42 \%$ of students stated that they had attended a course in English !? while in KG this percentage reaches 95\%. Students may not understand this group of questions.

Have you ever given feedback and participated in the evaluation of your study programs and in assessing the quality of teaching in your institution?

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|  | SRB | SRB\% | BGD | BGD\% | KG | KG\% | NIS | NIS\% | NS | NS\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| YES | 270 | $68.35 \%$ | 127 | $69.02 \%$ | 31 | $67.39 \%$ | 49 | $57.65 \%$ | 63 | $78.75 \%$ |
| NO | 125 | $31.65 \%$ | 57 | $30.98 \%$ | 15 | $32.61 \%$ | 36 | $42.35 \%$ | 17 | $21.25 \%$ |



Figure 15
Conclusion: Regardless of the fact that students participate in evaluating the teaching process by completing a survey which is mandatory in most higher education institutions, it is surprising that only $2 / 3$ indicated that they participated in the evaluation of the study program.

## Application of educational strategies

The students assessed for how many teachers the next groups of statements are true, using the phrases: none of the teachers, a few teachers, majority of teachers, and all the teachers.

Teaching strategies involving students

| notation | statements |
| :--- | :--- |
| c1 | You receive feedback from your teachers about test solutions, tasks, and ongoing work. |
| c2 | You get clear information on how to evaluate the course you are attending. |
| c3 | You get clear instructions from your teacher how to prepare for the next lesson |
| c4 | Teachers give you homework, short-term assignments, an obligation to read something or some other form of preparation for the next lesson. |



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Table 15

Conclusion: The students with the highest mark evaluated the claim c2, i.e., close to $90 \%$ students claim that the majority or almost all teachers give clear information about the assessment and attendance of the course. The least mark is given to the question that teachers, in the opinion of students, give homework, short-term assignments, and obligation to read something or some other form of preparation for the next lesson (c4).


Figure 16

Intellectual engagement and impact on learning

| notation | statement |
| :--- | :--- |
| d1 | You are motivated and encouraged to develop new ideas and find creative solutions to the problems during learning. |
| d2 | During classes, you look for more solutions to the same problem and compare them. |
| d3 | During classes, you usually discuss complex issues. |
| d4 | Teachers ask you to explain your ideas. |


|  | SRB |  |  |  |  | BG |  |  |  | KG |  |  |  | NIS |  |  | NS |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{aligned} & \text { n } \\ & \text { む } \\ & \text { U } \\ & \text { \# } \\ & \vdots \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| d1 | 14.58\% | 51.15\% | 27.37\% | 6.91\% | 18.13\% | 64.84\% | 12.64\% | 4.40\% | 21.74\% | 45.65\% | 28.26\% | 4.35\% | 13.10\% | 33.33\% | 39.29\% | 14.29\% | 3.80\% | 41.77\% | 48.10\% | 6.33\% |
| d2 | 18.93\% | 52.69\% | 21.99\% | 6.39\% | 27.07\% | 59.67\% | 9.94\% | 3.31\% | 15.22\% | 50.00\% | 30.43\% | 4.35\% | 11.76\% | 44.71\% | 30.59\% | 12.94\% | 10.13\% | 46.84\% | 35.44\% | 7.59\% |
| d3 | 14.32\% | 45.01\% | 28.64\% | 12.02\% | 22.10\% | 52.49\% | 17.68\% | 7.73\% | 13.04\% | 34.78\% | 41.30\% | 10.87\% | 7.06\% | 37.65\% | 38.82\% | 16.47\% | 5.06\% | 41.77\% | 35.44\% | 17.72\% |
| d4 | 13.55\% | 45.01\% | 27.88\% | 13.55\% | 18.23\% | 54.70\% | 19.89\% | 7.18\% | 10.87\% | 30.43\% | 39.13\% | 19.57\% | 10.59\% | 35.29\% | 34.12\% | 20.00\% | 7.59\% | 41.77\% | 32.91\% | 17.72\% |

Table 16


Figure 17

Relationship: teacher - student

| notation | statement |
| :--- | :--- |
| e1 | You can communicate with teachers openly and freely |
| e2 | You can communicate with teachers via social networks (Facebook, Twitter, etc.). |
| e3 | Teachers come to you with respect. |
| e4 | Teachers greet you with a smile and friendly tone. |



Table 17

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## Cooperation

| notation | statement |
| :--- | :--- |
| f1 | Often group assignments are assigned to you that you need to realize at class or at home. |
| f2 | Students are motivated and stimulated to share their knowledge and help other students during classes or during the preparation of the exam. |
| f3 | Teachers expect you to use collaborative software to communicate with them and other students (Google Docs, Wikis, etc.). |
| f4 | Teachers expect you to get involved by expressing your opinion. |



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Conclusion: Based on the students' responses, there is a significant opportunity to improve the teaching process through strengthening cooperation and encouraging students to get involved in group work, as well as to share their knowledge.


Figure 19

## Student-centered teaching and learning

| notation | statement |
| :---: | :---: |
| g1 | Teachers show flexibility as far as the content or methods of their course are concerned, in order to adapt it to the needs of students. |
| g2 | You can freely choose the themes of individual tasks in accordance with your preferences, interests and priorities. |
| g3 | Teachers try to link the contents of their courses with your knowledge and experience gained through the subjects you have previously listened to. |
| g4 | Teachers show interest in students' opinions. |



Table 19

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Conclusion: Students indicated that few teachers demonstrate flexibility in terms of content and methods used (g1) and to a small extent enable students to choose topics for individual tasks. Some teachers, in the opinion of students, are trying to link content with the knowledge or experience of students (g3). Students have various opinion about the number of teachers who show interest in the student's opinion (g4).


Figure 20

Enthusiasm and way of teaching

| notation | statement |
| :--- | :--- |
| h1 | Teachers maintain student interest by changing teaching methods and methods of work <br> from time to time. |
| h2 | Teachers use electronic books, presentations, video clips, movies, etc. at their classes. |
| h3 | Teachers organize work in pairs, group work, workshops, etc. to improve interaction <br> among students on lessons. |
| h4 | Teachers stimulate students to seek additional learning resources, in addition to <br> compulsory materials, critically assessing their reliability. |

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|  | SRB ${ }^{\text {a }}$ |  |  |  |  |  | BG |  |  |  | KG |  |  |  | NIS |  |  |  | NS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| h1 | 23.45\% | 54.64\% | 17.78\% | 4.12\% | 30.94\% | 59.67\% | 6.63\% | 2.76\% | 22.22\% | 53.33\% | 22.22\% | 2.22\% | 19.05\% | 40.48\% | 32.14\% | 8.33\% | 11.54\% | 58.97\% | 25.64\% | 3.85\% |
| h2 | 5.15\% | 38.92\% | 39.95\% | 15.98\% | 4.42\% | 37.57\% | 43.09\% | 14.92\% | 20.00\% | 37.78\% | 28.89\% | 13.33\% | 2.38\% | 39.29\% | 39.29\% | 19.05\% | 1.28\% | 42.31\% | 39.74\% | 16.67\% |
| h3 | 23.58\% | 55.44\% | 17.10\% | 3.89\% | 26.67\% | 60.00\% | 11.11\% | 2.22\% | 36.36\% | 43.18\% | 20.45\% | 0.00\% | 23.81\% | 46.43\% | 21.43\% | 8.33\% | 8.97\% | 61.54\% | 24.36\% | 5.13\% |
| h4 | 15.54\% | 46.11\% | 28.50\% | 9.84\% | 16.11\% | 53.89\% | 22.22\% | 7.78\% | 31.82\% | 25.00\% | 29.55\% | 13.64\% | 14.29\% | 39.29\% | 32.14\% | 14.29\% | 6.41\% | 47.44\% | 38.46\% | 7.69\% |

Table 20

Conclusion: Over $3 / 4$ students indicated that none of the teachers or a few teachers maintain student interest by changing teaching methods from time and time (h1). These answers show that there is a great need for the development of pedagogical competences among teachers.

Structure

| notation | statement |
| :--- | :--- |
| j1 | During classes, teachers summarize the material and highlight the most important parts. |
| j2 | Teachers adjust the time of instruction and do well time management. |
| j3 | Teaching materials are well structured and organized. |
| j4 | Classes are well organized. |

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Table 21

Conclusion: As far as the structure of the class is concerned, students have chosen to a large extent the answer that most teachers practice the activities mentioned in the statement. Nevertheless, a significant number of students have chosen the option A few teachers which indicates that there is space for improving pedagogical for a large number of teachers.


Figure 22

## University in Albania

## Structure of the sample

The questionnaire consisted of 79 questions. Respondents who answered less than 35 questions (in total 5 respondents) were excluded from the sample. The total number of questionnaires that were considered was 344. The survey was conducted electronically in April and May 2019.

Note: The average number of responses per questionnaire is 76.4. Due to the small number of missing data, no filling was done, but the analysis was based directly on the answers given by students.

The questionnaire was filled out by students of two state universities: 121 students (making $34.67 \%$ of the sample) from the University of Gjirokastra, 228 students ( $65.33 \%$ of the sample) from the University of Korca.

Note: The results in the reports are presented collectively for both universities and the abbreviation (ALB) is used for these results. The cases when the student did not prefer to answer the respective question are marked with N/R (No response) or N/A (No answer).

The structure of the sample is based on gender, area of study, level of studies and year of studies is given in Tables 1-4. The charts are given for the whole sample, i.e., for ALB.

| Gender | ALB | ALB\% |
| :--- | :---: | :---: |
| Male | 104 | $30.23 \%$ |
| Female | 240 | $69.77 \%$ |
| Total | 344 | $100 \%$ |
| Table 1: Gender |  |  |



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| Area | ALB | ALB\% |
| :--- | ---: | ---: |
| Biology\&Chemistry | 64 | $18.60 \%$ |
| Biology\&Ecology | 12 | $3.49 \%$ |
| Physics | 21 | $6.10 \%$ |
| Geography | 25 | $7.27 \%$ |
| Chemistry | 11 | $3.20 \%$ |
| Mathematics | 112 | $32.56 \%$ |
| Math\&Physics | 18 | $5.23 \%$ |
| Computer science | 81 | $23.55 \%$ |

Table 2: Areas of studies


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Evaluation of weekly engagement

|  | ALB |  |
| :--- | :---: | :---: |
| Activity | average <br> hours | SD $^{1}$ |
| Presence at classes (lectures and exercises) | 18.07 | 7.90 |
| Creating homework and other activities | 8.90 | 7.10 |
| Self-study | 8.24 | 6.71 |
| Work (learning) with other students | 2.54 | 3.27 |
| Other activities that are realized at the faculty | 1.35 | 2.26 |
| Total | 38.79 | 20.28 |

Table 5: distribution of weekly engagement

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Figure 5: distribution of activities


Figure 6: distribution of students according to total weekly engagement

CONCLUSION: Looking at the total engagement of students, we notice that they have estimated their load at about 38 hours, which is slightly less than the anticipated load of 40 hours. However, a standard deviation of 20.28 hours indicates that student self-assessment is in a wide range (Figure 6). About half of students (53.5\%) estimated their weekly workload in the very wide range of 20 to 50 hours. The two activities taking most of the time are Presence at classes (lectures and exercises) and Self-study (Table 5 and Figure 5).

## Courses in methodology

|  | ALB |  |  | ALB \% |  |  |
| :--- | :---: | :---: | :---: | :--- | :--- | :--- |
| course | YES | NO | N/R | YES | NO | N/R |
| Electronic learning <br> methodology | 65 | 275 | 14 | $18.90 \%$ | $79.94 \%$ | $4.07 \%$ |
| Teaching methods | 102 | 241 | 1 | $29.65 \%$ | $70.06 \%$ | $0.29 \%$ |

Table 6: Absolute frequency of students who listened (or not) two courses in the methodology


Figure 7
CONCLUSION: The answers to this question showed that the courses attended for traditional teaching methods that are part of the curriculum in the fields of study with teaching profile are more frequented than the courses attended for e-teaching methods. But in both cases, only about a quarter of the students who preferred to answer this question were able to attend at least one methodology course.

Types of disciplines of e-learning methodologies (which you had the opportunity to study at the studies)

|  | ALB |  |  | ALB \% |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| area | YES | NO | N/R | YES | NO | N/R |
| Electronic publishing (Latex, HTML, XML, PDF, and so on) | 134 | 167 | 43 | 38.95\% | 48.55\% | 12.50\% |
| Online Technology in Teaching | 101 | 204 | 39 | 29.36\% | 59.30\% | 11.34\% |
| Open-source software (MOODLE, Python, GeoGebra, MOOC, and so on) | 41 | 259 | 44 | 11.92\% | 75.29\% | 12.79\% |
| I've never heard of any of these disciplines | 112 | 195 | 37 | 32.56\% | 56.69\% | 10.76\% |

Table 7: Absolute frequency of students

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Figure 8

CONCLUSION: The answers to this question depend mainly on the field of study. Thus, students in the field of informatics mainly answered these questions with YES, while students in other fields mainly answered NO. But it is noticed that there is a considerable number of students who have answered with YES the question "I have never heard of any of these disciplines (32.56\%)

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CONCLUSION: The data show that students had very little experience in attending classes in English. About of $1 / 3$ said they attended a lecture in English, and in most cases, it was one time only. Even more unfavorable situation is in attending a course on an electronic platform. This experience had less than $1 / 8$. Among students who have had the opportunity to attend online courses are mostly students of computer science.

New technologies - electronic materials (presentations), animations / films, online learning platforms, web conferences
Attitudes about the use of new technologies in teaching
Respondents answered how much the following claims are true for them on the five-level Lihter scale (1-It's not true at all; 2 - It's not true in general; 3 - Equally true and not true; 4-Generally true; 5. - Totally true).

| notation | statements |
| :---: | :--- |
| a1 | Using new technologies in teaching motivates students to get involved more actively in the learning process. |
| a2 | The use of new technologies in teaching helps students to acquire new knowledge more effectively. |
| a3 | Using modern technologies in higher education allows students to be more creative and imaginative. |
| a4 | The use of new technologies in teaching promotes the development of students' interpersonal skills (i.e., the ability to talk and work with others). |
| a5 | The use of modern technologies increases students' self-confidence to be more active at lessons. |

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| a6 | Using the online platform allows students easier and faster access to relevant information. |
| :---: | :--- |
| a7 | Using the online learning platform contributes to the realization of the individualization of teaching. |
| a8 | The use of new technologies in teaching and learning is the essence of preparing students to live and work in the 21st century. |
| a9 | Students are more respected by teachers who use modern teaching technologies. |
| a10 | It is very important that teachers are open to communicating with students through social networks (Facebook, Twitter, etc.). |
| a11 | Using the online learning platform reduces the amount of stress and nervousness of students. |
| a12 | The use of modern teaching technologies makes students less interested in the content of lessons. |


|  |  | a1 | a2 | a3 | a4 | a5 | a6 | a7 | a8 | a9 | a10 | a11 | a12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\stackrel{\oplus}{\gtrless}$ | Average | 4.09 | 4.10 | 4.19 | 4.06 | 3.68 | 4.07 | 3.78 | 4.19 | 3.23 | 3.40 | 2.63 | 3.31 |
|  | Median | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 3.00 | 4.00 | 3.00 | 3.00 |
|  | Mode | 4.00 | 4.00 | 5.00 | 4.00 | 4.00 | 5.00 | 4.00 | 5.00 | 3.00 | 4.00 | 3.00 | 4.00 |
|  | STD | 0.97 | 0.97 | 0.85 | 0.97 | 1.02 | 0.96 | 0.98 | 0.96 | 1.22 | 1.22 | 1.25 | 1.17 |

Table 10: Mean response values of the respondents


Figure 10

|  |  | a1 | a2 | a3 | a4 | a5 | a6 | a7 | a8 | a9 | a10 | a11 | a12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\stackrel{\square}{\varangle}$ | 1 | 12 | 9 | 5 | 12 | 8 | 5 | 8 | 6 | 46 | 36 | 84 | 30 |
|  | 2 | 13 | 18 | 6 | 7 | 27 | 20 | 23 | 15 | 33 | 34 | 72 | 49 |
|  | 3 | 35 | 37 | 49 | 60 | 99 | 55 | 81 | 49 | 111 | 100 | 105 | 97 |
|  | 4 | 156 | 145 | 141 | 135 | 130 | 129 | 147 | 110 | 100 | 102 | 52 | 115 |
|  | 5 | 127 | 134 | 142 | 129 | 76 | 134 | 79 | 163 | 51 | 70 | 30 | 51 |
|  | N/R | 1 | 1 | 1 | 1 | 4 | 1 | 6 | 1 | 3 | 2 | 1 | 2 |

Table 11: Distribution of the responses to the twelve observed claims

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CONCLUSION: The students had the highest agreement (the average grade above 4) in relation to the claims a3 (Using modern technologies in higher education allows students to be more creative and imaginative.) and a8 (The use of new technologies in teaching and learning is the essence of preparing the students to live and work in the 21st century.) The least agreement (the average score more than 2.5 but below 3) was shown by students in relation to the claim a11 (Using the online learning platform reduces the amount of stress and nervousness of students.) Students showed relatively low agreement (average grade was more than score 3 but below than 3.5 ) with claims a9 (Students are more respected by teachers who use modern teaching technologies), a10 (It is very important that teachers are open to communicating with students through social networks (Facebook, Twitter, etc.) and a12 (The use of modern teaching technologies makes students less interested in the content of lessons).

The second group of consisted of statements about the use of modern technologies by teachers. The students assessed for how many teachers the statement is true, using the phrases: none of the teachers, a few teachers, majority of teachers, and all the teachers.

| notation | statement |
| :--- | :--- |
| b1 | Students can communicate with teachers via forums or other forms of online communication. |
| b2 | Teachers are open to communicating with students via social networks (Facebook, Twitter, etc.). |
| b3 | Teachers set test results, give assignments, and share other useful information with students online. |
| b4 | Teachers use electronic test systems to test students. |
| b5 | Teachers share with students electronic textbooks and use multimedia software and learning platforms (Moodle for example). |
| b6 | In the classes teachers use electronic material (presentations, animations / films, etc.) as teaching material. |
| b7 | Teachers encourage us to use electronic books, electronic textbooks, and other online educational materials. |
| b8 | Teachers encourage students to use online courses as educational materials. |
| b9 | Teachers use online learning platforms at their classes. |
| b10 | Teachers encourage students to work in teams, form groups, and discussion forums. |
| b11 | Students are given instructions on how to use online tools, learning platforms, and other electronic resources to help them complete their tasks more easily. |
| b12 | Teachers create online tests to ease student self-examination and enable them to check their own knowledge. |
| b13 | Students get ready answers to questions from tests through online communication tools. |
| b14 | Teachers expect students to use collaborative software to communicate with them and other students (Google Docs, Wikis, etc.). |
| b15 | During classes, teachers use web conferences as teaching materials. |


|  |  | b1 | b2 | b3 | b4 | b5 | b6 | b7 | b8 | b9 | b10 | b11 | b12 | b13 | b14 | b15 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 㻃 | No one of teachers | 9.30\% | 21.22\% | 24.13\% | 63.37\% | 24.71\% | 17.44\% | 9.59\% | 35.17\% | 35.47\% | 34.01\% | 23.55\% | 54.65\% | 30.81\% | 42.44\% | 29.36\% |
|  | A few teachers | 31.10\% | 36.05\% | 22.67\% | 18.31\% | 30.23\% | 26.45\% | 28.78\% | 27.33\% | 35.76\% | 27.62\% | 31.69\% | 24.13\% | 31.69\% | 29.94\% | 35.76\% |

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| Majority of teachers | 41.86\% | 28.20\% | 21.80\% | 10.76\% | 31.40\% | 34.88\% | 35.76\% | 25.00\% | 18.60\% | 23.84\% | 25.29\% | 12.21\% | 23.26\% | 18.90\% | 22.38\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| All teachers | 16.28\% | 13.37\% | 30.52\% | 6.10\% | 12.50\% | 19.77\% | 24.13\% | 10.47\% | 6.69\% | 13.37\% | 18.02\% | 6.10\% | 12.21\% | 6.69\% | 10.47\% |
| N/R | 1.45\% | 1.16\% | 0.87\% | 1.45\% | 1.16\% | 1.45\% | 1.74\% | 2.03\% | 3.49\% | 1.16\% | 1.45\% | 2.91\% | 2.03\% | 2.03\% | 2.03\% |

\%The yellow color indicates the field with the highest percentage of answers for each question and for each institution.

Table 12: Distribution of the responses to the fifteen observed claims


Figure 11
CONCLUSION: The analysis of the student response shows that the claims in this group can be grouped into three groups. The first set of claims are those for which students to a large extent (over 50\%) have stated that the claim applies to all or almost all teachers. This group includes the following claims: b1, b3, b6 and b7 (b1- Students can communicate with teachers via forums or other forms of online communication; b3-Teachers post test results, assign assignments and share other useful information with students in internet; b6-In the classroom teachers use electronic materials (presentations, animations / movies, etc.) as teaching material and b7- Teachers encourage us to use electronic books, electronic textbooks, and other online educational materials.) The second group of statements are claims that students have indicated (over 50\%) that they have not been used by any or some of the teachers. This group consists of $b 2, b 8, b 10, b 11, b 13, a n d b 15$, of whom more than $50 \%$ of students but less than $70 \%$

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of them stated that a NO teacher practices. The third set of questions are the other questions b4, b9, b12, b14 that students have indicated (more than $70 \%$ of students) have not been used by any or some of the teachers.

In your opinion, what ratio (in percent) should be between teaching and learning in education to make education the most successful? To this question,

|  | ALB |  |
| :---: | :---: | :---: |
|  | ALB | ALB\% |
| $0 \%-100 \%$ | 11 | $3.20 \%$ |
| $25 \%-75 \%$ | 56 | $16.28 \%$ |
| $50 \%-50 \%$ | 198 | $57.56 \%$ |
| $75 \%-25 \%$ | 25 | $7.27 \%$ |
| $100 \%-0 \%$ | 17 | $4.94 \%$ |
| N/A | 37 | $10.76 \%$ |

Table 13


Conclusion: About the two thirds of the students choose the option of $50 \%-50 \%$, which agrees with the teachers' answers. However, the dominant choice of this option may indicate that neither teachers nor students understand what is meant by teaching and what is meant by learning.

Have you ever attended a course in one of the following disciplines during your previous school education?

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| course | ALB | ALB\% |
| :--- | ---: | :--- |
| Pedagogy | 35 | $10.17 \%$ |
| Psychology | 50 | $14.53 \%$ |
| Teaching methodology | 48 | $13.95 \%$ |
| Application of new technologies in teaching | 66 | $19.19 \%$ |
| English language | 239 | $69.48 \%$ |
| You have not learned any of these disciplines | 53 | $15.41 \%$ |



Conclusion: The study programs of the students included in the selected sample are mainly study programs in the field of teaching. For this reason, all listed disciplines, with the exception of "English language", are developed in Master studies, therefore the number of students who answered positively to these questions, correlates with the number of students who have stated that they are conducting Master studies. Regarding the "English Language", the courses for this discipline are extended throughout the Bachelor and Master studies and consequently it is expected that the number of students who declared positively, would be high in number and percentage.

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Have you ever given feedback and participated in the evaluation of your study programs and in assessing the quality of teaching in your institution?


## Figure 15

Conclusion: The policies of development and functioning of public universities in Albania clearly oblige these institutions to involve students in the process of evaluating the quality of teaching. The almost equal reaction regarding the inclusion or not of their participation in this process, of the students who preferred to answer this question, really shows how many of them actually participate in this periodic process for Albanian universities.

## Application of educational strategies

The students assessed for how many teachers the next groups of statements are true, using the phrases: none of the teachers, a few teachers, majority of teachers, and all the teachers.

Teaching strategies involving students

| notation | statements |
| :--- | :--- |
| c1 | You receive feedback from your teachers about test solutions, tasks, and ongoing work. |
| c2 | You get clear information on how to evaluate the course you are attending. |
| c3 | You get clear instructions from your teacher how to prepare for the next lesson |
| c4 | Teachers give you homework, short-term assignments, an obligation to read something or some other form of preparation for the next lesson. |


|  |  | c1 | c1\% | c2 | c2\% | c3 | c3\% | c4 | c4\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\stackrel{\oplus}{\mathbb{<}}$ | No one of teachers | 29 | 8.43\% | 22 | 6.40\% | 16 | 4.65\% | 17 | 4.94\% |
|  | A few teachers | 69 | 20.06\% | 52 | 15.12\% | 68 | 19.77\% | 76 | 22.09\% |
|  | Majority of teachers | 93 | 27.03\% | 102 | 29.65\% | 102 | 29.65\% | 132 | 38.37\% |
|  | All teachers | 148 | 43.02\% | 160 | 46.51\% | 148 | 43.02\% | 113 | 32.85\% |
|  | N/R | 5 | 1.45\% | 8 | 2.33\% | 10 | 2.91\% | 6 | 1.74\% |

Table 15

Conclusion: The students with the highest mark evaluated the claim c2, i.e., close to $75 \%$ students claim that the majority or almost all teachers give clear information about the assessment and attendance of the course. The least mark ( about 70\%) is given to the question c1 (You receive feedback from your teachers about test solutions, tasks, and ongoing work.)


Figure 16

Intellectual engagement and impact on learning

| notation | statement |
| :--- | :--- |
| d1 | You are motivated and encouraged to develop new ideas and find creative solutions to the problems during learning. |
| d2 | During classes, you look for more solutions to the same problem and compare them. |
| d3 | During classes, you usually discuss complex issues. |
| d4 | Teachers ask you to explain your ideas. |


|  |  | d1 | d1\% | d2 | d2\% | d3 | d3\% | d4 | d4\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\stackrel{\text { 甲 }}{\mathbb{\alpha}}$ | No one of teachers | 24 | 6.98\% | 23 | 6.69\% | 28 | 8.14\% | 17 | 4.94\% |
|  | A few teachers | 94 | 27.33\% | 98 | 28.49\% | 100 | 29.07\% | 68 | 19.77\% |
|  | Majority of teachers | 126 | 36.63\% | 128 | 37.21\% | 121 | 35.17\% | 91 | 26.45\% |
|  | All teachers | 92 | 26.74\% | 85 | 24.71\% | 84 | 24.42\% | 160 | 46.51\% |
|  | N/R | 8 | 2.33\% | 10 | 2.91\% | 11 | 3.20\% | 8 | 2.33\% |

Table 16

Conclusion: The students with the highest mark evaluated the claim d4, i.e., close to $70 \%$ students claim that the majority or almost all teachers ask the students to explain their ideas. Regarding the other three questions, $\mathrm{d} 1, \mathrm{~d} 2$, d3, the reaction of the students to all teachers or most of them, was at the same levels (about 60\%)


Figure 17

Relationship: teacher - student

| notation | statement |
| :--- | :--- |
| e1 | You can communicate with teachers openly and freely |


| e2 | You can communicate with teachers via social networks (Facebook, Twitter, etc.). |
| :--- | :--- |
| e3 | Teachers come to you with respect. |
| e4 | Teachers greet you with a smile and friendly tone. |


|  |  | e1 | e1\% | e2 | e2\% | e3 | e3\% | e4 | e4\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\stackrel{\oplus}{4}$ | No one of teachers | 17 | 4.94\% | 92 | 26.74\% | 10 | 2.91\% | 8 | 2.33\% |
|  | A few teachers | 86 | 25.00\% | 114 | 33.14\% | 30 | 8.72\% | 53 | 15.41\% |
|  | Majority of teachers | 119 | 34.59\% | 83 | 24.13\% | 83 | 24.13\% | 114 | 33.14\% |
|  | All teachers | 116 | 33.72\% | 45 | 13.08\% | 214 | 62.21\% | 162 | 47.09\% |
|  | N/R | 6 | 1.74\% | 10 | 2.91\% | 7 | 2.03\% | 7 | 2.03\% |

Table 17

Conclusion: Students' response to questions e1, e3 and e4 is positively above $70 \%$ for all their teachers or most of their teachers. Regarding the use of social networks for teacher-student communication, the positive response regarding all teachers or most of them, was relatively low (about 37\%). The use of social networks is still very weak in teaching process. For the remaining three claims that describe the attitude of teachers toward students, students emphasize that they are valid for most or all the teachers.


Figure 18

## Cooperation

| notation | statement |
| :--- | :--- |
| f1 | Often group assignments are assigned to you that you need to realize at class or at home. |
| f2 | Students are motivated and stimulated to share their knowledge and help other students during classes or during the preparation of the exam. |
| f3 | Teachers expect you to use collaborative software to communicate with them and other students (Google Docs, Wikis, etc.). |
| f4 | Teachers expect you to get involved by expressing your opinion. |


|  |  |  | f1 |  | f2 |  | $f 3$ |  | f4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\stackrel{\cong}{\mathbb{<}}$ | No one of teachers | 16 | 4.65\% | 36 | 10.47\% | 89 | 25.87\% | 20 | 5.81\% |
|  | A few teachers | 72 | 20.93\% | 95 | 27.62\% | 108 | 31.40\% | 66 | 19.19\% |
|  | Majority of teachers | 122 | 35.47\% | 129 | 37.50\% | 86 | 25.00\% | 125 | 36.34\% |
|  | All teachers | 126 | 36.63\% | 75 | 21.80\% | 51 | 14.83\% | 121 | 35.17\% |
|  | N/R | 8 | 2.33\% | 9 | 2.62\% | 10 | 2.91\% | 12 | 3.49\% |

Table 18

Conclusion: Based on the students' responses, there is a significant opportunity to improve the teaching process through strengthening cooperation and encouraging students to get involved in group work, as well as to share their knowledge.


Student-centered teaching and learning

| notation | statement |
| :---: | :---: |
| g1 | Teachers show flexibility as far as the content or methods of their course are concerned, in order to adapt it to the needs of students. |
| g2 | You can freely choose the themes of individual tasks in accordance with your preferences, interests and priorities. |
| g3 | Teachers try to link the contents of their courses with your knowledge and experience gained through the subjects you have previously listened to. |
| g4 | Teachers show interest in students' opinions. |


|  |  | g1 | g1\% | g2 | g2\% | g3 | g3\% | g4 | g4\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\stackrel{\oplus}{4}$ | No one of teachers | 26 | 7.56\% | 32 | 9.30\% | 26 | 7.56\% | 13 | 3.78\% |
|  | A few teachers | 73 | 21.22\% | 103 | 29.94\% | 69 | 20.06\% | 60 | 17.44\% |
|  | Majority of teachers | 122 | 35.47\% | 121 | 35.17\% | 129 | 37.50\% | 113 | 32.85\% |
|  | All teachers | 113 | 32.85\% | 76 | 22.09\% | 110 | 31.98\% | 145 | 42.15\% |
|  | N/R | 10 | 2.91\% | 12 | 3.49\% | 10 | 2.91\% | 13 | 3.78\% |

Table 19

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Conclusion: Students indicated that they are generally satisfied with Studentcentered teaching and learning. They expressed positively to the extent of over $60 \%$ regarding three of the factors that determine "Student-centered teaching and learning", g1, g3 and g4. Below 60\%, but also in positive dominance (about 57\%) for all teachers or most of them, was the reaction of students for g2 (You can freely choose the themes of individual tasks in accordance with your preferences, interests and priorities.


Figure 20

Enthusiasm and way of teaching

| notation | statement |
| :--- | :--- |
| h1 | Teachers maintain student interest by changing teaching methods and methods of work <br> from time to time. |
| h2 | Teachers use electronic books, presentations, video clips, movies, etc. at their classes. |
| h3 | Teachers organize work in pairs, group work, workshops, etc. to improve interaction <br> among students on lessons. |
| h4 | Teachers stimulate students to seek additional learning resources, in addition to <br> compulsory materials, critically assessing their reliability. |


|  |  | h1 | h1\% | h2 | h2\% | h3 | h3\% | h4 | h4\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\stackrel{\oplus}{4}$ | No one of teachers | 25 | 7.27\% | 36 | 10.47\% | 59 | 17.15\% | 32 | 9.30\% |
|  | A few teachers | 100 | 29.07\% | 93 | 27.03\% | 100 | 29.07\% | 94 | 27.33\% |


|  | Majority of teachers | 128 | $37.21 \%$ | 108 | $31.40 \%$ | 108 | $31.40 \%$ | 126 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All teachers | 81 | $23.55 \%$ | 94 | $27.33 \%$ | 68 | $19.77 \%$ | 81 |
|  | N/R | 10 | $2.91 \%$ | 13 | $3.78 \%$ | 9 | $2.62 \%$ | 11 |

Table 20

Conclusion: Students (more than $1 / 3$ ) indicated that most teachers are positively interested in the four factors that determine "Enthusiasm and way of teaching", but also $1 / 3$ of them think that only "A few teachers" are interested in the above factors. The reaction of students in this way show that there is a great need for the development of pedagogical competencies among teachers.


Figure 21

## Structure

| notation | statement |
| :--- | :--- |
| j 1 | During classes, teachers summarize the material and highlight the most important parts. |
| j2 | Teachers adjust the time of instruction and do well time management. |
| j3 | Teaching materials are well structured and organized. |
| j4 | Classes are well organized. |

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|  |  |  | j1 |  | j2 |  | j3 |  | j4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\stackrel{\otimes}{\gtrless}$ | No one of teachers | 11 | 3.20\% | 4 | 1.16\% | 16 | 4.65\% | 15 | 4.36\% |
|  | A few teachers | 55 | 15.99\% | 46 | 13.37\% | 58 | 16.86\% | 51 | 14.83\% |
|  | Majority of teachers | 122 | 35.47\% | 111 | 32.27\% | 132 | 38.37\% | 129 | 37.50\% |
|  | All teachers | 147 | 42.73\% | 174 | 50.58\% | 129 | 37.50\% | 140 | 40.70\% |
|  | N/R | 9 | 2.62\% | 9 | 2.62\% | 9 | 2.62\% | 9 | 2.62\% |

Table 21

Conclusion: As far as the structure of the class is concerned, students have chosen to a large extent the answer that all teachers practice the activities mentioned in the statement ( more than 40\%). Nevertheless, a significant number of students have chosen the option A few teachers (about 15\%) which indicates that there is space for improving pedagogical for a large number of teachers.


Figure 22


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