SELECTED ASPECTS OF THE TRANSITION TO THE ON-LINE STUDY PROCESS DURING THE PANDEMIC, CASE: BIOTECHNICAL FACULTY

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SUSTAINABILITY OF FOREST-BASED INDUSTRIES IN THE GLOBAL ECONOMY
Vinkovci, Croatia, September 28th- 30th 2020

TIMELINE

March 2020

"Emergency" remote teaching - "forced" digitalization of study process

April 2020

Student survey – one month after "switching" to on-line study

June 2020

Log analysis of all activities in the e-classroom

Survey amongst pedagogical workers at Biotechnical Faculty

Students' opinion

91%
Liked distance study about the same or even more than the conventional way of study

Evaluate the responsiveness of educators to your messages.

Answer	%
very slow	1%
slow	6%
neither fast nor slow	23%
fast	52%
very fast	18%

Time consumption

Spent much more time in front of the computer screen

During the epidemic, I spent the following on the required obligations:

Answer	%
more than before the epidemic	34%
a little more than before the epidemic	36%
the same as before the epidemic	17%
a little less than before the epidemic	10%
less than before the epidemic	2%

Students' opinion

For remote work, I used the following equipment at home (several choices possible):

Answer	%
personal computer	19%
laptop	94%
tablet PC	9%
smartphone	73%
additional (second) monitor	11%
scanner	14%
graphic table	1%

I had no problems handling the computer equipment - everything worked flawlessly.

A	%
0	0%
1	12%
2	18%
3	17%
4	33%
5	21%

I successfully solved all the technological challenges on my own.

A	%
0	0%
1	5%
2	9%
3	14%
4	38%
5	35%

0 - I don't know, I don't have an opinion | 1 - disagree | 2 - partially disagree | 3 - neither disagree nor agree | 4 - agree | 5 - completely agree

Students' opinion

I have a broadband Internet connection from home:

Answer	%
yes, telephone connection (xDSL)	13%
yes, cable connection	34%
yes, optics	46%
no, I used mobile data	7%

My home internet connection was fast.

A	%
0	0%
1	9%
2	15%
3	18%
4	34%
5	25%

My home internet connection was reliable.

A	%
0	0%
1	10%
2	18%
3	20%
4	27%
5	24%

0 - I don't know, I don't have an opinion | **1** - disagree | **2** - partially disagree | **3** - neither disagree nor agree | **4** - agree | **5** - completely agree

Confusion

Use of different video-conferencing programs
(Webex Meetings, Zoom, MS Teams, GoToMeeting, etc.)

Students   vs.   Pedagogical workers

Prior to the epidemic, I had already used the following video conferencing platforms (multiple choices possible):

Answer	%
Skype	65%
Arnes VOX	0%
MS Teams	5%
Cisco Webex Meetings	4%
GoToMeeting	2%
Zoom	7%
Google Hangouts/Meet	7%
BigBlueBotton	0%
MiTeam	0%
other	18%
I have no previous experience	28%

Prior to the epidemic, I had already used the following video conferencing platforms (multiple choices possible):

Answer	%
Skype	81%
Arnes VOX	3%
MS Teams	5%
Cisco Webex Meetings	10%
GoToMeeting	10%
Zoom	15%
Google Hangouts/Meet	11%
BigBlueBotton	2%
MiTeam	1%
other	11%
I have no previous experience	16%

Pedagogical workers' opinion – Management role

A	%
0	3%
1	2%
2	5%
3	8%
4	40%
5	42%

The management of the faculty proactively encouraged the transition to the online implementation of the pedagogical process.

A	%
0	10%
1	7%
2	6%
3	22%
4	31%
5	24%

With their example, the management of the faculty greatly contributed to the faster transition to the online implementation of the pedagogical process

A	%
0	3%
1	11%
2	16%
3	14%
4	36%
5	21%

The instructions and guidelines were timely

A	%
0	3%
1	8%
2	15%
3	23%
4	33%
5	19%

The instructions and guidelines were clear and well explained

0 - I don't know, I don't have an opinion | 1 - disagree | 2 - partially disagree | 3 - neither disagree nor agree | 4 - agree | 5 - completely agree
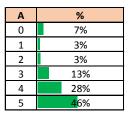
Pedagogical workers' opinion – Management role

A	%
0	8%
1	36%
2	20%
3	16%
4	15%
5	5%

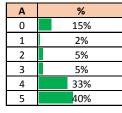I was on my own to solve the technical problems

A	%
0	12%
1	5%
2	4%
3	9%
4	32%
5	38%

Technical support by departmental IT members was good

A	%
0	7%
1	3%
2	3%
3	13%
4	28%
5	46%

There was a lot of mutual help among the co-workes

A	%
0	15%
1	2%
2	5%
3	5%
4	33%
5	40%

Internal webinars were helpful

0 - I don't know, I don't have an opinion | **1** - disagree | **2** - partially disagree | **3** - neither disagree nor agree | **4** - agree | **5** - completely agree

Pedagogical workers' opinion – Time consumption

Average time spent on adapting the implementation of the pedagogical work
to the new situation (minutes per pedagogical hour)?

Answer	%
0	7%
up to 10 min	8%
10 - 30 min	29%
more than 30 min	55%

The average share of changes in the implementation of the course
due to adjustments to the situation?

Answer	%
0	10%
up to 10%	18%
10 - 25%	25%
25 - 50%	21%
more than 50%	26%

Pedagogical workers' opinion – Working at home

I quickly got used to the new way of working.

A	%
0	1%
1	5%
2	8%
3	17%
4	37%
5	32%

When working from home, I was equally effective as at the workplace.

A	%
0	1%
1	10%
2	11%
3	14%
4	26%
5	38%

0 - I don't know, I don't have an opinion | 1 - disagree | 2 - partially disagree | 3 - neither disagree nor agree | 4 - agree | 5 - completely agree

Pedagogical workers' opinion – Student responses

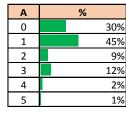| A	%
0	8%
1	45%
2	17%
3	18%
4	10%
5	3%

At the beginning they were very clumsy in the use of new tools.

A	%
0	7%
1	2%
2	5%
3	8%
4	33%
5	45%

At the end of the epidemic, they were completely sovereign in the using all tools for distance learning.

A	%
0	8%
1	38%
2	25%
3	16%
4	10%
5	3%

They had a lot of technical problems.

A	%
0	30%
1	45%
2	9%
3	12%
4	2%
5	1%

Technical problems were exploited for absence.

0 - I don't know, I don't have an opinion | **1** - disagree | **2** - partially disagree | **3** - neither disagree nor agree | **4** - agree | **5** - completely agree
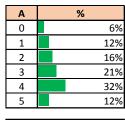
Pedagogical workers' opinion – Students' responses

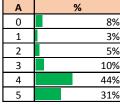| A	%
0	5%
1	3%
2	4%
3	7%
4	49%
5	32%

They were very positive in introducing innovations, they cooperated.

A	%
0	7%
1	3%
2	10%
3	29%
4	32%
5	19%

They were very conscientious and enthusiastic.

A	%
0	6%
1	12%
2	16%
3	21%
4	32%
5	12%

They were active in the on-line implementations of the pedagogical process.

A	%
0	8%
1	3%
2	5%
3	10%
4	44%
5	31%

They were regularly present at on-line implementations of the pedagogical process.

0 - I don't know, I don't have an opinion | **1** - disagree | **2** - partially disagree | **3** - neither disagree nor agree | **4** - agree | **5** - completely agree

Pedagogical workers' opinion – Working conditions at home

At home I used the following equipment
for remote work (several choices possible):

Answer	%
dasktop computer	34%
laptop	85%
tablet PC	14%
smartphone	53%
additional (second) monitor	40%
scanner	25%
graphic table	8%
built-in camera	68%
USB camera	24%
headphones with a microphone	66%

I had no problems handling the computer
equipment - everything worked flawlessly.

A	%
1	3%
2	14%
3	18%
4	38%
5	26%

I successfully solved all the technological
challenges on my own.

A	%
1	4%
2	8%
3	19%
4	36%
5	34%

0 - I don't know, I don't have an opinion | **1** - disagree | **2** - partially disagree | **3** - neither disagree nor agree | **4** - agree | **5** - completely agree

Pedagogical workers' opinion – Working conditions at home

**At home I have
a broadband Internet connection:**

Answer	%
yes, telephone connection (xDSL)	15%
yes, cable connection	26%
yes, optics	54%
no, I used mobile data	5%

**My home internet
connection was fast.**

A	%
1	5%
2	8%
3	10%
4	36%
5	41%

**My home internet connection
was reliable.**

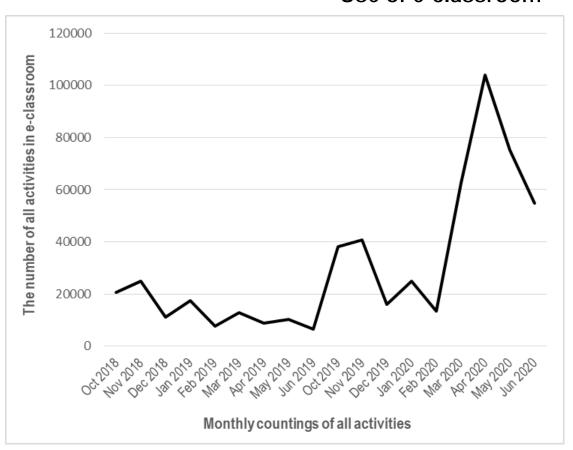| A	%
1	3%
2	10%
3	9%
4	38%
5	40%

0 - I don't know, I don't have an opinion	1 - disagree	2 - partially disagree	3 - neither disagree nor agree	4 - agree	5 - completely agree

Use of e-classroom

Number of activities in the e-classroom by months for the period between October 2018 and June 2020

	1 - I did not use		...		5 - I used it regularly
Before	14%	10%	13%	33%	29%
After	12%	6%	9%	14%	58%

For the end

Key things to keep in mind for successful transition to distance learning:

- Willingness of the faculty management

- Curricula and internal acts need to be changed

- Good organization of the IT service of the faculty

- Satisfactory digital literacy of all (pedagogical workers and students)

- Established e-classroom

Thank you for your attention!