Report on Webinar

Project title	Improving STEM Teaching Process using Digital Transformation
Project acronym	DIGSTEM
Project reference number	22310113
Coordinator	University of Pristina in Kosovska Mitrovica
Project start date	September 01, 2023
Project duration	13 months

EVENT DESCRIPTION

Date	06th March 2024
Authors of the report	Vladimir Maksimovic, Jelena Todorovic, Branimir Jaksic, University of Pristina in Kosovska Mitrovica
Consortium	• University of Pristina in Kosovska Mitrovica - coordinator • Lublin University of Technology • Obuda University • University of Zilina • Universum College
Venue	Lublin University of Technology (LUT)
Event title	WEBINAR: "Implementation of STEM principles in education system"
Event description:	

Summary

This document reports the webinar hosted by University of Pristina in Kosovska Mitrovica (UPKM) entitled "Implementation of Stem Principles in Education System". The webinar was chaired on the 6th March 2024 by the UPKM the main coordinator of the project. The participants of this event were students, teaching and non-teaching staff from WB HEIs and V4 HEIs. The webinar was held online where all interested parties could participate via zoom link or live at the Faculty of Technical Sciences in Kosovska Mitrovica. Through the webinar, students, teaching and non-teaching staff of HEIs were introduced to the capacities and state of the partner institutions and thus create space for a way that will enable the implementation of STEM principles in education.

Event description

Following the registration of participants, which began at 9:30 a.m. via zoom registration link available on project website and social networks. Rector of UPKM Prof. Dr. Nebojsa Arsic, took the floor to welcome and introduce the event and thanked all attendees, partners and participants of the webinar. Rector supported the initiative and emphasized the importance of this topic for UPKM. Dr. Vladimir Maksimovic, Project Coordinator, took the floor to announce the agenda of the webinar. The first topic was the presentation of the survey results conducted at all partner institutions for students and teachers. The survey was conducted in order to analyze the current state of STEM in the teaching process. From 10:15 a.m. to 11:15 a.m. representatives of all HEIs (Dr. Jelena Todorovic - UPKM, MA. Dijana Latifaj - UNIVERSUM IC, Prof. Dr. Michał Charlak - LUT, Prof. Dr. Andras Horvath - OBU, Prof. Dr. Emilia Madudova - UNIZA) presented the survey results and gave their conclusions. After the presentation of the survey results, the thematic presentations began, where Prof. dr. Radovan Madlenak (UNIZA)

presented their laboratory HMI-LAB and its use for STEM education. His university colleague Prof. Dr. Jiri Tengler presented STEM integration in the educational process. At 11:45 a.m. representatives of Obuda University Prof. dr. Victor Gonda and Prof. dr. Agota Dregelyi-Kiss presented: Collaborative workshop module in moodle and using the moodle quiz for assessment. After the presentations, the webinar attendees had the opportunity to ask questions and express their interest in the topic.

Following a productive discussion that took place at 12:00 a.m., all participants were given the opportunity for a coffee break at 12:15 p.m.

At 12:30 p.m. the presentation Using of escape rooms in the teaching process has started by speakers Dr. Agnieszka Gandzel, Prof. Dr. Michal Charlak (LUT). Also, the speaker, Prof. Dr. Michal Charlak (LUT) gave a presentation on: Using the question bank for creating tests in the Moodle.

Then Dr. Vladimir Maksimovic (UPKM) at 13:00 p.m. continued on presentation titled Smart Classroom: Multifunctional Smart Room for Interactive Education and Connectivity. After that, Prof. Dr. Branimir Jaksic (UPKM) presented Implementation of a Multimedia Television System as an Educational Laboratory at Faculty of Technical Sciences in Kosovska Mitrovica.

This webinar provided a continuation of the STEM capabilities and the presentation titled Using AI for STEM courses by speaker MA. Uran Rraci (UNIVERSUM IC) began at 13:30 p.m. After that, as last presentation on the webinar, MA. Ilir Berisha (UNIVERSUM IC) presented Virtual Reality (VR) and Augmented Reality (AR) in STEM Education

At 14:00 p.m. a final discussion session was held, during which participants had the chance to share their insights, ask questions, and provide recommendations based on the knowledge gained during the webinar event. This session served as a valuable exchange of ideas and a platform for collaborative thinking.

Conclusions

The webinar was successful because WB and V4 HIEs shared their experiences, good practices, and potential solutions for the application of STEM in the teaching process. All planned agenda items were fulfilled. In addition to interesting keynote speeches, the participants discussed in more detail about next activity (publication).

During the webinar, many new innovative ideas were learned and an insight into the work of the laboratories of all partner institutions was gained. Students and staff from WB HEIs and V4 HEIs had the opportunity to compare their experiences with the work and experience of partners from other HEIs, which encourages their further advancement. The webinar proved to be very important for teaching and non-teaching staff.

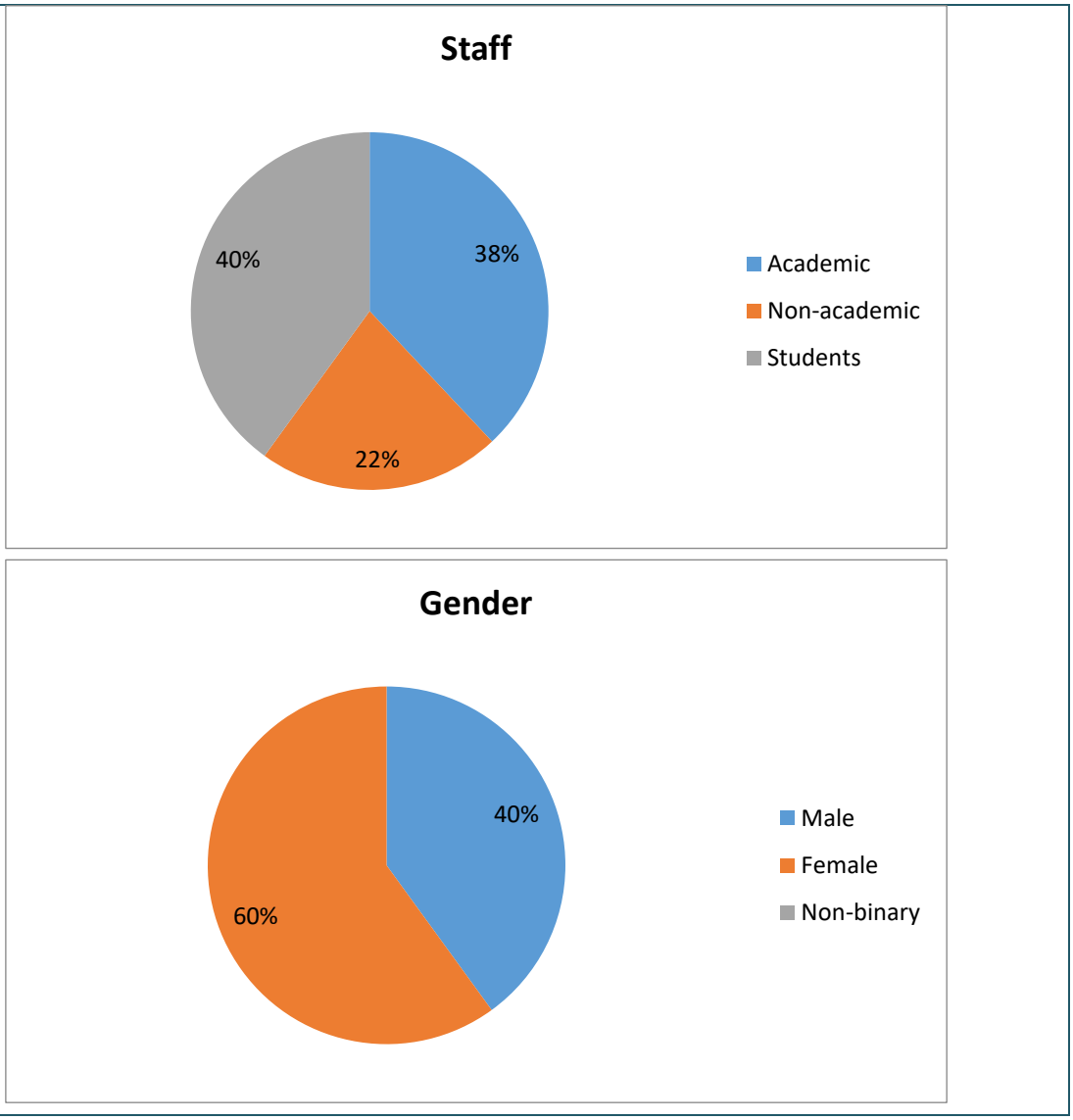
Webinar – Agenda

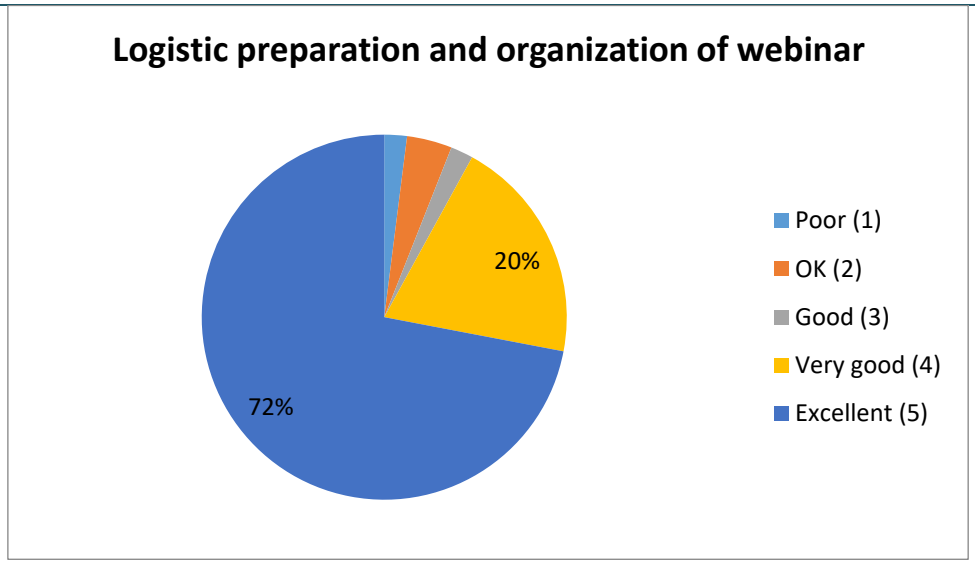
Webinar: Implementation of STEM Principles in Education System	
09:30-10:00	**Participants registration**
10:00-10:15	**Welcome and introduction** *Prof. Dr. Nebojsa Arsic, Rector of University of Pristina in Kosovska Mitrovica* *Dr. Vladimir Maksimovic, University of Pristina in Kosovska Mitrovica*
10:15-11:15	**DigSTEM Survey - Presentation of the Results** *Dr. Jelena Todorovic, University of Pristina in Kosovska Mitrovica* *MA. Dijana Latifaj, Universum International College* *Prof. Dr. Michał Charlak, Lublin University of Technology* *Prof. Dr. András Horváth, Obuda University* *Prof. Dr. Emília Madudová, University of Zilina*
11:15-11:30	**HMI-LAB and its Use for STEM Education** *Prof. Dr.Radovan Madleňák, University of Zilina*
11:30-11:45	**STEM Integration in the Educational Process** *Prof. Dr. Jiří Tengler, University of Zilina*
11:45-12:00	**Collaborative Workshop Module in Moodle** *Prof. Dr. Viktor Gonda, Obuda University*
12:00-12:15	**Ágota Drégelyi-Kiss: Using the Moodle Quiz for Assessment** *Prof. Dr. Ágota Drégelyi-Kiss, Obuda University*
12:15-12:30	**Break**
12:30-12:45	**Using of escape rooms in the teaching process** *Dr. Agnieszka Gandzel, Prof. Dr. Michał Charlak, Lublin University of Technology*
12:45-13:00	**Using the question bank for creating tests in the Moodle** *Prof. Dr. Michał Charlak, Lublin University of Technology*
13:00-13:15	**Smart Classroom: Multifunctional Smart Room for Interactive Education and Connectivity** *Dr. Vladimir Maksimovic, University of Pristina in Kosovska Mitrovica*
13:15-13:30	**Implementation of a Multimedia Television System as an Educational Laboratory** *Prof. Dr. Branimir Jaksic, University of Pristina in Kosovska Mitrovica*
13:30-13:45	**Using AI for STEM courses** *MA. Uran Rraci, Universum International College*
13:45-14:00	**Virtual Reality (VR) and Augmented Reality (AR) in STEM Education** *MA. Ilir Berisha, Universum International College*
14:00-14:30	**General discussion and conclusions**

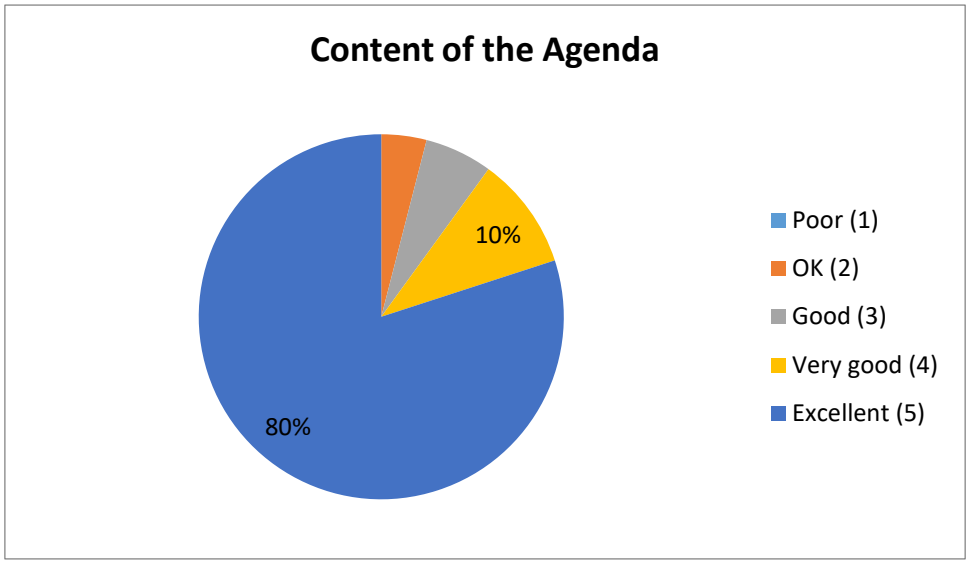
Useful Information

All the information that was needed for participation and registration, as well as complete documentation after the webinar, can be found on the website digstem.pr.ac.rs.

Event Evaluation List




Logistic preparation and organization of webinar
20%
72%
Poor (1)
OK (2)
Good (3)
Very good (4)
Excellent (5)


Content of the Agenda
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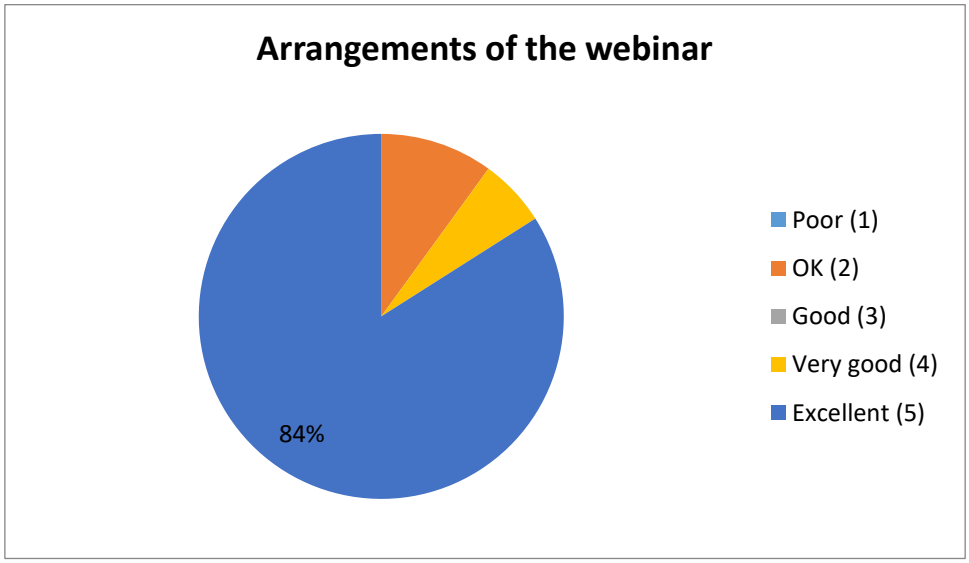
80%
Poor (1)
OK (2)
Good (3)
Very good (4)
Excellent (5)


Arrangements of the webinar
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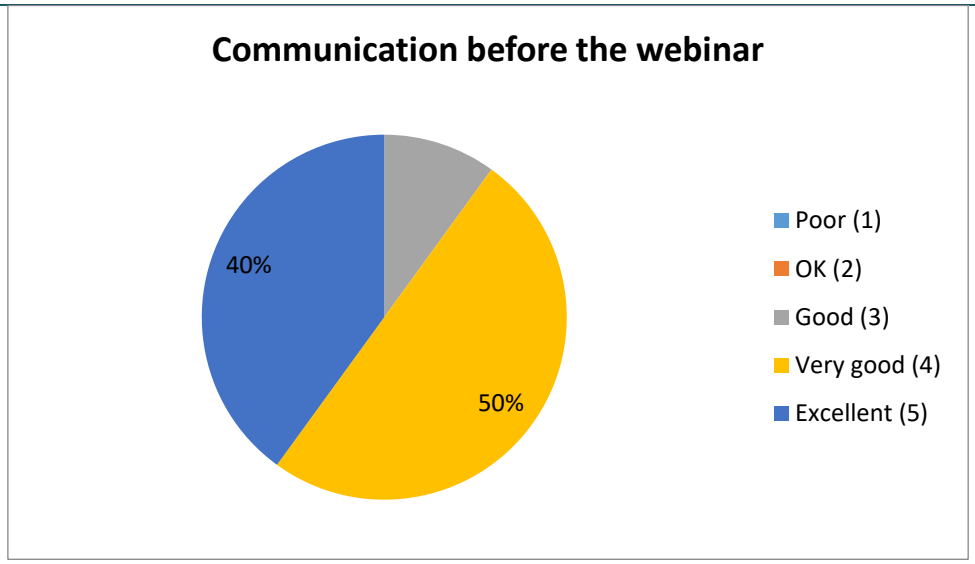
Good (3)
Very good (4)
Excellent (5)


Communication before the webinar
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50%
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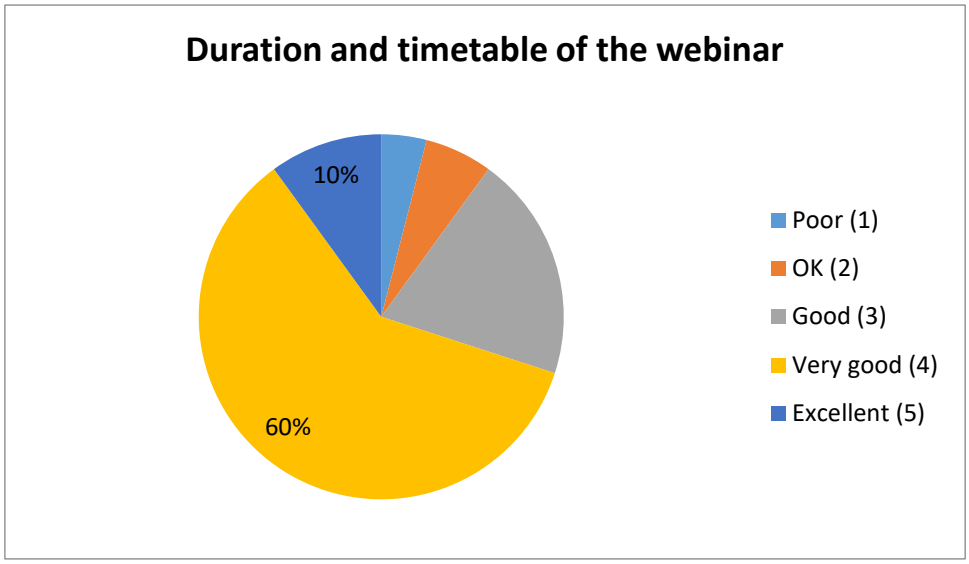
Good (3)
Very good (4)
Excellent (5)


Duration and timetable of the webinar
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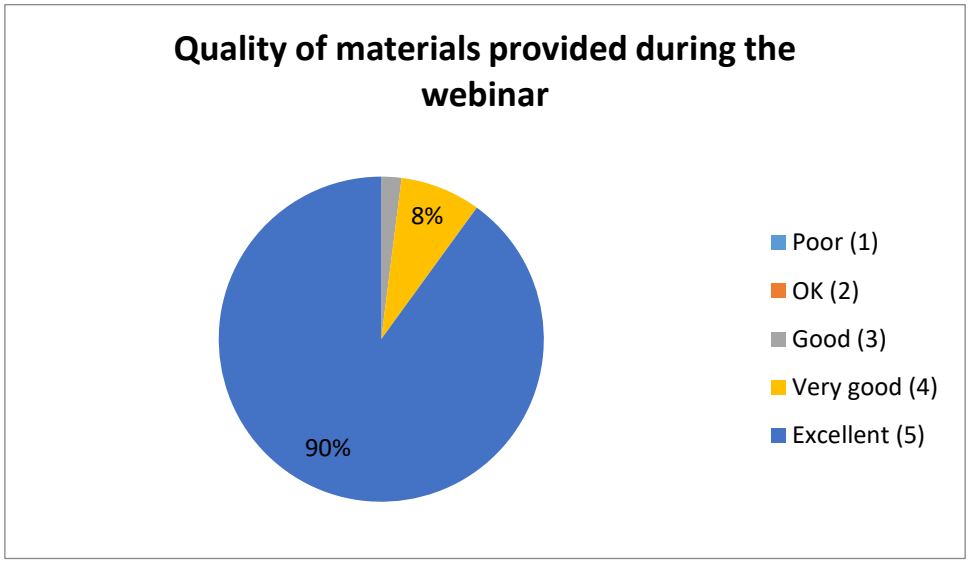
60%
Poor (1)
OK (2)
Good (3)
Very good (4)
Excellent (5)


Quality of materials provided during the webinar
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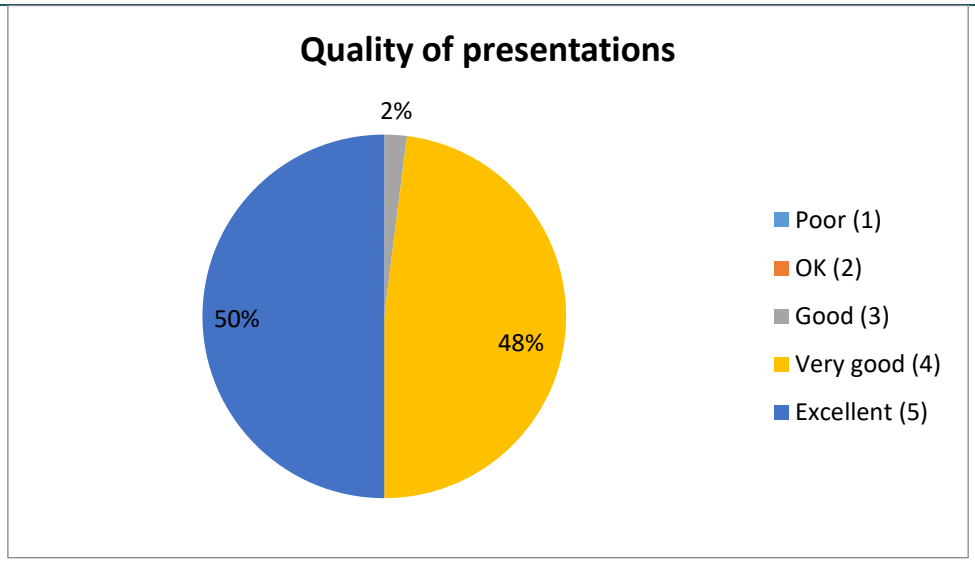
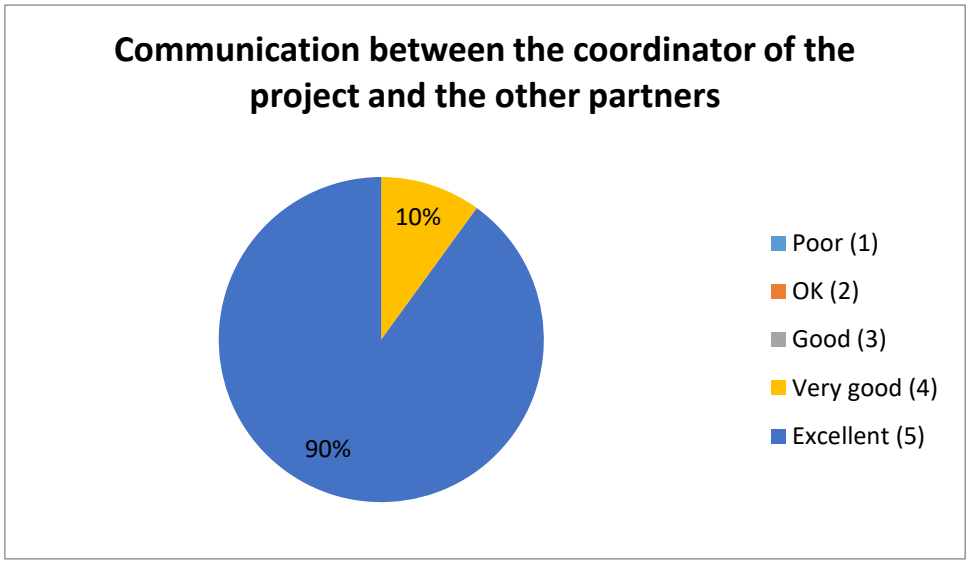
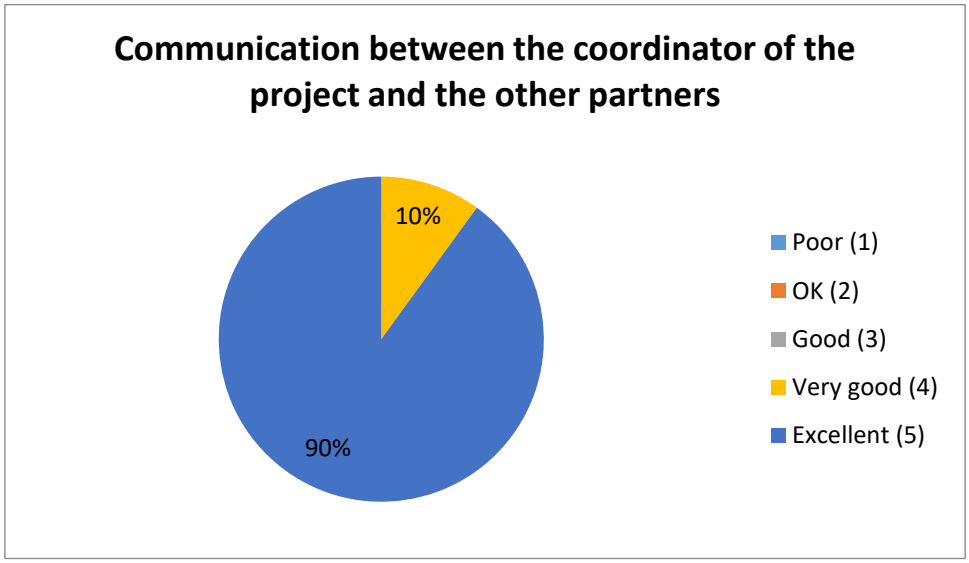
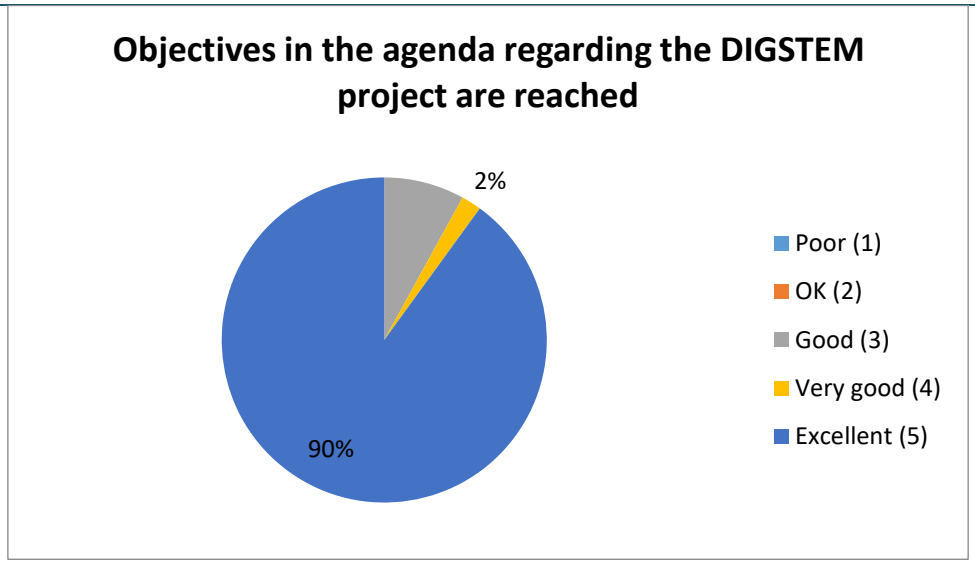
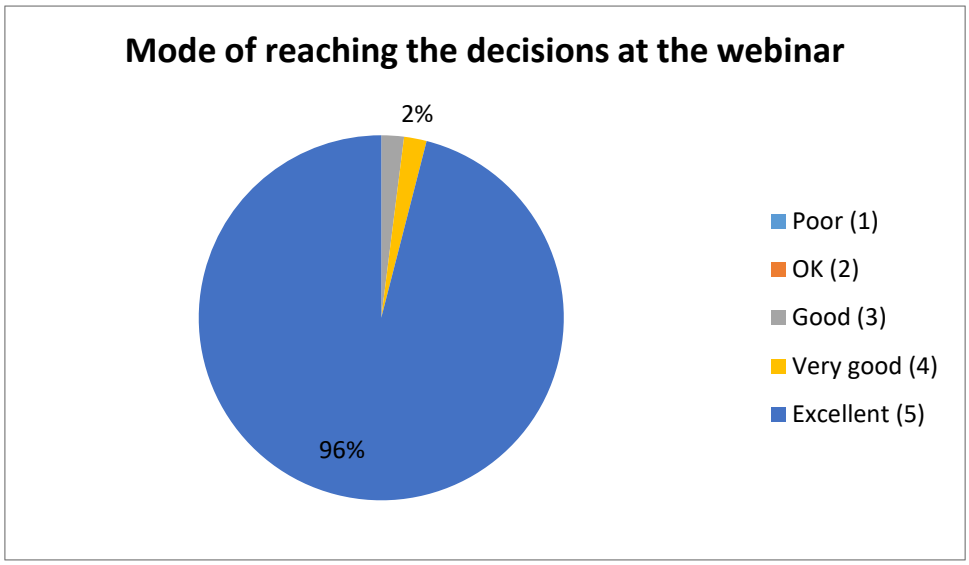
90%
Poor (1)
OK (2)
Good (3)
Very good (4)
Excellent (5)

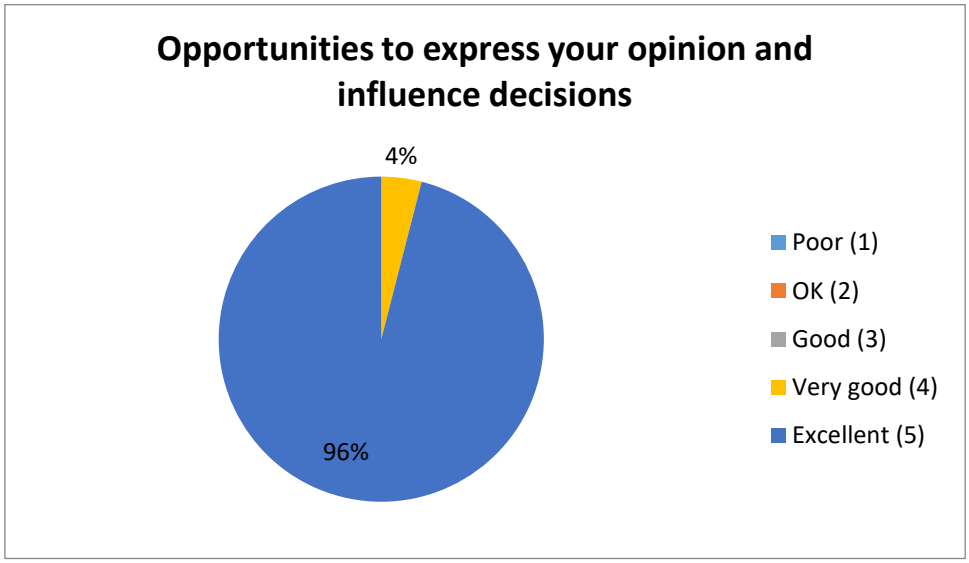

Quality of presentations
2%
50%
48%
Poor (1)
OK (2)
Good (3)
Very good (4)
Excellent (5)

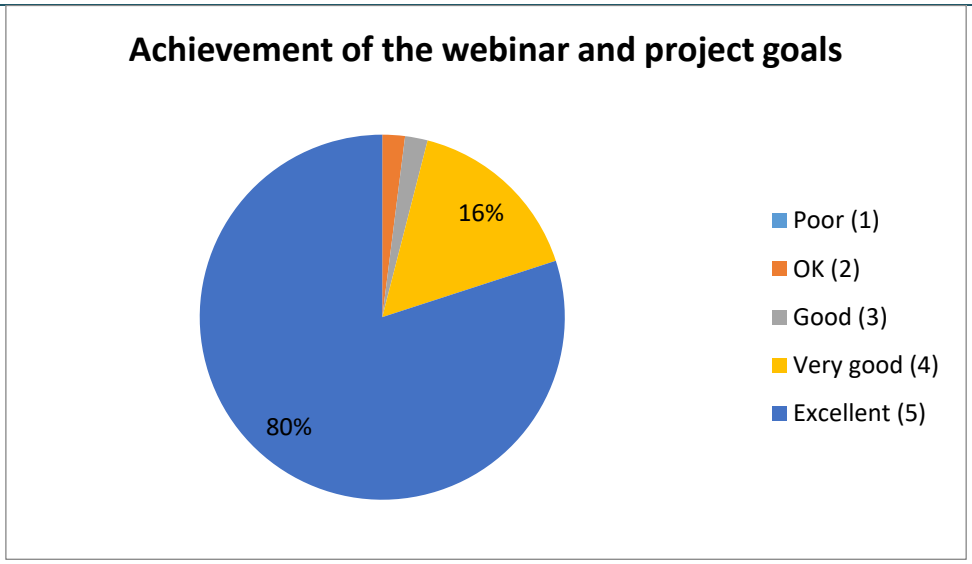

Communication between the coordinator of the project and the other partners
10%
90%
Poor (1)
OK (2)
Good (3)
Very good (4)
Excellent (5)

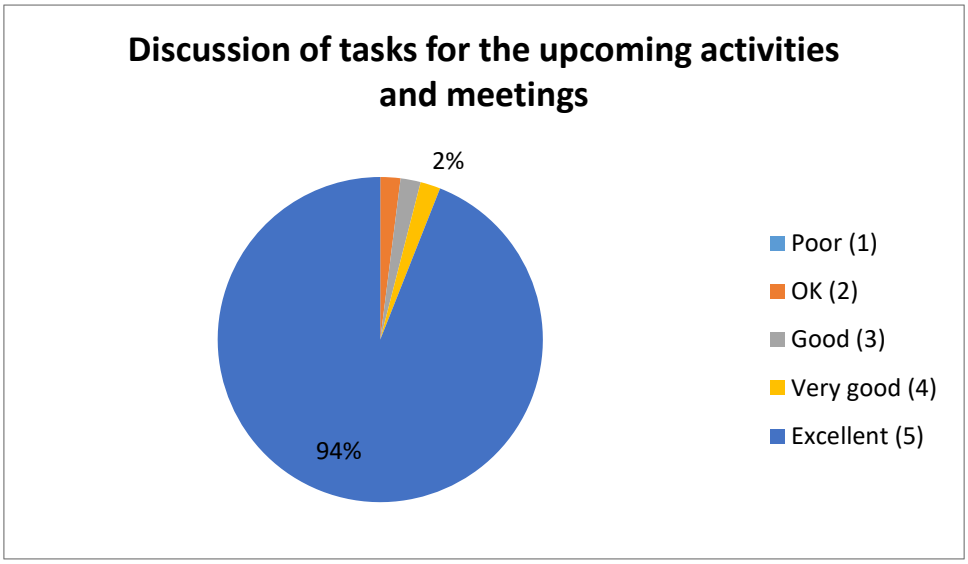

Communication between the coordinator of the project and the other partners
10%
90%
Poor (1)
OK (2)
Good (3)
Very good (4)
Excellent (5)


Objectives in the agenda regarding the DIGSTEM project are reached
2%
90%
Poor (1)
OK (2)
Good (3)
Very good (4)
Excellent (5)


Mode of reaching the decisions at the webinar
2%
96%
Poor (1)
OK (2)
Good (3)
Very good (4)
Excellent (5)

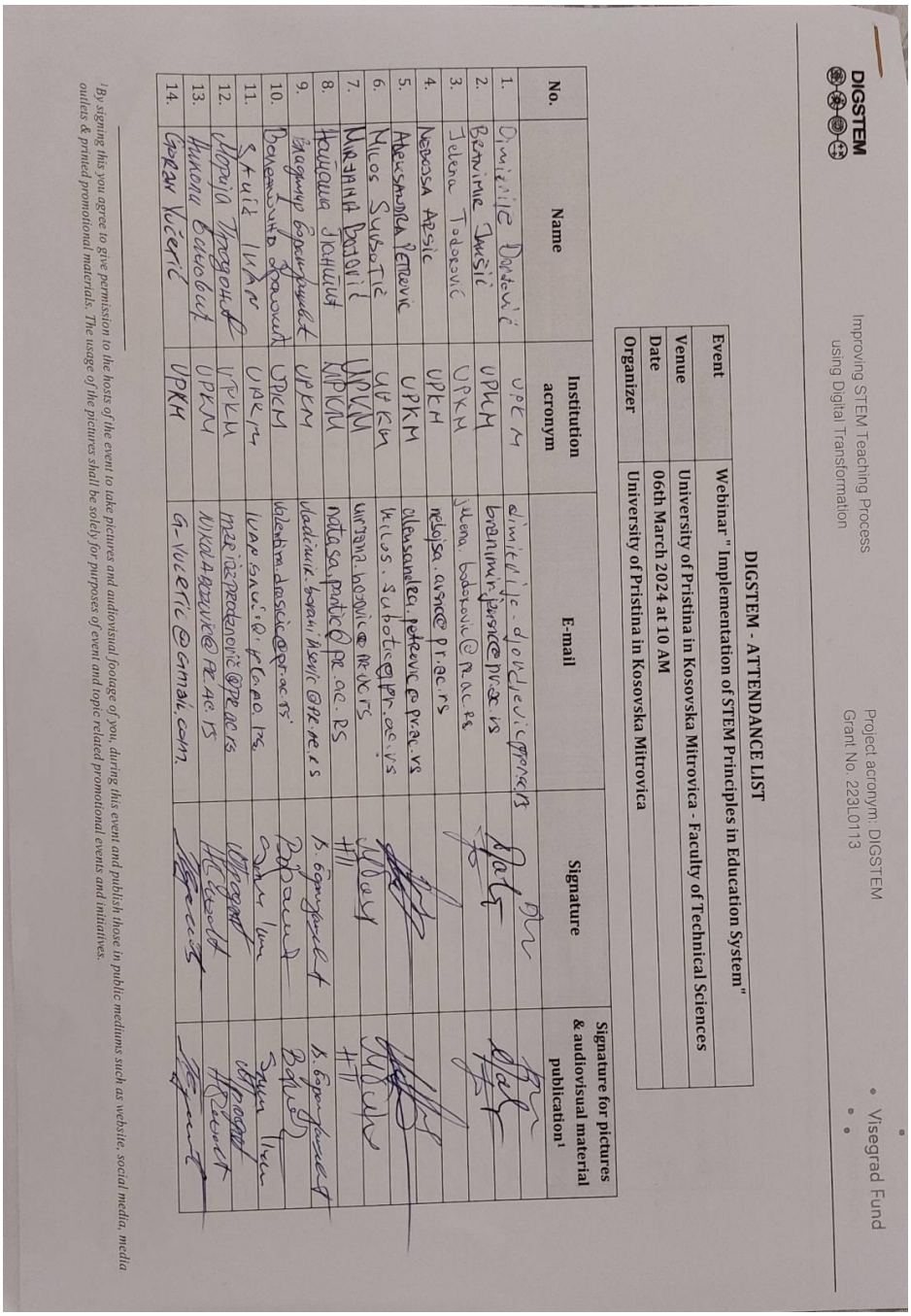

Opportunities to express your opinion and influence decisions
4%
96%
Poor (1)
OK (2)
Good (3)
Very good (4)
Excellent (5)


Achievement of the webinar and project goals
16%
80%
Poor (1)
OK (2)
Good (3)
Very good (4)
Excellent (5)


Discussion of tasks for the upcoming activities and meetings
2%
94%
Poor (1)
OK (2)
Good (3)
Very good (4)
Excellent (5)

Webinar - Attendance list

Attendance list



DIGSTEM

Improving STEM Teaching Process using Digital Transformation

Project acronym: DIGSTEM
Grant No. 223L0113

Visegrad Fund

DIGSTEM - ATTENDANCE LIST

Event	**Webinar " Implementation of STEM Principles in Education System"**
Venue	**University of Pristina in Kosovska Mitrovica - Faculty of Technical Sciences**
Date	**06th March 2024 at 10 AM**
Organizer	**University of Pristina in Kosovska Mitrovica**

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5.	Aleksandra Petrović	UPKM	aleksandra.petrovic@pr.ac.rs	[illegible]	[illegible]
6.	Milos Subotić	UPKM	milos.subotic@pr.ac.rs	[illegible]	[illegible]
7.	Mirjana Bojović	UPKM	mirjana.bojovic@pr.ac.rs	[illegible]	[illegible]
8.	Hadžiana Jahnulut	UPKM	natasa.pantic@pr.ac.rs	[illegible]	[illegible]
9.	Bogomyr Bogomyrult	UPKM	vladimir.bogomirovic@pr.ac.rs	[illegible]	[illegible]
10.	Benemirna Bojovult	UPKM	ivan.gnuc@pr.ac.rs	[illegible]	[illegible]
11.	Sfuid Ivan	UPKM	mariazpredenovic@pr.ac.rs	[illegible]	[illegible]
12.	Mopija Thogohut	UPKM	nikola.dzunic@pr.ac.rs	[illegible]	[illegible]
13.	Aurora Bukobut	UPKM	[illegible]	[illegible]	[illegible]
14.	Goran Vučerić	UPKM	G.vucetic@gmail.com	[illegible]	[illegible]

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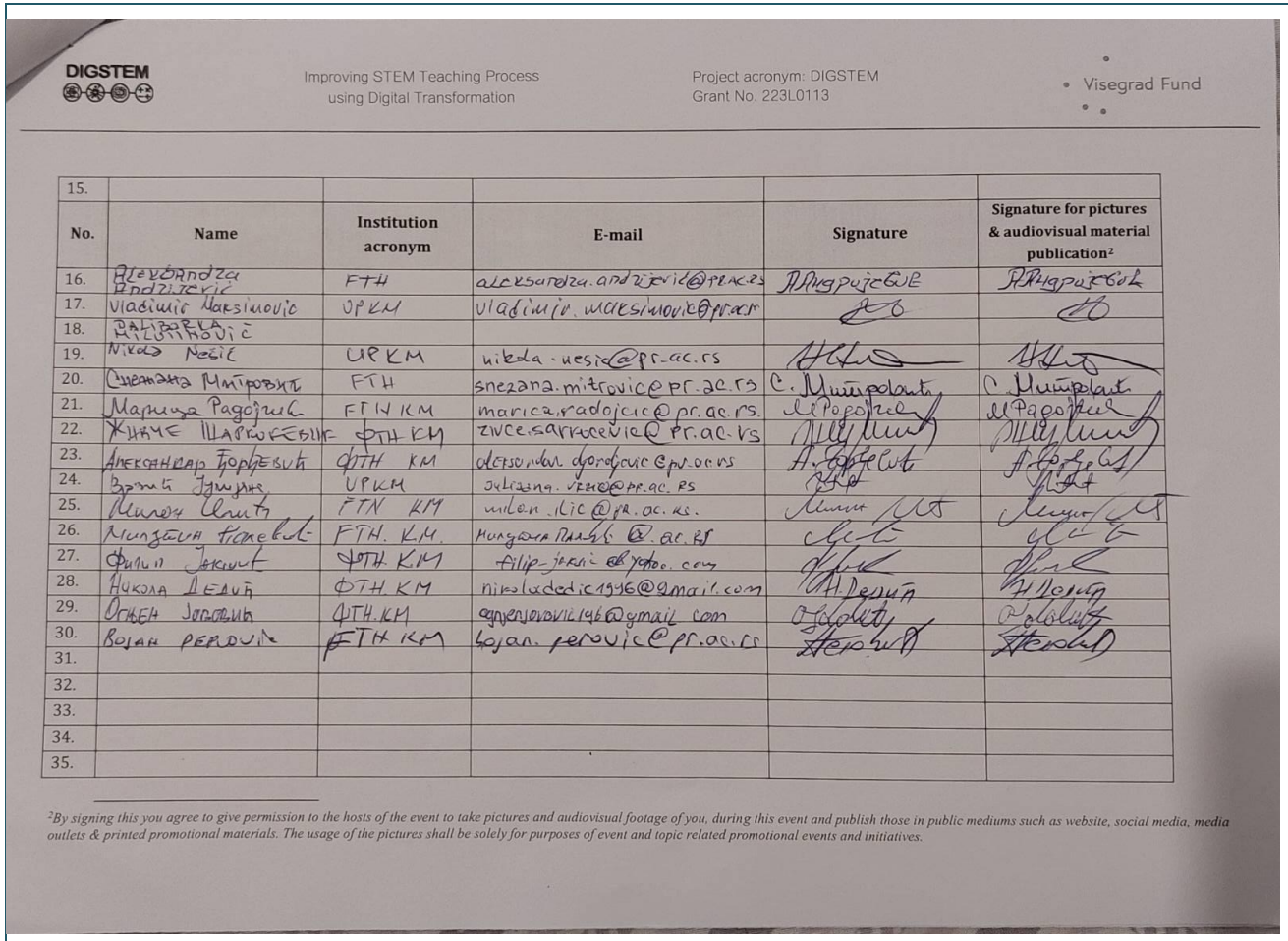

DIGSTEM

Improving STEM Teaching Process using Digital Transformation

Project acronym: DIGSTEM
Grant No. 223L0113

Visegrad Fund

No.	Name	Institution acronym	E-mail	Signature	Signature for pictures & audiovisual material publication[2]
15.					
16.	Aleksandra Andrijević	FTH	aleksandra.andrijevic@pr.ac.rs	A.Andrijević	A.Andrijević
17.	Vladimir Maksimović	UPKM	vladimir.maksimovic@pr.ac.rs		
18.	Katarina Ilić				
19.	Nikola Nešić	UPKM	nikola.nesic@pr.ac.rs		
20.	Snežana Mitrović	FTH	snezana.mitrovic@pr.ac.rs	S. Mitrović	S. Mitrović
21.	Marina Pagojić	FTN KM	marica.radojcic@pr.ac.rs	M Pagojić	M Pagojić
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23.	Александар Ђорђевић	ФТН КМ	aleksandar.djordjevic@pr.ac.rs		
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25.	Милан Илић	FTN KM	milan.ilic@pr.ac.rs		
26.	Мирјана Ранковић	FTH. KM.	Mirjana Rankovic @. ac. RS		
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29.	Огњен Јовановић	ФТН КМ	ognjenjovanovic1996@gmail.com		
30.	Bojan Perović	FTH KM	bojan.perovic@pr.ac.rs		
31.					
32.					
33.					
34.					
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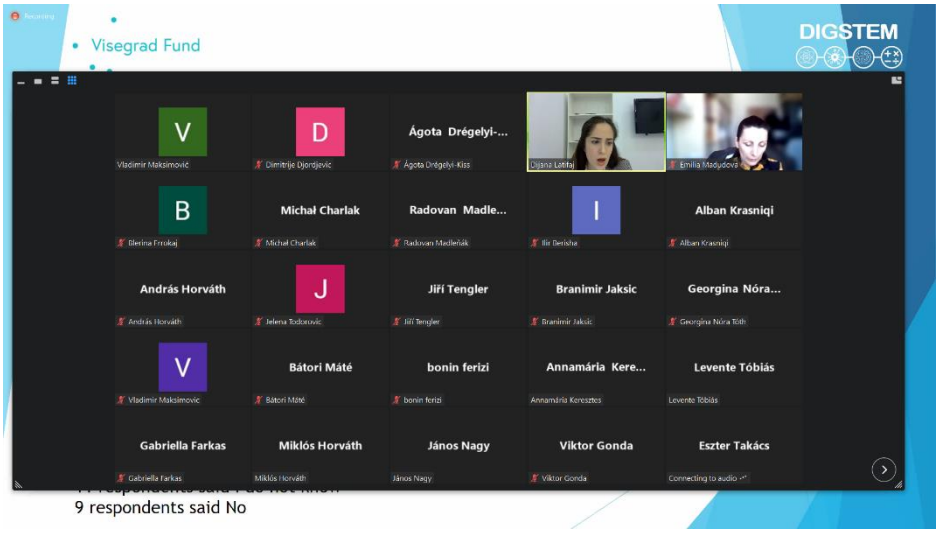
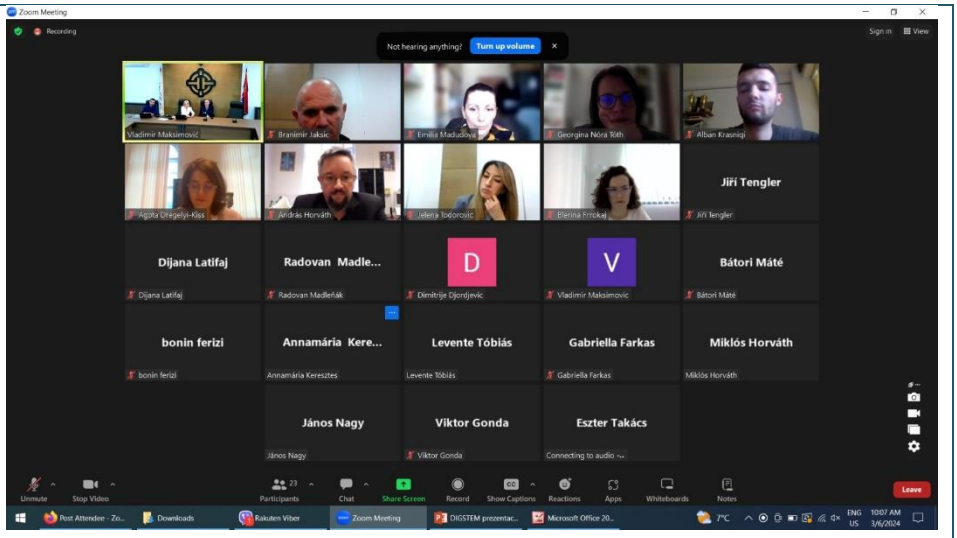
Photos	


Visegrad Fund
DIGSTEM
Ágota Drégelyi-...
Michał Charlak
Radovan Madle...
Alban Krasniqi
András Horváth
Jiří Tengler
Branimir Jaksic
Georgina Nóra...
Bátori Máté
bonin ferizi
Annamária Kere...
Levente Tóbiás
Gabriella Farkas
Miklós Horváth
János Nagy
Viktor Gonda
Eszter Takács
9 respondents said No

Radovan Madle...


Zoom Meeting
Recording
Not hearing anything?
Turn up volume
Vladimir Maksimović
Branimir Jakšić
Emília Madudová
Georgina Nóra Tóth
Alban Krasniqi
Ágota Orgelyi-Kiss
András Horváth
Jelena Todorović
Jiří Tengler
Dijana Latifaj
Radovan Madle...
Bátori Máté
bonin ferizi
Annamária Kere...
Levente Tóbiás
Gabriella Farkas
Miklós Horváth
János Nagy
Viktor Gonda
Eszter Takács
Connecting to audio ...
Unmute
Stop Video
Participants
Chat
Share Screen
Record
Show Captions
Reactions
Apps
Whiteboards
Notes
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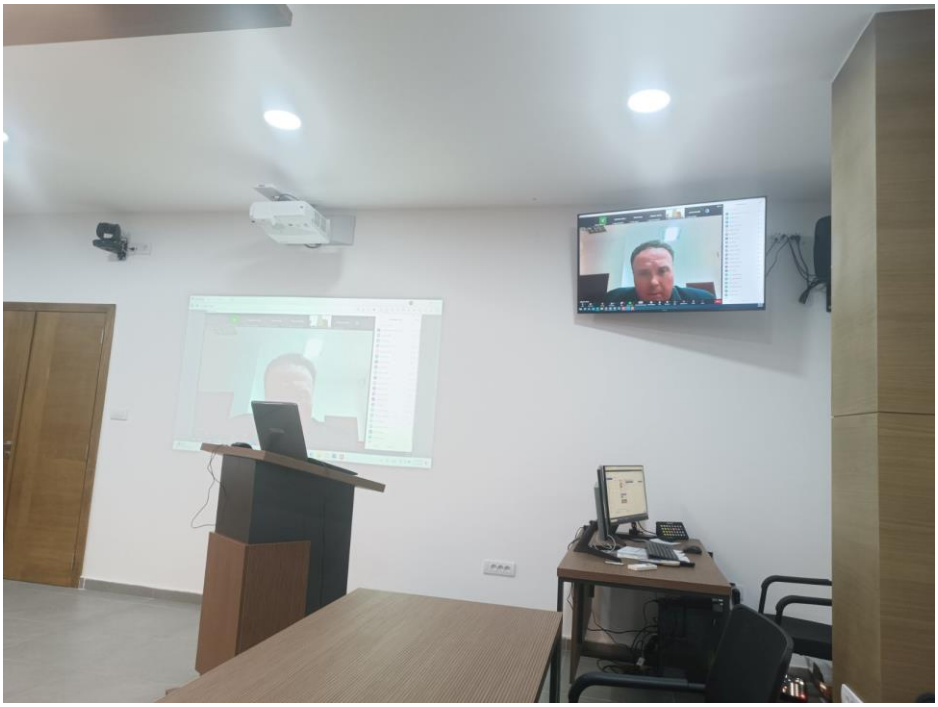

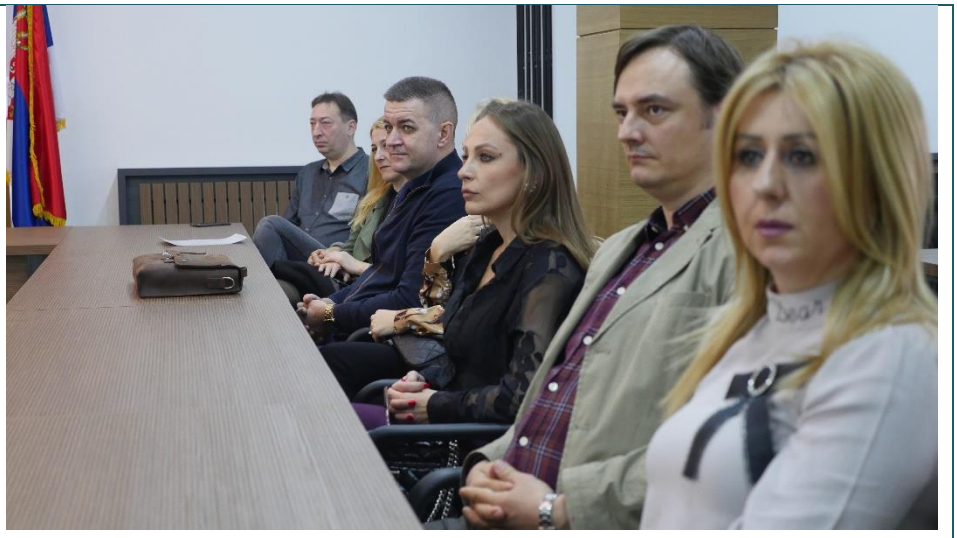

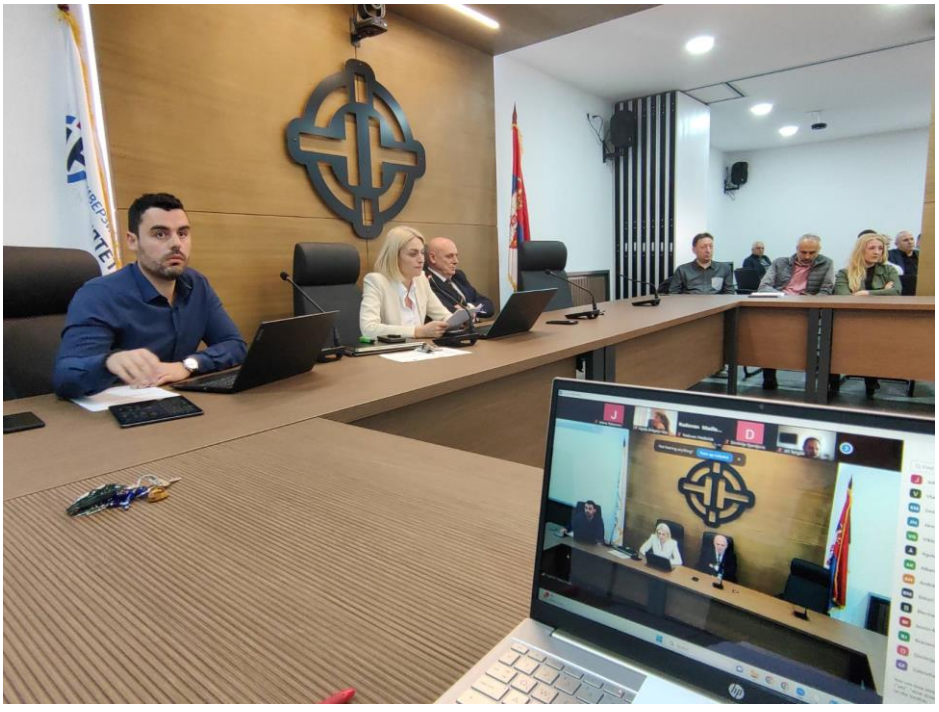

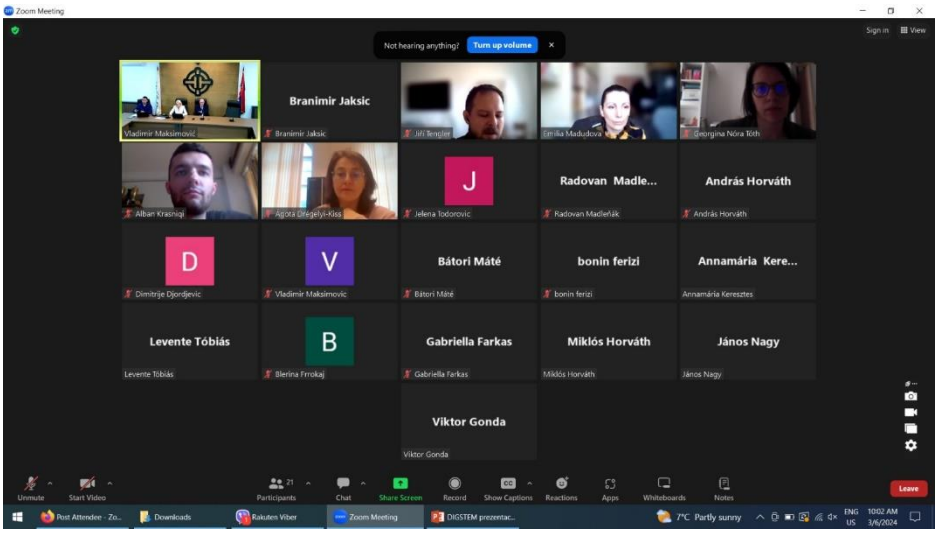
Zoom Meeting
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Branimir Jaksic
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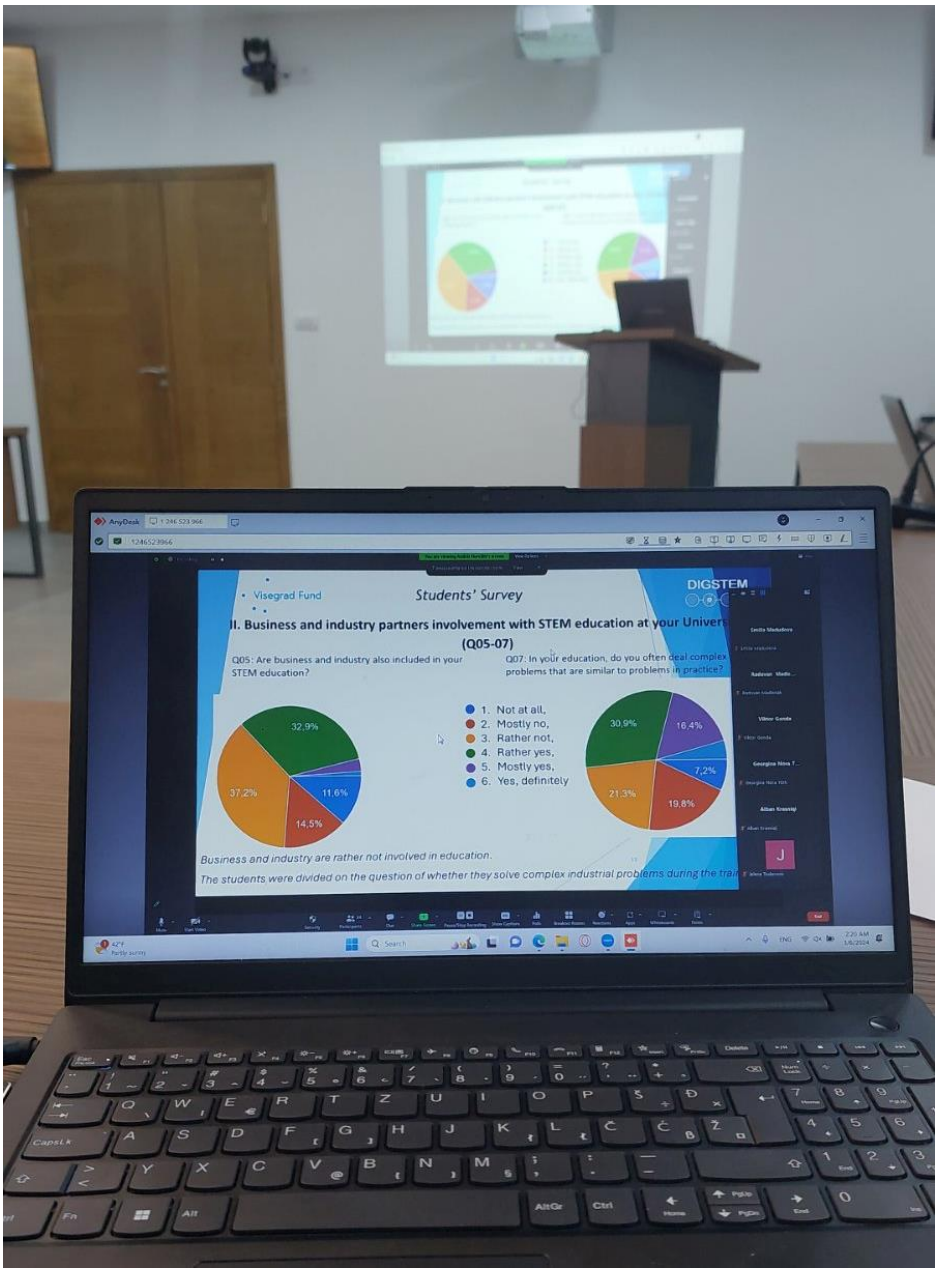
András Horváth
Bátori Máté
bonin ferizi
Annamária Kere...
Levente Tóbiás
Gabriella Farkas
Miklós Horváth
János Nagy
Viktor Gonda
Unmute
Start Video
Participants
Chat
Share Screen
Record
Show Captions
Reactions
Apps
Whiteboards
Notes
Leave


Visegrad Fund
Students' Survey
DIGSTEM
II. Business and industry partners involvement with STEM education at your Univer
(Q05-07)
Q05: Are business and industry also included in your STEM education?
Q07: In your education, do you often deal complex problems that are similar to problems in practice?
1. Not at all,
2. Mostly no,
3. Rather not,
4. Rather yes,
5. Mostly yes,
6. Yes, definitely
32.9%
37.2%
11.6%
14.5%
30.9%
16.4%
7.2%
21.3%
19.8%
Business and industry are rather not involved in education.
The students were divided on the question of whether they solve complex industrial problems during the trai