The Evaluation Report of the Online Training for CUT and UJEP Students during Pandemic Period

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Abstract—**This paper describes self-evaluation of online training. The online training was an unexpected change in IT Competence Network for Strengthening the Saxon-Czech Border Region (IKON) project due to the Covid-19 situation in countries of partner universities. IKON is a project to build up a cooperation network to strengthen the border region between Saxony and the Czech Republic. Main aim of the IKON project is to support students from partner universities by practice oriented training with cooperation of cross border industries. The partner university for Project IKON in Czech Republic is the Jan Evangelista Purkyně University (UJEP) in Ústí nad Labem. This work includes activities and changes in the project plan due to the Covid-19 pandemic and some report about self-assessment for online training.**

Keywords—self-evaluation, online training, IKON, project, pandemic

I. INTRODUCTION

The Chemnitz University of Technology (CUT) [1], Germany cooperates with Jan Evangelista Purkyně University (UJEP) [2] in Ústí nad Labem since 2017 on common project IKON. The CUT plays role of the leader institution in this project [3]. The IBS foundation in Laubusch/Lauta is main location for face to face practical trainings of students (Fig. 1).

Fig. 1. Main locations of IKON project

The project aim is targeted to achieve following ideas:

- Development of students' qualification with practical technology oriented topics;

The IKON project is founded by Europäische Union in 85%.

- Extension of a network between scientists and students in the border region;

- Development of common mobile lab for best practice;

- Motivation and integration of young academics (PhD's);

- Reduction of barriers for example culture, language.

The IKON project started from October 2019 with kick of meeting for project members and first training for Block 1.

II. NEEDS TO CHANGE IN THE PROJECT PLANS

A. Unexpected New Situation in Project Implementations

Based on the aim of the project the activities are divided into two basic rounds. Each round consists of 9 trainings and 3 blocks (Fig. 2).

- Block 1: Automotive processes

- Block 2: Digital processes
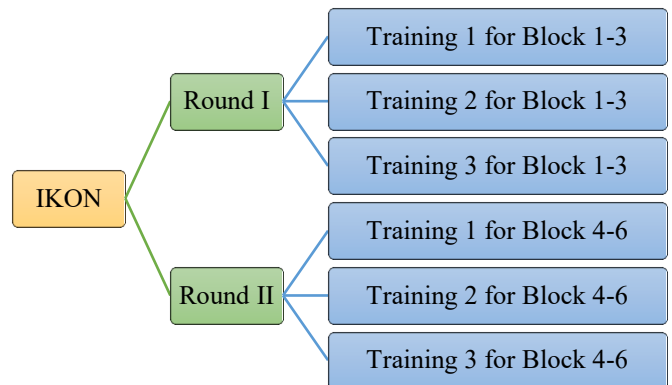
- Block 3: Industry Automation

Fig. 2. Planned activities

By pre-defined and agreed plan the project started with the face to face training of the students from the two partner universities in the IBS meeting center (Laubusch/Lauta) [4], as vacuum seminar location for practices. First trainings were organized successfully in Laubusch from October 2019 to February 2020.

Unfortunately, all planned trainings needed to be changed due to the new situation in the whole world. The Covid-19 pandemic started to take more attention from governments and

finally the universities had to organize all planned events online [5]. It was not an easy discussion between the partner universities about unplanned change in project activities. Main purpose of project was the face to face trainings for students from partner universities, support them with soft skills developments like: intercultural understanding, international cooperation and communication, exchange of ideas and experiences in international environment, learn to plan and travel to foreign countries with academic targets, work on common hardware together during training phases.

The main focus of the project was disrupted by the new situation. All trainings had to be changed to online version. Due to the new rules of both countries: Czech Republic and Germany it was not possible to travel anymore. Therefore, long discussions on change in plans started: to keep project alive we had to do all trainings online.

B. Changes in Plan

After new regulations of Germany, the discussions started between partner universities. The discussions focused on change of pre-defined project plan. How can the training be done online? How can be the main goals of project be kept in the online version? Are both partners ready for this change? Will students accept it and be cooperative? How can it be all managed in administration level? Which kind of software will be used for trainings? Such many questions came up and each needed clear answers from both partners. Main challenge was to keep the practical training in face to face in online environment!

After many hours for discussion between the partner universities and administration parts all finally agreed to try trainings as online version until autumn. All plans were updated to online version and last trainings organized online and finished first round in online version, too.

III. ONLINE TRAININGS

A. Prepartions for Online Trainings

Basic preparation for online training focused on selection of software. ZOOM [6] was selected us main online platform for the trainings. Main reason to select ZOOM as basic platform is the easy user interface, functions which offer this software for licensed users. The license was paid and virtual rooms were created as preparation for online trainings.

B. Online Training

The first online training took place from 18th to 20th May, 2020. This was the second training of Block 3 (Fig. 3). Technical supervisors and students were really not happy about the new version: online version [7].

The ZOOM room was tested before training and technical supervisors and students joined the room on planned time. For many of the participants it was their first online training instead of face to face training. The training ran well without any technical and internet connection problems. First online training was organized well and it was very helpful for continuing with other trainings of other Blocks

Fig. 3. First online training for Block 3

IV. SELF-EVALUATION OF ONLINE TRAININGS

After each online training we collected feedback by survey data from the students about the online training. Main aim of this evaluation process is to figure out the good and weak points of the online training. The findings will be applied later for improvement of the following online trainings.

A. Methodology of Evaluation

For self-evaluation the survey methodology was applied. Based on above defined evaluation goals adapted questionnaire was developed.

1. What is your opinion about the online training? (Very good, Good, Bad, Very Bad).

2. Did you have any experience with ZOOM before? (Yes, No).

3. Did you had any problems with connection to virtual room? (Yes, No, Partly).

4. Are you ready to repeat similar online training? (Yes, No, Maybe).

5. How do you evaluate the moderation of this seminar? (Very good, Good, Bad, Very Bad).

6. How do you evaluate the organization of this seminar? (Very good, Good, Bad, Very Bad).

7. What is your opinion about duration of the seminar? (Too long, Exact, Acceptable, Short)

8. Do you have any hints or remark to improve online training in next time?

B. Data Collection and Processing

Data was collected three times after training of three different blocks. The data are processed by two different tools: Excel and the online tool of the SURE model [8-11].

Fig. 4 shows result for questions 1, 5 and 6 by 22 participants' answers. From that figure it can be seen that most of the students (14, 13 and 12) answered to these three question as "Good". Some of the students (6, 7 and 8) answered "Very good". No one (0, 0 and 0) gave answer "Bad" or "Very bad".

Fig. 5 shows the result for same questions. But these results are different and relatively easy to explain and understand. By

the SURE model, key and sub goals for the evaluation process are defined. Here are the selected 3 questions and these questions are defined as key goals.
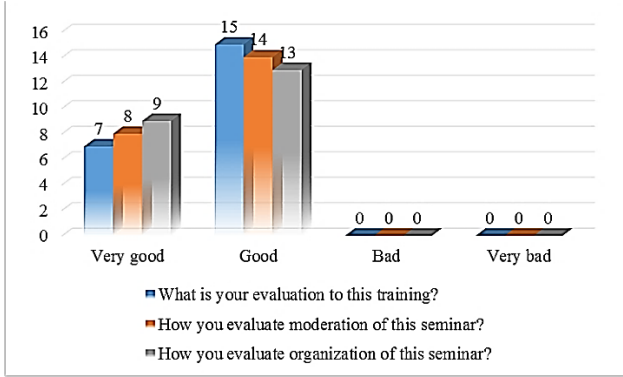

Fig. 4. Excel sheet result for questions 1, 5 and 6

Fig. 5. The SURE result for questions 1, 5 and 6

Each key goal consists of single sub goal and the qualitative measurement: Very bad, Bad, Good and Very good is transferred to a quantitative measurement as 0, 1, 2 and 3. This will be the evaluation interval or questions. Then the collected data are processed by the SURE data processing formulas and based on collected data the evaluation scores are computed.

It can be seen in the evaluation scores that all goals are reached their target successfully. The general evaluation score is 0.8326. That means we reached our target with success of around 83%.

By evaluation of students our first online trainings were successful and it is confirmed by general evaluation score.

Moreover, by the SURE model evaluation score we can check how good achievement of question 1, 5 and 6 was.

- Question 1: What is your evaluation to this training? Measured by students as 0.83.

- Question 5: How you do you evaluate moderation of this seminar? Measured by students as 0.8.

- Question 6: How do you evaluate organization of this seminar? Measured by students as 0.89.
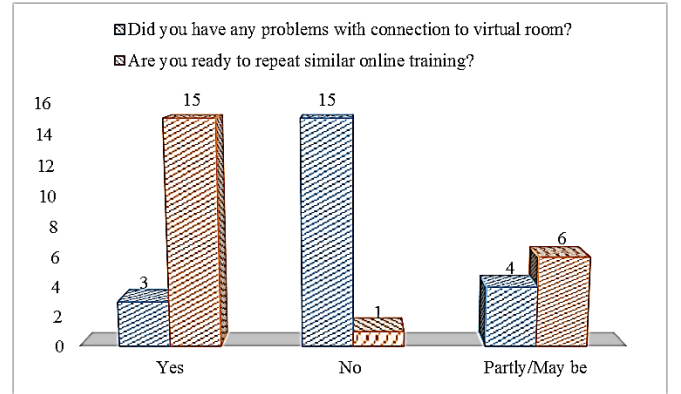

Fig. 6. Excel sheet result for questions 3 and 4

Fig. 6 shows result of questions 3 and 4. Three students had problems with connection to virtual room, four students had problems partly and remaining 15 students had no problems with connections. 15 of 22 students are ready to repeat only training, one student does not want to do it again online, 6 students answered they might can repeat it again.

Fig. 7 shows result of question 2. Half of students had experience with zoom before and half of them not.

Fig. 8 shows result of question 7. Most of students (68%) answered that duration of online training was acceptable. But for 18% of students it was too long. And for 14% of students it was exact planned.

C. Result of Evaluation

Before to collecting the data evaluators were not sure about positive results. In the original plan all trainings were planned as face to face events. But the unexpected new situation made pressure to whole IKON team to change these plans.

Not all members welcomed these changes in plans. But to keep IKON project, trainings were switched to online version.

Main goal of this evaluation was to figure out feeling of students about online training and new version of trainings.

For our big surprise evaluation result were very positive. 6th question made clear that part of the students had no experience before online training with Zoom software.
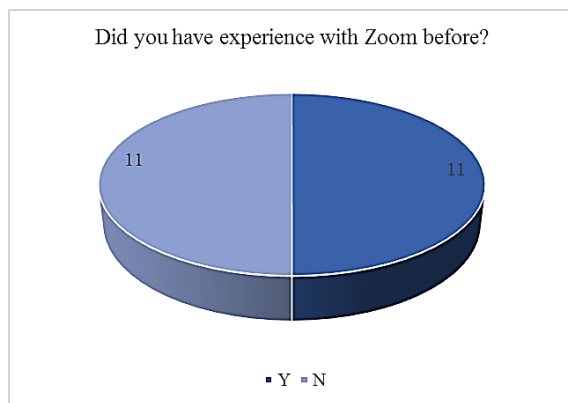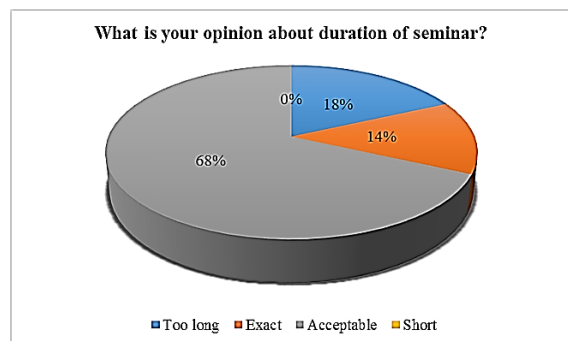
Fig. 7. Excel sheet result for questions 2

Fig. 8. Excel sheet result for questions 7

Maybe this is the reason why 3 students had problems with connection to virtual room and 4 students had partly problems. By 7th question we figure out that duration of online training was acceptable for 15 students from 22. This confirms answer to question 3 that 15 students answered Yes, ready to repeat online training.

For the last, 8th question students mostly answered "none". But there are some other comments:

- "For me the overall experience was amazing. My Supervisors were very helpful and friendly";

- "Nothing specific to think of. But meetings can be increased if needed";

- "Probably not - although I prefer physical meetings";

- "Only one problem was that we just didn't be prepare for that";

- "Add more fun activities".

Above listed answers show that students were not prepared for unexpected change in plans. Even so all participated actively and did good job. Just one student bravely commented that they prefer next time face to face training.

V. CONCLUSION

The new situations which appeared due to the Covid-19 influence many aspects of human lives. One case was the IKON project in cooperation of CUT and UJEP, from Czech Republic and Germany. To fit new pandemic situation and keep project plan IKON team of both universities worked hard and found solutions. It was not easy to suddenly switch all planned activities to online version. But professors and students of IKON project cooperated well and continued trainings in virtual environments.

Start was not easy and smooth. But after many discussions all members of IKON project accepted the new situation and collaborated during online training in virtual rooms together.

Main aim of this self-evaluation was to figure out satisfaction and acceptance of students about online training, about new situation during pandemic. Evaluation result was so positive that evaluators not expected. Reason is when discussion about change to online version started both side met many problems and was not sure that it will run well for online version.

We conclude with above listed results as confirmation that our students are prepared to digital change even it is not planned. This is good sign that partner universities can find common language during pandemic time and can cooperate successfully, and keep the process running like international projects during pandemic time.

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