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EDU-VET

E-Learning, Digitisation and Units for Learning at VET schools –

Creating online Learning Environments in Technical Education for

European metal industry

IO3: Evaluation report

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Introduction

This report presents the results of the evaluation of the EDU-VET learning platform. On the one hand, these relate to the general evaluation of the learning platform and, on the other hand, the user-friendliness of this is determined by means of a questionnaire.

The testing and evaluation was carried out on Tuesday, March 8th, 2022 at the Berufskolleg West in the city of Bocholt. The respective questionnaires were filled out by hand and summarized digitally in this report.

The participants of the testing and evaluation are:

- Teachers from the metal sector (3 participants)
- Apprentices in the field of cutting machine operators, second year of apprenticeship (8 participants)

It is important to mention here that the results are summarized in this report and no distinction was made between students and teachers.

Results of Evaluation and Testing

The results are shown below. First, the focus is on the general quantitative evaluation of the EDU-VET learning platform, then the results of the qualitative survey are presented.

Results Quantitative Data

The students had an age range of 18-24 years and the ages of the three teachers were between 43 and 59 years. From the survey it could be deduced that both the teachers and the learners had already gained experience with blended learning at the West Vocational College. This was mainly due to the Covid-19 pandemic, which meant that the Berufskolleg West had to do distance classes. Various systems were used for this.

The tables below show most of the results of the survey.

Rating of the EDU-VET Learning Platform

Tell us your opinion:
The EDU-VET learning platform is …

important	8	3	O	O	O	O	unimportant
interesting	7	3	1	O	O	O	uninteresting
motivating	2	5	4	O	O	O	unmotivating
fun	O	8	3	O	O	O	boring
innovative	9	2	O	O	O	O	oldfashoned
helpful	10	1	O	O	O	O	Not helpful
Adequate for learners in the metal industry	11	O	O	O	O	O	Inadequate for learners in the metal industry
useful	10	1	O	O	O	O	useless
easy to access	O	7	4	O	O	O	hard to access
of good quality	O	5	5	O	O	O	of poor quality
easy to use in teaching	7	4	O	O	O	O	hard to use in teaching
easy to use in learning	3	6	2	O	O	O	hard to use in learning

Should teachers support their students with learning platforms to foster learning processes?

Yes.	7
Rather yes.	3
Rather no.	1
No.	O

Please rate the EDU-VET Learning Platform.

	strongly agree	agree	disagree	strongly disagree
The EDU-VET Learning Platform offers innovative ways of learning.	9	2	O	O
The EDU-VET Learning Platform combines the blended-learning approach.	10	1	O	O
The EDU-VET Learning Platform can be combined with other teaching materials.	8	3	O	O
The EDU-VET Learning Platform is interesting.	8	3	O	O
The graphics / illustrations of the EDU-VET Learning Platform are good.	1	5	5	O
The EDU-VET Learning Platform is helpful.	7	4	O	O
The EDU-VET Learning Platform addresses learners.	8	3	O	O
It is easy to handle the EDU-VET Learning Platform.	5	6	O	O
The EDU-VET Learning Platform is motivating.	2	7	2	O
It is easy to register to the EDU-VET Learning Platform.	1	10	O	O

These results clearly show that the majority of participants are generally satisfied with the EDU-VET learning platform. Over 90% found this learning opportunity helpful and useful and 100% found this learning platform appropriate for metals learners. A large part wishes that teachers would work more with such learning platforms in the future. This clearly shows that the learning platforms for learners can be a good alternative to normal lessons.

However, this survey made it clear that some elements could still be improved. Among other things, the quality of the learning content was described as nearly good, but not perfect. This can be related, among other things, to the missing or low-quality graphics. As a result, the motivation factor was also assessed as weaker for some participants.

Overall, the participants were satisfied with the EDU-VET learning platform. Finally, the last question clearly shows this. Everyone likes the learning platform, four participants even loved using it.

Results Qualitative Data

The participants had the opportunity to provide comments on the EDU-VET learning platform in an open field.

Overall, more and high-quality images, graphics and videos were requested. The amount of learning materials should also be expanded. The quality of some learning modules can also be expanded and improved.

In principle the learning platform was highly praised and valued.

Results of Usability study

In this usability study, the participants were asked about the application and user-friendliness of the EDU-VET learning platform. It was tested for validity and reliability and scored on a 7-point Likert scale. The usability study was divided into four different categories:

- Perceived Ease of Use (PEOU)
- Attitude towards Using (ATTITUDE)
- Perceived Usefulness (PU)
- Intention to Use (ITU)

The following tables show the respective summarized answers of the participants.

Following you will see the results of the adapted TAM and TAM2 items. The first item contains the *Perceived Ease of Use*. As already stated in the evaluation above, the user-friendliness is generally regarded as positive. All votes are positive. Especially the simple handling and the usefulness are perceived as good.

	1:strongly disagree					7: strongly agree	
	1	2	3	4	5	6	**7**
Perceived Ease of Use (PEOU)							
My interaction with the EDU-VET Learning platform is clear and understandable.	❑	❑	❑	❑	❑	7	4
The interaction with the EDU-VET Learning platform does not require a lot of my mental effort.	❑	❑	❑	❑	❑	5	6
I found the EDU-VET Learning platform easy to use.	❑	❑	❑	❑	3	3	5
I find it easy to get the EDU-VET Learning platform to do what I want it to do.	❑	❑	❑	❑	2	3	6
Learning to use the EDU-VET Learning platform would not be easy for me.	8	3	❑	❑	❑	❑	❑
It would not be easy for me to teach or learn with use of the EDU-VET Learning platform.	8	3	❑	❑	❑	❑	❑

The aspect of *Attitude towards Using* was also questioned. The positive general view has also prevailed here. For example, nine out of eleven participants said that they found the idea of the EDU-VET learning platform very good. The majority of respondents found the platform helpful in the learning process. But at this point it must also be said that the platform can be made even more interesting. The participants had different views, which were all still positive. Better graphics or pictures may help..

Attitude towards Using (ATTITUDE)							
I dislike the idea of using the EDU-VET Learning platform.	9	2	❑	❑	❑	❑	❑
I have a generally favorable attitude towards using the EDU-VET Learning platform.	❑	❑	❑	❑	2	3	6
I believe it is/would be a good idea to use the EDU-VET Learning platform for quality reasons.	❑	❑	❑	❑	❑	2	9
Using the EDU-VET Learning platform is a foolish idea.	11	❑	❑	❑	❑	❑	❑
The use of the EDU-VET Learning platform is helpful.	❑	❑	❑	❑	❑	3	8
The use of the EDU-VET Learning platform is interesting.	❑	❑	❑	❑	2	4	5

The third item addresses the *Perceived Usefulness* of the users. As you can see from the answers all participants indicate a high perception of the usefulness of the platform. Over 90% of participants stated that the platform improves their digital skills. Working with serious games is also seen as very useful from both the student and teacher perspective.

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Perceived Usefulness (PU)							
I find the EDU-VET Learning platform is useful for work with Serious Games.	❑	❑	❑	❑	1	1	9
Using the EDU-VET Learning platform improves my performance in my teaching or learning with Serious Games.	❑	❑	❑	❑	❑	1	10
Using the EDU-VET Learning platform in my job increases my productivity especially concerning the use of blended learning.	❑	❑	❑	❑	1	2	8
Using the EDU-VET Learning platform enhances my effectiveness especially concerning Serious Games.	❑	❑	❑	❑	2	3	6
To have the EDU-VET Learning platform for learning / teaching purposes is not useful.	7	3	1	❑	❑	❑	❑
The EDU-VET Learning platform can´t improve my use of digital media.	10	❑	1	❑	❑	❑	❑

The last item of TAM accentuates the *Intention of Use*. The table shows that the willingness to use the learning platform is generally high. In addition, many learners and teachers can imagine using the platform afterwards and implementing it in their learning process.

Intention to Use (ITU)							
Assuming I have access to the EDU-VET Learning platform, I would not intend to use it.	7	1	3	❑	❑	❑	❑
Given that I have access to the EDU-VET Learning platform, I predict that I would use it.	❑	❑	❑	❑	2	1	8
I don´t intend to use the EDU-VET Learning platform in the future.	6	3	2	❑	❑	❑	❑
I will have another look at the EDU-VET Learning platform.	❑	❑	❑	❑	1	2	8
I would visit the EDU-VET Learning platform due to learning or teaching reasons.	❑	❑	❑	❑	❑	3	8
I plan to use the EDU-VET Learning platform.	❑	❑	❑	1	2	2	6

In summary, it can be said that the EDU-VET learning platform was consistently well received by those involved in the study. The results show that the learners and teachers see a high benefit of the learning platform, but that it still needs to be further developed and improved.

This can be a good alternative for digital teaching in the metal sector. The Covid-19 pandemic in particular has clearly shown that the school system must be open to digital options. The EDU-VET learning platform can set a pioneering direction in the age of digitization for vocational schools.