EDU-VET

E-Learning, Digitisation and Units for Learning at VET schools – Creating online Learning Environments in Technical Education for European metal industry

Research Framework

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Project Title: E-Learning, Digitisation and Units for Learning at
VET schools – Creating online Learning
Environments in Technical Education for European metal industry

Acronym: EDU-VET

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IO1 – Research Framework

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1. The structure of research in IO1

This EDU-VET research framework provides an overview on the research in IO 1 and offers also a format which can be used by to partners to write their reports on IO 1 - Summary Research Report on the use of e-Learning in metal industry.

The output description for IO 1 states the following:

EDU-VET focuses on the design and development of a bespoke curriculum and corresponding e-Learning course units for VET in the metal industry. Partners will work on developing a modular curriculum to support effective and innovative learning in the field. Partners are also proposing the development of a training resource to facilitate the engagement of VET professionals with the new curriculum resources and online learning environments developed.

The proposed research to be conducted in each partner country will:

(1) identify modules to be developed in the EDU-VET curriculum;

(2) highlight topics to be addressed in the courses by the VET professionals;

(3) inform the design of the curriculum modules to ensure that high-quality standards are achieved in content production;

(4) get a common feedback on the use of learning units and online courses in the field of VET for metal industry.

Responses to all of the above aspects will inform the curriculum framework and learning outcomes matrix that will be used to guide all development actions. The curriculum framework will present content and learning outcome guidance notes on a module by module basis to support the development work of partners ensuring that all the areas of required learning identified are appropriately considered and addressed. Using this learning outcomes approach as a key element of the pedagogic strategy as it allows individual learning content to be localised to take account of the different cultural patterns in partner countries without compromising the value of the learning resource.

The research framework is a part of this IO1.

It consists of desktop research and field-based research. Due to the fact that Ingenious Knowledge (IK) is the technical partner in the EDU-VET team, IK will have different research questions than the other partners. The research questions of IK focus on best practices in design aspects, while the other partners do (1) a desktop research with computer, information from the own institution and literature as well as (2) a field-based research with interviews and a questionnaire.
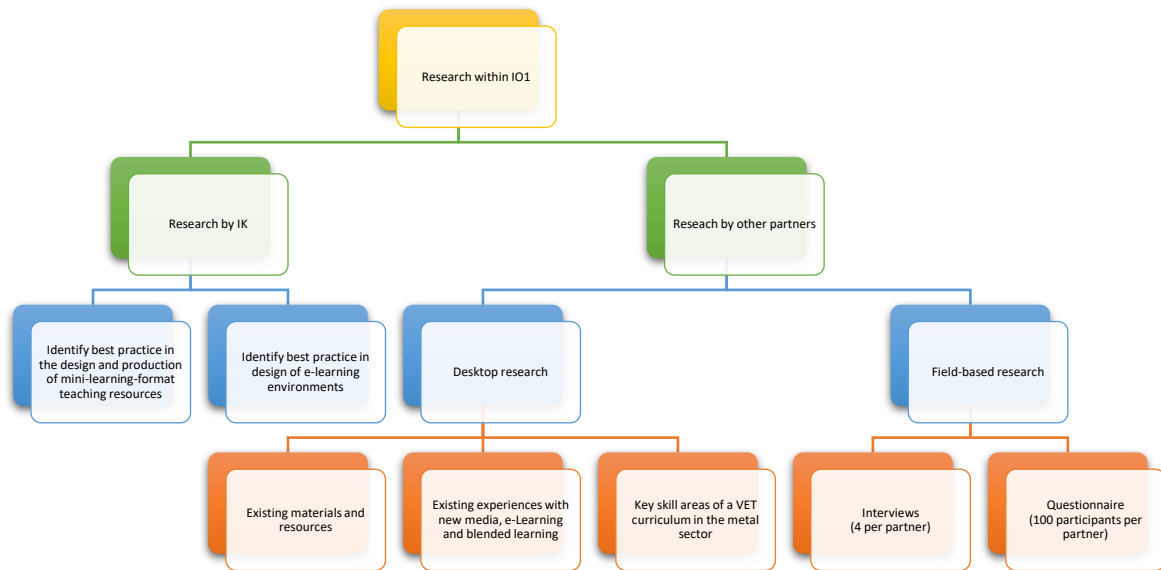
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Figure 1: Overview on the research within IO1

2. Research of Ingenious Knowledge

Ingenious Knowledge will use the format document provided together with this research framework to write a report of 8 pages which focusses on design opportunities and alternatives.

Part 1 will be an introduction to the report.
Part 2 will be a text focusing on best practices in the design and production of mini-learning-format teaching resources. Here, learning units and learning nugget approaches will be addressed.
Part 3 will be a text focusing on best practices in the design of e-learning environments.
Part 4 will be a short conclusion.

IK will also conduct 4 interviews with blended learning experts concerning mini-learning formats and teaching resources as well as e-Learning environments. The interviews can be done face-to-face, via skype or via telephone. The results of each interview should be filled (in English language) in the answer sheet of the interview guideline directly after the interview (the interview can also be recorded to have a better basis to fill-in the answer sheet).

In addition to that, IK will also conduct 4 interviews with learners concerning acceptance of new media, e-Learning and mini-learning formats. The interviews can also be conducted face-to-face, via skype or via telephone. The results of each interview should be filled (in English language) in the answer sheet of the interview guideline directly after the interview (the interview can also be recorded to have a better basis to fill-in the answer sheet).

3. Research of the other partners

3.1 Desktop research

For the desktop research, the partners will use the format document provided together with this research framework. Each partner will write a report of 8 pages which focusses existing resources and needed skills.

Part 1 will be an introduction to the report.
Part 2 will be a text focusing on the existing resources and didactic materials at the own institution, which can be a basis for the work in the other IOs. Here learning and teaching materials will be addressed.
Part 3 will be a text focusing on existing experiences with new media, e-Learning and blended learning.
Part 4 will be a text on key skill areas of a VET curriculum in the metal sector.
Part 5 will be a short conclusion.

3.2 Field-based research

The first part of the field-based research of each partner consists of 4 interviews with teachers in the metal sector. The interview guideline provided together with this research framework offers a structure for the interviews. The interviews will be in mother tongue. This means, that it is necessary to translate the guideline into the national language of the partner and provide the translated version to the learning organisation of IO1 – University Paderborn.

The interviews can be done face-to-face, via skype or via telephone. The results of each interview should be filled (in English language) in the answer sheet of the interview guideline directly after the interview (the interview can also be recorded to have a better basis to fill-in the answer sheet).

Each interview should have a length of approximately 15-20 minutes. Before the interviews take place, the interviewed persons have to be informed about the EDU-VET project. Here the general information on the website can be helpful to provide always the same core information.

The filled-in interview answer sheets and maybe existing recordings or transcriptions should be provided to the leading organisation of IO1 (University Paderborn).

The second part of the field-based research of each partner consists of a quantitative survey. Each partner should provide answers from at least 100 participants to ensure the each answer stands at least for just 1 percent and not more.

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The target groups of the questionnaire can be:

- VET teachers (please at least one third of the participants)
- VET educators
- VET providers
- VET trainers
- Employer representatives
- Employee representatives
- Unions
- Chamber representatives

The questionnaire has to be filled in online. Therefore, it is necessary to translate the questionnaire into the national language of the partner and provide the translated version to the learning organisation of IO1 – University Paderborn. UPB will insert the translations into the online-tool and will provide the link to the online questionnaire as well as access codes for the users to each partner.

To fill in the questionnaire takes approximately 10 minutes.

The results will be directly stored and will be taken by UPB within the final research report, which combines these results with the other desktop research and the field-based research results of all partners.

4. Deadlines concerning the work on IO1

IO1 Start Date: 01-09-2019
IO1 End Date: 01-09-2020

What?	Who?	When?
Development of the Research Framework	UPB	Until 19th of December 2019
Development of the interview guideline (English)	UPB	Until 19th of December 2019
Development of the interview answer sheet (English)	UPB	Until 19th of December 2019
Development of the questionnaire (English)	UPB	Until 19th of December 2019
Providing Research Framework, interview guideline, interview answer sheet and questionnaire to partners	UPB	Until 20th of December 2019
Translation of the interview guideline in native language and send it to UPB	All partners	Until 31.01.2020
Translation of the interview answer sheet in native language and send it to UPB	All partners	Until 31.01.2020
Translation of the questionnaire in native language and send it to UPB	All partners	Until 31.01.2020

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Identifying interview partners	All partners	Until 31.01.2020
Completing desktop research	All partners	Until 29.02.2020
Integration of questionnaire translations into the online tool and providing the partners with the access codes and questionnaire links	UPB	Until 29.02.2020
Sending desktop research report to UPB	All partners	Until 20.03.2020
Completing qualitative interviews	All partners	Until 30.04.2020
Sending interview answer sheets to UPB	All partners	Until 30.04.2020
Update website with results	UPB	Until 30.04.2020
Selection of questionnaire participants	All partners	Until 30.04.2020
Completing questionnaire with at least 100 participants	All partners	Until 31.05.2020
Compiling data of the partners	UPB	Until 15.06.2020
Design of the learning outcome matrix and send it to partners	UPB	Unit 15.06.2020
Design of curriculum framework and send it to partners	UPB	Unit 15.06.2020
Writing of the research report	UPB	Unit 30.06.2020
Reviewing the learning outcome matrix and the curriculum framework	All partners	Until 30.06.2020
Translations of the research report into native languages	All partners	Until 15.08.2020
Creation of the flipbooks on the basis of the translations of the research report and integration on the website	IK	Until 31.08.2020
Update website with results of IO1	UPB	Until 31.08.2020