

EDU-VET

**Research and Development Conference
17th- 19th of November 2020**

Project Number: 2019-1-DE02-KA202-006068

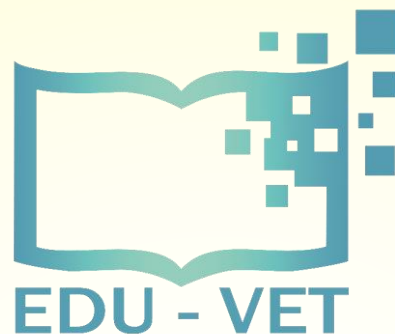


EDU-VET

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

IO2: EDU-VET Curriculum

-1-



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EDU-VET – Research and Development Conference

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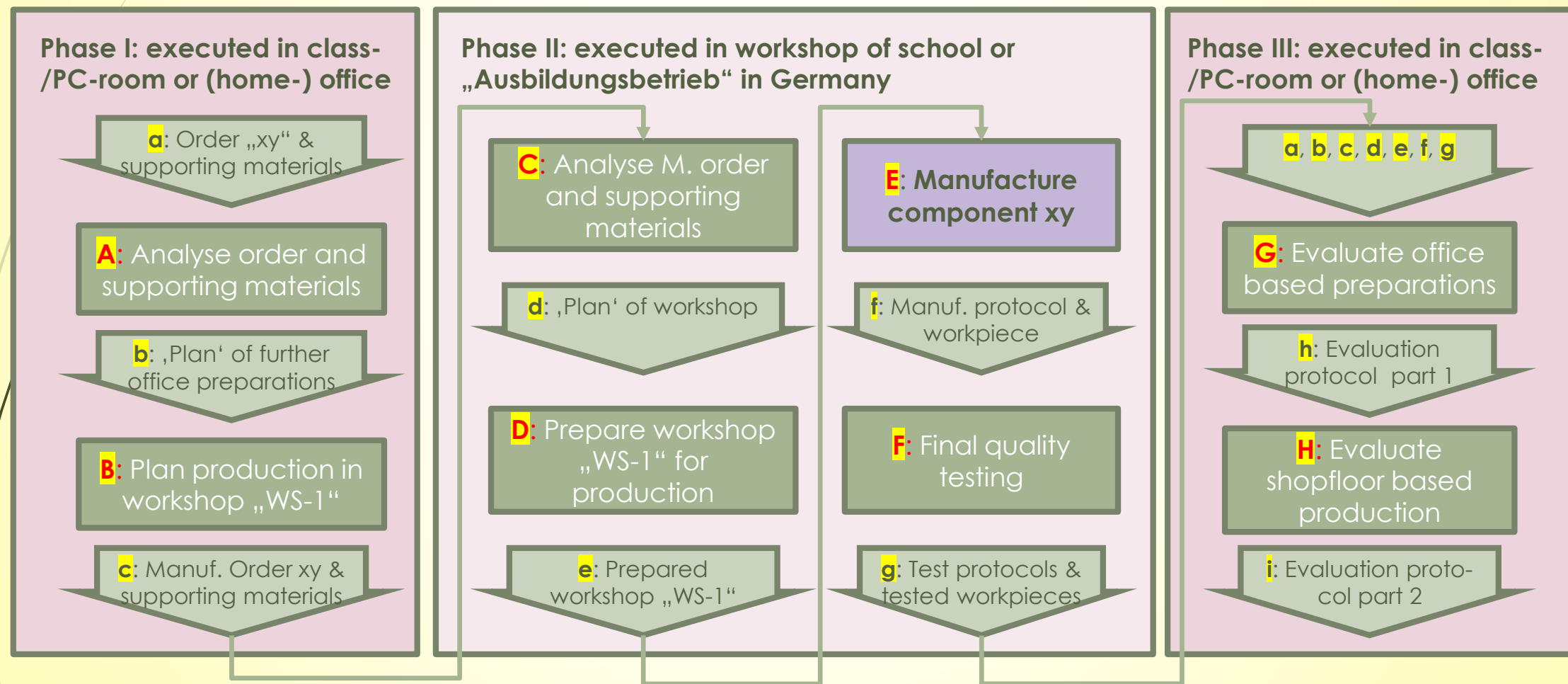


The EDU-VET curriculum aims to support many different users in different European countries – this shall be made possible by integrating the specifically different viewpoints of the four EDU-VET partner schools.

The following design principles should help to meet this objective

- The curriculum is primarily structured by the process steps of the „**EDU-VET manufacturing process model**“ in the format of an event process chain. Thus there is a first trans-national and trans-school-system applicable integration means(see [slide 3](#)).
- Secondly the curriculum is structured by the skill levels of the „**EDU-VET curriculum skill level model**“. This allows the assignment of the learning units to different student groups according their state of development ([see slide 4](#)).
- Thirdly the EDU-VET curriculum and learning units shall be easily integrated with the user's local curriculum and learning units, therefore the „**EDU-VET curriculum learning unit model**“ distinguishes different **learning unit types** and **learning unit variants** ([see slide 5](#)).
- *Finally*, the learning units of the EDU-VET curriculum are classified regarding **delivery media** and **learning activity type** in order to support the users in the process of delivery preparation and student orientation ([see slide 6](#)).

The EDU-VET process model describes a manufacturing process. An event initiates the execution of a process step. The execution of the process steps leads to the events of step is completed and step outcomes are ready.



The EDU-VET curriculum skill level model comprises three different skill levels distinguished by the complexity level to be handled on each skill level. Four sources drive the complexity.

| Skill Level | Complexity Level | Complexity drivers |
|-------------------|-------------------|---|
| Entry Level | Low Complexity | <ul style="list-style-type: none">• Workpiece properties (esp. form of raw part and finished part, Machining properties of the workpiece material)• Manufacturing environment (qualities and conditions particularly of available machines, tools, devices, auxiliaries)• Production process and process steps (number and complexity of production methods / steps / equipments needed respectively planned to create the different workpiece properties)• Task context and background (all needed knowledge and information available, all needed resources available – several bits of knowledge and/or information and/or needed resources not available – methods and sources to close those gaps known or unknown resp. available or not available) |
| Advanced Level | Medium Complexity | |
| Experienced Level | High Complexity | |

The EDU-VET curriculum learning unit model comprises learning units of different types and variants and shall support several different learning unit application types and variants, too.

Learning unit types and variants

- [Type: **e-L**] **e**lectronic-**L**earning unit
 - [Var: **EVb**] **EDU-VET b**uilt
 - [Var: **H-m**] **H**ome-**m**ade
 - [Var: **Sbs**] **S**upplied **b**y supplier A, B, C ...
- [Type: **e-E**] **e**lectronic-**E**xercise unit
- [Type: **c-L**] **c**onventional-**L**earning unit
- [Type: **c-E**] **c**onventional-**E**xercise unit

This structure should enable users to combine EDU-VET learning units with different "local" learning units according to their specific circumstances

Learning unit application types and variants

- [Type: **ILA**] **I**nsrtuctor-lead **L**earning unit **A**pplication
 - [Var: **pcr**] **p**hysical **c**lassroom
 - [Var: **vcr**] **v**irtual **c**lassroom
 - [Var: **PCr**] **p**hysical **PC**-room
 - [Var: **pWs**] (**p**hysical) **W**orkshop
- [Type: **SLA**] **S**elf-directed **L**earning unit **A**pplication
 - [Var: **soi**] **s**elf-**o**rganising **i**ndividuals
 - [Var: **sog**] **s**elf-**o**rganising **g**roups
 - [Var: **smg**] (**s**elf-)moderating **g**roups

This structure should enable users to apply the EDU-VET learning units in different ways according to their specific circumstances

The EDU-VET curriculum learning units are classified regarding delivery media and regarding learning activity type, this creates four basic types: [e-L], [e-E], [c-L], and [c-E].

With regard to delivery media the units are classified either „e“ or „c“

- The attribution „e-“ or „**electronic**“ marks a learning unit as being delivered digitally. Digital terminals like PCs, notebooks, tablets, smartphones are therefore required to access and use this learning unit.
- The attribution „c-“ or „**conventional**“ marks a learning unit as being delivered conventionally. No digital terminals are required to access the learning unit. The learning materials are available in the form of digital print templates and/or paper-based copy templates.

With regard to learning activity type the units are classified either „L“ or „E“

- The attribution „L“ or „**Learning**“ marks a unit as being dedicated to help the user create a consistent mental model of all the relevant entities and relationships in the subject area called terms and concepts.
- The attribution „E“ or „**Exercise**“ marks a unit as being dedicated to help the user build comprehensive capabilities in the execution of particular tasks or activities, the build-up of a mental model of the relevant methods and tools and experiences in the application of these methods and tools are supported.

Experiences
Drilling / Turning /
Milling 1

Experiences
Drilling / Turning /
Milling 2

Experiences
Drilling / Turning /
Milling 3

Advanced
Drilling / Turning

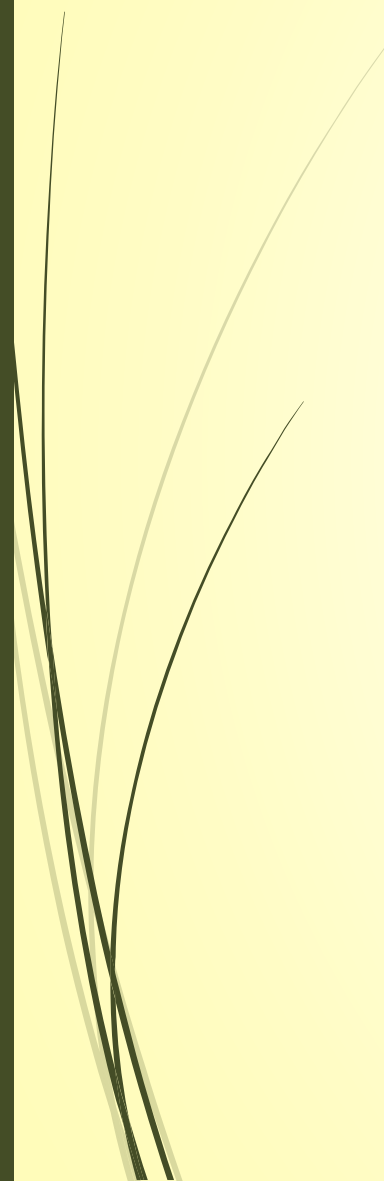
Advanced
Drilling / Milling

Advanced
Turning / Milling

Entry Drilling

Entry Turning

Entry Milling



Do you have any questions?

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