

SNBI

Schweizerisches Netzwerk für Bildungsinnovation
Swiss Educational Innovation Network



Supporting learning in practice

Supporting work-based-learning: How can we support learning in practice with digital media?

This working paper documents the exchange within the ICT4VET Community of Practice (CoP).

Urs Gröbriel and Christoph Pimmer, 23.6.2020

Inhalt

1	Programme of CoP session on Tue, 16.6.....	2
2	Questions and findings.....	2
2.1	Questions.....	2
2.2	Findings: Important aspects of our discussion.....	2
2.2.1	Preparation of practical work.....	2
2.2.2	Online practical work.....	3
2.2.3	During practical work.....	4
2.2.4	After practical work.....	4
3	Expertise of CoP members.....	4
4	Learning in practice: learning activities, media functions and tools.....	6

Version history

If you make changes to this document, please describe them in a few words here. Thank you!

Version	Date	Author	Comment
0.1	10.6.20	Urs Gröhbiel	
0.2	15.6.20	All	Adding questions and experience
0.3	17.6.20	Urs	Draft of findings to be published
	22.6.20	All	Review of draft. Revision.
1.0	23.6.20	Urs, Marina	Finalize the document, upload to the public CoP-page

1 Programme of CoP session on Tue, 16.6.

1. Welcome, short introduction
Principles: Community (open contributions, Urs as facilitator, building trust, open communication), "Protected" discussion (not recorded, deliverables reviewed)
2. Introduction of participants: project/affiliation, interest in 2-3 words
3. Addressing questions: Discussion
4. Next steps: Next topic: Interactive blended/online learning on 23rd of June

2 Questions and findings

2.1 Questions

In the session of June 17th, we have focused on two of the **questions** collected before the session:

1. What is the emerging experience in engaging dual VET students in **practical online work** (we learned some from S4J in Albania)?
2. I am interested in any examples, where learning in practice can be supported by distance in the **manufacturing sectors** and other sector, where practical learning requires handling of particular hardware infrastructure.

2.2 Findings: Important aspects of our discussion

In the design of ICT-supported work-based learning we can distinguish four approaches that support different phases of learning activities that are related to work-based learning.

In times when training in schools or in companies is restricted (e.g. COVID19), the focus on activities supporting learning in practices may need to shift, also depending on the trade/craft (e.g. IT sector more suitable to continue with full-fledged distance learning to gain practical skills than care or wood-processing sector).

2.2.1 Preparation of practical work

These learning activities can be supported, if colleges and businesses are closed. They heavily rely on the possibility of students (hardware, software, internet connection & cost and media skills) to interact with trainers or coaches.

- Re-visit concepts that have been dealt with in class and that will be relevant in coming placement (e.g. case-based problem solving, answering different forms of questions, mind-map to summarize). (Urs)
- Videos to demonstrate activities to serve either as part of the theoretical learning (contributing to the understanding of how that theory would look like in practice), or as preparatory step before actual WBL experience (happening either in a work setting, or - wherever feasible during times of COVID-restrictions. (Ivana)
- Present guidelines and safety procedures, e.g. in hospitality in Albania (Sidita)
- Demonstration of [cooking activities of cook apprentices at home](#) (Sabine)

Different ICT-tools can support these kind of learning/teaching-activities, such as SMS, WhatsApp, YouTube, mobile quiz apps, learning platforms, collaborative online mind maps.

Comments on **cross-cutting issues**:

- Low-tech/no tech: Very few possibilities to support access to specific learning content and interactive learning, for example with SMS solutions.
- Quick solutions: If there exists learning content in digital form, this can be combined with meaningful assignments on any existing tools mentioned above. If teachers and students have high media skills and use social mobile media, videos can be produced after short hands-on training.
- Long-term: Capacity building of teachers from the beginning on, to create meaningful learning activities (online assignments, questioning etc.). Systematic organisation of digital learning content, independently of the dissemination tools (e.g. simple folder structure or content management system).

2.2.2 Online practical work

These learning activities can be supported, if colleges and businesses are closed. They also heavily rely on the possibility of students (internet-café or hardware such as smartphones, tablets or laptops, software, internet connection & cost and high media skills) to interact with each other as well as with trainers or coaches.

- Practical learning happens online, especially in professions such as IT, business administration making use of LMS or simulation tools (Sidita)
- Student projects on collaboration/project management platform (e.g. students research a subject and share their results/presentation online) (Urs)

Typical ICT-tools: Online project management tools, e-portfolio applications, learning management systems with collaboration features, WhatsApp, Facebook or similar apps that apprentices have on their smartphones or feature phones.

Comments on **cross-cutting issues**:

- Low-tech/no tech: Difficult to implement without good internet connection.
- Quick solutions: Use of existing ICT-tools that can be freely used (as most of the tools mentioned above). Short pedagogical and technical training and support for trainers/coaches on how to supervise and support the students online.
- Long-term: Once the teachers have the pedagogical and technical skills to support students online, they can select the most convenient tool and share how to use it most effectively.

2.2.3 During practical work

These learning activities can be supported, if colleges are closed, but (at least some) businesses are open. They heavily rely on the possibility of students or businesses to interact with trainers or coaches.

- Coordination and communication between participants (students, teachers, instructors) during “normal times” and under COVID-restrictions (Ivana)
- Students document practical training in their placements (Sidita)
- Assignments to document activities and results in an e-portfolio (focus reflection, assessment etc.) (Urs)

Typical ICT-tools: SMS-tools, e-portfolios, video/camera on smartphone, social media applications, learning management systems

Comments on **cross-cutting issues**:

- Low-tech/no tech: SMS solutions.
- Quick solutions and Long-term: same as 2.2.2

2.2.4 After practical work

These learning activities can be supported, if colleges and businesses are closed, but students can still remember well the last practical activities. They heavily rely on the possibility of students to interact with trainers or coaches.

- Reflection of experience, based on newly taught concepts and theories, e.g. as preparation for discussion in class.
- Online assessment through LMS (Sidita)
- In a blended learning format, students also present their experience in class activities (Sidita)
- Teacher reviews materials and completes his/her own portfolio for next academic year (Sidita)

Typical ICT-tools: SMS, WhatsApp, YouTube, mobile quiz apps, learning platforms, e-portfolios, collaborative online mind maps.

Comments on **cross-cutting issues**:

- Low-tech/no tech: SMS solutions.
- Quick solutions and Long-term: same as 2.2.2

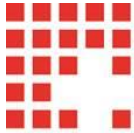
3 Expertise of CoP members

Area of expertise	Name	Contact, if you are willing to respond in addition to the CoP activities.
dVET	Stefan	Experience is only emerging so therefore later
Dual Apprenticeship	Sabine	sabine.roth@swisscontact.org
Designing and implementing Blended learning in VET	Sidita	Sidita.dibra@swisscontact.org



SNBI

through a comprehensive approach		
----------------------------------	--	--



SNBI

Schweizerisches Netzwerk für Bildungsinnovation
Swiss Educational Innovation Network

4 Learning in practice: learning activities, media functions and tools

Key learning activities	Media functions that support these activities online	Digital Tools
<p>Learning in practice</p> <ul style="list-style-type: none"> - Documenting own achievements and experiences in the workplace - Answering questions on practical experience - Reflecting on and conceptualising practice experience - Commenting on contributions / experiences of peers - Reiterating and applying theoretical concepts to the workplace - ... 	<ul style="list-style-type: none"> - Supporting individual and collaborative writing, sharing of texts - Audio-recording, editing and publishing functions; - Photo-taking and editing, video- or desktop recording and editing functions; - Feedback function (commenting, rating etc.) - Providing content (multimedia) - Providing assignments to groups or individuals. - ... 	<ul style="list-style-type: none"> - Online pads and mind maps - Smartphone audio, photo and video apps (recording and editing apps) - ePortfolios - Personal Learning environment PLE - Social messengers (WhatsApp etc.) - Social software / Social networks (FB etc.) - Offline and online repositories / learning content - SMS with Multiple-Choice-feedback / with text response - Learning management systems LMS