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Digital competences in initial VET 2011-2018

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Research overview

Launched in 2018, it covers all Member States plus Norway and Iceland; publication early 2020

1. National policies on digital competence
2. Inclusion of digital policies in IVET in qualifications at EQF 3, 4 and 5 levels (Upper secondary)
3. Digital competence in curricula of specific sectoral programmes

Digital competence=“confident, critical and responsible use of, and engagement with, digital technologies for learning, at work and for participation in society”, Council of EU, Recommendation on Key competences for LLL, 2018
Two analysis levels

4 Areas:
- Teaching approach/training
- Assessment methods
- Programme delivery
- Educational and Occupational standards

3 sectors:
- Accommodation/food service
- Manufacturing
- Construction
  35 curricula per sector

64 National Policies

105 Curricula
Policy-analysis questions

1. How have policies promoted digital competence in initial VET since 2011?
2. How are digital competences embedded in initial VET?
3. To what extent promoting digital competences in IVET has been effective and efficient at national/EU level?
First question: How have policies promoted digital competence in IVET since 2011?
Digital policies: Findings (1)

1. All but one EU+ countries have adopted and started implementing policies promoting digital competence in IVET

2. We found 64 national policies of which more than half have a wider scope than IVET (i.e. general education)

3. Policies tend to focus on more than one key competence (i.e. digital + literacy +/- multilingual skills)
First question: How have policies promoted digital competences in IVET since 2011?

Digital policies: Findings (2)

4. Policies are aligned with the Bruges Communiqué and the Riga Conclusions’ priorities but often these documents are not mentioned.

5. Most policies are linked to broader societal objectives: employability, social inclusion and lifelong learning.

6. Most often policies aim to embed key competences through changes to IVET programme delivery.
First question: How have policies promoted digital competences in IVET since 2011?

Digital policies: Findings (3)

7. Between 2011-18 most policies adopted in 2014 (16 policies) due to EU policy planning cycles

8. Almost half of the 64 policies refer to EU/international initiatives

9. Most policies (39 of 64) promoting digital competence in IVET are strategies (future oriented and at mid-/long-term)
Second question: How are digital competences embedded in IVET?
Digital policies: Findings (1)

Digital competence embedded through:
• **programme delivery**,  
• occupational/educational standards,  
• teacher training and/or  
• assessment standards and methods

• Most policies **combine** at least one or more of the above areas in a single policy document.

• **Programme delivery** and **teacher training** are the areas where policies mostly succeed in embedding digital competence earlier than the revision of assessment standards or of occupational/educational standards.
Second question: How are the digital competences embedded in IVET?

Digital policies: Findings (2)

Policies focus more often on programme delivery and educational/occupational standards revision at the same time.
Second question: How are the digital competences embedded in IVET?

Digital policies: Findings (3)

**Teaching approach**

- Competence is most frequently delivered in an instructor/teacher centred approach, but also in a learning-by-doing one

**Assessment methods**

- Digital competence is more often assessed as part of the subject it is integrated in
Third question: To what extent has promoting digital policies been effective and efficient?

Digital Policies: Findings

- A uniform assessment of policies’ effectiveness and efficiency is challenging
- Two-thirds of policies have completed their planned activities (2011-15)
- Policies promoting digital competence mainly lead to follow-up actions as they are strategies
- Policies embedding digital competence contribute to changes in IVET
The case of sectors
Digital competence in sector related curricula (1)

• Digital competence is most frequently delivered as integrated in other subjects (35%), though with sector variations.
• In the accommodation and food service sector it is delivered as integrated (43%).
• The delivery mode of digital competence largely depends on the individual teachers and trainers: they decide on how to integrate digital competence in their classes.
• In most programmes of all three sectors, digital competence is more often non-foundational for acquiring other learning outcomes.
• However, in the manufacturing sector, digital competence is foundational for other modules in 23% of programs analyzed.
The case of sectors
Digital competence in sector related curricula (2)

• Digital competence is assessed in most (81% of the 105) training programmes, and not assessed in 18%.

• Digital competence is most rarely assessed in the construction sector (29%).

• Most frequent assessment methods: written tests; oral tests; practical work in class; portfolio and homework.

• Most teachers of digital competence have a higher degree (77%) in education, informatics or a related discipline.

• In 14% of all programmes, teachers of general or occupation-specific subjects are not required to have education and training in digital competence but are assumed to be capable of using digital tools in their teaching practice.
Concluding remarks

• IVET systems have already included key competences i.e. digital competence (in some form) even before the 2006 Recommendation and the publication of other EU agenda-setting documents (Bruges and Riga).

• Rather than introducing something new, the studied policies aimed to reform an element within the existing policy.

• Changes observed in the way digital competence is embedded in reference documents and assessment standards show that these tend to be more complex and time consuming than changes in delivery and teacher training because they often depend on a broader variety of stakeholders (outside the education sector).

• Changing the way digital competence is embedded in teacher training is done in shorter time and more successfully, when targeting both pre-service and in-service teacher training, which allows a swifter response to changing demands.