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Developing student teachers' digital competence – challenges and possibilities

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Overview

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- The national curriculum in Norway
- Teacher education in Norway
  - Documents governing teacher education
- Teacher education at OsloMet
  - Challenges
  - Project
    - DiCTE (Erasmus +)

The Norwegian curriculum

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- Five key (core) competences
- The ability:
  - To read
  - To write
  - **To be digital literate**
  - To express oneself orally
  - To calculate

Digital Competence in Teacher Education

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- Teacher education criticised for not fulfilling its obligation to adequately prepare teachers to utilise digital tools in the classroom. (Tømte, Kårstein,&Olsen, 2013)
- Why?
- Official governing documents in teacher education
  - How do these treat digital competence?
- Finding:
  - Digital competence in the curriculum does not correspond with formal documents that form the premises for teacher education
  - Guidelines are vague and non-binding

Engen, Giæver & Mifsud, 2015

At HiOA/OsloMet: Old model of teacher education (2010-2017)

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Middle & secondary school teacher

4. Studieår Fagene går over ett semester Fag merket	**Fag III:** Engelsk 60 Kroppsøving 60 Mat og helse 1* RLE 1 Samfunnsfag 60 Norsk 60 Matematikk 60 Naturfag 60		**Fag III, evt. IV:** Engelsk 60 Kroppsøving 60 Mat og helse 1* RLE 2 Samfunnsfag 60 Norsk 60 Matematikk 60 Naturfag 60 Kunst og håndverk 2	
ett semester	Naturfag RLE Samfunnsfag	Naturfag RLE Samfunnsfag	Matematikk Norsk	elevkunnskap
1. Studieår Fagene går over hele studieåret	Fag I Engelsk Matematikk Norsk	Fag I Engelsk Matematikk Norsk	Fag I Engelsk Matematikk Norsk	Pedagogikk og elevkunnskap

- Digital competence integrated in subjects in the form of coursework/ assignments
- When not mandatory lectures or included in assignments students do not always turn up
- Why?

http://edu.hioa.no/GFU/modeller_GLU.pdf

	Autumn semester	Spring semester	Digital competence
5th year	Educational theory part 2 (15 ECTs) Choose between Teaching subject part 3 15 ECTs Educational theory (including digital competence) 15 ECTs	Masters thesis 30 ECTs	Masters thesis Cyber ethics
4th year	Teaching subject part 1 – 15 ECTs Philosophy of Science and methodology 15 ECTs	Teaching subject part 2 – 15 ECTs Educational theory 15 ECTs	Advanced digital competence Cyber ethics E-assessment Ability to adapt to new technologies Multimodal texts
3rd year	**Teaching-subject II** continued (30 ECTs) Bachelor thesis	International semester **Teaching subject III** (30 ECTs) Choose from Health & Nutrition Educational theory (inluding digital competence) Possibility for student exchange	Refleksjon over use of digital media Cyber ethics Social media in school and leisure, multimodal teksts Specific requirements in assignments
2nd year	Educational theory 15 ECTs Norwegian – 15 ECTs Mathematics – 15 ECTs English – 15ECTs	Teaching subject II Students choose between English, Religious studies, Physical Education, Arts and Crafts, Social Studies, Science or Music 30 ECTs	Educational use of digital tools Varying teaching methods Cyber ethics Multimodal texts, games, coding, flipped classroom, assessment
1st year	Educational theory 15 ECTs **Teaching subject I** Students choose between Norwegian – 45 ECTs Mathematics – 45 ECTs English – 45 ECTs		Basic digital competence -evaluate digital learning resources -cyber ethics -basic ICT tools (word processing, social media, video, interactive white boards Specific requirements in assignments

http://edu.hioa.no/GFU/MGLU_modeller.pdf

DiCTEDeveloping digital competence in teacher education

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- What is the relationship between the pre-service student teachers' perceived competence and efficient use of digital technologies, when entering teacher education?

- 2013/2014, together with Norwegian Centre for ICT in Education:
  - Survey among pre-service first-year student teachers.
  - Combining self-assessment /self-efficacy, attitutudes to digital competence and cyber ethics

- Findings
  - High level of confidence, but lower level of actual measured competence
  - Self-perceived competence does not neccessarily correlate with efficient use
  - No correlation between being a" digital native" and having digital competence
  - Students' digital competence is not in accordance with curriculum aims, despite most of them having graduated recently

Engen, Giæver, Gudmundsdottir, Hatlevik, Mifsud & Tømte, 2014

ERASMUS+: DiCTE

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- General aims
  - The enhancement of quality and relevance of students teachers' knowledge in digital competence and cyber ethics
  - Strengthen the foundation of ensuring professional digital competence of teachers by targeting initial teacher education.
  - the student teachers' achieve relevant and high quality skills and competences

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Partners

- Oslo Metropolitan University
- University of Oslo
- University of Valencia
- University of Limerick
- University of Malta

The goals of the DiCTE project

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- Identify the student teachers' levels of digital competence when entering teacher education and compare across institutions (connected to intellectual output 1 and 2).
- Identify and benchmark approaches used in the participating teacher education institutions to develop student teachers digital competence (connected to intellectual output 3 and 4).
- Identify the student teachers' development of digital competence during their studies and compare across institutions (connected to intellectual output 2).
- Create methods for integrating digital competence in teacher education and transfer of best practices

Design

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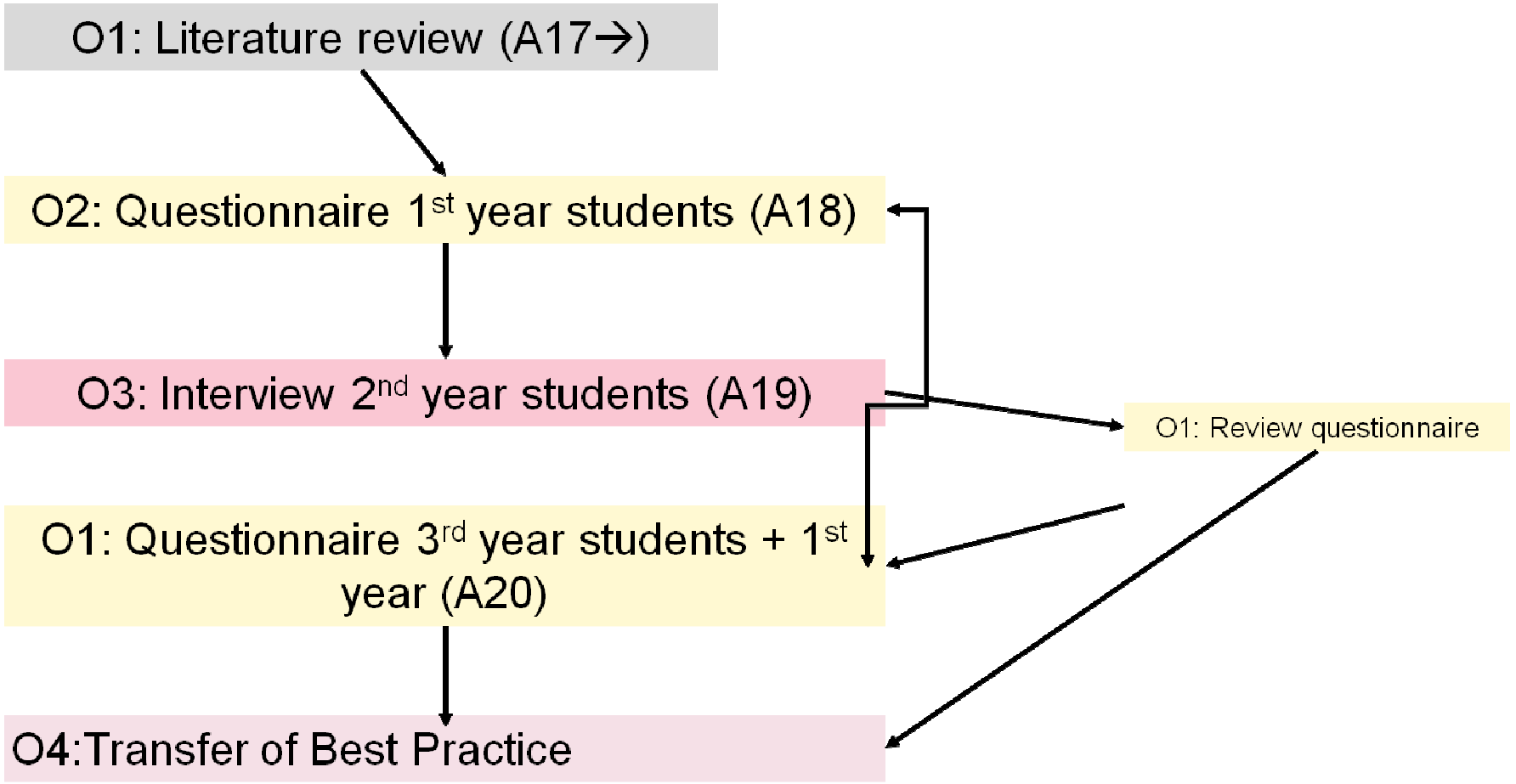

References

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Engen, B. K., Giæver, T. H., Gudmundsdottir, G.B., Hatlevik, O. E., Mifsud, L., & Tømte, K. (2014) Digital Natives: Digitally Competent?. I: *Proceedings of Society for Information Technology&Teacher Education International Conference 2014*. Association for the Advancement of Computing in Education 2014

Engen, B.K., Giæver, T.H., Mifsud, L (2015) Guidelines and Regulations for Teaching Digital Competence in Schools and Teacher Education: A Weak Link. ordic Journal of Digital Literacy02 / 2015 (Volum 10)

DiCTE: http://ec.europa.eu/programmes/erasmus-plus/projects/eplus-project-details/#project/bed7207d-e2ed-441d-ae01-6c96fb3329af