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Designing for competences

- professional development of teacher education in Denmark

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Designing for competences - professional development of teacher education in Denmark

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The abstract address the category of "research (and development) studies in progress"*

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Introduction

During the last decades the semi-professions have undergone dramatic changes. What has become widely known as 'the academic' turn has hit professions such as teachers and preschool workers demanding higher academic skills in forms of bachelor degree level. Arguments have been that the practice of these professionals has changed - and has become more cross-professional, more complex and analytic and reflective competencies have entered the policy papers of these *human-professions* as central, important forms of knowledge. These bachelor degrees in Denmark within the field of education (teaching and preschool pedagogy) have therefore been subjects of reformations regarding structure and content. In this paper we specifically deal with three major and overlapping tendencies in these changes that create new opportunities within the field of educational design and development: namely identifying design challenges and generating solutions in the form of design principles when moving from a focus of knowledge to a focus of competences.

The three tendencies identified in these processes can be described as movements from one way of organizing education to another and cover three types of shifts:

- 1) *A shift from subjects to modules*
- 2) *A shift from aims of knowledge and proficiencies to aims of competencies*
- 3) *A shift from fixed curricula to individualized educational paths.*

From subject to module

Traditionally, Danish teacher training has been organized through subjects equivalent to those in the public school and supplemented by various courses within the field of education and teaching practice. The amount of mandatory subjects and their length has been undergoing changes, but in the most recent policy reformation all subjects have been broken into modules of 10 ECs following the Bologna declaration of 1999. Furthermore, the possibility of choosing cross-subject related modules has become available to students. As a result of this, no subjects no longer hold a fixed body mass but can be designed individually by students tinkering their own specialized teacher profile. The milieu for the teacher training in Denmark has very little experience in such organizational forms, so it is both a challenge and an opportunity to think new.

From aims of knowledge to aims of competencies

Another key tendency concerns the shift towards competencies. The central knowledge and proficiency aims (CKP's) have recently been replaced by competency areas and aims. In what can be seen as an attempt to clarify what students should be able to know and do each competency aim is broken into two related parts; one of knowledge and one of skill. While this certainly can be considered a progression from the cloudy formulation of the CKP's it does not capture the complexity of the competency notion.

In order to properly discuss this distinction a stringent and clear definition of competencies must be established. Here we lean on the work of Trudy W. Banta and include the OECD paper done on key competences (DeSeCo 2005) alongside the work done in coming closer to a set of 21st century skills and competences (Ananiadou & Claro 2009). According to the DeSeCo project a competency must be seen as "*more than just knowledge and skills. It involves the ability to meet complex demands, by drawing on and mobilizing psychosocial resources (DeSeCo 2005: 4).*" But furthermore these skills and competencies must assume a certain quality, namely competencies that "*young people will be required to have in order to be effective workers and citizens in the knowledge society of the 21st century*" (Ananiadou & Claro 2009). Lastly, it is necessary to stress the individuality level of competences as well: "*competencies is the ability of individuals to think for themselves as an expression of moral and intellectual maturity, and to take responsibility for their learning and for their actions*" (DeSeCo 2005: 8).

This understanding of competency demands new challenges for teaching and assessment in particular. Pivotal is the ability to think on a metacognitive level about one's own ability, to assimilate and relate it to other aspects of prior experience and be able to change and adapt through new practices and actions.

Two design challenges can be derived from these tendencies:

- 1) *How to create progression and coherence for each individual student when elective modules can be accessed by students at any point in their study of becoming a professional educator?*
- 2) *How to meaningfully assess competencies while at the same time maintaining an understanding of this concept as being able to act appropriately and professionally in unknown/uncertain/unfamiliar situations?*

From fixed curricula to individualized educational paths.

The flexible model of designing one's own education that comes from moving from subjects to modules means that teacher training educators can be met with students with very different prerequisites even from within the course of the education. Some might have had three modules related to the particular module beforehand whereas for others it might be their first or on a similar note some would have the benefit of having experienced teaching practice while others have not. This tendency can be linked to the competence discussion above regarding the demand for 1st century skills and the individualization of competences.

Methodology

The principles presented in this paper are based mainly on the development of an international teacher education (ITEPS) including several universities from Northern Europe supported by the EU Lifelong Learning Program (originally the project was named ETEPS. for more information regarding the project visit: <http://iteps.eu>) The aim was to develop an integrated program cumulating in a Bachelor's degree that should be recognized in the participating countries. Furthermore, the aim was that the most qualified academic staff in the participating institutions should be used to facilitate the ETEPS program of prospective teachers

irrespective of the nationality of the staff. (ETEPS 2011). Within the last four years pilots of different teaching designs have been conducted with groups of ERASMUS exchange students before the official launch of the program in 2012 at Stenden University, The Netherlands, followed by University College Zealand, Denmark in 2013.

A way out: Digital portfolio as a scaffold for an individualized educational path for each student

In this paper we will present a number of design principles for a professional digital portfolio assessment. The idea of working portfolio-based stems from the Dutch teacher training tradition where individual professional development portfolios have been a year long practice (SURF 2004). Especially the individual aspect of a competency-based education system has led to an increasing interest in portfolio designs.

Within the ITEPS-project a prototype of such a design was developed in collaboration between the participating countries but very much on the basis of the Dutch system. An illustration of this was that only one key competency (intercultural) was added to the ITEPS curriculum compared to the seven existing Dutch teacher training competencies. The wish to create a more interactive and flexible design was, however, implemented and further developed throughout the 3 year long pilot period.

Based on recommendations by students and lecturers the current portfolio design has emerged from which this paper presents four general design principles for assessment of competencies in teacher education using digital portfolios.

The principles include:

- 1) *From comparative to descriptive assessment*
- 2) *Reflection; the missing link between storage and presentation in portfolio designs*
- 3) *Tag your development*
- 4) *Interactive feedback and proof of competency (inspired by the Dutch 4-stroke assessment model)*

From comparative to descriptive assessment

The situated part of being competent calls for a way of documenting, proving or at least displaying the relevant competency in action. Collecting documentation through videos, pictures, study and pupil products, etc. is therefore necessary to adequately assess competencies. On a similar note Robinson has pointed out the two sides to assessment, stressing the importance of more descriptive assessment in comparison to the current dominating comparative assessment paradigm (Robinson 2011: 276). The change toward competency-based education within the educational field further stresses the importance of such a need.

Reflection; the missing link between storage and presentation in portfolio designs

In classic portfolio design the two main components are the storage portfolio and the presentation portfolio. The storage part being all relevant material in a given context and the presentation part being selected materials for proving a certain development or level of competency. Here the reflection of one's own progress lies in selecting the best suitable products for the situation at hand.

In ITEPS a third part, the reflection portfolio, was introduced in order to provide a space for students' own thoughts on how products, lessons, teaching experience, etc. could be linked to their professional development within an ITEPS context referring to the eight key competencies. This to ensure that students throughout their study did not lose sight of the profession (for instance when dealing with detailed subject related matters) and also in line with the individual and reflexive aspects of developing competencies.

Tag your development!

Following the relative success of the intuitive reflection portfolio design further iterations were made in order to keep the reflection portfolio focused on the professional development resulting in a tagging system basically changing the progressional mindset from the formulation of the learning outcomes at a particular year in particular modules to individualizing the continuance of each competency area so that every student feel responsible for and are forced to reflect upon which competencies a given experience has developed and how.

Interactive feedback and proof of competency

The ITEPS-portfolio design, initially, included a four stroke principle for developing competencies. Every competency should include self assessment i.e. a description of the student's own view of the competency, an external perspective from either tutors, lecturers, children, peers, etc. on the level of competency, a concrete proof for instance videos, pictures, assignments, etc., and lastly a brief description of a further development plan. Student feedback indicated however that this design was too heavy and inflexible, leaving the students with tedious tasks of running around begging to get input to fill their portfolio. Furthermore, a growing wish for more immediate feedback was also a prominent voice among the students. These two combined led to a growing interest in fine-tuning the interactive aspect of the reflection portfolio creating a design where reflections were available to all fellow students and lecturers. This proved especially effective and popular among the students during their teaching experience periods as they could easily receive guidance and support. On top of this the sense of isolation when not being among peers in challenging situations was also diminished as a result of this design.

Results/expected results

Starting out as being solely a part of the ITEPS project and the assessment of ERASMUS exchange students the professional digital portfolio design has gradually spread to minor prototypes in the regular Danish teacher training education especially with regards to teaching experience and has of September 2013, in tie with the launch of the new education, become obligatory for all teacher training students at University College Zealand.

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