# Chapter 15

# Potentials of Internet-Based Qualification Systems for Teachers in Federal Education Systems: Experiences From the Field of Economic Education

#### Michael Koch

Institut für Ökonomische Bildung, Germany

#### **ABSTRACT**

Making an internet-based system of qualification available for teachers at general education schools within a federally organized education system poses a variety of challenges. Based on findings of pedagogical professional research, further and advanced teacher training needs to impart specialist scientific competencies and—simultaneously connected with these competencies—subject-didactic ones as well as providing support for curricular implementation. There also needs to be a broad portfolio of modules leading to specialist and didactic qualifications which can take heterogeneous curricular requirements into account. Based on pedagogical as well as systematic requirements, the chapter formulates the essential cornerstones of such a qualification-based online training system, using the example of the economic (general) education. In addition, the necessary development steps for the future are outlined, especially regarding the use of adaptive teaching and learning methods.

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### INTRODUCTION

Alongside university education and preparatory service in Germany, on-the-job further and advanced training forms the third pillar in staff qualification in the general German school system. There is agreement in professional research at the international level on the importance of the lifelong qualification process of teachers and on the resulting tasks for state institutions (OECD, 2019). Courses addressing new content to be integrated into school curricula are particularly significant. At the time when a subject is launched on curriculum, there are usually no trained members of staff (Porsch 2016), meaning that non-specialist staff must be given the necessary skills and competencies to structure an appropriate lesson. These skills and competencies do not just apply to the subject-specialist knowledge, but also to the didactic implementation and course design.

In view of the provisions of corresponding systems, the absence of a uniform standard of staff in federal education systems presents a particular difficulty. Occurring in sixteen German federal states of varying intensities and forms, the implementation of economic education in Germany affords an example of the general requirements for design of vital Internet-supported systems of qualification. It should be borne in mind that the German system of further and continuing training for teachers has fundamental deficits that affect all school subjects at the organisational and content levels (Daschner & Hanisch, 2019; Koch & Remmele, 2017; Lipowsky & Rezejak, 2017).

The article examines the particular challenges in the field of general economic education. At the same time, it analyzes the potential of using Internet-based qualification systems to overcome the existing deficits. In this context, it describes a concrete practical approach and reflects on it with regard to general transfer possibilities.

### BACKGROUND

# **Education Policy Framework / Baseline**

Developing a system of qualification for staff in economic education within the general education system of a federally organised education system, like that of the Federal Republic of Germany, brings with its special challenges that can only be met with the help of specific strategies.

- There is far-reaching curricular heterogeneity in the German system (Schlösser & Weber, 1999). The relevant curricula in the school context and framework requirements in the area of economic education, but also in other areas, differ—at times strikingly—between the German federal states. This applies to both the hours allocated to the subject and also the content characteristics and priorities. This means that a centrally required system of qualification needs a high degree of modularisation to be able to meet the different demands of the teaching staff.
- At the same time, the establishment of appropriate systems of further education and training in the framework of implementing new content in schools are very important. Graduates of programs of study that are set up parallel to curriculum incorporation are usually available after approximately 6 to 8 years. Therefore, ideas need to be implemented which enable existing teaching staff to gain subject and didactic qualifications in an appropriate manner alongside their everyday teaching job, ideas which can simultaneously be used to design programmes of study (Kaminski, 2014).

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