



# **Institutional description of University School Concepts in Europe**

## **Intellectual Output 1 in the EdUSchool Project**

*Karl-Heinz Gerholz, Jörg Neubauer, Hannes Reinke, Anne Wagner (University of Bamberg),  
Bohumíra Lazarová, Milan Pol (Masarykova University), Christina Bader, Nils Marko, Karl  
Wilbers (University of Nuremberg), Bjorn Ivar Midjo, Ingrid Stenoien, Kari Smith  
(Norwegian University of Technology and Science), Catarina Sobral, Luis Tinoca, Tiago  
Tempera (University of Lisbon)*

## Content

<b>(1) EdUSchool project and aim of the institutional description .....</b>	<b>3</b>
<b>(2) Method: Document analysis.....</b>	<b>4</b>
<b>(3) Conceptual framework for the document analysis .....</b>	<b>5</b>
<b>(4) Results of the institutional description .....</b>	<b>8</b>
<b>(4.1) University School Concept in Bamberg (Germany 1) .....</b>	<b>8</b>
<b>(4.2) University School concept in Brno (Czech) .....</b>	<b>17</b>
<b>(4.3) University School concept in Nuremberg (Germany 2) .....</b>	<b>24</b>
<b>(4.4) University School concept in Trondheim (Norway) .....</b>	<b>30</b>
<b>(4.5) University School concept in Lisbon (Portugal) .....</b>	<b>38</b>
<b>(5) Synopsis .....</b>	<b>50</b>
<b>References.....</b>	<b>59</b>

## **(1) The EdUSchool project and the aim of the institutional description**

The professionalization of teacher education is a much discussed topic in Europe (Smith 2016, Cain 2015). A large part of this discussion is the relationship between theory and practice, but above all the transfer from theory to practice and vice versa (Gerholz & Wilbers 2018). The first focus is on how to provide students with practical skills and knowledge during their professional education. This has recently led to a 'change in practice' in teacher education. The second focus is on how scientific insights can be implemented in everyday school life and how current challenges facing schools can be incorporated into scientific research. With this in mind, closer cooperation between schools and universities on the institutional and organizational level seems to be a promising opportunity to build up stable, partnership-based theory-practice-cooperation. An innovative concept are so-called University Schools, comparable to university hospitals, in which teaching and research are carried out simultaneously and can be productively combined (Gerholz & Wilbers 2018, Smith 2016). The intention of University Schools is to build strategic alliances between universities and schools in order to educate future teachers in study programmes and at the same time cooperate in research and school development processes (EdUSchool proposal 2018).

The aim of the Erasmus+ project EdUSchool (Enhancing European Teacher Education through University Schools) is to develop a common European understanding of University Schools and their concepts among all stakeholders. This can make a great contribution to the European teacher education. In detail, the objectives of EdUSchool project are as follows:

- Establishing a European understanding of University Schools as an important stimulus for the future of teacher education in Europe
- Identifying success factors for implementing the concept of University Schools in all affected parties (i.e. non-governmental institutions)
- Identifying good practice activities of University Schools in Europe to generate orientation knowledge for teacher educators and teachers at University Schools
- Developing an educational module for teachers at University Schools
- Enhancing exchange processes for people working within the University School framework

To achieve these goals, the EdUSchool project has four intellectual outputs: (1) Institutional description of University School Concepts in Europe, (2) Good practice collection by comparing the theoretical concepts with practical implementation, (3) Development of an educational module for teachers acting within an University School concept, (4) A digital handbook with different possibilities to implement the idea of University Schools. In this paper we present the results of the intellectual output 1, i.e. the institutional description of University School concepts in Europe.

The intention of the institutional description is to identify and describe organizational as well as communicational and cooperative patterns within the different implemented University School Concepts in Europe. The focus is on the connection between universities and University Schools. If relevant, other stakeholders will also be included, such as teacher organizations, ministry, etc. The aim is to describe, to analyze and to systemize criteria-oriented concepts in teaching and learning between all stakeholders (school, university, governmental and non-governmental organizations) based on the concept of University Schools. Furthermore, organizational and cooperative structures should be identified. On the one hand, this analysis can provide support for governmental partners (like the ministry, school supervisory, etc.) and non-governmental partners (like teacher labor union) within a University School Concept. On the other hand, it can be used to strengthen the research-based view in teacher education programmes. Last but not least, we want to create structures that enable teachers and future teachers to become “reflective practitioners” (Schön 1984) and to combine practice-based and theory-focused research in order to contribute to a deeper understanding of education.

The following paper presents the results of the institutional description of University School concepts in four different European countries. First, we describe the method for the institutional description (section 2) and the relevant categories for the description (section 3). The core of the paper is the analysed University School Concepts in section 4. At the end, a first synopsis of the University School Concepts in Europe is presented (section 5).

## **(2) Method: Document analysis**

In order to be able to formulate the institutional description and to compare different University School Concepts it is necessary to identify structures and frameworks as well as conditions conducive to a successful implementation. A systematic analysis of documents has been conducted to address this question. The advantage of this approach is that documents can be reflected systematically regarding the specific meanings a document carries in the certain context of its genesis (Hader 2015). Since this analysis of documents can be considered a non-reactive method, it is suitable to summarise and structure information and to reveal communicational and organisational patterns, the respective stakeholders’ intentions, and mechanisms of cooperation (Lamnek 2010).

The documents considered below provide information on University School Concepts that have already been implemented. The experts of the EdUSchool project (both at the regional and national level) have collected and selected official and rather informal documents for the analyses. These documents contain information about the given University School Concept. Thus, the documents cover ministry or university regulations, university curricula and module descriptions, scientific publications and working papers,

and presentations of the stakeholders in the University School Concept. All documents reflect the structure and development of University School Concepts as well as its current status.

### **(3) Conceptual framework for the document analysis**

The analysis of the different University School concepts draws upon an institutional perspective. Institutions represent the regulatory structure of a social system and organise a given social system like University Schools Concepts (Gerholz & Brahm 2014). Institutions represent the rules of the game in a society (North 1990, 5). The analysis focuses on the analysis of structures, players and organisational principles of different University School Concepts. However, it also includes the interdependencies between involved players and organisations within the concept.

The analysis is based on documents that legitimize and describe the University School Concepts. The categories for the analysis of the documents are reconstructed in the discourse of teacher education. This in mind, four perspectives of consideration are relevant: (a) The national perspective – the University School Concept is embedded in this level. (b) The institutional perspective by means of which the framework of regulations and the objective of a University School Concept are described. (c) The organizational perspective, which focuses on organizational structures and processes as well as persons and their roles in University School Concepts. (d) Finally, the activity perspective refers to concrete activities and daily life routines within the University School Concept.

#### *(ad 1) National View*

Teacher Education Systems in Europe are different in each country, which can be traced back to different development histories of education systems and at the same time to structures and rules. It is therefore important to describe the national context in which the concept is embedded. The national context is the general structure of a Teacher Education system, that comprises policy regulations (e.g. for Teacher Education programmes, responsibilities), institutions (e.g. ministries, universities), involved actors (e.g. teachers, lecturers) as well as relevant principles (e.g. Theory-practice connection).

#### *(ad 2) Institutional View*

The institutional perspective or framework describes the implementation of a University School Concept. On the one hand, it contains the description of necessary regulations between the university and the university school, but also for other stakeholders (ministries, local governments, civic authorities etc.). On the other hand, the institutional framework describes the main objective by defining regulations, aims or specific aspects that characterize the University School concept. Within the institutional framework, three categories can be distinguished:

1. *Regulations* describe the regulatory design of a University School concept (among other things it comprises financing, duration, legal basis, responsibilities).
2. *Objectives* mention the main goals of a University School Concept by addressing contents and conceptual topics (e.g. school development, professionalization of stakeholder, research-oriented teaching).
3. The category of *Stakeholders* refers to the fact that each University School Concept is shared by different groups, e.g. institutions like governmental organizations, civic authorities or groups like university-school teachers and lecturers.

*(ad 3) Organisational View*

The organisational perspective refers to the organizational design of a University School Concept. First, the logic of a given University School Concept is explained. This can be viewed as an operationalization of the main objective of a University School concept (see institutional view). Furthermore, the organizational view comprises the organizational structures and processes, in particular the relationships and main cooperation processes between the University and the University Schools. All in all, the organizational view can be operationalized through three categories:

1. *Clarification and specification*: This category describes aims, conditions and assumptions of an University School Concept like philosophy (e.g. convictions, rules of cooperation, traditions), aims (e.g. transfer of knowledge, school development, professionalization), intermediate goals (e.g. number of teacher education students in University Schools) or content-related assumptions (e.g. conceptual frameworks).
2. *Cooperation and coordination*: The organizational structures, workflows and processes are mentioned here. These can be internal stakeholder at the University and University Schools, processes of communication or transfer, perceptions of cooperation between the partners, research- and development management etc.
3. *Persons, roles and functions*: People or roles with different functions shape a University School concept. These persons and roles could be anchored intra- or interorganizational. Examples are transfer agents, university school coordinators, lectures, local government representatives, mentor and mentees etc.

*(ad 4) Activity View*

The activity view refers to concrete activities (projects, modules etc.) and their realization within the framework of a University School concept. A wide range of different activities can be addressed, but in general, the activities refer to teaching, development or research topics. Four different categories have been designed to distinguish these activities from each other:

1. *Research- and development activities*: Normally, a University School concept goes beyond teaching students of teaching. This category refers to project or programme activities in field of research and development. It may include concrete research projects, programmes in research and development or a scientific agenda.
2. *Professionalization of teacher education students*: This category describes activities aimed at the professionalization or competence development of students involved in the University School Concept. These can be, for instance, curricular and extra-curricular activities, educational frameworks or modules.
3. *Professionalization of University School teachers and lecturers*: This category describes activities with the goal of professionalization or competency development of teachers at the University School or lectures at the University who are involved in Teacher Education study programmes. Similar to the professionalization of teacher education students, it can comprise curricular and extra-curricular activities, educational frameworks and modules.

Table 1 gives an overview of the above categories, which form the basis for document analysis.

<b>Perspectives in the analysis</b>	<b>Categories for the analysis</b>	<b>Examples</b>
National view	Teacher Education system and philosophy	Phases of teacher education, policy regulations, responsibilities,
Institutional view	Regulations	Financing, policy regulations, duration, responsibilities
	Objectives	Transfer, professionalization, school development
	Stakeholder	governmental organizations, civic authorities or groups like university-school teachers, lecturers
Organizational view	Clarification and specification	Aims, philosophy, conditions
	Cooperation and coordination	Workflows, structure
	Persons, roles and functions	University school coordinator,
Activity view	Research- and development activities	Projects, programmes, scientific agenda
	Professionalization of teacher education students	curricular and extra-curricular activities, educational framework, modules
	Professionalization of University School teachers and lecturers	curricular and extra-curricular activities, educational framework, modules

*Table 1: Categories for the document analysis*

## **(4) Results of the institutional description**

### **(4.1) University School Concept in Bamberg (Germany 1)**

The University School concept in Bamberg is anchored in Vocational Teacher Education in the field of Business and Human Resource education. The teacher education system is divided into different phases (Kultusministerkonferenz 2004). The first phase is represented in scientific education at universities or teacher training colleges. It is followed by a second phase of practical training at the study seminars ('Studienseminar') and seminar schools, before the students have to teach at schools as fully trained teachers (third phase). This third phase includes further education and training. The federal state Bavaria is the only state in Germany with University School Concepts.

Each federal state in Germany is responsible for its educational system. The University School Concept in Bamberg (Bavaria) refers to the governmental declaration of the Bavarian State Minister for Education and Culture of 26 March 2009. It states the optimal combination of studies and school and thus theory and practice in the first and second phase of teacher training as a goal of quality-oriented teacher education. University Schools can serve as an instrument for this purpose to connect universities and schools. The governmental declaration operationalizes the regulations (Spaenle 2009): The University Schools should be located close to the university, represent large school units and be seminar schools. Selected teachers at these schools act as mentors, with one mentor supervising a group of approximately five master students. Each University school is responsible for at least 20 students annually. In addition, joint pedagogical development and research projects are initiated between school, university and study seminar. The aim of the Bamberger University School Concept is to sensitize students during their studies to the relationship between scientific requirements and practical professional conditions for coping with educational situations. (Gerholz 2020; Gerholz & Wilbers 2018). The stakeholders involved are representatives of the university, teachers and principals of the University Schools, seminar teachers and seminar directors, representatives of the government and the students.

The philosophy of the University School concept in Bamberg is a cooperative practice design and theory building. The organisational concept refers to institutionalized cooperation in teaching, research and development. The pedagogical concept is reflected in a cooperative design of the practical and theoretical elements. The educational theoretical references of the theory-practice-connection in the concept of Bamberg refer to the difference between theory and practice instead of integration (Gerholz 2020): theory and practice are not directly connected with each other, but must be put in relation to each other. This means that both educational institutions – University and University Schools – function as different learning venues. The educational action of the students is fostered by current challenges of the University Schools (e.g. during a module or a master thesis), which have to be mastered by the students. In order to do so, the students plan,

carry out and evaluate their actions from both perspectives, empirical and theoretical approaches (University) as well as everyday practical experience (University Schools). It is obvious that the cooperation and coordination with internal or external partners is essential.

The institutional framework is implemented in various organizational structures and processes. Three patterns can be distinguished: (a) A University School coordinator as a link between teachers, students and university lecturers. He / she organises all meetings, practice phases or projects and takes care of administrative matters, (b) regular (one time in a term) meetings between the mentors of the University Schools and university lectures especially regarding the practical phases of the University School, and (c) annual meetings with all participants of the University School concept.

The members of the University School concept cooperate in various activities in research, teaching and development. During the study programme four modules are offered in direct cooperation with the University Schools. In the modules 'Studies in School I and II' the students learn pedagogical content knowledge and curriculum knowledge for teaching in vocational schools. These modules follow an action-oriented approach. The students simulate a lesson with video analysis in the modules, have a practical phase at the University Schools and develop and carry out a teaching sequence in a group in the University Schools. The core of the cooperation is the practical phase at a University school. The students spend four weeks in the semester break at a school and, with the support of teachers, prepare and conduct their own lessons and take part in other courses. Through the internships at the university, the students have to make 40 hours of observations. The observations cover all action fields of activity of the teachers such as teaching, counselling, innovation and administration. In the module "Didactics of Business Education", the students work on real and currently challenging problems of the University Schools. Here, students work directly together with the university lecturers and the mentors of the University Schools (e.g. joint consultations, presentation of solutions in the presence of lecturers and mentors). In the module "Scientific questions in business didactic" the students do their own research. The research projects are linked to the current challenges at the University Schools. This module represents also the preparation of the Master's thesis that can be written in cooperation with the University Schools (Gerholz 2020, Gerholz & Wilbers 2019). In addition to the modules there are numerous research and development programmes, e.g. a service-learning project. This is an educational that combines curricular content with civic engagement. It was implemented in selected commercial courses together with a University school and the students and university lecturers supported the teachers in their search for civil society cooperation partners and in anchoring service learning in the vocational education curriculum (Gerholz, Neubauer & Männlein 2019). Continuous research activities are carried out in various Bachelor's and Master's theses in cooperation with the University Schools. All measures of the University school initiative focus on the goal to achieve an organized cooperation for the professionalization of all participants – teachers, students

and lecturers at the university. It is a combination of the first, the second and third phase of teacher education. The professionalization of teaching staff in University Schools takes place, for example, in the lecture series “Business Education research in Dialogue”, in which numerous renowned and international scientists provide insights into research on topics of vocational education as well as on topics of general pedagogical relevance.

Category	Description	Document
<b>National view</b>		
Structure of teacher education system	Quedlinburger Beschlüsse (KMK 2004): first phase of scientific education at universities or teacher training colleges, second phase of practical training at study seminars or seminar schools.	Kultusministerkonferenz (2004)
<b>Institutional framework</b>		
Regulations	<p>Policy regulation (Government declaration of the Bavarian State Minister for Education and Culture of 26 March 2009 in the Bavarian Parliament): Further develop and improve teacher training in Bavaria in a quality-oriented manner (Spaenle, 2009, 896), optimal networking of studies and school, theory and practice in the first and second phases of teacher training (Spaenle, 2009, 896), new instrument university school, in which university and school reality enter into a productive connection (Spaenle, 2009, 896).</p> <p>Policy regulation about University Schools: schools should be located close to the universities, represent large school units and be seminar schools, selected teachers at these schools act as mentors, with one mentor supervising a group of approximately five master students, each university school accepts at least 20 students annually, joint pedagogical projects are initiated between the school, the university and the study seminar.</p>	Spaenle (2009)
Objectives of the University School concept	<p>Sensitization the students during their studies to relate scientific demands and practical professional conditions to cope with educational situations.</p> <p>All measures of the University School Initiative focus on the goal of achieving organized cooperation for the professionalization of all participants as a combination of the first, second and third phases of teacher training.</p>	<p>Gerholz &amp; Wilbers 2018</p> <p>Heinrichs, Gerholz, Neubauer &amp; Feldmann (2016)</p>



	<ul style="list-style-type: none"> <li>• regularly meetings between teachers and lecturers (of the modules practical school exercises) two times per year for coordination and one time per year between representatives of the university, principals of University Schools, representatives of the seminars, government and ministry</li> <li>• Activity meetings for coordination of modules and ongoing projects</li> <li>• Online platform for sharing documents</li> </ul>	
<b>Activity view</b>		
Research and development programmes	<ul style="list-style-type: none"> <li>• The lecture series "Business Education research in Dialogue"</li> <li>• Students support teachers at University Schools in the conception and implementation of summer schools (e.g. for the vocational orientation of refugees and asylum seekers).</li> <li>• Interested students can participate in modules of the teacher training by cooperation with the government of Upper Franconia.</li> <li>• Further development of the supervision of school internships and theory-based internships in University Schools by the sponsored teachers in the schools and by the accompanying university didactic offers</li> <li>• Systematic offers of the University Schools to get to know extra-curricular fields of action of teachers within the scope of the school internship at the University Schools</li> <li>• New module "Didactics of Economics" in cooperation with University Schools and study seminars (in planning) for the further development of theory-practice-connection</li> <li>• Continuous research activities in different bachelor or master thesis in cooperation with University Schools</li> <li>• Research project on increasing the attractiveness of the dual system using the example of BerufsschulePlus in cooperation with BS III Bamberg</li> </ul>	Heinrichs, Gerholz, Neubauer & Feldmann (2016), 6f.

	<ul style="list-style-type: none"> <li>• Research project on the vocational orientation of refugees and asylum seekers in cooperation with the Schwabach Vocational School</li> </ul>	
Professionalization of teacher education students	<p>Didactical/educational framework:</p> <ul style="list-style-type: none"> <li>• Further development of the supervision of the school internships and the theory-based hospitations in the University Schools by the sponsored teachers in the schools and by the accompanying university didactic offers</li> </ul> <p>Curricular activities:</p> <ul style="list-style-type: none"> <li>• Didactics of Economics: students work on a real problem of a university school</li> <li>• Practical School Exercise - Preparation: didactical basis for commercial school; students plan a school lesson (1 hour), execute it and analyse it (video report); internship in school for 4 weeks at University Schools (Performing two school lessons and hospitation in 80 school lessons)</li> <li>• Practical School Exercise - Follow-up: Reflection of the experiences in internship considering theoretical concepts/models, Planning and performing a school lesson in group (3-4 hours) considering the focus digitalisation or German as profession language</li> </ul> <p>Extra-curricular activities:</p> <ul style="list-style-type: none"> <li>• Students address current questions of University Schools in their final thesis</li> <li>• Interested students can participate in modules of the teacher training by the cooperation with the government Upper Franconia.</li> </ul>	<p>Heinrichs, Gerholz, Neubauer &amp; Feldmann (2016), 6</p> <p>Gerholz (2020)</p> <p>Heinrichs, Gerholz, Neubauer &amp; Feldmann (2016), 6</p>
Professionalization of teachers in University Schools / Schools	<p>Didactical/educational framework:</p> <ul style="list-style-type: none"> <li>• Cooperation with the University Schools for the implementation of didactic concepts for personality development through civil</li> </ul>	<p>Heinrichs, Gerholz, Neubauer &amp; Feldmann (2016), 6</p>

	<p>society connections in the classroom in cooperation with the Diakonie Bamberg-Forchheim</p> <p>Curricular activities:</p> <ul style="list-style-type: none"> <li>• New conception of the module "Teaching professionalism" in cooperation with the study seminar for vocational schools in Bavaria with the aim to hold a further training event for seminar teachers in spring 2018</li> </ul> <p>Extra-curricular activities:</p> <ul style="list-style-type: none"> <li>• The lecture series "Business Education research in Dialogue": numerous renowned national and international scientists provide insights into research on topics of vocational and business education as well as on topics of general pedagogical relevance. Students, academic staff and teachers take part in the event</li> <li>• The poster presentation of the students at the end of the partial module 'Research and development work' of the module 'Didactics of economics' in the University Schools represents an advanced training offer for teachers</li> </ul>	<p>Heinrichs, Gerholz, Neubauer &amp; Feldmann (2016), 6</p> <p>Gerholz (2020)</p>
<p>Professionalization of lecturers at the university</p>	<p>Didactical/educational framework:</p> <ul style="list-style-type: none"> <li>• strengthening of cooperation projects within the framework of courses between University Schools and universities in modules of university teaching</li> <li>• further development of the theory-practice interlocking in the course of studies Business Education</li> <li>• Cooperation between teachers of the University Schools and lecturers at the university in the coordination, implementation, consulting and reflection of modules and examination performances, e.g. "Didactics of Economics"</li> </ul> <p>Extra-curricular activities:</p> <ul style="list-style-type: none"> <li>• The lecture series "Business Education research in Dialogue": numerous renowned national and international scientists</li> </ul>	<p>Gerholz, Männlein &amp; Kaeser (2019)</p> <p>Heinrichs, Gerholz, Neubauer &amp; Feldmann (2016), 6</p>

	provide insights into research on topics of vocational and business education as well as on topics of general pedagogical relevance. Students, academic staff and teachers take part in the event	
--	---	--

## **(4.2) University School concept in Brno (Czech)**

Teacher education in the Czech Republic is anchored at universities and organised in “Teacher Education Faculties”. Pre-service teacher education in these Faculties contains both general teacher education programmes and supplementary programmes for graduates of non-educational studies.

There are two or three ways of conducting pre-gradual teacher education at Higher Education Institutions. The most typical questions are whether to elements of Teacher Education should be disseminated at both Bachelor and Master level or whether they should only be taught at Master level. Another possibility is offered for those with higher education qualification and without any pedagogical qualification. The Faculties at Masaryk University (MU) use different ways of doing so. Faculty of Arts MU decided to conduct teacher education at Master’s level.

The postgraduate in-service teacher trainings are organised by a wide range of institutions. The NIDV (National Institute for Further Education as an institution governed by the Ministry of Education, Youth and Sports) can be regarded as the main organiser of these courses for teachers.

In recent years, the topic of practical teacher training in the Czech Republic has gained more importance. Therefore, the subjects of study have been specified according to their practical and theoretical inputs. The academic tradition of teacher education is being marginalized (teacher education of secondary school teachers), the tendency towards the tradition of teacher education at primary schools (social skills and competence development) has recently become established. The National Accreditation Office (NAO) suggest to devote a higher amount of hours/credits for students practical training. For example, NAO decided that of the 120 credits prescribed for the Master’s programme, 20 should be used for practical teaching and reflection on practice and 22 credits to the didactics of the subject taught (NAO, 2017).

Aiming for improvements in the quality of practical training, there has been an increasing demand for improving the quality of work in schools that train students of teacher education. The establishment of Faculty Schools has therefore been a growing trend and attempts have been made to formally anchor them. As participating schools cooperate with the teacher education faculties in Higher Education Institutions the term Faculty Schools is used instead of University Schools. In the Czech Republic, however, there are currently no regulations for Faculty Schools. Each Higher Education Institution creates its own system of cooperation with Faculty Schools and no procedures are prescribed.

The general aim of establishing Faculty Schools is to improve practical teacher training of students through close cooperation between a Higher Education Institution and a school and to effectively transfer knowledge and experience between these institutions.

The process of becoming a Faculty School is mainly structured by the Higher Education Institutions. They initiate cooperation with specific schools or encourage schools to apply if they wish to become a Faculty School. Therefore, Higher Education Institutions have more or less elaborated conditions under which a school can obtain the status of a Faculty School. Contracts between the Higher Education institutions and the prospected Faculty School determine the aims and conditions of cooperation, e.g. the tasks of the Faculty School and accompanying teachers, the number of hours of practical training of a student

and the general content of practical teacher training. Hence, the Higher Education institutions are responsible for the fulfilment of requirements related to students' practical education. Therefore, the Faculty School programme is rather decentralised. The rather informal status of Faculty Schools was important both for the Higher Education institutions (improvement and control of students' practical training), as well as for Faculty Schools (prestige, inspiration, possible involvement in Higher Education institutions projects).

As stakeholders of the Faculty Schools' interests, the following points in particular can be listed (Muni 2017, 2018):

(1) Persons at Higher Education Institutions: Usually in the field of pedagogy, which help students with their placement in schools, communicate with schools, create rules, methodical instructions, instructions for students, help students prepare for practical teacher training, organize reflection of practice, or review student practice.

(2) Teachers at Faculty Schools: Management of Faculty Schools is more or less involved in the selection and education of teachers who lead practical teacher training of students. However, there is no official requirement for their education. They usually provide practical teacher training for students according to requirements and contracts with a Higher Education institution. They have usually been referred to as "accompanying teachers", sometimes as "mentors" in recent years.

(3) Organizational workers: At some Higher Education Institutions, organizational staff is assigned to organize practical teacher training, who are in contact with schools and are in charge of contracts, etc.

To achieve the overarching objectives in Faculty School cooperation various activities in research, development, and teaching are brought up by the partners. The Masaryk University's research agenda includes publications on practical teacher training for students, e.g. a project supported by the Czech Science Foundation on the "Acquisition of tacit knowledge of student teachers during their teaching practice" (Švec et al., 2016).

The professionalization of teacher education students at Masaryk University is promoted through continuous practical teacher training. The programs begin with observations and analyses of accompanying teachers' lessons and continue with guided micro teachings at Higher Education Institutions and schools. Additionally, practical teacher trainings are combined with a group reflection on practical teacher training.

For the further professionalization of in-service teachers at schools Higher Education Institutions organize comprehensive education for Faculty Schools (teachers) usually only within the framework of projects. Depending on the needs and possibilities, Higher Education Institutions organize seminars, open days and other meetings for Faculty Schools (teachers).

Category	Description	Document
<b>National view</b>		
Structure of teacher education system	<p>Teacher education is mainly structured by the Ministry of Education, Youth and Sport and its subordinated institutions (e.g. National Accreditation Bureau, Czech School Inspectorate)</p> <p>Prospective teachers become educated at “teacher education faculties” – in the following HEI (Higher Education Institutions). From these, the Faculties of Education usually prepare students to become teachers at preschools and basic schools (ISCED 0, 1, 2) while the faculties of science-, arts-, and informatics- (and some others) usually prepare teachers of various subjects for teaching upper secondary school students (ISCED 3).</p> <p>In-service teacher training courses are organized by a wide range of institutions. As the main provider of these courses for teachers can be considered NIDV – National Institute for Further Education as an institution governed by the Ministry of Education, Youth and Sports.</p>	<p>NAO 2019 Act No. 561/2014 on Pre-school, Basic, Secondary, Tertiary Professional and Other Education. (Czech School Inspectorate 2019)</p> <p>Muni, n.d.</p> <p>European Commission, 2019b)</p>
<b>Institutional framework</b>		
Regulations	<p>The most common name for school cooperating with HEI is “Faculty schools”, therefore in the following text we will use the notion “Faculty schools” instead of “University Schools”.</p> <p>Regulation for Faculty School concepts:</p> <ul style="list-style-type: none"> <li>• There are no regulations for Faculty schools in the Czech Republic at the moment. The HEIs are responsible for the fulfilment of requirements related to students’ practical education. Generally there are some framework agreements, rather formally established.</li> </ul>	EDUin, 2015

	<ul style="list-style-type: none"> <li>• The system is decentralized; there is no extra budget for Faculty Schools. The teachers co-operating in Faculty Schools are paid from the HEI budget.</li> <li>• There are different systems of the practical education – either, the students may choose the school where they want to undergo their practice, or the place of the practical education is determined by HEI.</li> </ul>	
Objectives of the University School concept	The general aim of establishing Faculty Schools is to effectively transfer knowledge and experience between the two types of institutions, to improve practical teacher training of students through close cooperation between a HEI and school.	
Stakeholder	<ul style="list-style-type: none"> <li>• National Accreditation Bureau</li> <li>• Local Faculty schools and Faculty School teachers</li> <li>• Members of teacher education faculties</li> <li>• Employees of HEI, as research assistants or organizational workers.</li> </ul>	List of Faculty Schools at the Faculty of Arts, Masaryk University
<b>Organisational view</b>		
Cooperation and coordination	<ul style="list-style-type: none"> <li>• Framework for the cooperation between a HEI and a University School is a contract which is prepared by the HEI and covers relevant tasks of the faculty and Faculty School.</li> </ul>	Example of a contract
Persons, institutions and roles in the University School concept	<p>(1) People in a HEI - usually field didacticians who help students with their placement in schools, communicate with schools, create rules, methodical instructions, instructions for students, help students prepare for practical teacher training, organize reflection of practice, or check student practice.</p> <p>(2) Teachers at Faculty Schools. Management of Faculty Schools is more or less involved in the selection and education of teachers who lead practical teacher training of students. However, there is no official requirement for their education. They lead the practical teacher training of students usually</p>	

	<p>according to requirements and contracts with a HEI. Usually they have been called “accompanying teachers”, sometimes “mentors” in recent years.</p> <p>(3) Organizational workers. At some HEIs, organizational staff is assigned to organize practical teacher training, who are in contact with schools and are in charge of contracts, etc.</p> <p>(4) Others - at some faculties (e.g. the Faculty of Education, Masaryk University), other persons who help in group reflections, e.g. also psychologists. The “reflection groups” are working across the faculty/departments. At the Faculty of Arts of Masaryk University, the people teaching didactics (departments of different professional areas like history or foreign languages) are responsible for the reflection of the practice – these groups are organized directly at individual departments, it is not centralized at the Faculty level.</p>	
<b>Activity view</b>		
Research and development programmes	<p>HEIs realise specific research at Faculty Schools, e.g. Determinants of effectiveness of practical teacher training, doctoral theses as well as publications focused on evaluation of student practical teacher training are created at the Faculty of Education, Masaryk University.</p> <p>At the Faculty of Arts, Masaryk University, the project focused on the students practical education is under development.</p>	Švec, Svojanovský, & Pravdová, 2016
Professionalization of teacher education students	<p>Didactical/educational framework:</p> <p>Each student that undergoes the practical teacher training shall undergo a group reflection on the practical teacher training, micro teachings, and teachings at Faculty Schools. The activities at the Faculty Schools consist of lesson observations, study the school documents, teaching practice directly in classes. Furthermore, the students are involved in many other activities organized by schools.</p>	<p>Muni, 2017</p> <p>Muni, 2018</p>

	<p>Curricular activities - for example from Masaryk University, Faculty of Education:</p> <ul style="list-style-type: none"> <li>• Bachelor: students fulfil their practical training consisting of 2 x 60-minute lessons and register for Self-experience Training for Profession I &amp; II, where they can reflect on their practical experience. It is a block instruction of 2 x 9 lessons a year.</li> <li>• Master: students studying two subjects go through a total of three rounds of teaching practice and reflective seminars.</li> <li>• At all stages cooperation with accompanying teachers is provided.</li> </ul>	
Professionalization of teachers at the University Schools	<ul style="list-style-type: none"> <li>• There are no overall rules for Faculty Schools teacher education.</li> <li>• Nonetheless, HEIs organize comprehensive education for Faculty Schools (teachers) usually only within the framework of projects.</li> <li>• Depending on the needs and possibilities, HEIs organize seminars, open days and other meetings for Faculty Schools (teachers).</li> <li>• The teachers responsible for the student stage in Faculty Schools get in many cases the partial or full contracts as didactics teachers at the Faculty and vice versa : the Faculty lecturers – didactics can get the partial contract at schools as teachers – to be in contact with the school reality.</li> </ul>	
Professionalization of lecturers at the University Schools	<ul style="list-style-type: none"> <li>• Within the framework of the project, courses were organized at the Faculty of Education, Masaryk University for those interested in leading group reflections of practical teacher training.</li> </ul>	

	<ul style="list-style-type: none"><li>• The Faculty of Arts MU has a close co-operation with lecturers at Faculty Schools. The people from Faculty Schools are invited and involved in many University project focused on the broad range of topics.</li></ul>	
--	--	--

### **(4.3) University School concept in Nuremberg (Germany 2)**

The University School concept in Nuremberg is embedded in the federal educational system of education in Germany. The highest governmental administration agency for education and schools is the ministry of education. The local government follows. The University and the University Schools are responsible for the first phase of teacher education, followed by the second phase of teacher education, which is organised and administrated by the study seminar. The University offers educational programmes for Teachers in Commercial Education and Technical Education (TVET).

In the perspective of the institutional framework, there are different regulations for the University School concept. The overall regulation for the studies is the regulation of degree and examination schedule and the handbooks for the degree schedule. Furthermore, there are internal documents as a set of rules for the University School concept containing working orders for students. The objectives of the University School concept in Nuremberg is the qualification through the development of professional and pedagogical competences of the students. In addition, the cooperative school-related research, the development on topics of real schools problems and the development of University Schools as a close cooperation between University and University Schools are objectives of the concept in Nuremberg. The stakeholders involved have different duties and responsibilities:

- In the first phase, the University is responsible for vocational teacher education. This means that they provide learning outcomes, the instructional design (including compiling of textbooks and other instructional materials), the instruction of the students and the mentors, the monitoring of research projects, the coordination and the evaluation of the structure and the processes within university schools and the management of stakeholders.
- The University Schools are places of research-based experiential learning. Six University Schools are involved in the qualification process. Experienced teachers (so-called “mentors”) accompany and support small groups of students. Students observe teaching practice and gain their own experience. In addition, schools define research topics, enable surveys and benefit from them.
- The local government subordinates authority of the ministry of education at a local level.
- The study seminar is responsible for vocational teacher education in schools for students having passed the first phase.

There are various mechanisms for cooperation and coordination for organizational structure and processes and two possibilities of transfer from the university to the school. The didactic theory is inaugurated in schools through the compulsory use of the textbook and a mandatory reporting to the schools reflects the research results of students. The students attend the university school once a week. A mentoring session consists of a 4-hour observation and a 1-hour analysis and reflection slot in small groups. The students have the opportunity to discuss the lessons’ structure, methods, setting of classes, school conditions, working conditions for teachers and so on during the session. The sessions are complemented by explorations that cover interviews in the school with principals, quality management teams, school social worker etc. and outside the school (school environment), for example a support centre for special needs. In contrast, students present their work assignments prepared at school in classroom sessions at the university.

In-school transfer means that within the school, mentors pass on their experiences and knowledge gains and the University Schools publish the experiences via a website or textbooks (cross-school transfer). The university is responsible for the strategic management of the University School concept. This includes controlling University Schools, its goals, producing content, discussing research and development topics, and resolving conflicts. In contrast, the University School coordinator is responsible for the operational management of the University Schools. This includes “mentoring mentors”, assigning and supervising the students, monitoring work assignments and assisting with conflict resolution.

Nuremberg has various activities in research, teaching and development. First, the research agenda is coordinated with each school, the head teachers (who define research and development topics) and the mentors for each implementation. The research agenda consists of several projects defined by the mentors and the teams for quality management in the schools. Furthermore, there are school-related research programs and the exact projects of the school program are redefined with the mentors.

The basis for the professionalization of the teacher education students is a competence model for the qualification of students. For this purpose, didactic modules and profession modules are available at university. The professionalization of teachers at University Schools is based on a didactic framework. The mentors are selected in consultation with the school management and new mentors are prepared for their tasks. Mentor speakers at each university schools assure that new Mentors receive the required theoretical and practical information. The mentors exchange ideas and support each other. Every University school needs a mentor speaker. The mentors use the textbook according to the curriculum and participate in university seminars. There is no professionalization for lecturers at university.

Category	Description	Document
<b>National view</b>		
Structure of teacher education system	<p>Ministry of education: the (federal) state's highest governmental administration agency for education and schools</p> <p>Local government: subordinate authority of the ministry of education at the local level</p> <p>Schools: Place where vocational training, first experiences in teaching, University Schools and cooperation of research and development take place, cooperate with first and second phase</p> <p>University: Responsible for education of vocational teachers (first phase)</p> <p>Study seminar: Responsible for education of vocational teachers in schools for students having passed first phase successfully (second phase)</p>	Kultusministerkonferenz 2004
<b>Institutional framework</b>		
Regulations	<p>University documents:</p> <ul style="list-style-type: none"> <li>• regulation of degree and examination schedule, study program, handbooks for degree schedule</li> <li>• internal document as a set of rules for the university school concept containing working orders for students ("Unischul-Bulletin")</li> </ul> <p>Ministerial documents:</p> <ul style="list-style-type: none"> <li>• letters of the ministry of education explaining or supplementing other ministerial documents</li> </ul>	FAU 2019 Spaenle (2009) Bader, Lehner & Wilbers (2018)
Objectives of the University School concept	Qualification of teachers: Development of professional and pedagogical competences	Gerholz & Wilbers (2018), Bader, Lehner & Wilbers (2018)

	<p>School-related research &amp; development: Cooperative school-related research and development on topics that schools currently deal with</p> <p>Development of University Schools: Development of University Schools as a close cooperation on research and development between university and schools</p>	
Stakeholder	<p>University: Responsible for vocational teacher education (first phase), FAU</p> <p>University Schools: University Schools are places of research-based experiential learning. Six University Schools are stakeholders in the qualification process. Experienced teachers (so called “mentors”) accompany and support small groups of students. Students watch teaching practice once a week and gain own experiences. In addition, schools define research topics, enable surveys and benefit from them.</p> <p>Local government: Subordinate authority of the ministry of education at local level</p> <p>Study seminar: Responsible for vocational teacher education in schools for students having passed first phase (second phase)</p> <p>Ministry of education: The (federal) state’s highest governmental administration agency for education and schools.</p>	<p>Bader, Lehner &amp; Wilbers (2018)</p> <p>Letters of the Ministry of Culture on university school, “UniSchul-Bulletin”</p> <p>Bodensteiner &amp; Käfler 2016, 5</p>
<b>Organisational view</b>		
Cooperation and coordination	<p>Agreement on research topics collectively in regular processes</p> <p>Transfer mechanisms:</p>	Bader, Lehner & Wilbers (2018)

	<ul style="list-style-type: none"> <li>• Transfer from university to school I: The didactic theory is inaugurated in schools through the compulsory use of the textbook, learning assignments</li> <li>• Transfer from university to school II: Research results of students are reflected by a mandatory reporting to the schools</li> <li>• Transfer from school to university: Students present their learning assignments prepared at the schools in classroom sessions at university, discussion of the theoretical concepts underlying the textbook</li> <li>• In-school transfer: Within the school, the mentors pass on their experiences and knowledge gains</li> <li>• Cross-school transfer: Transfer via website, textbook</li> </ul>	
<p>Persons, institutions and roles in the University School concept</p>	<p>Strategic management by university means control of the university school, including goals, designing instruction, producing content, discussing research and development topics and resolving conflicts.</p> <p>Operational management by university school coordinator includes “mentoring mentors”, assigning and supervising the students, monitoring the learning assignments, and providing support in conflict resolution.</p> <p>Students are divided into small groups. They have to use the textbook, complete the learning assignments, reflect the experience and report at the university.</p> <p>Mentors as experiences teachers are responsible for mentoring the small groups at school.</p> <p>Head teachers define research and development topics and supports conflict resolution.</p>	<p>Bader, Lehner &amp; Wilbers (2018), “UniSchul-Bulletin”</p>
<p><b>Activity view</b></p>		

Research and development programmes	<p>The research is coordinated again with each school, head teachers and mentors for each implementation.</p> <p>There are school-related research programs and in each run, the projects of the school program are redefined with the mentors.</p>	
Professionalization of teacher education students	<p>Didactical/educational framework: Competence model for the qualification of the students.</p> <p>Curricular activities:</p> <ul style="list-style-type: none"> <li>• Didactic modules inside and outside university</li> <li>• Professional modules at university</li> </ul> <p>Extra-curricular learning assignments:</p> <ul style="list-style-type: none"> <li>• Inside-school-learning-assignments, e.g. school based social work</li> <li>• Outside-school-assignments, e.g. vocational special needs education</li> </ul>	<p>Wilbers (2019) (Textbook), "UniSchul-Bulletin"</p> <p>Lehner, Terkovits, Zitzelsberger (2015)</p> <p>Bader (2018)</p>
Professionalization of lecturers at the university	Research and development based on the inputs provided by the university schools	

#### **(4.4) University School concept in Trondheim (Norway)**

In Norway, pre-school teacher education takes place at university colleges. The programmes run for three years. It is currently under discussion to make it a longer programme that requires the same qualification as for teaching in schools which will be five years and at master level from 2017. Consequently, all teacher education students have to submit a research-based Master's thesis, as is required for all master's programmes in Norway. Both universities as well as university colleges offer these master's programmes. University colleges must have their programmes accredited by Norwegian Agency for Quality Assurance in Education (NOKUT) which is the controlling authority for educational activity. However, established universities do not need to apply for accreditation of new Master's programmes (Smith 2018).

Compulsory school is 10 years, and teachers are prepared to teach in grades 1-7 or in grades 5 to 10. After having started teacher education, they will no longer be able to switch between programmes. There is a stronger focus on content knowledge in the programme for grades 5-10. Secondary school teacher education mostly takes place at the universities which usually offer two programmes; a five-year integrated Master's degree in which students integrate educational, didactic courses, and field experience with their discipline studies from the very beginning. A second programme is a one year post-graduate certificate in education (PGCE) offered by universities as well as university colleges (Smith 2018).

Teacher education in Norway is characterised by shared responsibilities among policy makers such as central and local authorities, higher education institutions and the practice field. Thus, teacher education programs promote the integration of theory and teaching practice, consistent professional orientation and a research basis.

The concept of University Schools is one of several instruments for enhancing teacher education described in Teacher Education 2025. The National Strategy for Quality and Cooperation in Teacher Education was presented by the Ministry of Education in 2017. The general objectives of this strategy are that University School programmes should ensure a high standard of practical teacher training, improve cooperation in research and development, continuing quality development of the teacher education programs, and ensure that teacher education providers offer relevant in-service trainings (Ministry of Education and Research 2018).

The objectives of the Trondheim University school collaboration are in line with the national strategy, but with a core focus on developing new, collaborative and symmetrical research and development (R&D) practices between University and University School actors in order to enhance quality of both teacher education and school practices. R&D collaboration is initiated through joint structured processes with a broad grounding in all institutions involved (Action plan).

The Trondheim University school collaboration started in 2015 and since 2019 has been based on a ten-year agreement between the NTNU, Trondheim Municipality and Trøndelag County (Framework agreement for USSiT 2019-2029). Two-year action plans regulate the cooperation between the parties.

Trondheim's University school collaboration is divided into different bodies: the steering group, the coordinating committee, three different project groups, the head of USSiT and the Innovation leader. The steering group consists of the Dean of the Faculty of Social and Educational Sciences at NTNU (leader), the Municipal Director for upbringing and education of the city of Trondheim and the County Director for education from Trøndelag County. The main task of the steering group is to adopt the action plan and to convey sufficient resources to fulfil the plan. The coordinating committee is responsible for drawing up and implementing the action plan. The head of the coordination committee is also the Head of the Department of Teacher Education at NTNU. Various project groups, e.g. for R&D, teacher education, and development and dissemination, are responsible for the practical and operational implementation (on behalf of the coordination committee) of the action plan in the priority areas. The innovation leader's main task is to identify possible innovative results from the collaborative R&D projects, which in turn can be disseminated both in teacher education and in other schools. The innovation leader is part of NTNU's Innovation Program. Finally, the Leader of USSiT is the link between all relevant stakeholders in the University School concept. Therefore, this person combines the functions of the Secretary of the steering group and the coordination committee and is head of the Project Group 'Development and Dissemination'.

The organisational structure of the Trondheim University School collaboration reveals a broad integration of university and communities into the University School concept. The collaboration involves three university schools, two schools (one primary and one secondary) in the Trondheim Municipality (2 of 56 schools) and one school (upper secondary, which also includes vocational programs) in the Trøndelag County (1 of 32). In addition, the collaboration involves all the teacher education programs at NTNU; primary 1-5, secondary 5-10, upper secondary 8-13 and vocational 8-13 programs. Interest groups therefore include all those associated with teacher education and school at the university, the municipality and the county. The ratio of represented schools in the University School collaboration illustrates the underlying philosophy that close cooperation can only be achieved with a few University Schools and serves as examples of good practice.

At NTNU various activities in research, teaching, and development are deployed to meet the University School programmes objectives. As part of an overarching R&D agenda the main objective is to ensure development of structures and processes that in an effective way considers all parties' interests. Therefore, several Ph.D.- (6) and teacher-initiated R&D projects (13) as well as a 3-year project on mentoring involving all three University Schools have been launched. Curricular activities within the framework of these projects,

e.g. within the framework of master theses, support the professionalisation of students. According to USSiT's action plan, thereby, students are used as multipliers of "best practice" at University Schools to other schools. To ensure high quality of mentoring practice at the University School, teachers have completed supplementary studies (15 ECTS) on mentoring and R&D.

Category	Description	Document
<b>National view</b>		
Structure of teacher education system	<p>Ministry of Education and Research is the highest governmental administration agency for education and schools</p> <p>Local policy makers and community representatives are integrated in teacher education in terms of teacher education schools.</p> <p>Universities are responsible for pre-service teacher education and provide in service teacher education</p>	
<b>Institutional framework</b>		
Regulations	<p>Ministry of Education and Research:</p> <ul style="list-style-type: none"> <li>• National Strategy for Quality and Cooperation in Teacher Education sets overarching goals for teacher education, structures cooperation between universities, schools and other stakeholders, and assign competencies and tasks.</li> </ul> <p>University and community agreements:</p> <ul style="list-style-type: none"> <li>• Ten-year agreement between NTNU, Trondheim Municipality and Trøndelag County, operationalized through two-year based action plans.</li> </ul>	<p>Ministry of Education and Research (2018)</p> <p>Framework agreement for USSiT 2019-2029 Action plan (in progress)</p>

Objectives of the University School concept	<p>Development of teacher education: Development as result of close cooperation on R&amp;D between university and university school actors.</p> <p>There are only few University Schools to ensure close cooperation.</p> <p>Close cooperation between university, policy makers, and schools.</p>	Action plan (in progress). R&D in USSiT (2018)
Stakeholder	<p>Ministry of Education and Research: sets legal framework and overarching objectives</p> <p>University representatives, like the dean of the Faculty of Social and Educational Sciences, Head of the Department of Teacher Education</p> <p>Community representatives from Trondheim municipal and Trondheim county</p> <p>Students of the respective subject</p> <p>University Schools</p>	
<b>Organisational view</b>		
Clarification of the University School concept	Few University Schools to enable a close cooperation between university and schools	
Cooperation and coordination	Cooperation is structured legally in a ten-year agreement between NTNU, Trondheim Municipality and Trøndelag County, operationalized through two-year based action plans. (Replaced framework agreement for USSiT-project 2015-2018).	Framework agreement for USSiT 2019-2029

	<p>Cooperation is coordinated by different bodies that align University, Schools and local community (see below)</p> <p>R&amp;D collaboration is initiated through joint structured processes with broad grounding in all institutions involved.</p>	
<p>Persons, institutions and roles in the University School concept</p>	<ul style="list-style-type: none"> <li>• Steering group: Dean of Faculty of Social and Educational Sciences (Leader, NTNU), Municipal director for upbringing and education (Trondheim), County director for education (Trøndelag county)</li> <li>• Coordinating Committee: Responsible for preparing and implementing the action plan. Leader of CC is the head of Dept. of Teacher Education</li> <li>• Project groups: Responsible for practical / operational implementation (on behalf of CC) of the Action Plan in the focus areas; groups for R&amp;D, Teacher Education, Development and Dissemination</li> <li>• Coordinator/Leader of USSiT: Coordinator is the link between all relevant stakeholders in the university school concept. Secretary of SG and CC and leader of Project Group of Development and Dissemination</li> <li>• Innovation leader: Her main task is to identify and realize relevant innovation. Part of NTNU's Innovation Program.</li> </ul>	<p>Framework agreement for USSiT 2019-2029</p> <p>NTNU (n. d.)a</p>

<b>Activity view</b>		
Research and development programmes	<p>Research and Development agenda: Main purpose to ensure development of structures and processes that in an effective way considers all parties' interests.</p> <p>13 ongoing Teacher/school-based initiated R&amp;D projects 6 ongoing Ph.D. projects</p> <p>Teacher Specialist Programs – Master: Mathematics and Building and Construction. University Schools arena for practice training</p>	<p>R&amp;D in USSiT (2018) Action Plan (in progress)</p> <p>NTNU (n. d.)b</p> <p>NTNU (n. d.)c</p>
Professionalization of teacher education students	<p>Curricular activities and e.g. Master theses in relation to ongoing R&amp;D projects in the Uni-schools.</p> <p>“Best practice” related to R&amp;D in uni-schools: First step: Students meets “best practice” in R&amp;D at the uni-schools. Second step: Dissemination of “best practice” to other schools.</p>	<p>Action Plan (in progress)</p>
Professionalization of teachers at University Schools	<p>didactical/educational framework:</p> <ul style="list-style-type: none"> <li>• Enhanced mentoring and R&amp;D competence, all teachers at University Schools have completed studies of 15 ECTS in mentoring and R&amp;D.</li> <li>• One-year school-based “University School designed” studies in mentoring and R&amp;D</li> </ul>	<p>Framework agreement for USSiT 2019-2029</p>

	within the frames of the teachers' working hours.	
Professionalization of lecturers at the university	Extra-curricular activities for R&D leaders: <ul style="list-style-type: none"> <li>• 6 researchers from NTNU as R&amp;D leaders in 20% positions 2016-2018</li> </ul>	

#### **(4.5) University School concept in Lisbon (Portugal)**

In general, education in Portugal is regulated by the ministry of education. The teacher education system contains, for example, the qualification for teaching as well as general principles and organisation of training. In Portugal, teacher education is seen as a lifelong learning continuum and can be considered in three stages: (1) initial education, (2) induction period and (3) continuing in-service training. The first stage, initial teacher education, contains specific undergraduate plus master programmes with direct entry at the beginning of higher education, such as programmes for early childhood educators, and elementary and 2nd cycle school (grades 5-6) teachers. Those aiming to attain a higher grades teaching degree, for 3rd cycle schools (grades 7-9) and secondary schools (grades 10-12), must first complete a university undergraduate degree in their field of content and then complete their training with a Master's degree. In the second stage, during the induction period, all teacher candidates must complete internships that are still considered part of their initial teacher training. Teacher education students gain their first experiences in teaching. Schools mediate the professional entrance in the teacher profession and the continuing professional development. In the third stage, in-service training, several entities provide further training for all school levels, including Higher Education Institutions and a wide national network of teacher training centres located in school clusters and managed by school-based teachers. The University of Lisbon has not yet developed a structured University School concept with an institutional framework. Therefore, there are no legal regulations. However, there exists the concept of "Cooperating" Schools. Selected teachers at these schools act as "cooperating teachers" supervising the practice of student-teachers during their internships. The main goals for this program include:

- Furthering knowledge in the scientific field of Education, namely in several specialties, in order to develop scientific knowledge and/or its uses in work and/or research contexts.
- Developing the abilities to apply knowledge and to solve problems in new and unfamiliar situations, in broad and multidisciplinary contexts, related to the field of Education.
- Developing skills to integrate knowledge, deal with complex issues and find solutions in situations where information is limited or incomplete, including reflecting about the ethical and social implications and responsibilities resulting from these solutions or affecting them;
- Developing skills to communicate conclusions, knowledge and their rationale appropriately, both to experts and to non-experts;
- Developing skills that allow for lifelong learning in an essentially autonomous way. (IEUL, 2019)

Cooperation between University and partner schools is regulated by monitoring rules established through "joint agreements". These rules determine the cooperation and define each partner's tasks. Higher Education Institutions will have to establish multiannual joint agreements with schools from different levels in order to develop

professional practice initiation activities and supervised teaching practice. Cooperating schools receive students from different content areas. Higher Education Institutions must guarantee that the cooperating schools have human and material resources to support quality training and must actively develop the teaching quality of the cooperating schools. The activities of teacher education students include observation, planning, guiding and assessment of supervised practice (including meetings). They also conduct other activities of curricular and organizational development, taking place outside the classroom (e.g. accompany the cooperating advisor as class director; participate as an observer in the meetings of the several school bodies).

For students aiming to become teachers in grades pre-k to grade 6 the professional practice takes place over 5 years. In the first 3 years they mainly do classroom observations and plan small curriculum units to implement in schools. In the last 2 years they will work as full time teachers for longer periods in charge of one classroom under the supervision of both a school cooperating teacher and a university supervisor. Their task is to develop a curriculum intervention project and to work on a separate topic for their master thesis.

For students who will be working in grades 7 to 12, in the 1<sup>st</sup> year of their Master's program, they work with coordinating instructors from the university and their school based cooperating teacher to observe school activities and plan small curriculum units. In the 2<sup>nd</sup> year, they work also with a supervisor assigned by the university to support classroom practice and develop their curriculum intervention project that will structure their master thesis.



	<p>Initial Teacher Education (ITE)</p> <p>i) specific courses, with direct entry at the beginning of higher education, such as courses for early childhood educators, elementary school teachers and some teacher training courses in other levels and levels of education;</p> <p>ii) teacher training courses associated with other courses, some with (a) common core with other degrees, explicit or implicit, frequent situation in the areas of science, especially in the Universities of Lisbon, Porto and Coimbra, and others (b) as complementary training courses following an initial degree, which is often the case in the fields of letters, technology and the arts. With either variant, similar models are also adopted in many other countries.</p> <p><u>Second Stage:</u> Induction</p> <p>Internships take place: first experiences in teaching</p> <p>Schools mediate the professional entrance in the teacher profession and the continuing professional development</p>	<p>Approves the legal regime of professional qualification for teaching in pre-school and primary and secondary education</p> <p><a href="#">Decree Law No. 79/2014</a>, of 2014.05.14 – Diário da República n.º 92/2014, Série I de 2014.05.14</p> <p>(Ponte, 2006)</p> <p>(Flores, 2016)</p>
--	--	--

<b>Institutional framework</b>		
Regulations	<p>Joint Regulation on the Degree of Master in Education – cooperation between 4 institutions of the University of Lisbon:</p> <ul style="list-style-type: none"> <li>. Institute of Education (Instituto de Educação)</li> <li>. Faculty of Sciences (Faculdades de Ciências)</li> <li>. Faculty of Arts and Humanities (Faculdades de Letras)</li> <li>. Faculty of Fine Arts (Faculdade de Belas Artes)</li> </ul> <p>Master Programme in Education:</p> <ul style="list-style-type: none"> <li>- Goals</li> <li>- Areas of Specialization</li> </ul> <p>Regulation of the Degree, contains:</p>	<p>Regulation of Graduate Studies of the University of Lisbon (Regulamento de Estudos de Pós-Graduação da Universidade de Lisboa) <a href="#">Despacho n.º 7024/2017</a>, publicado no Diário da República, 2.ª série, n.º 155 de 11 de agosto de 2017.</p> <p>(University of Lisabon, 2019) (Goals)</p> <p>(University of Lisabon, n.d.a) (Areas of specialization)</p> <p>Regulation of Master in Education (Regulamento Geral dos Ciclos de Estudos - Mestrado em Ensino) <a href="#">Regulamento n.º 553/17, 16 out</a> <a href="#">Regulamento n.º 553/2017, 16 out</a></p>

	<ul style="list-style-type: none"> <li>- General dispositions</li> <li>- Monitoring (by the pedagogic and the scientific members)</li> <li>- Admission</li> <li>- Operation process</li> <li>- Final work guidelines</li> <li>- Public exam</li> <li>- Final classification and certificate</li> </ul>	
Objectives of the University School concept	<p>University:</p> <ul style="list-style-type: none"> <li>• To support the initiation to professional practice within the School Group, in terms of scientific, didactic and pedagogical training;</li> <li>• To collaborate in the teachers' continuing training, in particular of the cooperating teachers, through participation in courses or isolate subjects integrated in the specialization courses;</li> <li>• To give access to spaces and resources of the Ulisboa contributing to students' and teachers' training, for e.g.: Study visits;</li> <li>• To save 20% of the postgraduate, Master and Doctor degrees, vacancies to the school cooperating supervisors and ensure a 25% reduction on the tuition fees amount.</li> </ul> <p style="padding-left: 40px;">(Internal document, 5th Clause, 1. a) to d))</p> <p>Partner School:</p> <ul style="list-style-type: none"> <li>• To provide contact with diverse situations of education and teaching, related either with</li> </ul>	Internal document

	<p>the organization and functioning of the school group and with the teaching practice;</p> <ul style="list-style-type: none"> <li>• To stimulate student development by the participation in classroom planning and activities preparation, reflection on teaching occurrences and other activities;</li> <li>• To create conditions for the performance of supervised teaching practice in the classes of the cooperating supervisor, promoting the contact with pupils from different levels;</li> <li>• To allow the student to join the cooperating advisor as class director or a colleague</li> <li>• To define a timetable that will allow both student and cooperating advisor to participate in Ulisboa seminars and presentations activities (agree on 1 – or half – free day of teaching).</li> </ul> <p>(Internal document, 5th Clause, 2. a), to e))</p> <p>The students must participate in:</p> <ul style="list-style-type: none"> <li>• All activities of observation, planning, guiding and assessment of the supervised practice, including meetings;</li> <li>• Other activities of curricular and organizational development, taking place outside the classroom (for e.g.: accompany the cooperating advisor as class director; take place as an observer in the meetings of the several school bodies)</li> </ul> <p>(Internal document, 5th Clause, 4. a) and b))</p>	
--	---	--

Stakeholder	<p><b>Cooperating Schools</b> (sign joint agreements with Higher Education Institutions; accept students from different specializations; detailed information about the protocol content, including the counterparts for the cooperating school; guarantee the quality of the students' professional development; be available to receive training from the Higher Education Institutions)</p> <p>(Chapter VIII, Art.º 22, 1-5)</p>	
<b>Organisational view</b>		
Cooperation and coordination	<p>Degree Monitoring Staff:</p> <ul style="list-style-type: none"> <li>a) Coordinator of the Masters in Education (appointed by the IE Dean)</li> <li>b) Coordinating Commission of Masters in Education</li> <li>c) Coordinator of each Master in Education</li> <li>d) Scientific Council of each Master in Education</li> <li>e) Pedagogic Commission of Masters in Education</li> </ul> <p style="text-align: right;">(Chapter II, Art.º 8, 2)</p> <p>Each Master in Education Coordinator is appointed by mutual decision of the IE Dean and the Principal of the Partner School (...)</p> <p style="text-align: right;">(Chapter II, Art.º 8, 4)</p> <p>Coordinating Council of the Masters in Education: - Coordinator of the Master in Education</p>	<p>Regulation of Master in Education (<a href="#">Regulamento Geral dos Ciclos de Estudos - Mestrado em Ensino</a>)</p>

	<p>- 2 Teachers of IE, appointed by their Dean (Chapter II, Art.º 8, 5)</p> <p>The Scientific Council of each Master in Teaching integrates:</p> <ul style="list-style-type: none"> <li>• the Coordinator of the Master and</li> <li>• two teachers, one appointed by the Scientific Council of the Partner School and another appointed by the IE Scientific Council.</li> </ul> <p>(Chapter II, Art.º 8, 6)</p> <p>The Pedagogic Council of each Master in Teaching integrates:</p> <ul style="list-style-type: none"> <li>• 9 teachers</li> <li>• 9 students</li> </ul> <p>(Chapter II, Art.º 8, 7)</p>	
<p>Persons, institutions and roles in the University School concept</p>	<p>ULisboa appoints the Coordinating Teachers of the professional practice initiation activities (1<sup>st</sup> year of the degree) (4<sup>th</sup> Clause, 3. a))</p> <p>ULisboa appoints 1 Supervisor to the professional practice initiation activities (Supervised Teaching Practice, 2<sup>nd</sup> year of the degree) (4<sup>th</sup> Clause, 3. b))</p> <p>Both ULisboa and School Group Board select the Cooperating Supervisors by curricular areas or</p>	<p>Internal document – Joint Agreement ULisboa – Partner School</p>

	<p>subjects (with further acceptance of the teachers, whom should have at least 5 years of experience) (4<sup>th</sup> Clause, 3. c) (Chapter VII, Art.º 23, 1-2)</p> <p><i>Cooperating Supervisors</i> (field/area of expertise; professional experience in pedagogic supervision; 5 years of experience; Higher Education Institutions must support teachers' professional development, in particular of those who are cooperating supervisors; and give them allowances for travels and other expenses; etc.) (Chapter VIII, Art.º 23, 1-6)</p> <p><i>Cooperating Schools</i> (Higher Education Schools must establish multiannual joint agreements with schools from different levels so professional practice initiation activities and supervised teaching practice may be developed; cooperating schools must receive students from different areas of expertise; definition of rules for the joint agreement, including the counterparts for cooperating schools; universities must guarantee that the cooperating schools have human and material resources to manage a quality training; universities must actively develop the teaching quality of the cooperating schools) (Chapter VII, Art.º 22, 1-5)</p>	<p>Legal Framework for Professional Teaching Qualification (<a href="#">Regime Jurídico da Habilitação Profissional para a Docência</a>)</p>
<b>Activity view</b>		

<p>Research and development programmes</p>	<p>The Institute of Education implemented a “Network of Schools” (Rede Escola - <a href="http://redescola.ie.ulisboa.pt">http://redescola.ie.ulisboa.pt</a>) where it provides support and develops shared projects with its partner schools – not only connected with initial teacher education.</p>	<p>(Rede Escola, n.d.)</p>
<p>Professionalization of teacher education students</p>	<p>The students must participate in:</p> <ul style="list-style-type: none"> <li>• All activities of observation, planning, guiding and assessment of the supervised practice, including meetings;</li> <li>• Other activities of curricular and organizational development, taking place outside the classroom (for e.g.: accompany the cooperating advisor as class director; take place as an observer in the meetings of the several school bodies)</li> </ul> <p>(5th Clause, 4. a) and b))</p>	<p>Internal document – Joint Agreement ULisboa – Partner School</p>
<p>Professionalization of teachers at University Schools</p>	<p>Training components:</p> <ul style="list-style-type: none"> <li>• Area of teaching</li> <li>• Area of general education</li> <li>• Specific didactics</li> <li>• Cultural, social and ethical area</li> <li>• Professional practice initiation</li> </ul> <p style="text-align: right;">(Chapter III, Art.º 6-12)</p> <p>General and Specific conditions are describe (Chapter V, Art.º 17- 18)</p> <p>Selection criteria and ranking of candidates (Chapter III, Artº 14)</p>	<p>Legal Framework for Professional Teaching Qualification (<a href="#">Regime Jurídico da Habilitação Profissional para a Docência</a>)</p> <p>Regime jurídico</p> <p>Regulamento geral</p>

	<p>Reserve 20% of the postgraduate, Master and Doctor degrees, vacancies to the school cooperating supervisors and ensure a 25% reduction on the tuition fees amount.</p> <p>(Internal document, 5th Clause, 1. d))</p>	<p>Internal document – Joint Agreement ULisboa – Partner School</p>
<p>Professionalization of lecturers at the university</p>	<p><i>ULisboa seeks to develop effective lifelong learning strategies, based on the European Universities' Charter on Lifelong Learning (for more info see link), including:</i></p> <ul style="list-style-type: none"> <li>• Pedagogical Training for Professors</li>   <li>• Graduate degree on Higher Education Pedagogy</li> </ul>	<p>ULisboa website (University of Lisabon, n.d.b)</p> <p>(University of Lisabon, 2019a)</p> <p>(University of Lisabon, 2019b)</p>

## (5) Synopsis

The main similarity between the presented University School concepts is the intention to dovetail the players of the educational institutions University and School in regards to teacher education. This goes beyond the traditional theory-practice-connection in teacher education. Research and development activities for both parties as well as study programme development and school development are also represented in the analysed concepts. However, it doesn't exist the one University School concept, but rather different implementations.

On the *national view*, the descriptions show that national teacher education systems differ in structure and time. Apparently, the German teacher education is structured in different phases of theoretical education at the university and practical training at schools, which is not similar to the other European countries, where teacher education is completely assigned to universities.

Therefore, on the *institutional view*, both the objectives and obstacles of the respective University School concepts differ, since these concepts are grounded in the national, federal and local context. This is mainly reflected by the fact that the degree of the programmes integration into national policies varies. Whereas partners from Czech Republic, Norway, and Portugal report of national strategies for teacher education and University School concepts, German partners cannot describe similar policies for the very reason of Germany's federal structure. Thus, the German contexts, the University Schools Concepts represent a strategy of the federal state Bavaria. Furthermore, the concept of the German, more precisely Bavarian University School concept, is basically linked to the teacher education for vocational schools. The other programmes described have a broader scope on teacher education as a whole. Concerning the influence of governmental regulations on teacher education in general and the implementation of University School concepts in particular, the degree of governmental regulation and the degree of (de-)centralization varies throughout the national contexts. The described programmes in Czech Republic, Germany and Norway are only marginally affected by national or federal regulations. Thus, the arrangement and development of the University Schools concepts is arranged more autonomously by the partners. In the Czech Republic, for instance, the faculties implement their own contracts with the Faculty Schools. In Germany, the University Schools are fixed by the Ministry of Education in the federal state, but the activity structure is implemented autonomously by the partner in the different University School concepts. In contrast, the programme in Portugal has to deal with more national regulations.

The institutional analysis shows in addition that there are different degrees of community integration and participation of local policy makers in the respective University School concepts. In Germany and the Czech Republic, concepts are designed and carried out primarily under participation of schools and universities. In contrast, Norwegian

University School concepts are anchored in wider structures under participation of local policy makers. Political decision-makers therefore have a high stake at the respective programs and can affect the way these programs are carried out. Also the duration of cooperation differs in time. German concepts appear to not be limited in time, while Czech Republic and Norwegian programmes are negotiated in frameworks and contracts over a stipulated period.

Therefore, the stakeholders integrated in the University School concepts vary throughout the analysed concepts. Both the degree of decentralization and University autonomy within the University concepts appear to impact the number of institutional and community stakeholders, in particular.

Broader similarities are again found within the main objectives of University School concepts in the respective countries. These can be summarized as the alignment of theoretical and practical training of teacher education students, school development and quality management at participating schools, conducting research at schools as well as putting research into practice.

With regard to the *organizational view*, there is a similarity between all University Schools concepts that the University is primary responsible the University School concept. For instance, the University School coordinator is anchored at the University and not at the University Schools. This is not surprising, since teacher education, especially the first phase, is anchored at the Universities. Nevertheless, organizational patterns (e.g. regularly meeting between all involved stakeholders) can ensure a cooperative communication structure and that the partners or parties of University and University Schools are working on par to each other.

Considering the *activity view*, the question on professionalization of teachers at the University and teachers at University Schools, the insights shown above indicate a broad availability of activities for teacher education student's professionalization, including both practical trainings and theoretical reflection at University and University Schools. This is reflected by modules in the teacher education programmes as well as by different research and development activities. In contrast, there are only fewer concrete activities for University School teacher's professionalization anchored in the respective concepts. However, the professionalization of university lectures appears not to be an issue for University School concepts.

	<i>Bamberg - Germany 1: University School concept at the University of Bamberg</i>	<i>Brno - Czech: University School concept at the University of Masaryk</i>	<i>Trondheim - Norway: University School concept at the NTNU</i>	<i>Nuremberg - Germany 2: University School concept at the University of Nuremberg</i>	<i>Lisbon – Portugal: University School concept at the University of Lisbon</i>
<b>National View</b>					
<b>Teacher Education system and philosophy</b>	<p>Three phases in Teacher Education:</p> <ul style="list-style-type: none"> <li>• Scientific education at universities</li> <li>• Practical training at study seminar</li> <li>• Further education and training by huge variety of providers</li> <li>• Formal teacher further education (with certificates) by different governmental providers</li> </ul>	<ul style="list-style-type: none"> <li>• Conception of pre-gradual TE of secondary school teachers and of primary school teachers were put close to each other (The concept of primary school teacher education has taken the lead)</li> <li>• Academic tradition of TE is being marginalized (TE of secondary school teachers), the tendency towards basic school TE tradition (social skills and competences development) has prevailed since recently</li> </ul>	<ul style="list-style-type: none"> <li>• University provide pre-service teacher education</li> <li>• Informal teacher further education by huge variety of providers</li> <li>• Formal teacher further education (with certificates) only by university</li> </ul>	<p>Three phases in Teacher Education:</p> <ul style="list-style-type: none"> <li>• Scientific education at universities</li> <li>• Practical training at study seminar</li> <li>• Further education and training by huge variety of providers</li> <li>• Formal teacher further education (with certificates) by different governmental providers</li> </ul>	<p>Three stages (lifelong learning continuum):</p> <ul style="list-style-type: none"> <li>• Initial education</li> <li>• Induction training</li> <li>• Inservice training</li> </ul>
<b>Institutional View</b>					
<b>Regulations</b>	<p>Governmental declaration: University Schools should</p> <ul style="list-style-type: none"> <li>• be located close to the universities,</li> <li>• represent large school units</li> <li>• be seminar schools</li> <li>• selected teachers as mentors</li> </ul> <p>University regulations (e.g. examination regulations)</p>	<ul style="list-style-type: none"> <li>• No regulations for Faculty schools in the Czech Republic at the moment.</li> <li>• Generally there are some framework agreements, rather formally established.</li> <li>• The system is decentralized; there is no extra budget for Faculty schools.</li> </ul>	<ul style="list-style-type: none"> <li>• University School concepts based on a National strategy, but no detailed regulations</li> <li>• Agreement with municipality, county and university (e. g. action plans)</li> </ul>	<p>Governmental declaration: University Schools should</p> <ul style="list-style-type: none"> <li>• be located close to the universities,</li> <li>• represent large school units</li> <li>• be seminar schools</li> <li>• selected teachers as mentors</li> </ul> <p>University regulations (e.g. examination regulations)</p>	<ul style="list-style-type: none"> <li>• National Law regulates the requirements for teacher education programs.</li> <li>• Institutions of higher education must have their programs accredited by a national agency (A3ES) with periodical reviews/evaluations every 4 years</li> </ul>

		<ul style="list-style-type: none"> <li>• The way of co-operation between Faculties and Faculty Schools is decentralized, each Faculty does it in its own way – but: rules and regulations of the National Accreditation Bureau need to be respected.</li> <li>• Practical stays of the student teachers are paid by the faculties.</li> </ul>			
<b>Objectives</b>	<p>Qualification of vocational teachers</p> <p>Sensitization the students during their studies to the relation of scientific demands and practical professional conditions to cope with vocational educational situations</p> <p>School-related research &amp; development</p> <p>Development of university schools (only a few university schools as flagship project with dissemination to non-University Schools )</p> <p>Close cooperation between university, policy makers and schools</p>	<p>Increased dialogue and also importance of co-operation between Faculty and Faculty Schools.</p> <p>To improve quality of practical elements of TE and quality of links between theory and practical elements</p>	<p>Qualification of teachers (6 teacher education programmes)</p> <p>School-related research &amp; development</p> <p>Development of university schools (only a few university schools as flagship project with dissemination to non-University Schools )</p> <p>Close cooperation between university, policy makers and schools</p>	<p>Qualification of teachers (commercial education and technical education)</p> <p>School-related research &amp; development</p> <p>Development of university schools (only a few university schools as flagship project with dissemination to non-University Schools )</p> <p>Close cooperation between university, policy makers and schools</p>	<p>University:</p> <ul style="list-style-type: none"> <li>• support the initiation to professional practice within the School Group, in terms of scientific, didactic and pedagogical training;</li> </ul> <p>To collaborate in the teachers' continuing training, Partner School:</p> <ul style="list-style-type: none"> <li>• provide contact with diverse situations of education and teaching, related either with the organization and functioning of the school group and with the teaching practice;</li> <li>• stimulate student development by the participation in classroom planning and activities preparation,</li> </ul>

					reflection on teaching occurrences and other activities
<b>Stakeholder</b>	<ul style="list-style-type: none"> <li>representatives of the university</li> <li>teachers and school directors of the University Schools</li> <li>seminar teachers and seminar directors</li> <li>government representatives</li> <li>coordinator of the University Schools</li> <li>students</li> </ul>	<ul style="list-style-type: none"> <li>National Accreditation Bureau</li> <li>Local Faculty Schools</li> <li>Faculty School teachers</li> <li>Members of TE Faculties</li> <li>Employees of HEI as organizational workers</li> </ul>	<ul style="list-style-type: none"> <li>Ministry</li> <li>Broad variety of actors of teacher education (different faculties)</li> <li>Community representatives (school owners)</li> <li>Teacher Students and students at the university schools</li> <li>University schools</li> </ul>	<ul style="list-style-type: none"> <li>Ministry</li> <li>Only a few University representatives</li> <li>Students</li> <li>University schools</li> </ul>	<ul style="list-style-type: none"> <li>Ministry of Education</li> <li>Higher Education Institutions</li> <li>Cooperating Schools</li> </ul>
<b>Organizational View</b>					
<b>Clarification and specification</b>	<ul style="list-style-type: none"> <li>Organisational concept: Institutionalised cooperation in teaching, research and development</li> <li>Pedagogical design: Cooperative design of theoretical and practical elements and cooperation in research and development projects.</li> <li>Educational theoretical references of theory-practice-connection: Theoretical and practical action are not directly connected; they have to be set in relation by reflection</li> </ul>	<ul style="list-style-type: none"> <li>Elaborated contracts with Faculty Schools on the Faculty level</li> <li>Statute of Faculty Schools</li> <li>Criteria of selection of Faculty Schools (Statute of Faculty School – appendix)</li> </ul>	<ul style="list-style-type: none"> <li>Few University Schools to enable a close cooperation between university and schools</li> </ul>	<ul style="list-style-type: none"> <li>Not dedicates resources for R&amp;D</li> </ul>	

<p><b>Cooperation and coordination</b></p>	<ul style="list-style-type: none"> <li>• cooperative school-practical phases</li> <li>• University School coordinator as connection between teachers, students and university lecturers</li> <li>• regularly meetings between mentors (University Schools) and lecturers (University)</li> <li>• Activity meetings for coordination of modules and ongoing R&amp;D-projects</li> <li>• Online platform for sharing documents</li> </ul>	<p>Faculty School:</p> <ul style="list-style-type: none"> <li>• Enable internships, (specified as for the work with new methods, forms, teaching aids),</li> <li>• Makes possible research of student teachers</li> </ul> <p>Faculty:</p> <ul style="list-style-type: none"> <li>• Provides free of charge counselling to Faculty Schools and infrastructure</li> <li>• Invitation of teachers to activities</li> <li>• Offer a possibility to Faculty School to get involved in research and development.</li> <li>• Can offer to Faculty School its infrastructure</li> </ul>			<p>The University has a several coordinating levels. An overall Master program coordinator supported by content area coordinators and a pedagogical council including instructors and students in equal parts.</p>
<p><b>Persons, roles and functions</b></p>	<p>University School coordinator at the university</p> <p>Responsibilities and contact persons at University, University Schools, government and ministry</p>	<ul style="list-style-type: none"> <li>• People involved in subject didactics (people from different Departments of the Faculty)</li> <li>• Mentor (“accompanying teachers” or “training teachers”) – not defined their further education or specialization headteacher who determines who from</li> </ul>	<p>University School coordinator at the university</p> <p>Responsibilities and contact persons at University and University Schools</p>	<p>University School coordinator</p> <p>Responsibilities and contact persons at University, University Schools, government and ministry</p>	<p>Professional practice internship coordinators – support students during their 1<sup>st</sup> year of the Master program;</p> <p>University supervisors – supervise students during their 2<sup>nd</sup> year internships and on the development of their master thesis;</p> <p>School teachers acting as cooperating supervisors – support the students during their school based training</p>

		<p>the staff will work with Student teachers</p> <ul style="list-style-type: none"> <li>• Student teachers</li> </ul>			and provide their own classrooms as place for professional practice.
Activity View					
<b>Research- and development activities</b>	<ul style="list-style-type: none"> <li>• Research- and Development programmes (e.g. service learning, digitization of vocational processes)</li> <li>• School development</li> <li>• Curricular activities in modules (e.g. DWW)</li> </ul>	<ul style="list-style-type: none"> <li>• Under the development (a developmental and research project going through the Faculty)</li> <li>• Development projects at the Departments level – every now and then.</li> <li>• Week of Teaching – a series of activities of the Faculty in co-operation with Faculty School staff</li> </ul>	<ul style="list-style-type: none"> <li>• Identification of Projects: Applying for projects (school &amp; University) by project groups, decision by coordinating body</li> <li>• Dedicated resources for R&amp;D</li> <li>• Long and short R&amp;D-Projects</li> <li>• Challenge of identification of innovations and dissemination, resources for R&amp;D, especially for teachers</li> </ul>	<ul style="list-style-type: none"> <li>• Identification of Projects: Cooperation between University and University Schools</li> <li>• Short R&amp;D-Projects</li> <li>• Challenge of identification of innovations and dissemination, resources for R&amp;D, especially for teachers</li> </ul>	The Institute of Education implemented a “Network of Schools” (Rede Escola - <a href="http://redescola.ie.ulisboa.pt">http://redescola.ie.ulisboa.pt</a> ) where it provides support and develops shared projects with its partner schools – not only connected with initial teacher education.
<b>Professionalization of teacher education students</b>	<ul style="list-style-type: none"> <li>• University School internship (observations in all action fields and own lessons as well as lessons sequences)</li> <li>• Development and research activities in the compulsory modules Didactic of Business Education and Research questions on Business Education</li> <li>• Master thesis</li> <li>• Extra-curricular (e.g. further education training)</li> </ul>	<ul style="list-style-type: none"> <li>• Microteaching on the level of Faculty + reflection – subject didactics</li> <li>• Lesson observations</li> <li>• Study of school documents</li> <li>• Teaching practice directly in classes</li> <li>• Involvement in other school activities and events</li> </ul>	<p>Master thesis</p> <p>R&amp;D-projects and activities respectively</p>	<p>University School internship</p> <p>R&amp;D-activities</p> <p>Master thesis</p>	<p>Only required for students.</p> <p>The students must participate in:</p> <ul style="list-style-type: none"> <li>• All activities of observation, planning, guiding and assessment of the supervised practice, including meetings;</li> <li>• Other activities of curricular and organizational development, taking place outside the classroom (for eg.: accompany the</li> </ul>

					cooperating advisor as class director; take place as an observer in the meetings of the several school bodies)
<b>Professionalization of University School teachers and lecturers</b>	<p>Cooperation during the didactic, development and research-modules (e.g. Didactics of Business Education)</p> <p>Extra-curricular: Regularly workshops for mentors as well as lecture series 'Business Education research in dialogue'</p> <p>mentors offer workshops for students two times in a year</p>	<ul style="list-style-type: none"> <li>• invitation to projects of research and development</li> <li>• consultancy</li> <li>• meetings of teachers and university staff</li> <li>• the staff involved in subject didactics gets partial contracts at school, as well as at the Faculty</li> </ul>	supplementary studies (15 ECTS) on mentoring and R&D		<p><i>ULisboa seeks to develop effective lifelong learning strategies, based on the European Universities' Charter on Lifelong Learning (for more info see link), including:</i></p> <ul style="list-style-type: none"> <li>• Pedagogical Training for Professors</li> <li>• Graduate degree on Higher Education Pedagogy</li> </ul>

Table XX: Synopsis of different University School concepts in Europe

All considered concepts have in common that University School concepts are deeply integrated and well aligned with teacher education faculties' research programmes. But affords and challenges in coordination of University School concepts differ. Whereas in the German concepts only one faculty is involved, other programs integrate the whole teacher education and affect various faculties, e.g. science faculties.

In the analysed University Schools concepts and the corresponding documents there is no indication that the University Schools concepts are regularly evaluated. This could also be a limitation of the documents' analysis, but especially in the scientific context it is somewhat surprising. Nevertheless, all study programmes whose concepts are integrated into the University School concept are accredited.

A document analysis can be used to provide an overview about existing phenomena, in this case the phenomenon or concept of University Schools. One limitation of document analysis, however, is that daily-life routines – in this case the daily-life routines in a University School concept – cannot be described. Therefore, the second Intellectual Output of EdUSchool aims at a best practice analysis in University School concepts in Europe.

## References

- Bader, C. (2018). Nürnberger Wirtschaftspädagogik-Studierende im BZ für Blinde und Sehbehinderte - Begegnungen auf "Augenhöhe". (11), 27, 13-14. VLB Akzente.
- Bader, C., Lehner, W. & Wilbers, K. (2018). Die Ausbildung berufs- und wirtschaftspädagogischer Professionals in Universitätsschulen. Eine Beschreibung der Nürnberger Universitätsschulkonzeption. Nürnberg: Lehrstuhl für Wirtschaftspädagogik und Personalentwicklung.
- Bodensteiner, P., & Käfler, H. (2016). Einführung. In P. Bodensteiner & H. Käfler (Eds.), 5 Jahre Universitätsschule. Bilanz und Perspektiven. Retrieved September 23, 2019, from [https://www.hss.de/download/publications/AMZ\\_SA1\\_2016\\_Universitaetsschule.pdf](https://www.hss.de/download/publications/AMZ_SA1_2016_Universitaetsschule.pdf)
- Cain, T. (2015). Teachers' engagement with research texts: beyond instrumental, conceptual or strategic use. *Journal of Education for Teaching*, 41 (5), 478-492.
- Czech School Inspectorate. (2019). Basic Information. Retrieved September 21, 2019, from <https://www.csicr.cz/en/About-us/Basic-Information>
- EDUin. (2015). iDnes.cz: Vznikají univerzitní základní školy. Retrieved September 21, 2019, from <https://www.eduin.cz/clanky/idnes-cz-vznikaji-univerzitni-zakladni-skoly/>
- European Commission. (2019, October 15). Initial Education for Teachers Working in Early Childhood and School Education. Retrieved November 7, 2019, from [https://eacea.ec.europa.eu/national-policies/eurydice/content/initial-education-teachers-working-early-childhood-and-school-education-20\\_en](https://eacea.ec.europa.eu/national-policies/eurydice/content/initial-education-teachers-working-early-childhood-and-school-education-20_en)
- FAU. (2019). Die Modulhandbücher der Studiengänge. Retrieved September 23, 2019, from <https://www.wiso.rw.fau.de/studium/im-studium/modulhandbuecher>
- Flores, M. (2016). Teacher Education Curriculum. (H. M. Loughran J., Ed.) *International Handbook of Teacher Education.*, 187-230.
- Framework agreement for USSiT 2019-2029 Action plan (in progress)
- Gerholz, K.-H. (2018). Universitätsschulen als (ein) Kooperationsmodell wirksamer Lehrerbildung. *Wirtschaft & Erziehung*, 70(2), 45-50.
- Gerholz, K.-H. (2020). Universitätsschule als Kooperationsformat zur Theorie-Praxis-Verzahnung in der Lehrer:innenbildung. In R. Jahn, M. Götzl, & A. Seltrecht, *Hochschuldidaktische Konzepte und Ansätze in der Ausbildung von Lehrkräften an Berufsbildenden Schulen. Anregungen für die hochschuldidaktische Praxis.* Bielefeld: Bertelsmann.
- Gerholz, K.-H., Neubauer, J. & Männlein, P. (2019). Angehende Fachkräfte für zivilgesellschaftliche Werte sensibilisieren. *Service Learning in der beruflichen Ausbildung. BWP – Berufsbildung in Wissenschaft und Praxis*, 48. Jg., H. 4, 19-23.

Gerholz, K.-H., & Brahm, T. (2014). Apprenticeship and vocational education: An institutional analysis of workplace learning in the German vocational system. In C. Harteis, A. Rausch & J. Seifried (Eds.), *Discourses on professional learning: On the boundary between learning and working*. Dordrecht: Springer, (pp. 143-158).

Gerholz, K.-H. & Wilbers, K. (2018). Mehr als Transfer: Universitätsschulen als Kooperationsraum zur Verbindung von Wissenschaft und schulischer Praxis. *Berufsbildung*(170), 9-12.

Hader, M. (2015). *Empirische Sozialforschung*. Wiesbaden: VS.

Heinrichs, K., Gerholz, K.-H., Neubauer, J., & Feldmann, A. (2016). Bericht der Bamberger Universitätsschulen. Weiterentwicklung des Universitätsschulkonzeptes an der Otto-Friedrich-Universität Bamberg. *Forschungsbasierte Lehre aus der Praxis – für die Praxis*.

IEUL (2019): *Protocolo de colaboração entre o Instituto de Educação da Universidade de Lisboa e Escolas parceiras*. Internal document.

Kultusministerkonferenz. (2004). Standards für die Lehrerbildung: Bildungswissenschaften. Retrieved September 23, 2019, from [https://www.kmk.org/fileadmin/veroeffentlichungen\\_beschluesse/2004/2004\\_12\\_16-Standards-Lehrerbildung.pdf](https://www.kmk.org/fileadmin/veroeffentlichungen_beschluesse/2004/2004_12_16-Standards-Lehrerbildung.pdf)

Lamnek, S. (2010). *Qualitative Sozialforschung*. Weinheim: Beltz.

Lehner W., Terkovits, S. & Zitzelsberger, S. (2015). Nürnberger Universitätsschule. Studierende der Berufs- und Wirtschaftspädagogik erkundeten das Berufsbildungswerk Rummelsberg. 14-16. VLB Akzente.

Ministry of Education and Research. (2018). *Teacher Education 2025 -National Strategy for Quality and Cooperation in Teacher Education*. Retrieved October 7, 2019, from <https://www.regjeringen.no/en/dokumenter/larerutdanningene-2025.-nasjonal-strategi-for-kvalitet-og-samarbeid-i-larerutdanningene/id2555622/>

Muni. (n. d.). Degree programmes – Teacher training, pedagogy. Retrieved September 21, 2019, from <https://www.muni.cz/en/bachelors-and-masters-study-fields/teacher-training-pedagogy>

Muni. (2017). Změna ve výuce učitelů: S dětmi už od začátku studia. Retrieved September 21, 2019, from <https://www.online.muni.cz/udalosti/9762-zmena-ve-vyuce-ucitelu-s-detmi-uz-od-zacatku-studia>

Muni. (2018). Změny na pedagogické fakultě ukazují cestu, jak zajistit lepší učitele. Retrieved September 21, 2019, from <https://www.online.muni.cz/udalosti/10644-zmeny-na-pedagogicke-fakulte-ukazuji-cestu-jak-zajistit-lepsi-ucitele>

NAO (Rada národního akreditačního úřadu pro vysoké školství) (2017). Doporučené postupy pro přípravu studijních programů č. 8. Available at: <https://www.nauvs.cz/index.php/cs/metodiky/79-doporucene-postupy-pro-pripravu-studijnich-programu>.

NAO (Národní akreditační úřad pro vysoké školství). (2019). National Accreditation Bureau for Higher Education. Retrieved September 21, 2019, from <https://www.nauvs.cz/index.php/en/>

North, D. C. (1990). *Institutions, institutional change and economic performance*. Cambridge, UK: Cambridge University Press.

NTNU. (n.d.)a. NTNU Strategic Programme for Knowledge-Based Innovation (SKI). Retrieved September 21, 2019, from <https://www.ntnu.edu/innovation-resources/knowledge-based-innovation>,

NTNU. (n.d.)b. Doktorgradsstipendiater i prosjektet. Retrieved September 21, 2019, from <https://www.ntnu.no/universitetskole/stipendiater-universitetskole>

NTNU. (n.d.)c. Lærerspesialistutdanning. Retrieved September 21, 2019, from <https://www.ntnu.no/videre/larerspesialistutdanning>

Ponte, J. P. (2006). Os desafios do Processo de Bolonha para a formação inicial de professores. The challenges of the Bologna Process for initial teacher education, 14(1), 19-36.

Rede Escola. (n.d.). Retrieved October 23, 2019, from <http://redescola.ie.ulisboa.pt/>

R&D in USSiT (2018): R&D Strategy in USSiT. Internal document.

Smith, K. (2016). Partnerships in Teacher Education – Going Beyond the Rhetoric, with Reference to the Norwegian Context. *Center for Educational Policy Studies Journal*, 6 (3), 17–36.

Smith, K. (2018). Accountability in Teacher Education in Norway: A Case of Mistrust and Trust. In C. Wyatt-Smith & L. Adi (Eds.), *Innovation and Accountability in Teacher Education-Setting Directions for New Cultures in Teacher Education*. Singapore: Springer, (pp. 19-35).

Spaenle, L. (2009). Qualität und Gerechtigkeit. Bayerns Schulen stark machen für die Zukunft. Retrieved September 21, 2019, from [https://www.bayern.landtag.de/www/ElanTextAblage\\_WP16/Protokolle/16%20Wahlperiode%20Kopie/16%20WP%20Plenum%20Kopie/015%20PL%20260309%20ges%20endg%20Kopie.pdf](https://www.bayern.landtag.de/www/ElanTextAblage_WP16/Protokolle/16%20Wahlperiode%20Kopie/16%20WP%20Plenum%20Kopie/015%20PL%20260309%20ges%20endg%20Kopie.pdf)

Švec, V.; Lawley, J.; Nehyba, J.; Svojanovský, P.; Šíp, R.; Minaříková, E.; Pravdová, B.; Šimůnková, B. & Slavík, J.: (2016). Studenti učitelství mezi tacitními a explicitními znalostmi. Brno: MU. Retrieved November 18, 2019, from [https://is.muni.cz/repo/1373955/Texty\\_monografie\\_TACITNI.pdf](https://is.muni.cz/repo/1373955/Texty_monografie_TACITNI.pdf)

Švec, V., Svojanovský, P., & Pravdová, B. (2016). Determinanty účinnosti učitelských praxí. Retrieved September 21, 2019, from <https://munispace.muni.cz/library/catalog/view/850/2690/557-2/#preview>

University of Lisabon. (2019). Master Programme in Education. Retrieved from <http://www.ie.ulisboa.pt/en/teaching/master-programmes/master-programme-in-education>

University of Lisabon. (2019a). Pedagogical Training for Professors. Retrieved from <https://www.ulisboa.pt/en/info/pedagogical-training-professors>

University of Lisabon. (2019b). Pedagogia do Ensino Superior. Retrieved from <http://www.ie.ulisboa.pt/ensino/cursos-pos-graduados-especializacao/pedagogia-ensino-superior>

University of Lisabon. (n.d.a). Areas of specialization. Retrieved October 23, 2019, from <http://www.ie.ulisboa.pt/en/teaching/master-programmes/master-programme-in-education/areas-of-specialization>

University of Lisabon. (n.d.b). Lifelong Learning. Retrieved October 23, 2019, from <https://www.ulisboa.pt/en/info/lifelong-learning-0>

Wilbers, K. (2019). Wirtschaftsunterricht gestalten. Retrieved Oktober 23, 2019, from <https://www.wirtschaftsunterricht-gestalten.de/>

Co-funded by the  
Erasmus+ Programme  
of the European Union



The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.