LIFELONG LEARNING AND VOCATIONAL EDUCATION: INSTITUTIONAL REQUIREMENTS AND UNIVERSITY DIDACTICAL CONCEPT OF A MASTER DEGREE PROGRAM “TEACHING QUALIFICATION FOR VOCATIONAL EDUCATION IN THE FIELD OF HEALTH CARE AND NURSING” AT THE OTTO-VON-GUERICKE-UNIVERSITY (GERMANY)

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ABSTRACT: Professional biographies of US-American nursing staff emphasize that these staff have consciously decided to conduct research for a Ph.D. in Adult Education instead of Nursing Sciences. The evaluation of the interview transcripts revealed two main categories: "Doctoral degree as an expression of a 'lived' lifelong learning" and "Doctoral degree as a scientific adaptation of skills" (Seltrecht 2014). However, these insights into the data material also revealed significant research desiderata: Can country-specific differences be made out concerning the understanding of what lifelong learning is thought to be? How can the relationship between lifelong learning and occupational education be described and what share do the specific requirements of nursing have in this context? A more in-depth comparison of countries is necessary for the professionalization of both nursing and education sciences in Germany. Such a comparison may reveal institutional conditions that accommodate a way of understanding "lived" lifelong learning that would be beneficial to the individual professionalization of each professional nurse - and could promote the collective professionalization of nursing beyond the individual case. The institutional conditions will be the focus of this year’s paper. The example of a master’s degree program “Teaching Qualification for Vocational Education in the Field of Health Care and Nursing ” at the Otto-von-Guericke University Magdeburg (Germany) is used as a starting point for discussion. This degree program prepares nurses, therapists and other nursing staff for teaching positions. These future teaching staff will deliver training and vocational education programs in a variety of health care and nursing occupations such as physiotherapists, elderly care nurses, medical care assistants, dental care assistants, and many others. The crucial point is: students of this program have never practiced these occupations.

Keywords: Didactical Concept, Vocational Education, Health Care, Nursing, Double Case References

The paper will first elaborate the decision-making process that culminated in the implementation of this particular degree program. Subsequently, the degree structures are outlined concisely. Finally, the underpinning of the university didactical concept for the occupational field of “Health Care and Nursing ” is introduced. In doing so, the underlying theories and concepts are discussed. These concepts and theories illustrate the interlinking of academic discipline and teaching methodology in order to foster a “theory-practice-transfer.”

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The paper offers participants the opportunity to gain insights into the conceptualization of a German degree program. Furthermore, an international debate on questions of andragogy is fostered. Finally, yet importantly, the presentation sets the foundation for a comparative analysis of lifelong learning and vocational education in the United States and Germany.

**Establishing the Vocational Discipline of Health and Nursing**

The vocational discipline of health and nursing in the master's degree program for teaching at vocational schools is based at the Institute for Vocational Education and Human Resources Development. This institute has a history of 50 years in educating vocational school teachers.

Following an agreement between two ministries of the Land Saxony-Anhalt and the Otto-von-Guericke University Magdeburg, the vocational discipline of "Health and Nursing" was implemented into the teaching degree program, starting in the winter semester 2012/2013.

**Structure of the Master's Degree Program for Teaching at Vocational Schools in the Vocational Discipline of Health and Nursing**

**The Consecutive Bachelor-Master Model**

The bachelor's program "vocational training" (B. Sc.) comprises discipline-related scientific education in one optional profile/subject (e.g. engineering education/metals technology) with 100 credit points (CP), study of educational sciences with 30 CPs, study of one teaching subject (40 CPs) and doing a bachelor's thesis (10 CPs).

For discipline-related scientific education students can choose among three optional profiles:

Profile of engineering education comprising the subjects

- construction engineering
- electrical engineering
- information technology
- metals technology
- process technology
• Profile of business and economics education comprising the subject
  o economy and administration

• Profile of economic and technical education comprising the subjects
  o technology
  o economy

The subjects of health and nursing are not included in the bachelor's program "vocational training" (B. Sc.). Consequently, the bachelor's program "vocational training" (B. Sc.) does not include any discipline-related scientific offering regarding health and nursing sciences, so that it is not possible to do a bachelor's program "vocational training" (B. Sc.) with the subjects health and nursing at the Otto-von-Guericke University.

Hence, students intending to complete a master's degree program with the degree “Master of Education” for teaching at vocational schools in the vocational discipline of health and nursing need to come from other universities. At the Otto-von-Guericke University Magdeburg they have the option of a lateral entry into the Bachelor-Master model provided they meet the admission requirements. Thus, the study program for teaching at vocational schools in the vocational discipline of health and nursing is different from the Magdeburg Bachelor-Master model: For the vocational discipline of health and nursing only a master's degree program is offered - that is, all students of this vocational discipline need to have earned the relevant bachelor's degree at another university.

The Bridge Program for Lateral Entrants

Students intending to do the master's degree program for teaching at vocational schools in the vocational discipline of health and nursing have to meet the following preconditions:

• bachelor's degree earned in an accredited study program

• 100 CPs in health and nursing sciences

• 40 CPs in a subject offered at the OVGU

• 30 CPs in vocational and in-company education

Every application is examined individually with respect to these admission requirements. In any case applicants have to provide 100 CPs in the field of health and nursing sciences, which can be produced by having completed a corresponding study of health and/or nursing sciences. Should an applicant not be able to present the required credit points for vocational education and human resources development and the teaching subject (German, ethics, social studies, sports, computer science, protestant religious
education, mathematics; state: May 2015) they have the option to earn these CPs in the context of a bridge program at the Otto-von-Guericke University Magdeburg. So this bridge program allows for catching up on the performances from the bachelor’s program "vocational training" (B. Sc.) (cf. fig. 1). As a result of this lateral entry there is certain heterogeneity within the group of students with respect to the discipline-related scientific part of the study program in the field of health and nursing sciences. This heterogeneity does not occur to such an extent in the other study programs that merge "regularly" from the university's own bachelor's program "vocational training" (B. Sc.) into the master's degree program. In addition, the heterogeneity among the students of the vocational discipline of health and nursing is a result of the different discipline-related shares deriving from the different vocational qualifications that are considered.

Figure 1. Lateral entry into the Bachelor-Master model

Out of 38 students enrolled in the summer semester 2015, 23 have a nursing profession, 10 have a therapeutic profession, three (3) a medical assistant profession and only two (2) of those enrolled have not completed any prior vocational training.

An aspect not very relevant for the admission procedure but for the study motivation and organization of the students is the experience with the structures of university study programs (cf. Seltrecht, 2012): As opposed to general universities, at universities of applied sciences (formerly called Fachhochschulen) it is rather usual to have study schedules prescribing precisely when which courses have to be attended. From the 38 students of all semesters enrolled in the vocational discipline of health and nursing, 13 have earned their bachelor's degree at a university and 25 at a university of applied sciences.

For the attitude towards the study program--that is, whether it is experienced as a chance for their vocational biography or rather as a downgrading with respect to the subject--the existence of own teaching experiences is relevant (cf. Seltrecht 2015b): More than one third of the 38 students have already had own teaching experiences.
Consequently, thinking in terms of university didactics, the heterogeneity regarding vocational, scientific and teaching experiences and the students' resulting subjective attitude towards the study program are to be considered.

The Master's Degree Program for Teaching at Vocational Schools in the Vocational Discipline of Health and Nursing

The master's degree program for teaching at vocational schools in the vocational discipline of health and nursing comprises three main areas: the vocational discipline of health and nursing (30 CPs), the teaching subject (40 CPs) and vocational education and human resources development (30 CPs). The study program is completed by doing a master’s thesis (20 CPs). In particular when considering the conditions imposed in the context of the admission procedure for lateral entrants, i.e., students coming from not teaching-related bachelor’s programs into the first stage of the teacher training, the vocational discipline health and nursing represents the lowest share of the entire master's degree program:

Vocational discipline health and nursing: 30 CPs

- Vocational education: 30 CPs and up to 24 CPs conditions imposed (= 54 CPs)
- Teaching subject: 40 CPs and up to 36 CPs conditions imposed (= 76 CPs)
- Master thesis: 20 CPs

Within the vocational discipline of health and nursing (30 CPs) three modules have to be completed:

- Academic discipline: Evidence-based practice (EBP) in health and nursing professions (10 CPs = two courses)
- Teaching methodology for the vocational discipline of health and nursing (10 CPs = two courses)
- Profession-related practical studies (10 CPs = internship at a vocational school in Saxony-Anhalt and an accompanying seminar)
Figure 2. Study plan of the vocational discipline health and nursing for the four-semester master's degree program (the figure shows the study plan at the beginning of studies in the winter semester)

The objective of the three modules is that students acquire comprehensive discipline-related and multidisciplinary competences. In the module manual the following objectives are outlined: "With respect to discipline-related competences the graduates will be enabled to use discipline-related knowledge to describe, analyze and structure training and examination structures, work and business processes as well as offers for continuing education in the vocational field of health and nursing;

- explain fields of teaching activities and assess them in their relevance for vocational training offers;

- plan, perform and review teaching at vocational schools in the field of health and nursing, involving their knowledge of teaching methodology and using adequate methods;

- to prepare and communicate issues of health and nursing sciences in a customized way, considering the background of diversity and inclusion (e.g., supportive assessment, support concept);

- describe the integrated quality management (GQM) at vocational schools, comprehend and interpret specialist texts on health and nursing sciences composed in both German and English language;

- reflect and assess issues in the field of health and nursing sciences within the conflicting areas of work, health and society (e.g., age/ageing, diversity);
– deal with findings in the field of health and nursing sciences considering the underlying methodology and the evaluation of sustainability and range of the results, in both disciplinary and interdisciplinary research.

With respect to multidisciplinary competences graduates will be enabled to

– specify potential professional support (e.g., teacher's conference, case conference, supervision);

– describe and evaluate student-student interactions and student-teacher interactions,

– reflect their motivation for this study program and profession as well as the decision for this career on the basis of own practical school experiences;

– reflect their own health support activities (e.g., stress management) against the background of what is required from teachers at vocational schools, and integrate them into their own everyday professional life using action schemes;

– describe the role of teachers with respect to their social significance." (OVGU, 2015, p. 7)

**Teaching Concept for the Vocational Discipline of Health and Nursing**

Five courses are offered in the vocational discipline of health and nursing; and students have to complete a school internship (cf. Figure 3)

Taking into account the students' previous experiences and the requirements for teacher training, the curriculum offers various options within the discipline and within teaching methodology, thus allowing students to acquire a broad range of competences by completing the available courses.

*Figure 3. Overview on courses in the vocational discipline of health and nursing*
"In the context of the specialized master's program students can compose an individual profile by choosing courses from the alternative specialized offer, thus adding health or nursing competences to their own competence profile. In the context of the training in teaching methodology students are given the opportunity to develop individual competence profiles in either health or nursing in the frame of their profession-related practical studies; these are accompanied by a concept of inner differentiation through teaching technology courses and potential profiling within the profession-related practical studies" (Seltrecht 2014, p. 4).

In this way students coming from health sciences are given the opportunity to learn about and deal with current topics of nursing sciences. Students coming from the field of nursing sciences, on the other hand, are provided with the opportunity to learn about and deal with topics from the field of health sciences. In the context of teaching methodology training, namely the seminar on case-oriented didactics, students are asked to do a project thesis or a term paper on a profession they do not come from. Gaining insight in professions not known from one's own practical experience is possible in the context of the school internship and it is recommended.

In addition to the opportunity of profiling themselves by way of choosing courses in the academic discipline and by an inner differentiation within teaching methodology, also the commonalities of the profiles health, nursing and--as in Saxony-Anhalt graduates are also deployed in this field--personal hygiene play a significant role.

There are commonalities regarding the academic reference sciences, e.g., medicine and social sciences, especially medical sociology. Furthermore, all three fields have in common that they render services to persons, e.g., therapeutic treatments to patients, nursing services to the inhabitants of nursing homes or services provided to customers. So in all three person-related domains there is a case reference where subjective needs of the addressees always have to be considered as well (Seltrecht, 2015a; 2015d).

Professional acting under the condition of an existing case reference that is to be considered, is examined in studies in the field of health and nursing sciences, educational sciences and teaching methodology. Consequently, from the perspective of both health and nursing sciences and educational sciences, it is relevant for the training of teachers in the vocational discipline of health and nursing.

Apart from these different research areas, case references are also relevant in the areas of action in health and nursing and in educational areas of action including the teachers at vocational schools. Teachers in the field of health and nursing have to be able to deal with case references within health and nursing-related activities and with cases references within educational activities. Therefore the teaching methodology training is oriented towards communicating the "double case reference" (Seltrecht, 2015a).
The concept of university didactics can be summarized as follows: The university didactics concept of the vocational discipline of health and nursing in the master's degree program for teaching at vocational schools at the Magdeburg Otto-von-Guericke University is centered around the curricular design of alternative optional courses in the academic discipline and by inner differentiation within teaching methodology courses while interlinking academic discipline and teaching methodology, or theory and practice, under the perspective of "double case references" (Seltrecht, 2015a).

**Academic Discipline: Evidence-Based Practice in Health and Nursing Professions**

When comparing bachelor's' and master's programs the percentage of courses in health and nursing sciences is higher in the bachelor's program: Admission requirement for the master's degree program is the proof of 100 credit points (CPs) acquired in the field of health and nursing sciences. Consequently, students already completed courses to an extent of 100 CPs within a bachelor's program or can at least present 70 CPs from a bachelor's program plus a vocational training in the field of health or nursing, which is considered with 30 CPs. As the latter (exceptional) option is the rule with the Magdeburg program, all students except a few "exceptions" have a profession, that is they have been taught theoretical and practical knowledge and have received practical training. From a university didactical perspective, this fact is of relevance for designing the specialized parts of the master's degree program: In vocational trainings of health and nursing professionals, for instance, topics such as anatomy and pathology are addressed comprehensively and in detail. In addition, the vocational training of geriatric nurses dedicates 720 of 2100 hours to the focus of "Caring for the elderly in a way tailored to the specific individual and situation," which includes basic knowledge relevant for nursing, in particular anatomy, physiology, geriatrics, geriatric psychiatry, psychology, pharmaceutics, hygiene and dietetics. The training of physiotherapists encompasses a total of 2900 hours for theoretical and practical courses of which 240 hours are scheduled for anatomy, 140 hours for physiology, 30 hours for general pathology, and 360 hours for special pathology. This breakdown means that the focus in the two specialized seminars within the master's degree program is on scientific studies and findings from the context of health and nursing sciences, less on basics regarding medicine and nature sciences which can be considered existing (e.g., anatomy, pathology).

Within discipline-related scientific education the leading idea in the sense of university didactics is the Concept of evidence-based practice as this concept ensures that discipline-related contents will always be connected with the profession of the teachers at vocational schools or, respectively, with the occupational areas of the future health and nursing specialists. Using qualitative or quantitative studies current findings are communicated at the **macro, meso, and micro level.**
Within professional activities, in addition to acting towards a person needing care or therapy, also acting within one's own occupational group and coordinating with representatives of other occupational groups working on the case have to be considered. Therefore, also the profession-related theoretical concepts arc of work and line of work (Strauss, 1985; 1993; Strauss et al., 1985;) and that of the negotiated order are of relevance within the future teachers' studies of health and nursing sciences. In particular the concepts arc of work and negotiated order are directly connected with the basic knowledge of other related sciences, e.g., in the fields of communication sciences, science of management or law.

Discipline-related courses focusing on health sciences involve theories and models of health-related behavior, health support and the prevention or treatment, rehabilitation and palliative care (perspective on the target group), but also aspects of work and health protection and quality control as well as ethical aspects (perspective on the health care professionals).

Specialized courses focusing on nursing sciences concentrate on theories and models of nursing, health support and prevention (e.g., nursing activities with respect to preventive nursing, acute nursing, long-term nursing, palliative care, but also community-oriented nursing) (perspective on the target group) as well as quality management concepts relevant to nursing, basics of nursing ethics and work and health protection (perspective on nursing professionals).

**Teaching Methodology for Health and Nursing**

With teaching methodology courses, the difference-theoretical approach of profession theory is leading the way, according to which it is differentiated between profession as a structural category, professionalization as a process category and professionalism as a category of acting. In particular differentiating between collective professionalization and individual professionalization allows for tracing the developmental lines of health and nursing professions and the teaching profession on the one hand and the development of the individual health and nursing professionals or individual teachers on the other hand.

The introductory lecture of the teaching methodology course focuses on a close connection between theoretical concepts, approaches and theories of teaching methodology at the macro, meso and micro level and their specific relations to teaching practice (planning, realization, reflection and evaluation of lessons). Here, concepts relating to activities, cases, subjects and competences lead the way against the background of discipline-specific models of vocational didactics (e.g., subject-related nursing didactics, interacting nursing didactics, nursing didactical categorical analysis, action-theoretically based model of nursing didactics, critically-constru...
learning areas in nursing, action-oriented simulation methods and experiments in the discipline of health).

The advanced seminar on teaching methodology for health and nursing focuses, against the background of case-oriented didactics, on the concept of "double case reference based on profession-theory. The concept helps to specify the basics of teaching methodology and to test and reflect several methods and teaching approaches (for profession-theoretical foundation of the concept of "double case reference" cf. Seltrecht 2015a). The concept also allows for discussing both issues of educational activities in the context of teaching at universities which are relevant to teaching methodology (e.g., discrepancy between theory and practice in teaching activities or evaluation of group results). It also helps in preparing learning topics from the area of health and nursing practice under the aspect of teaching methodology for the training of health and nursing professionals. Another advantage of the concept is that it allows for working on key topics relevant to both teachers' acting and acting of health and nursing professionals, e.g., heterogeneity, inclusion, gender, intra-professional and inter-professional acting etc. At the end of the case-oriented seminars students will develop and test their own teaching concepts along theoretical lines (for practical realization cf. the concept of a teaching practice project by Seltrecht, 2015d).

**Profession-Related Practical Studies**

The training in teaching methodology within the vocational discipline of health and nursing in the first stage of the teacher training is completed by doing a school internship including preparation and evaluation and attending an accompanying seminar. At the center of the internship are the theory-based development of one’s own teaching concepts on the basis of an action-oriented inventory of methods as well as the development, testing and reflection of one’s own teaching attempts (cf. OVGU 2015, p. 13). During the profession-related practical studies students are to obtain an overview of the manifold tasks of teachers, several educational backgrounds and forms of training, as well as methods for analyzing and reflecting one's own acting as a teacher and that of others, and competence balancing. To do so, apart from one's own first teaching attempts, students will sit in on classes given by the supervising teacher and other colleagues.

To ensure the training is both scientifically sound and practice-oriented, in addition to the concept of case-orientation the concept of evidence-basing, already familiar to students from seminars on health and nursing sciences, is introduced with a focus on educational activities. As this concept offers the possibility of extending internal evidence through external evidence, students are enabled to scientifically explore phenomena occurring in both educational practice and practice relevant to health and nursing that cannot be explained due to insufficient internal evidence, and find possible practical solutions (for
the concept of *evidence-based teaching* and its use in the accompanying seminar cf. Seltrecht, 2015c).

**Master's Colloquium for Final Theses that are Oriented on Teaching Methodology and Academic Discipline in the Vocational Discipline of Health and Nursing**

Establishing an academic thesis follows a schedule closely related to the course of a scientific research project: After a first briefing between lecturer and student, students prepare an exposé on the research project. This product is presented and discussed in a colloquium. Then students work together at relevant points in the research process (start of data collection, empirically based dimensioning of topics, analyzing corner cases of qualitative research projects, presentation of results). Processing the data material takes a prominent role in the master's colloquium (for working methods in research workshops cf. Riemann, 2005).

**Discussion**

When developing the teaching concept for the discipline-related and didactical teachers' training in the vocational discipline of health and nursing, special attention was paid to interlinking theory and practice as well as to connecting academic discipline and teaching methodology. Consequently, alternative courses in the area of health and nursing sciences are offered so that students coming from the area of health sciences may profile themselves in the area of nursing sciences and students coming from nursing sciences may sharpen their profile in health sciences.

In the health and nursing sciences courses, relations between theory and practice and between academic discipline and teaching methodology are conceptualized against the background of the future vocational activities of the teachers at vocational schools: Studies of health and nursing sciences are related to areas of action in health and nursing professions by using the concept *evidence-based practice*. By relating to the areas of action, finally also relations to the educationally relevant areas of learning in the training for these professions become apparent.

In the area of teaching methodology in the vocational discipline of health and nursing, all courses are based on one another, each linking theory and practice. Here, also an inner differentiation takes place, so that students coming from a nursing profession will gain knowledge about health professions and vice versa.

Apart from the relationship between theory and practice within teaching methodology, also connections between academic discipline and teaching methodology are established in the courses on teaching methodology: On the one hand, case studies appearing in the (superficially qualitative) courses on health and nursing sciences in the context of the teaching methodology seminar on case-oriented didactics are taken up and included into
the teaching concepts. On the other hand, the evidence-basing included in the health and nursing sciences seminars is taken up in the seminar accompanying the school internship through the concept of Evidence-based Teaching. First serving for developing internal evidence in the area of activities relevant to health and nursing, now the concept of evidence-basing refers to developing internal evidence in the area of educational activities (cf. fig. 4).

![Figure 4](image)

**Figure 4.** Relationship between theory and practice in academic discipline and teaching methodology, as well as connecting the academic discipline and teaching methodology.

**References**


