

Tudományos közlemények

Report on the progress of the project for the renewal of higher education in Hungary and the revision of the curriculum of Semmelweis University

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The present report aims to give a brief overview of the aim of the project RRF-2.1.1-21-2022-00001 – Sectoral Modernisation of Higher Education Training, coordinated by the Hungarian Rectors' Conference, the process of renewing the Higher Education Training and Outcome Standards and its first results, especially in the fields of medical and health sciences and teacher training, which provide the framework for the Conductor-training. On the other hand, the aim of the curricula review launched for all courses at Semmelweis University is explained, with a specific reference to the conductor-training.

The concept underlying the renewal of the training structure was developed under the leadership of the Hungarian Rectors' Conference, together with the consortium partners, on the basis of the guidelines submitted for the first milestone and refined in the recommendation submitted for the second milestone.

The Recommendation submitted for the second milestone was developed by the MRK consortium leader together with the Hungarian Accreditation Committee with regard to its tasks for the first half of 2023, in order to elaborate the Recommendation in more detail. The work of the 5 working groups was divided into a total of 22 sub-working groups, based on the development of new expected learning outcomes for the training areas and the related tasks for benchmarking, ESCO and ISCED systems. Within these main working groups, there is also a working group for medical and health sciences and for teacher education.

The essence of the recommendation for the renewal of the training structure is that, in line with the quality assurance renewal plans, new learning outcomes expected at the level of training areas have been defined by rethinking the competence descriptions of the existing Hungarian Qualifications Framework. These are the competences that all students graduating in a given field should know (for example, in the field of medical education, what all doctors should know, regardless of the university they graduate from). At the same time, the expert panel has identified the need to define minimum professional requirements at the level of the specialisation, but these define only a specific part of the content of the training, i.e. the core competences of the specialisation, also known as the new expected learning outcomes (EAL) of the course – the set of core competences varies depending on the field of training, typically around 50% of the course content, the rest being left to the institution to develop according to its own preferences, sectoral management incentives, labour market/regional needs, student needs, etc. requirements of the institution.

In the course of this process, the specifications were refined (e.g. in the case of medical training, with the involvement of the representative of the professional and continuing training), and some definitions of transversal and digital competences were clarified and finalised (e.g. in some cases the digital competence part was supplemented by an element of artificial intelligence), as well as the language

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requirements in the different specialisations. The main elements of the renewal proposal are the new Expected Learning Outcomes (ELOs) for the courses, which have been submitted to the Promoter for the third milestone of the project.

Outcome of the process of revising the Training and Learning Outcomes Requirements

The new Expected Learning Outcomes (ELOs) developed in the descriptions of the training area contain a fundamental change in approach compared to the previous KKK. The majority of the KKK specifications date back to the Bologna process of 2006, where the formulation of knowledge-capability-attitude-autonomy and responsibility were more of a mandatory but not particularly meaningful proxy, with the individual courses being guided more by the expected knowledge areas, with strongly bound credit limits. In contrast, the Expected Learning Outcomes do not contain any expected knowledge but focus exclusively on the competences to be developed (competences matrix), which institutions can decide how to develop in students. In addition, the ETE allows for an order of magnitude greater institutional freedom, with no tight credit limits and a 90-credit framework that can be filled freely at the institution's discretion. This is a real paradigm shift, which of course goes hand in hand with methodological innovation (project work or digital solutions, which are playing an increasingly important role in the process of competence development) and content innovation, where, in addition to the most up-to-date knowledge of the subject area, essential knowledge elements for all are introduced, such as digitalisation or the ESG (Environment, Social, Governance) approach, and ethical aspects are given greater emphasis than before.

In the process of compiling the ETE descriptions for the medical and health professions, the alignment with the new template for these regulated professions was also completed with the involvement of labour market actors and some relevant non-specific transversal competences – digital competences and soft skills – were also included in the descriptions.

In the bachelor's and master's degree programmes in medicine and health sciences, no major modification of the current KKK was necessary, as the principles and descriptors of the Hungarian Qualification Framework (2016) were already in place horizontally and vertically, based on the expected learning outcomes.

The current proposals reflect the professionally justified changes in the content of the core competences in medicine and health that have taken place since then. There have also been some technical clarifications (e.g. on public health screening, health promotion). Other new elements are the replacement of the specialisations in the basic training in health organisation by specialisations that do not lead to a qualification in their own right, which has led to a strengthening of the professional content, and the integration of the specialisation in digital dental planning into the specialisations in the basic training in medical diagnostic analysis. For the regulated professions, the new template ensures, as in the previous system, the mandatory application of EU requirements for recognition at European level. Overall, the new ETE approach is therefore clearer and builds more strongly on the learning outcomes of the courses. The alignment of the specifications with the template and the points beyond the formulation of the expectations in terms of transversal, digital and

linguistic competences have remained basically unchanged, with minor clarifications, as the then KKK was renewed a few years ago and the learning outcomes expectations for these regulated professions were already in place and did not need to be changed.

The training and outcome requirements of the six basic teacher training specialisations in infant and early childhood education, pre-school teacher, teacher, special needs teacher, special needs teacher, and physiotherapist were compiled after considering the training content specified in the training and outcome requirements of the 8th specialisation and the 9th specialisation in the case of teacher under the heading "Professional characteristics". This fact is important and should be clarified, as these 'Professional characteristics', as specified in point 8/9 of the CCC, are the disciplines and specialisations which constitute the structure of the profession and lead to the qualification, and which must be reflected in the curriculum in the form of subjects. In the Hungarian Accreditation Commission's documentation on the start of studies, the scope of knowledge is defined as "a complex, multi-semester subject or a group of subjects/curricular units covering up to 12 credits of knowledge, which are related in terms of subject and subject area". This curricular category may, however, lead to variations in the model curricula within a given credit range from one institution to another, which are, however, outside the scope of the present study. The conclusions were therefore based not on the areas of knowledge covered in the individual curricula, but on the disciplines and specialisations listed in the 'Professional characteristics' section of the KKK.

The Training and Output Requirements specify the disciplines and specialisations leading to the qualification in varying degrees of detail, which necessarily means that the subject-specific elements range from 14 to 44 (up to 262 in the case of specialisations in specialised pedagogy). The identification and quantification of the subject-specific elements has been defined on the basis of the relevant part of the KKK. It can be seen that the proportion of subject-specific elements in the specialisations concerned ranges from 36% to 92%. However, as the number of elements varies from one section to another, this proportion does not give a reliable picture and is not suitable for determining the percentage of specialisation. After analysing the data, no element could be identified that was clearly present in all sections.

Pedagogy and psychology as disciplines appear under this name in five courses, but it is important to stress that both disciplines are strongly marked by age-specific content in the curricula of the courses, beyond the "general" knowledge, so their identity is only apparent, and an accurate exploration of the differences without an analysis of the concrete and actual "knowledge areas" does not provide a true picture of the subject distance. In the case of special needs education, these two disciplines are already present in a sector-specific way throughout the course.

Among the common disciplines, social sciences are also included, without an adjective for four of the courses, with a specific adjective for the Conductor course, and for the VET teacher training course, this discipline does not appear as a named field in the JRC. Social science is a rather broad discipline, which also tends to vary between disciplines (and institutions).

IT as a discipline is named for the infant and early childhood education and pre-school teachers, while for teachers it is already adapted to the public education

system by using the term digital culture. However, the KKKs for the other three subjects do not mention this discipline.

The description of the system of Training and Exit Requirements for the six specialisations concerned shall include the specific disciplines, fields of study and specialisations of the given specialisation, which are not interchangeable and cannot be combined.

Curriculum Review of the Semmelweis University's Training Portfolio

The aim of the Semmelweis Curriculum Reform 2.0 project, launched in spring 2023, is to react to the domestic and international processes in the field of higher education and to the paradigm shift in higher education, which aims at achieving results-oriented training instead of dry transfer of knowledge, with a strong emphasis on the development of learning competences and the support of practical competences and experiences in addition to theoretical knowledge. On the other hand, it is the task of teachers and heads of institutions not only to preserve and pass on decades-old or even centuries-old traditions and the knowledge of their predecessors, but also to contribute proactively to the process of "learning to learn" by supporting the development of individual student pathways.

Semmelweis University was the first in Hungary to reform the curriculum of medical education by revising it in 2019 and introducing the so-called "block teaching" (the first two-year theoretical-foundational training block, the preclinical block teaching starting from the fifth semester, and the clinical block teaching between the 7th and 12th semesters). Today, with the launch of the Curriculum 2.0 project, all six faculties of the University have undertaken some level of revision of their training, either through the Curriculum 1.0 already in place, through re-accreditation, or through continuous improvement of their training in response to new and changing needs.

The paradigm shift in the field of higher education training has not escaped Semmelweis University either, in terms of thinking about the purpose of training, the content and methodology of training organisation. The focus is on ensuring that students, on graduation, have the knowledge and practical experience to be professionally competent in the tasks they are expected to perform. This aspect should be considered in curriculum development, and a university should constantly reflect on its own training, the satisfaction and feedback of its students, clinical and labour market stakeholders, and the international reputation of its university. By reviewing and developing the curriculum, we must ensure that the quality of education provided here is internationally competitive.

As a factor initialising the curriculum review tasks, we also take into account the results of international studies which highlight that the incidence and prevalence of mental health problems and disorders among students in higher education is increasing in all age groups, including students in medical and health sciences. In general, there is a discrepancy between aspirations for the profession and the opportunities actually available, leading to frustration, anxiety and often depression. This situation can be compounded by the oppressive methodological aspects of the traditional education system, such as the expectation of excessive amounts of lexical

information, subject competition rather than subject integration, difficult and less objective examination organisation, which results in a simultaneous overload at many points. According to indicators from international surveys, one in three students show emotional exhaustion and burn-out immediately after graduation.

All this calls not only for a well-thought-out revision of the timetable for each semester, but also for a systematic rethinking of the curriculum and the expected course content, eliminating unnecessary redundancies, as well as parallel, overlapping teaching and university “prestige competitions”. An important objective is to make the organisation of examinations more predictable and objective, and to better involve students in the various training processes. Skills development and active mentoring should be given much more prominence. We need to impart expertise, not just knowledge, but a whole new set of teaching skills, including digital literacy, the ability to motivate, mentor and support the actual learning process, the ability to recognise and deal with emotional difficulties and anxieties, and not least pedagogical methodological skills.

To achieve the criteria for an effective curriculum, the curriculum review should take into account not only feedback from graduates and current students and clinicians, but also external factors such as demographic changes or the emergence of new disciplines, as well as national specificities and responses to international labour market mobility needs. In an ideal curriculum, knowledge is linked in a cogwheel-like way, integrated in a sequential, systematic, and structured way, returning to a theme as the training progresses, but increasingly synthesised. The success of a training course is also enhanced if, as early as possible in the clinical placement, students are given the task of carrying out sub-tasks for which they already have the necessary knowledge and also learn to take responsibility.

The training review also aims to raise awareness of the fact that the body of knowledge in medicine and health sciences has long exceeded the cognitive capacity of the individual, shifting the focus to teaching learning and the timing of when interprofessional collaboration is appropriate. The way forward is to establish practice- and student-centred education, building on the collaboration of students, teachers and patients, in which repetitive skills that can be practised can be put into practice quickly, while at the same time most of the useful knowledge can be extracted from situations encountered in clinical practice.

Although every reform starts from some philosophical or theoretical basis, it is ultimately about people: firstly, alleviating the suffering of patients and clients and improving their quality of life; secondly, the student community; thirdly, the development of the institution providing the background; and finally, the staff. Curriculum reform is essential because the rapid development of medicine and health science means that half of the knowledge taught today will be outdated or irrelevant by the time current students retire, and it is therefore the role of training to prepare our students for lifelong learning.

The practice-oriented approach is reflected in the structure of the curriculum, combining theoretical and clinical teaching on a weekly basis, theory and practice building on each other, allowing the goal of healing or development to remain in mind despite the demands of the curriculum. On the other hand, the basic theoretical training is followed by clinical practice, and based on this experience, the training

continues with advanced theoretical subjects. Education should not only be about transferring knowledge, but also about shaping the student, socialising the career and providing an inspiring learning environment. This is not only a societal issue, but also a personal one: today's educators must teach their students as if they were training their own doctors and future colleagues, since today's students will be at the peak of their careers when their teachers are already in need of some kind of clinical care.

The review aims not least to apply theoretical knowledge to clinical cases, to gain concrete practical experience at the patient's bedside, solving problems in group/teamwork, and then through reflective learning, to jointly discuss and evaluate what has been learned during the given working day or week, so student feedback has also actively contributed to the successful curriculum development and the achievement of a consistent workload.