M. Hiillos, S. Huttunen (2023) REVISING CURRICULA TO MEET THE FUTURE OF WORK, ICERI2023 Proceedings, pp. 1504-1510. doi: 10.21125/iceri.2023.0474

REVISING CURRICULA TO MEET THE FUTURE OF WORK

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Abstract

The world of work is changing rapidly. The ever-developing technology is changing the way we work and do business. Platform economy and consumer behaviors in using new services are tearing many traditional industries apart. Creative destruction is eating away those companies who are not able to renew themselves. At the same time, competence needs and professions change, and we can no longer fare through our careers on an education or degree we once obtained, instead, we all need to renew ourselves and update our competences.

In 2021, a renewal of the Finnish higher education legislation presented the Finnish universities of applied sciences with a new task: Continuous learning. In theory, this was not a new task as all Finnish higher education institutions (HEI) had been offering further education in various ways and formats for years already. In practice, the new task calls for a fundamental change in our way of thinking. Educating degree students is a familiar task for HEIs, but incorporating continuous learning students, a heterogeneous group of consumers, who have very varying profiles, is something new. These learners would come to require completely new services and learning design from HEIs. The trends influencing this are consumerization, omnipresence of services, and ease of use everywhere.

The need for renewing Haaga-Helia University of Applied Sciences was obvious, and the timing was right. The drivers for change were technological development, change of work, needs for learning new competences (number of learners and competence needs) and lengthening of careers, and these all created the frame and the demand for Haaga-helia to become a meeting place for continuous learning.

From the start, it was obvious that the learning offering, i.e. the curriculum, should be commensurate to Haaga-Helia's modern service industries and dynamically updating. At the same time, it would need to serve the needs of both degree students and learners who were joining to update their skills and competences. Finally, the curriculum had to be flexible in a manner that allows students to build an individual degree and learning portfolio.

In a world where resources are increasingly scarce, renewal also calls for rethinking: how could we do things smarter? Despite this, our aim was not to become more efficient economically, but rather to stay abreast with the changing world and to respond to the needs this change brings along in an agile manner.

In this article we present an education renewal, the biggest development and change project ever to have taken place in Haaga-Helia University of Applied Sciences. The change was extensive and spanned over multiple years. The objectives of the education renewal were crystallized as observations of the changing operating environment. An earlier version of this article was already published in Finnish (Hiillos & Huttunen, 2022). In this article, we extend our discussion to initial experience from the renewal as well as areas where we have found room for improvement.

Keywords: Curriculum, continuous learning, adult learner, learner-centered curriculum.

1 INTRODUCTION

Year 2014 was in many ways revolutionary for Finnish universities of applied sciences. It was the year when higher education reform began with changes in legislation and structural renewals aimed at improving quality and effectiveness of activities in universities of applied sciences (UAS). The three major changes for UASes in this first phase were operating license renewal, decisions on degree programmes moved from the Ministry of Education and Culture to the UASes themselves, and a financing model renewal.

Coinciding with the changes in legislation and as part of higher education reform, all higher education institutions moved to a joint application system for study places available in Finnish which was somewhat of a game-changer for applicants. All applications took place in the web (opintopolku.fi, Study info), and an applicant could only choose a maximum of six options available for application in which they wanted to study, and they had to place them in order of preference.

In those days, Haaga-Helia UAS had 38 degree programmes available for application per year. Out of these, 25 were Finnish degree programmes. It was obvious that with such a wide offering, Haaga-Helia was competing with itself, and many UASes were reorganizing their offering. In Haaga-Helia, we also identified another dimension: In theory, we had a wide offering, but an individual student was bound to one degree programme and its offering although the degree programmes did collaborate on the offering, and had also made some changes to have more commensurate offering.

Work was also grappling with an accelerating change. Continuously evolving technology changes the ways in which we work and how we do business. Platform economy and changing consumer behaviors in using new services is churning many traditional industries. Creative destruction destroys companies who cannot renew their business. At the same time, learning needs and professions change; the degree one once obtained is no longer enough, and one needs to update one's skills along the working life. (Huttunen, 2019).

The Finnish Ministry of Education and Culture also woke to this reality in 2017, when the Minister of the period, Sanni Grahn-Laasonen, set a future panel for competences to forecast needed changes in education. In a press release (Ministry of Education and Culture, 2017) Grahn-Laasonen states: "We have moved to an era of continuous learning". This was reflected in the renewed legislation in 2021 (Universities of Applied Sciences Act, 2014) when UASes were given a new, fourth task: continuous learning. The other three were education, research, development and innovation (RDI), and regional impact.

2 FROM DEGREE PROGRAMMES TO CONTINUOUS LEARNING MEETING PLACE

In 2017, we began reviewing our degree programmes available for application and how we might best fit continuous learning into our resource intensive degree programme model. We had learned that organizing additional education – whether acquired via open university of applied sciences (UAS) or commercial offering – was a struggle as the academic staff had to devote most of their time into teaching in degree programmes.

Reviewing the curricula of degree programmes we found they were quite varied. Their structure and the ways of presenting information were different, terminology and terms' definitions varied – overall, they were incommensurate. We realised that students' possibilities to plan and decide how their learning would be built was limited and involved a lot of work. Keeping the offering relevant and up to date for continuous learning clientele was challenging. Curricula renewal cycles were slow and their clock speed did not keep in sync with the speed in which competence needs were changing.

We also cast a critical eye into how we operated as a HEI. We noticed we operated largely in a production mode. We had built learning paths that consisted of academic objectives we ourselves had conceived. As we were renewing our previous curricula, we had engaged a large number of industry representatives into the planning. The learning objectives were based on their feedback on the competence needs of businesses. From this perspective, our learning objectives were surely relevant.

We also learned that students began searching for more individual and flexible combinations of competences we offered. A student's wish to combine studies from two different degrees into one entity was a wake-up call for us. This was not possible within our curricula structure.

It became obvious that we should place a student-centered way of building our academic offering as a target: We decided to plan offering that students would find motivating and lead them towards a degree or other credential. This is also in line with current consumer behavior. An individual wishes to choose and tune a product or service in a way that they feel is right for them (Appnovation, 2021; Zeithaml ym., 2013). Students would devise a personal study plan (PSP) covering all their studies at the beginning. This helps in defining the offering and their timing in studies' administration.

Concisely, the objective of the education renewal was to create a competence-based, common curriculum for all Haaga-Helia degrees. This curriculum would offer flexibility and individual learning paths for both degree students and continuous learning students. This objective had major impact on the curriculum structure, application for studies, and the construction of degrees within the curriculum overall.

Modularity lied at the center of the education renewal as this would enable offering the same courses for continuous learning, commercial offering, and export of education. Devising common key competences for all degrees, creating dynamically evolving learning paths that would also serve various industries, and developing more of virtual offering were all salient changes.

3 FROM EDUCATION RENEWAL TO CHANGING WAYS OF WORKING

As the renewal progressed, it became increasingly clear that the new ways of designing education would lead to new ways of working. Already before the education renewal we had defined that teaching in Haaga-Helia is teamwork. In the education renewal, this way of working became even more pronounced.

We designed the common basic studies for the curricula and named them *key competences*. The courses within key competences were, in a sense, semi-finished products that teachers could use when implementing a course. She would add her own pedagogical touches and perhaps a project related to the degree being taught. As the basic studies were well defined, teachers could focus on developing pedagogical aspects of their work, there was no need to create courses and their implementations from scratch again, and work can be differently divided.

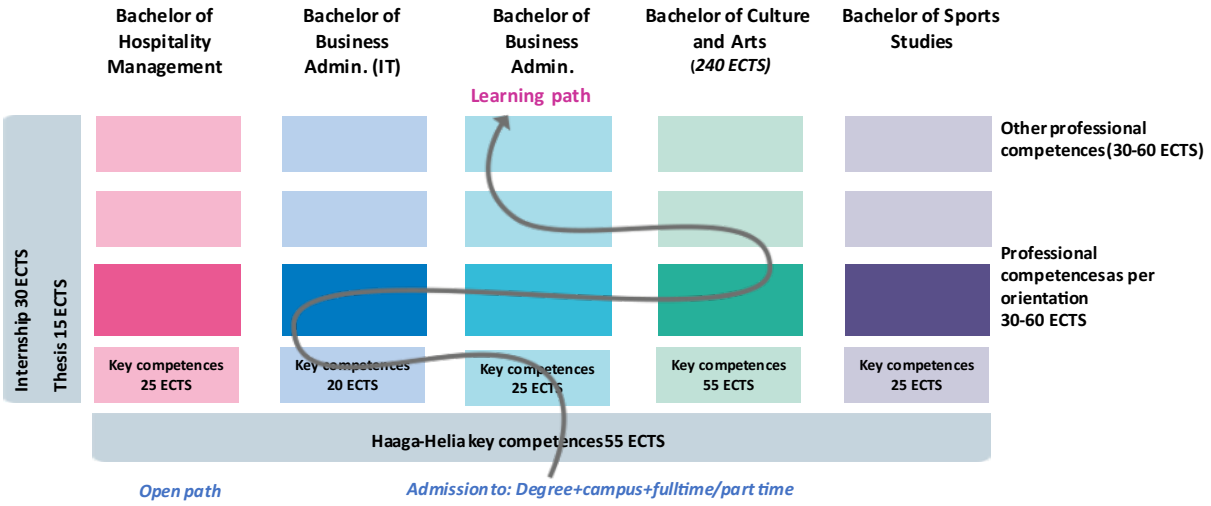

Figure 1. Individual flexible learning path.

Increasing flexibility means that students need more guidance. For this, we developed a new guidance model, which calls for a shared guidance responsibility and emphasizes the role of teachers.

Changing information systems to support new ways of operating, and better use of data to plan the offering were also identified as objectives, these were fundamental observations. A new type of pedagogical leadership requires leading with data.

4 EDUCATION RENEWAL PROCESS

Already at the beginning, we chose to engage all academic staff in the renewal. The leadership team defined the goals and overall frame for the renewal, but the actual planning was left for the project director and workshops. The leadership did not make decisions on key competences or learning paths. Instead, teachers, specialists and middle management created all the new concepts and models. The project director was in constant touch with the leadership team and brought the results from workshops for approval. Industry representatives and students were largely engaged in workshops that implemented service design methods. The starting point was a potential student's experience that stem from the HEI services, offering, processes, and systems (Stickdorn, 2018), and the goal was, of course, a fluent studying experience.

In a transformation process as extensive as the education renewal, communication is crucial. Communication needs to be planned right from the beginning and it needs to be construed as a fixed part of the transformation. We would need to find time for thinking and discussion, and we would need to be able to respond to feelings and experience of insecurity in transformation. While dialogue between various actors is necessary it can also be time-consuming and exhausting. In our transformation, we have aimed for as open and transparent interaction as possible.

At times, we did witness pain when we had to give up the old ways. On the other hand, education renewal gave many people opportunities to use their competences in new ways or in a new role. We had so many employees with a positive outlook that we were able to move forward.

Scheduling the education renewal was salient vis-à-vis implementing the change process. A transformation that has an effect on the entire HEI, all its degrees, degree programmes, and curricula needs enough time so that the transition from the old to the new occurs with as little friction as possible while adapting to the academic year. The renewal needs to be paced well while avoiding too much speed. With this in mind, we scheduled the renewal to stretch from 2019 to 2022.

Writing this, the timing seems unfortunate; after all, COVID-19 pandemic placed very real challenges for pulling the transformation through. However, pushing the transformation forward would have meant postponing the education renewal, which also would have risked the entire project. As Kotter (2007) says, also successful transformations are messy and full of surprises.

5 LEADING IN CHANGE

It was clear from the start that the change is tremendous and would require efforts from the entire HEI. However, we did not see keeping the status quo as an option. Media helped in identifying the rationale and putting the change in scale, and especially the 2018 news about ”a million Finns needing reskilling” dominated the media landscape. The basic requirement for implementing the change process was secured, i.e. the commitment of the rector and the leadership team. Haaga-Helia’s Board also recognized the need for change and gave its support for the acting leadership team.

Given that the change was considerable and demanded perseverance, the steering group needed to be strong, too, and hence, Haaga-Helia’s leadership team became the steering group. This gave the project the strongest possible support. At the same time, the education renewal demanded new type of teamwork within the leadership team as things needed to be coordinated in common collaboration and with the project director.

Although the commitment of top management to change and communicating about the change every day is important, the role of middle management and the teaching staff is even more important. The middle management needs to lead their troops in the transformation while juggling between the old and the new. Students, old and new, need to be guided to act among the new opportunities. The actual change is carried out by teachers, and a transformation of this scale is not possible unless tens of teachers area ready to give their time and thinking for the new. Additionally, we had to fit the renewal into our ERP systems, degree regulations, quality control and study services. Everyone needed to stretch and make sacrifices in the short term so that we could reach the long-term targets.

Conducting any change successfully also requires removing obstacles. Kotter (2007) describes obstacles to change, and the first one of them is the organizational structure. We noticed a need for change early on: an organizational change supported the education renewal and was necessary. New ways of operating demanded new team structures. Hence, we spent 2020 planning a new organization and changed into it at the beginning of 2021.

We moved into a strongly networked HEI where the needs are borne in degrees, RDI (research, development, and innovation), continuous learning (open and commercial), and education export solutions. These needs are then negotiated in constant interaction between competence area directors, degree directors, research area directors, and commercial actors. Teams of specialists are at the center, in competence and research areas.

Everyday pedagogical leadership is in the hands of competence area directors. When earlier we had a degree programme director, who was responsible for everything starting from student selection, curriculum, offering and its design, teaching staff and steering committees, competence directors focus on competences and their development. This calls for constant interaction and networking to keep up to date with the needs of a varied group of students and trends relating to a specific competence area. Developing the offering needs to be constant all the while when the teaching staff develop their own teams and learn technologies the role of which is growing both in terms of content and support method. Steering committees no longer relay competence needs, these are replaced by a system using cognitive AI and natural language processes which is constantly up to date.

Degree directors also turn their eyes towards analytics. Where we earlier planned our offering based on our production, the new ERP system enables the use of data in planning the offering. The students plan their personal study plan, and schedule it over various academic terms. This data (anonymized and produced to a suitable aggregate level) gives degree directors valuable information on when to schedule courses and which course formats should be available. This way we can offer courses based on demand.

When the curriculum is dynamically updated, pedagogical leadership is significantly different from earlier times when curricula were updated every five years using a painstaking process that took several months. Back then, once the curriculum was finalized, planning tuition and organizing its implementation was sometimes even routine-like. Students' wishes and feedback was handled on course level, improving them iteratively. At a time when we can use data and AI to identify competence needs and validating the curriculum we also acquire information constantly from various development projects (done for companies or R&D) in courses. The dynamic nature of the curriculum allows even for quick tuning, one-off implementations, and project solutions. Integrating RDI projects into learning is also easier as the offering allows for flexible learning solutions.

Despite its dynamic nature, the curriculum is stable. This is thanks to both common and degree-specific key competences, which offer timeless, robust skills. Their uniform design is crucial from the student's individual path's point of view. At the same time, the key competences that stabilize the whole allow teacher teams room to operate around professional competencies and pedagogy.

6 ABOUT PEDAGOGICAL LEADERSHIP IN CHANGE AND INITIAL OBSERVATIONS OF WORKING WITH THE NEW CURRICULUM

The key task of pedagogical leadership is to create a clear vision of the desirable future and ensure that it has the support of top management. There needs to be enough time for thinking for creating a structure that supports pedagogical innovations. Overall, thinking and planning of the structure and processes took Haaga-Helia's academic leadership two years before the education renewal was kicked off. During that time, leadership spent time discussing renewal needs from the point of view of competences, digitalization, and processes. The goal needed to be clear, and all players had to be playing towards that same goal. On the other hand, the vision had to be loose enough to allow room for specialists' and teachers' creativity and innovation. Dialogue with the middle management needed to be constant to build common understanding.

Value base needs to be in line with the vision and targets. Encouraging people to experimentation supported the implementation of the vision. We did not begin our journey from a static situation, but based our planning on some encouraging smaller changes and pilots that had been carried out in various units. For example, teamwork and competence-based thinking laid the foundation for and trust in the renewal. Bringing the teaching staff on board at an early stage and trusting their expertise was crucial – a big enough group of eager innovators had to be tightly linked to the renewal. A clear structure gives pedagogy an opportunity to flourish.

A successful higher education pedagogy allows teaching, guidance, and learning a wide enough frame within which learning process and its assessment can be facilitated while considering learners' goals and passion. Considering different kinds of learners in a world where the amount of information constantly grows is the ultimate goal in everything we do. With the right kind of pedagogy, we help learners navigate in a landscape where data, technologies, and methods develop all the time.

7 EXPERIENCE FROM THE NEW CURRICULUM

Haaga-Helia University of Applied Sciences has Finland's largest offering of business-oriented studies, and the intake of students annually is altogether some 2800. Out of these, some 1100 are Finnish-speaking BBA degree students. Altogether, Haaga-Helia has some 11,000 students. In the following, we examine feedback regarding the key competences from the largest group: Finnish-speaking BBA students.

7.1 Student feedback

The first groups began their studies in the new curriculum in January 2022. Given that these groups of students are now on their second study year, we cannot, as of now, see if they are progressing at a pace recommended for them (3.5 or 4 years for a full bachelor-level degree). Similarly, as the curriculum structure and especially the new key competences' courses are new, we cannot compare them with any of the courses we have had in our degree programmes earlier.

However, what we already know based on student feedback from our biggest cohort (annual intake ~1100 students), our BBA students, is that we have succeeded in creating key competences that students find useful for their future careers. And for the most part, we are reaching the level (3.75 on a scale of 1-5) we have set as a target for the *overall grade*.

Below is a table depicting the key competences, the dimensions in which the students assess the courses, the overall grade and the number of respondents as well as the percentage of students who responded. Whenever the grade is below our target of 3.75, it is coloured yellow.

Table 1. BBA students' feedback 01/2022-05/2023

	My own activity	Reaching learning objectives	Ways of working supported learning	Study environment and support	Usefulness for career	Overall grade	Respondents	Response percentage
Keys to studies and future career								
Introduction to studies	3,8	4	4	4	3,7	4	548	48,8
Digi start	4,1	4,1	4	4	3,8	3,9	449	43,3
Studying skills	3,8	4	3,9	3,9	3,7	3,8	200	49,5
Time management	4	4,2	4,2	4,1	4,3	4,1	164	49,1
Wellbeing and leading oneself	4,4	4,4	4,5	4,5	4,2	4,2	26	22,2
Recognize your strengths	3,8	4,1	4,1	4,1	4	4	51	46,8
Develop your career plan	4,1	4,3	4,2	4,2	4,1	4,2	43	42,6
Employment seeking skills	4,2	4,1	4,2	4,2	4,5	3,9	18	17,6
Speed up your career with alumni	4	3,8	3,6	3,6	4,8	3	10	24,4
Common key competences								
Professional communication	3,9	3,9	4	3,9	4	3,9	527	54,3
Customer understanding	4	4,1	4,2	4,2	4,3	4,3	471	48,2
ICT skills	3,9	3,9	3,7	3,6	4,4	3,7	475	45,5
Customer experience and sales	4,1	4,3	4,2	4,2	4,2	4,1	105	39,3
Team work and project skills	4	4,1	3,9	4	4,3	3,9	294	40,2
Entrepreneurship and business	3,9	3,9	3,8	3,8	4	3,8	420	42,6
Company F&C	3,8	3,7	3,6	3,5	4	3,6	116	27,7
Professional English	3,7	3,8	3,7	3,9	4	3,8	113	31,1
Swedish for professionals	3,6	3,9	3,8	3,8	3,3	3,5	20	30,3
Degree-specific key competences								
Companies, consumers and society	3,5	3,3	3,4	3,5	3,8	3,6	437	37,1
Work community skills	4,1	4,2	4,1	4,1	4,3	4	135	32
Business law	3,8	4	4,1	4,1	4,4	4,1	142	29,7
F&C basics	3,9	3,8	4	4,1	4,5	4,1	123	34,7
Business analytics basics	4,1	3,9	4,1	4,1	4,2	4,3	54	42,2

7.2 Feedback from our teaching staff

Thus far, we have not conducted over-encompassing surveys to gather feedback from our teaching staff as many of the courses (especially related to professional competences) are still under construction or being updated to fit the new curriculum. As regards common key competences, we have had informal discussions and have gathered observations on how well the courses fit to various degree students. Thus far, observations relate mainly to competences, and specifically, their fit for purpose, i.e. their suitability for all students. There should be no need to vary the common key competences, as we have degree-specific competences separately.

8 CONCLUSIONS

The objective of the education renewal was to create a competence-based, common curriculum for all Haaga-Helia degrees. We are now on our fourth year of renewal, and second year of operation. The curriculum offers flexibility and individual learning paths for both degree students and continuous learning students. The renewal has had a major impact on the curriculum structure, application for studies, and the construction of degrees within the curriculum overall.

Modularity of offering is vital as it enables offering the same courses for continuous learning, commercial offering, and export of education with minor revisions. Devising common key competences for all degrees, creating dynamically evolving learning paths that also serve various industries, and developing more of virtual offering have all been salient changes. And the work continues.

Thus far, we have learned that having common key competences available in different forms and at different times work well for our degree students as the availability of course formats and scheduling allow for designing one's life according to other activities. Most Haaga-Helia students work alongside studies, so having multiple choices for studies is a definite plus. What we have also learned is that the common key competences constitute a popular and well-working open university path to degree studies.

Given the changes in the learning landscape, dynamically updating and modular curriculum structure offers a superb platform for serving all emerging learning needs. At the same time, it requires constant interaction with various industry representatives and fluid participation in relevant ecosystems.

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