
Päivi KARTTUNEN

Pedagogical development in TAMK – Finnish approach to paradigm shift in education

Background for development of universities of applied sciences in Finland

Higher education has changed a lot during the past 25 years in Finland. The universities of applied sciences (UAS) were established in the 1990s when the former college system became higher education. At the moment there are 22 universities of applied sciences and 14 universities. Universities and universities of applied sciences have their own profile and legislation as well. About 23 000 bachelor-level students and 2200 master-level students graduate from the UASs annually. It is quite normal that in universities all students will complete the master's degree with about 15 000 students getting their master's degree and 1821 getting their doctoral degree annually. In UASs it is not possible to complete doctoral studies.

The objectives for higher education are based on the educational policy and the government programme. The joint objectives of higher education for 2025 were established in 2016 by the new government. The four main objectives are:

- strong higher education units that renew competence
- faster transition to working life through high-quality education
- impact, competitiveness and wellbeing through research and innovation
- higher education community as a resource.

In Finland education is almost entirely publicly funded and at the moment about 11% of the total public expenditure goes to education (OECD average 12 %). The Finnish education level is relatively high. For example, Finland is one of the top-performing OECD countries in reading literacy, mathematics and sciences according to the OECD statistics. 85% of adults (ages 25 – 64) have completed upper secondary level education (OECD average 75%). 47% of women and 34% of men have completed tertiary education (OECD average is 35% of women and 31% of men,) (Education at a Glance 2015, OECD)

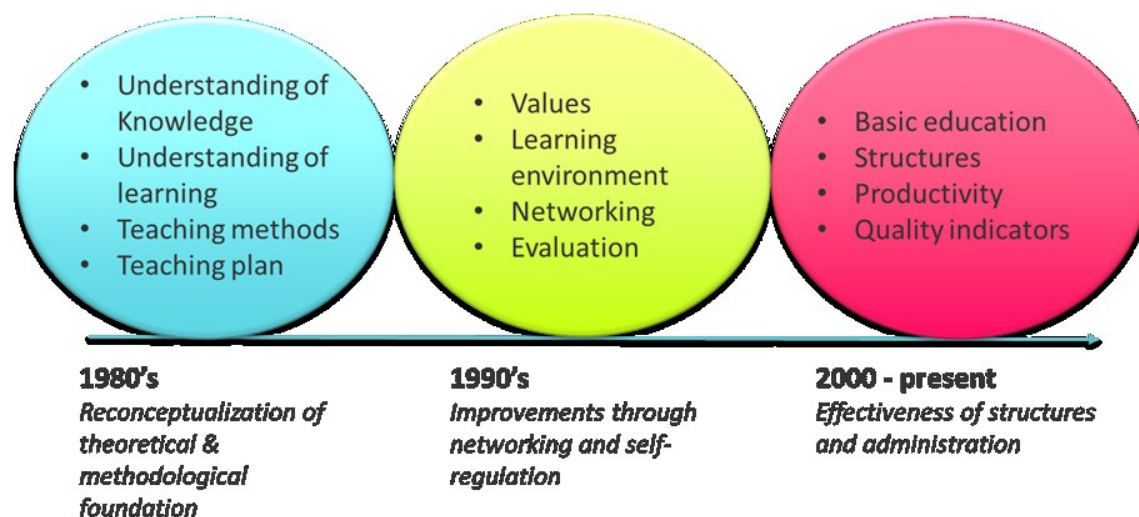


Fig 1: Changes in the Finnish school system since 1980s (According to Sahlberg 2015)

Sahlberg (2015), who has studied the Finnish school system, emphasizes three different phases in the development of education in Finland, which can also be recognized in the development of the university of applied sciences system. The UAS system was developed in the 1990s. Especially in the 1990s and 2000s the Ministry of Education supported the development by subsidizing joint development networks. During that time for example internationalization, research and development, as well as virtual courses and virtual pedagogy were developed together with the UAS sector. The Bologna process has been implemented in Finland since 2002. It means for example concentration on quality assurance, ECTS principles, and student-centred learning.

The UAS sector implemented a joint project in 2004. At first the focus was on supporting the transition to the ECTS credit system. The second part of the ECTS project concentrated on supporting the universities of applied sciences in student-centred and competence-based curriculum design (Arene 2007). The first quality audits were also launched in 2005 and the third round of quality audits are being planned together with the higher education institutions at the moment. According to Talvinen (2012) evaluation concerning the first quality audits in 2005-2012 emphasizes that quality assurance has more and more become a part of everyday practice.

Pedagogical development at Tampere University of Applied Sciences is based on the strategy, strategic management and leadership and quality management

Finnish higher education institutions are relatively autonomous concerning their operations. The education policy lines out the objectives for the government programme. The objectives are agreed in the four-year performance agreements made by the UAS and Ministry of Education and Culture. During the performance agreement process the main objectives are

based on the government's education policy and the strategy of the UAS, and the objectives are integrated together.

During the past twenty years the UAS sector has adopted a more strategic orientation to management and leadership, which also means that development of universities of applied sciences is more systematic. According to Talvinen (2012) quality management is also more and more inseparable from strategic management and general development work (Talvinen 2012).

The internal performance planning process as a tool for pedagogical development at TAMK

In Tampere University of Applied Sciences (TAMK), the objectives for the development work and activities concerning pedagogical development are established as part of the internal performance planning process in a dialogue between the executive board and the schools of TAMK. The strategy and action plan, where the focus of annual development is set, are checked by the executive board of TAMK annually. Both the plan and the emergent strategy are important. They are integrated together during the annual evaluation.

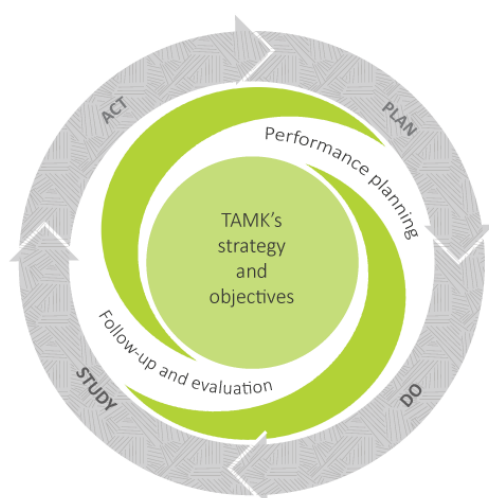


Fig 2: TAMK's strategy, performance planning process and quality management

The internal performance agreement process is a dialogue between the executive board and the schools and units of TAMK. The process starts with the evaluation done by the schools and units in TAMK. During the spring term all results and evaluation data are assessed and based on it the objects which need development are known. The self-evaluations and reviews create the basis for the following year's performance agreement objectives and the planning phase starts in June.

During the planning phase the schools and units will at first make their proposition for the following years' development objectives and then discuss these objectives with the executive

board. At the end of the discussions and the process the president of TAMK and the director of the school or unit will sign the agreement.

TAMK's strategy was formulated in 2010 and revised in 2015. TAMK has a lot of competences in the field of pedagogy because it has the School of Vocational Teacher Education, which is one of the five schools of vocational teacher education in Finland. A notable feature and profile in the strategy of TAMK is learning and creativity, as well as wellbeing and health, and business and production. According to the strategy there are five focus areas. One of these focus areas is developing professional pedagogy and education. This focus area encompasses both the teacher education and research, development and innovations in the field of vocational education. During the past five years there have been for example projects where TAMK's School of Vocational Teacher Education has educated new teachers focusing especially on digital and mobile education.

One important part of the strategy of TAMK has been digitalization. According to Haukijärvi (2016) digitalization challenges institutions to develop on every domain and aspect. It is not enough to change teaching and learning models but changes are needed in the whole organisation. Haukijärvi (2016) also did a longitudinal research concerning the process on how to apply and develop digital strategy in TAMK. He stated "*there is no strategy for digitalization, but a strategy for ensuring sustained competitive advantage in the digitally connected world*". (Haukijärvi 2016) Such a comprehensive approach supports the higher education institution in developing education and supporting teachers, students and researchers in their work.

Teacher's continuing training at TAMK

Higher education undergoes a transition which is the reason for why teachers also need continuing training and lifelong learning. Such intellectual capital is the most important for higher education. Teachers need both substance and pedagogical training. A powerful tool to develop knowledge and skills and learn a new teaching style is practical action research concerning teachers' own work (Zeihner, 2009.) The concept of knowledge triangle which Kalman (2016) has analysed is another tool we can apply in developing education and teachers' competences as well (Kalman 2016). Internal networks are very important in pedagogical development at TAMK. By sharing both good practices and not so good practices teachers and schools can develop their teaching and learning. The most important tools alongside externally funded projects are TAMK's internal networks, such as the curriculum development team and the quality development team. The curriculum development team has members from the schools of TAMK and the idea is to share good practices and to work as a steering group for curriculum development. Karttunen (2016) stated that the effectiveness and impact of the work of internal networks depends on leadership of networks, which has been taken into consideration. All the leaders and managers have to know the objectives of the network.

TAMK teachers' annual development discussions with their superiors establish their personal development objectives. The aim of the development discussion is that the personal objectives are in keeping with the objectives of TAMK. The discussions are also a good opportunity to get information on the education as well as feedback on teachers' work. Based on the development discussions the Development Unit together with the School of Vocational Teacher Education arrange training and projects to teachers at TAMK. There is for example a programme for teachers to develop their pedagogical competences in the digital environment. In 2015 the digimentors started their work in every school of TAMK. They are peers who support teachers in their work.

Curriculum development forms the basis for quality of learning and teaching

The curriculum is an important tool for development. The autonomy of the Finnish higher education means that higher education institutions are responsible for curriculum development. In TAMK the curriculum development team with representatives from the schools works as the steering group for curriculum development and quality of teaching and learning. The schools of TAMK organise their own development group which leads the process in each degree programme. The development process is based on dialogue between the schools, degree programmes, and the Development Unit of TAMK, which is led by the vice president responsible both for internal development and the School of Vocational Teacher Education. The curriculum development team in TAMK is responsible for:

- process of curriculum development
- application of the objectives for curriculum development
- development of curriculum evaluation criteria
- evaluation of the curriculum development process.

Curricula are approved by the higher education council of TAMK. Before the approval the curricula are evaluated by the curriculum development team using the curriculum criteria of TAMK. These criteria encompass for example the objectives of curriculum development. During the academic year 2015-2016 the curriculum development objectives included for example:

- Clearly competence-based curricula which are based on the needs of working life
- The student's learning is the focus
- The student's possibility to proceed flexibly and effectively according to her/his curriculum
- Knowledge utilisation across the "borders" of different fields of education
- Curricula include descriptions and procedures that allow identification and recognition of prior knowledge and skills
- Diverse learning environments which integrate RDI activities into learning and teaching.

- Digitalization and its influence on learning, learning outcomes and competences
- The international dimension is an integral part of learning and its implementation
- TAMK's strategy and its implementation to practice.

An important part of the curriculum development process and a part of the annual performance planning process is analysis of competences needed in working life.

Because the working life is changing rapidly the analysis of the competences needed in degree programmes is important. That's why every degree programme has an advisory board which meets twice a year and concentrates especially on the needs of working life. In the Tampere region there is also an education foresight network which collects both qualitative and quantitative data on the educational needs of working life. At the national level, education foresights form a part of education policy and decision-making.

Conclusions

The higher education undergoes a transition which means that we should update our conceptions concerning our operations in both teaching and learning environments of higher education. In such situations higher education leadership and management are also important tools in supporting the changes and development. When we live in the changing world and speak about higher education, we should take into consideration the features of a learning organisation. This means that we do not only react to the new information but self-assess and reflect on operations and activities constantly and use our human capacity to create new knowledge and new models for operations (Kalman 2016.)

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