

EXCELLENCE IN TEACHING: CENTRES OF EXCELLENCE IN FINNISH UNIVERSITY EDUCATION 2010–2012

Osmo Kauppila
University of Oulu, Oulu, Finland
osmo.kauppila@oulu.fi

Abstract: Excellence in university teaching is a current topic both in research and in practice; however, there are only few studies that focus on the practices employed by winners of national teaching excellence awards. This study approaches this research gap through an analysis of the Centres of Excellence in Finnish university education for the period 2010–2012. The award winners' applications are analysed using qualitative data analysis software, and all practices demonstrated by the award-winning units are coded using the European Foundation for Quality Management Excellence criteria as a framework. The results are compared between the analysed units and with previous research literature on teaching excellence. The discovered common practices include quality assurance-related activities, researcher training, core analysis of content and active participation of stakeholders. Comparisons with earlier research show similarities in practices with the Norwegian Centres of Excellence. Some less tangible aspects of excellence cannot be directly identified through practices but need to be supported by more holistic models of teaching excellence. The research results can be utilized as a benchmark to support development work in higher education.

Introduction

The 21st century has witnessed a transition from quality assurance towards excellence in higher education (Gosling & Hannan, 2007; Rostan & Vaira, 2011). The reasons for this have been well studied and include national policy changes in order to increase the competitiveness of the higher education system (Ramirez & Tiplic, 2014), resulting in 'enterprization' of higher education institutions (Skelton, 2009) and the global rankings movement of universities (Brusoni, Damian, Sauri, Jackson, Kömürçügil et al., 2013). However, within the excellence context, rewards systems have strongly favoured publications (Turner & Gosling, 2012), to the point where an 'overwhelming dominance of the research agenda' results in a lowered status of teaching (Young, 2006). In the last few years, there has been a re-emergence of the discourse around teaching excellence in Europe to rebalance what has been a dominant rhetoric of excellence in research (Gunn & Fisk, 2013).

National recognition and reward systems to promote excellence in teaching have now been established in several European countries (Raaheim & Karjalainen, 2012). For instance, in Great Britain a national initiative for Centres for Excellence in Teaching and Learning was established in 2004, and 74 centres were selected and received significant recurring funding for a five-year period (Turner & Gosling, 2012). In Norway, a bidding and assessment process took place in 2013, and as a result three out of 24 applicants were selected as Centres of Excellence in Education (NOKUT, 2013). Each of these units receives 3M NOK (300–350 k€) annually for a five-year period. In Finland, five selection rounds took place between 1998 and 2012, and a total of 88 units were designated as Centres of Excellence in University Education (Hiltunen, 2009). Such evaluations provide information on the pedagogical decisions, teaching processes and outcomes of an institution, and they may serve as starting points for long-term development of educational processes (Kettunen, 2011).

While local dissemination has taken place, systematic analysis of the content of the award applications has been scarce. As Raaheim & Karjalainen (2012) point out, the authentic applications are a precious resource and should be actively used in the development of teaching. Best practices, such as the ones found in these applications, can be seen as road maps in higher education's global hunt for excellence (Ramirez & Tiplic, 2014). In the present study, I approach this research gap through the analysis of award applications of the 2010–2012 round of the Finnish Centres of Excellence competition. The following research question is addressed:

Which practices can be identified in the applications of Centres of Excellence in Finnish university education during the period 2010–2012?

The applications are analysed using qualitative data analysis software. The practices presented by the applicants are classified according to the European Foundation for Quality Management (EFQM) Excellence criteria. Similarities and

dissimilarities between the cases are compared, and implications for how the quality units have organized their education are drawn based on the analysis and compared with previous research of excellence in higher education.

Excellence in higher education

The concept of excellence has made its way into higher education discourse in the 21st century. The notion of excellence has been a source of confusion (e.g. Gosling & Hannan, 2007), particularly whether it is exclusive, meaning only a select few can be excellent at a given time, or whether the concept is 'bleached', meaning it is attainable to everyone and refers to performance above a given standard (Allan, 2007). On one hand the rise of the concept of excellence has helped in driving enhancement, but on the other hand it can be carelessly used in politics, leading to unrealistic expectations for institutions of higher education (Brusoni et al., 2013). According to Gunn & Fisk (2013), teaching excellence is divided into three clashing discourses:

1. Cynicism: teaching excellence is a facet of neoliberalism and part of an agenda aimed towards a consumerist view of higher education.
2. Pragmatism: focus on policy—how to implement and demonstrate teaching excellence in a way to satisfy all stakeholders.
3. Aspirationalism: genuine drive towards enhancement of teaching that is based on practice and supported by student/staff-led teaching excellence reward mechanisms.

The most common excellence framework in Europe is the EFQM Excellence Model used by over 30,000 European organizations (EFQM, 2012). This is a frame of reference that enables an organization to assess their performance according to criteria determined in the model (Heras-Saizarbitoria et al., 2011). Its evaluation criteria consists of five enablers categories and four results categories. The categories are further divided into subcriteria (EFQM, 2012) and follow the idea that in an excellent orientation, enablers drive the results (Nabitz et al., 1999). The EFQM criteria have been applied across numerous fields, including higher education (i.e. Davies, 2008; Hides et al., 2004; Tari & Madeleine, 2011)

The US equivalent of the EFQM model, the Malcolm Baldrige model, has been adapted for education as the Education Criteria for Performance Excellence. On the criteria level, it consists of Leadership, Strategy, Customers, Measurement, Analysis and Knowledge Management, Workforce, Operations and Results (Baldrige Performance Excellence Program, 2015). It has become a powerful means for performance excellence in education, however it has been criticized as too generic and not providing specific guidelines for its users (Asif et al., 2013).

Skelton (2009) presents a personal view of teaching excellence in higher education. It involves developing a personal teaching philosophy, constantly striving to realize one's educational values in practice and seeing excellence as a moral category, i.e. reflecting what is morally defensible and contributing to the good of society. On an institutional level, he suggests that teaching excellence resides in the material conditions underpinning high-level teaching and that it is about generating pluralistic deliberate cultures in which pedagogical theories, values and policies can be shared and academic practices are integrated in a mutually reinforcing way.

Viewing excellence as a standard for high performance, the seminal seven principles by Chickering and Gamson (1987) can be seen as a guideline for what excellent higher education should account for:

1. encourages contacts between students and faculty
2. develops reciprocity and cooperation among students
3. uses active learning techniques
4. gives prompt feedback
5. emphasizes time on task
6. communicates high expectations
7. respects diverse talents and ways of learning.

Research method

The primary data source used in this analysis was the publication *Centres of Excellence in Finnish University Education 2010–2012* (Hiltunen, 2009). This book presents the quality award applications of the ten units that were chosen as

Centres of Excellence out of 44 applicants for the time period 2010–2012. The applicants were asked to submit a ten-page application, including a statistical supplement of 1.5–2 pages, using the following structure:

1. Mission of the unit
2. Programme and course design
3. Delivery of education
4. Outputs
5. Continual development.

The award winners were chosen based on their application and a site visit by an international expert panel. The process is described in more detail in Hiltunen (2009). The applications were analysed using qualitative data analysis software. In the process, all documented evidence of practice was coded in a standard quality award evaluation manner. Additionally, the practices were classified using the ‘enablers’ areas of the European Excellence criteria in order to create a clearer profile of the units. The headlines given in the award contest call were not used, as the units had not strictly adhered to the structure. A total of 410 nodes were coded ranging from 33 to 60 per unit. The coded nodes were then summarized, both for each individual unit and for each enabler criterion. The results were compared to highlight common areas and differences between the units and were compared with earlier research findings on the topic.

Results

The coded practices (410 in total) were each classified according to the Enablers area of the EFQM Excellence Criteria and were condensed into a tabular format. These profiles are presented in Appendix 1. A synthesis of the practices related to each Enabler area is presented below along with a summary of the most common practices.

Leadership

According to the EFQM Excellence model, in excellent organizations leaders drive the development of the organization’s strategic base, management system and change management. They act as role models and engage with stakeholders (EFQM, 2013). Very few direct references to leadership-related practice were found in the analysis as decision making was presented as a result of committees and working groups or part of the organization, such as the Medical R&D Centre in the Turku Faculty of Medicine.

Some examples of leadership practices included professors supervising M.Sc. theses, thus also communicating with stakeholders, and even professors tutoring students with their personal study plans. Practices, such as regular meetings with students or staff, were also presented.

Strategy

By EFQM’s definition, excellent organizations develop a stakeholder-focused strategy based on its mission and vision. Policies, plans and processes are deployed based on the strategy (EFQM, 2013). From an excellence in education perspective, this was seen as how the goals and overall content of the study programmes are formed and what structures are used in deployment.

The strategic process was described in a similar manner in most of the applications. Degree requirements are discussed in a committee, such as an appointed one, or monthly team meetings and often further discussed in development seminar-like events in which students and stakeholders may participate. In several cases a core content analysis or similar assessment was performed for the whole programme, describing the overall content and interdependencies between study modules and courses, and then deployed to a course level. A few applicants demonstrated a strategic idea behind core content, such as DAS-formalism, CAT/RAT/MOUSE or pillars of education. International standards were also used as a basis for programme design.

Some applicants demonstrated a regular process of programme-level analysis and improvement, while in others strategic-level planning of the whole programme was based on outside impulses, such as the Bologna process or changes in their field of education.

People

Excellent organizations create a mutually beneficial culture for achieving personal as well as the organization's goals. Fairness and equality are promoted, and people's capabilities are developed (EFQM, 2013).

Pedagogical competence and training of the staff were mentioned in some form in all of the applications. Many reported organizing their own training, often working with another unit of the university. A 'researchers teach' policy was reported by many; also, 'teachers research' along with organizing research periods for teaching staff was mentioned by some applicants. One unit had introduced a teacher forum after the unit was formed from three smaller ones.

Some units mentioned strategic recruitments to support education. These included international study coordinators, recruiting professors to new areas discovered through strategy work and staff or professors dedicated to pedagogical activities.

Reward systems for achievements in teaching and its development were mentioned: public distinguishment for development of education, prizes and public credit for staff or students for excellence in education and awarding credits for students for participation in development work.

Partnerships & resources

In excellent organizations, external partnerships, suppliers and internal resources are managed in a way that supports the delivery of strategy. Societal and environmental impacts are effectively managed (EFQM, 2013). For excellence in education, environmental impact is not particularly relevant. Most practices related to this area were connected to partnerships, both academic, and with industry and other non-academic stakeholders. Some practices were related to educational resources, such as laboratories and student workspaces.

Presented modes of national and international educational research networking included participation in educational research groups and organizing educational conferences. The most common ways of organizing international student activity were study programmes and summer schools. Examples of partnership involvement included having stakeholder representatives in various planning groups and committees and participation in national and international committees and consortiums.

Training periods were supported by allocating support resources, and some units had established training centres, such as health centres. Thesis work and supervision were seen as good ways to interact with stakeholders and gather data about the relevance of the studies. The practice of organizing regular alumni meetings was mentioned by some units as a way to interact with graduates.

Students actively participate in various committees and working groups; in some units they are actively integrated into the unit's research starting from the beginning of their studies. One applicant also presented a practice of having a representative in the student association meetings.

Study support resources included support resources for training, e-learning and providing students with study spaces located within the unit's premises.

Processes, products and services

According to the EFQM, processes, products and services are designed to generate increasing value for customers and other stakeholders (EFQM, 2013). In this study this was interpreted as the educational processes, courses as products and supporting services.

Many applications highlighted practices related to teamwork and small group learning, sometimes integrated with project work with an outside client organization. Practical exercises, problem-based learning, integrated training periods and generally not basing teaching on literature examinations were also demonstrated as good practices. Regular reflection and feedback throughout studies were mentioned several times, sometimes connected to portfolio work.

Most units reported having defined course learning objectives and prerequisites as a continuum to strategic-level core analysis. Some reported that these objectives are presented at the beginning of each course.

Several units mentioned practices related to learning researcher skills, such as the use of scientific articles as course material; observation and participation in the unit’s research projects, method and scientific writing courses; and the use of a unit’s courses as data collection pools.

The supervision of master’s theses was mentioned as a source for measuring competence requirements and a driver for improvement actions. Some units used thesis projects to improve their education. University-level metrics, such as the number of graduates, study progress and graduate feedback, were also used as metrics. A teaching development team, often working on a monthly schedule, was mentioned as the driver of continuous improvement in some applications. Most centres mentioned having a regular, often annual, feedback seminar with students and staff as well as the use of an electronic feedback system to collect course-specific feedback.

Support methods for integration included student peer tutoring, teacher tutoring and the creation and monitoring of personal study plans. Many units had developed an orientation course for new students for introducing learning skills and motivating the students through real-life practical demonstrations of their potential future work. One unit mentioned having developed a quality manual-like document for introducing new students to their practices. Several units also mentioned having developed assessment tools for e-learning or blended learning courses as well as assessment manuals in order to communicate and standardize requirements for both students and staff.

Most common practices

A summary of the practices most often mentioned in the applications is shown in Table 1 along with the number of times the practice was mentioned in the ten applications. All practices with four or more mentions were included in the table.

Table 1. The most common practices found in the analysis

Practice	N	Practice	N
A steering committee for the study programme(s) is in place	8	An e-learning-support resource has been established	5
Feedback sessions involving staff and students are held at regular intervals	8	Students participate in committees and working groups	5
Analysis of core content, workload and learning objectives has been performed	7	The unit organizes pedagogical training for teaching staff	5
Researcher training is included in the studies	7	The unit participates in international educational research	5
Stakeholders are involved in the planning of degree requirements	7	A ‘researchers teach’ policy is in place	4
The unit has developed tools, manuals or guidelines to support assessment	7	A development seminar is held at regular intervals	4
A web-based regularly used feedback system is in place	6	A project course with teamwork and an outside client has been established	4
An orientating skill course has been developed	6	A teacher-tutoring system has been established	4
Regular feedback is collected in forms of, e.g. career surveys or working life feedback	6	Indicators have been defined and are regularly used to measure progress	4
The unit organizes international summer schools or educational programmes	6	Students compile personal study plans and progress is followed	4
A resource for vocational training support has been established	5		

Discussion

The results of the analysis present a view on how Finnish excellent university education units organize their teaching processes. While there are differences between units and disciplines, Table 1 in the previous section shows that certain elements common to Finnish higher education exist. The results can help enhancing teaching excellence by making the good practices described in the centres’ applications more explicit; this places the present study in the aspirational discourse rather than in the political or cynical ones presented by Gunn and Fisk (2013).

Analysis of the most common practices

The typically Finnish activities of having a regular, usually yearly, feedback session with staff and students and having some type of teaching steering committee were both mentioned eight times. Four units also mentioned having regular planning and development events. Having these types of forums can advance the creation of a pluralistic, deliberate educational culture (Skelton, 2009). Most mentioned collecting feedback electronically and collecting graduate feedback, and some had defined indicators that were regularly used to monitor progress. This is in line with Bråten's (2014) observation that both Norwegian and international excellence units have advanced quality assurance systems and constantly evaluate teaching and learning. Having these types of systems in place also supports the EFQM's excellence concept of linking enablers and results.

Student participation in development activities was suggested by Raaheim and Karjalainen (2012) as a common denominator between successful units and was mentioned by half of the study population. This also supports Chickering and Gamson's (1987) point of encouraging contact between students and faculty. As student participation in faculty committees and other activities is a regular practice in Finland, it is possible that some units left it unmentioned due to it lacking 'excellence merit'.

The observation of Raaheim and Karjalainen (2012) that successful units share a 'research-based approach' to teaching and learning was supported by the inclusion of researcher training in the studies by a majority of the units as well as half the units reporting participation in pedagogical research. Several units also reported having a 'researchers teach' policy in place. This supports the finding of Bråten (2014), who observed the presence of a strong academic foundation in Norwegian, Swedish and Finnish units of excellence. Skelton's (2009) view that different aspects of academic practice should be integrated in excellent teaching and Chickering and Gamson's (1987) principle that good practice uses active learning techniques relate to these practices as well. The idea of researchers teaching and teachers researching (and even allowed research periods) correlates to Skelton's (2009) idea that proper material conditions for teachers are a prerequisite for high-quality teaching.

Most units mentioned having defined core contents, workload and learning objectives for courses, usually in the context of the Bologna process. The same number of units also mentioned having stakeholders involved in the curriculum process. This was also observed by Raaheim and Karjalainen (2012), stating that successful units are typically more open to society. Bråten (2014) also identified external orientation and cooperation with stakeholders to ensure relevance as a common characteristic of excellent educational units. Applying these definitions in practice reinforces the 'time on task' principle of Chickering and Gamson (1987).

Seven units had developed some kind of assessment-supporting tools or instructions, and many had established resources or support systems for training, e-learning and thesis work. Peer tutoring, teacher tutoring and the construction and monitoring of personal study plans were mentioned in many applications. This is another common Finnish practice that possibly some units omitted because it was viewed as not adding excellence merit. These findings correlate with Bråten's (2014) that centres of excellence focus on supporting learning processes and with Chickering and Gamson's (1987) principle of giving prompt feedback.

Bråten's (2014) finding of centres of excellences' close cooperation with industry, municipalities and other stakeholders is highlighted in curriculum cooperation, training and theses, and many units mentioned organizing project courses with outside clients and student teamwork. The teamwork aspect also promotes the 'reciprocity and cooperation among students' principle of Chickering and Gamson (1987). This principle is also supported by the practice of having orientation studies in the first year that focus on learning skills and motivating through early practical involvement as mentioned by six units. Integration with the social environment and the value of orientation studies in regard to student retention has also been recognized by Murtaugh et al. (1999) and Wilcox et al. (2005). The 'communicates high expectations' principle of Chickering and Gamson (1987) can also be included in these motivation-building orientation studies.

Bråten (2014) reported a high degree of internationalization as a common denominator of the Norwegian Centres of Excellence. Also, most of the Finnish units highlighted international cooperation in the form of organizing international seminars, summer schools, consortium memberships and international study programmes.

Half of the units reported organizing pedagogical training for their staff. The statement of Raaheim and Karjalainen (2012) that ‘in successful units a large proportion of the academic staff has taken courses in university pedagogics’ was not visible in all the applications. Bråten (2014) did not report organizing training as a common factor in Norwegian units of excellence but rather that all the units had excellent and merited teachers in their staff.

Further discussion of the results

Academic leadership is discussed in several models and analyses of excellence; however, it was not strongly present in the results. Possible explanations are that the call for applications did not emphasize leadership or that the national tradition of organizing education does not emphasize it but rather emphasizes an expert organization’s way of shared leadership. Gunn and Fisk (2013) point out that in the literature academia generally views distributed leadership as ‘better’ than industry-based commandeering leadership.

The seventh principle of Chickering and Gamson (1987), ‘Respects diverse talents and ways of learning’, was visible in some places, for example, through personalized study plans and portfolio work mentioned in some applications, but it was not prominently displayed by any means. Skelton’s (2009) teacher-based view of excellence includes personal values and moral categorization of excellence. These personal and cultural values are difficult to demonstrate through practical examples but nevertheless can be crucial for genuine excellence in teaching.

The results can also be compared with frameworks for excellence or quality in higher education. Gunn and Fisk (2013) suggest four elements for developing a teaching-excellence taxonomy: ‘Achieving educational demands on universities’ relates to demonstrating excellent learning outcomes in relation to educational demands and was well demonstrated by the analysed units. ‘Excellent structures’ refers to approaches promoting excellence, of which there was some evidence, such as student participation, improvement activities and reward mechanisms. ‘Demonstrating individual excellence’ was present in forms of feedback, scholarship related to teaching and participation in development work. ‘Quality of evidence’ regarding individual teacher excellence was not particularly prominent, apart from mentions of pedagogical skill, as the applications tended to focus on the teacher workforce as a whole and on courses rather than the individual responsible teachers.

The dimensions of quality by Owlia and Aspinwall (1998) consist of Academic Resources, Competence, Attitude and Content and a total of nineteen underlying characteristics. The Content and Competence dimensions were well represented in the applications. The Academic Resources dimension was supported by some evidence in the applications but not in much detail. Attitude was not directly present in the applications, possibly because it was not mentioned in the call and also providing evidence is difficult without a particular student survey.

The results of this study, as well as the original applications, are not a comprehensive guide to organizing the education of an academic unit but rather could be used as part of a holistic framework of quality, like the EFQM model, or higher education models, such as the ones by Chickering and Gamson (1987), Owlia and Aspinwall (1998) or Kok and McDonald (2015). This study supports these frameworks by presenting practices related to their dimensions and employed by Centres of Excellence.

The EFQM Excellence criteria were used as the classification framework in this study. Asif et al. (2013) state that the EFQM model’s equivalent Baldrige has become a powerful means for performance excellence in education but has been criticized to be too generic and thus not providing specific guidelines for its users. This is a common criticism for excellence models, and the present study supports implementation by providing examples of good practice related to different areas of an excellence model.

This study was focused on practice, but the role of metrics and indicators should not be forgotten. A sample set of metrics to support excellence is proposed by Asif et al. (2013). They also suggest that a good basis for a management system could be a hybrid approach of self-assessment, audits and benchmarking and that future educational excellence models could support this idea.

Gunn and Fisk (2013) state that their literature review of university teaching excellence implies it cannot be universalized. This is caused by differences between disciplines and differences between higher education sectors in general. The results of the present study suggest that within countries or between countries with a similar cultural

background (Finland and Norway in this case) certain common elements exist between units deemed excellent. Possibly within a certain cultural context, it could be possible to create a framework of current excellent practice in higher education.

Conclusion

The concept of excellence has surged in popularity in the 21st century discourse of the performance of higher educational institutions. Excellence in research has somewhat dominated funding, with possible adverse effects on the quality of education. To counter this, several countries have established award and funding schemes for excellence in teaching. This study aims to contribute in the research area of teaching excellence through the analysis of practices of the Centres of Excellence in Finnish university education 2010–2012. In the study, the applications of the ten award-winning units were analysed using qualitative data analysis software, and all practices presented by them were coded using the EFQM Excellence criteria as the analysis framework. The results were summarized both for each unit and for each enabler area of the EFQM criteria. A comparison between the units and with previous research of excellent practice in higher education was performed.

Even though variance between units could be clearly seen in the results, certain practices common to most units could be identified. These include quality assurance -related practices, such as regular feedback events with staff and students, having a teaching steering committee and having various feedback systems in place. A majority of units reported having researcher training as part of their study programme. Most units had performed a core analysis of the contents of their education and had developed tools or instructions to support assessment. The participation of stakeholders and students in a diverse range of activities, particularly development work, was also a common factor.

A comparison of the results with earlier research on units of excellence and teaching excellence in general demonstrated significant similarities with the Norwegian Centres of Excellence, suggesting that common good practice could be interchangeable within culturally similar Nordic areas. Reflecting against other work on teaching excellence similarities could be found, but ‘softer’ organizational and personal activities are hard to demonstrate through examples of practice, and more holistic frameworks are needed to support inventories of best practice.

This study contributes to the field of teaching excellence by presenting a systematic analysis of a sample of teaching excellence units. The results can be used in practice to benchmark a unit’s practices against those demonstrated by teaching units deemed excellent by an international panel.

As the research was scoped to be based on the applications, the listed practices do not give a comprehensive overview of all the processes of the examined units. Also due to the geographic focus on Finland, the practices may not be directly transferrable to significantly different educational cultures. Even though it can be assumed that the application text corresponds with reality and was further reinforced by site visits by the evaluation panel, it is still possible that ‘game playing’ is involved in writing award applications or that important practices have been left out from the text by accident or due to being viewed as too mundane to mention in an excellence award application.

Future topics of study include a further analysis of the existing material related to units of excellence, as currently there are few studies on the topic. The analysis could be reinforced with follow-up studies as well as by gathering additional data on the units in order to get a more complete view on their operations. Another topic could be to perform a similar study in a different educational context and compare the results.

References

- Allan, K. L. (2007). Excellence: a new keyword for education? *Critical Quarterly*, 49(1), 54-78.
- Asif, M., Raouf, A. & Searcy, C. (2013). Developing Measures for Performance Excellence: Is the Baldrige criteria sufficient for performance excellence in higher education? *Quality & Quantity*, 47, 3095-3111.
- Baldrige Performance Excellence Program. (2015). 2015–2016 Baldrige Excellence Framework: A systems approach to improving your organization's performance (education). Gaithersburg, MD: U.S. Department of Commerce, National Institute of Standards and Technology.

- Bråten, H. (2014). Searching for the Holy Grail—Excellence in Teaching and Learning in Norway. A Study of Centres of Excellence in Education (SFUs). Presented at EAIR 36th Annual Forum, Essen, Germany.
- Brusoni, M., Damian, R., Sauri, J. G., Jackson, S., Kömürçügil, H., Malmedy, M., ... & Zobel, L. (2014). The Concept of Excellence in Higher Education. Belgium: ENQA.
- Chickering, A. W., & Gamson, Z. F. (1987). Seven Principles for Good Practice in Undergraduate Education. *AAHE Bulletin*, 39(7), 3-7.
- Davies, J. (2008). Integration: Is it the key to effective implementation of the EFQM Excellence Model? *International Journal of Quality and Reliability Management*, 25, 383-399.
- EFQM. (2012). An Overview of the EFQM Excellence Model. Brussels: EFQM.
- Gosling, D. & Hannan, A. (2007). Responses to a Policy Initiative: The case of Centres for Excellence in Teaching and Learning, *Studies in Higher Education*, 32(5), 633-646.
- Gunn, V. & Fisk, A. (2013). Considering Teaching Excellence in Higher Education. York: The Higher Education Academy.
- Heras-Saizarbitoria, I., Casadesus, M. & Marimon, F. (2011). The Impact of ISO 9001 Standard and the EFQM Model: The view of the assessors. *Total Quality Management & Business Excellence*, 22, 197-218.
- Hides, M., Davies, J. & Jackson, S. (2004). Implementation of EFQM Excellence Model in the UK Higher Education Sector—lessons learned from other sectors. *The TQM Magazine*, 16, 194-201.
- Hiltunen, K. (Ed.) (2009). Centres of Excellence in Finnish Higher Education 2010–2012. Finnish Higher Education Evaluation Council, Finland.
- Kettunen, J.M. (2011). Evaluation of the Centres of Excellence in Higher Education. *Tertiary Education and Management*, 17(2), 151-161.
- Kok, S.K. & McDonald, C. (2015). Underpinning Excellence in Higher Education—An investigation into the leadership, governance and management behaviours of high-performing academic departments. *Studies in Higher Education*.
- Murtaugh, P.A., Burns, L.D. & Schuster, J. (1999). Predicting the Retention of University Students. *Research in Higher Education*, 40(3), 355-371.
- Nabitz, U.W. & Klazinga, N.S. (1999). EFQM Approach and the Dutch Quality Award. *International Journal of Healthcare Quality Assurance*, 12, 65-70.
- NOKUT. (2013). Assessment finalists and feedbacks. [On-line]. Available: http://www.nokut.no/Documents/NOKUT/Artikkelbibliotek/UA-enhet/SFU/Soknader_2013/Feedbacks/Assessment_finalists_and_feedbacks_2013.pdf.
- Owlia, M.S. & Aspinwall, E.M. (1998). A Framework for Measuring Quality in Engineering Education. *Total Quality Management*, 9(6), 501-518.
- Raaheim, A. & Karjalainen, A. (2012). Centres of Excellence in University Education—Finland 1999–2012. An evaluation. Finnish Higher Education Evaluation Council, Finland.
- Ramirez, F.O. & Tiplic, D. (2014). In Pursuit of Excellence? Discursive patterns in European higher education research. *Higher Education*, 67, 439-455.
- Rostan, M. & Vaira, M. (2011). Questioning Excellence in Higher Education: An introduction. Rotterdam: Sense Publishers.

Skelton, A.M. (2009). A 'Teaching Excellence' for the Times We Live In? *Teaching in Higher Education*, 14(1), 107-112.

Tari, J.J. & Madeleine, C. (2011). Preparing Jordanian University Services to Implement a Quality Self-Assessment Methodology. *International Review of Administrative Sciences*, 77, 138-158.

Turner, R. & Gosling, D. (2012). Rewarding Excellent Teaching: The translation of a policy initiative in the United Kingdom. *Higher Education Quarterly*, 66(4), 415-430.

Wilcox, P., Winn, S. & Fyvie-Gauld, M. (2005). 'It was nothing to do with the university, it was just the people': The role of social support in the first-year experience of higher education. *Studies in Higher Education*, 30(6), 707-722.

Young, P. (2006). Out of Balance: Lecturers' perceptions of differential status and rewards in relation to teaching and research. *Teaching in Higher Education*, 11(2), 191-202.

Appendix 1. Summaries

University of Helsinki, Department of Computer Science

At the time of the application, the Department had a student intake of 169, and staff consisted of 12 professors, 28 other teaching staff members and 56 other personnel. In addition, adjunct professors provided 48 hours of teaching.

Table 1. Summary of practices from the application of the Department of Computer Science

Leadership
The Head of Studies is a full-time post with duties for coordinating, recruitment, writing and maintaining instructions for studies and the operation of the teaching quality system.
Strategy
Degree requirements are discussed at least once in the department steering committee and staff meetings. They have been frequently reviewed due to fast development of the field. The degree contents are developed in department-wide discussions involving students and all the teaching staff.
People
The department has a working principle stating that all researchers have a teaching responsibility. They also act as teacher tutors. Junior teachers are employed to assist the head teachers on large courses, including students that have advanced well in their studies. Their teaching hours are organized in a way that doesn't hinder studies. The unit has a policy of circulating tasks at appropriate intervals. Pedagogical studies and teaching experience are accounted for in recruitment. The teaching staff has carried out international educational research in addition to internal reporting.
Partnerships & Resources
The students are represented in the steering group, the teaching development committee, annual strategy seminars, objective negotiations and temporary committees. A department representative takes part in the student association board meetings. Students are provided with premises, an IRC server for tutoring and peer support and an annual sum for improving the learning environment.
Visiting lectures and short courses given by foreign lecturers are organized regularly (twelve during academic year 2007–2008). A colloquium course has been particularly popular, attracting an audience of 150–200 students. The department runs its own Moodle server, and a full-time employee provides support for web courses.
Processes, Products and Services
The operations and operational policy have been documented in detail in a quality manual. The entire teaching staff has been provided with copies of the University Teacher's Manual. The committee for the development of teaching organizes development projects, student tutoring and pedagogical studies for the teaching staff. Learning objectives have been defined for all study modules, and an assessment guidebook has been developed to support assessment of principal themes and methods. The interdependencies between modules are described to the students, including a recommendation for the sequence of courses. A separate working committee has been established to improve virtual teaching. Development work is systematically monitored, and progress is published. Feedback is collected through, e.g. personal study plan counselling (given to students throughout their studies) and study plan portfolios and in teacher–student discussions organized during each term. At the end of each course, feedback is collected from students and the head teachers and a web-based form is at the teachers' disposal. The feedback is reviewed in review discussions with immediate superiors and Head of Studies. Advisors keep track of advisee progress in a thesis database, and special graduate clinics have been set up in order to help certain students finish their studies. Several yearly training and theme days are organized, and part-time teachers participate in training at least twice yearly. In the introductory course, students are familiarized with net-based and face-to-face cooperative learning. Later studies include a course where student groups plan and make a product together with a client.

University of Helsinki, Faculty of Pharmacy

At the time of the application, the Faculty had a student intake of 20, and staff consisted of 14 professors, 30 other teaching staff members and 43 other personnel. In addition, adjunct professors provided 159 hours of teaching.

Table 1. Summary of practices from the application of the Faculty of Pharmacy

Leadership
The Faculty invites the whole staff to a morning coffee meeting with the Dean three times a term.
Strategy
The Faculty's values, strategic choices, personnel policy and operations manual are based on the University's strategy. Action plans for teaching and research are created based on strategic planning. Educational policies and objectives are prepared by the academic committee and approved by the faculty council. Educational strategy is based on constructive alignment, and a strand-based curriculum is chosen based on studies and surveys by teachers and students. It is supported by participation in a learning outcomes project, developing the strand on scientific thought and professional growth and by doctoral studies. Functionality of the degree programme is assessed with a learning experience survey.
People
All researchers have a minimum teaching obligation. A lecturer specialized in university pedagogy supports teaching staff and development and is involved in the Faculty's in-house university pedagogy training. Over a third of the Faculty's 120 teachers and researchers have completed courses and studies in pedagogy. Interaction between teachers is enhanced by organizing Teacher Forum events and campus-level teacher meetings. A student, an employee or a working group is awarded yearly for distinguishment in the development of education.
Partnerships & Resources
During the degree reform, interest groups were interviewed, and the degree and learning objectives were created in collaboration with students, other national and international pharmacy teaching units and labour market representatives. Employer cooperation has been enhanced through a working group for training and appointing a university instructor. During orientation, employer representatives interact with the new students. The teachers participate actively in joint international education development meetings, and the Faculty has increased its international activities, particularly in advanced and postgraduate studies with partner universities. A learning centre has been provided for students, and a specialist in web-based education supports the use of ICT. Divisions and students can apply to the Academic Committee for educational development project funding.
Processes, Products and Services
Course objectives are defined together with curriculum core analyses and updated at least every three years. The learning objectives are listed in the course catalogue and explained in the beginning of each course. Teachers are required to develop courses and evaluation based on the core analyses and feedback. Guidelines and strategic progress is evaluated in the Academic Committee, biannual student feedback meetings and the Faculty's development seminar. Research on education is carried out in the Faculty. Training periods have been integrated with studies, and feedback is collected to monitor them. Academic skills are developed from the beginning of studies, including use of scientific research articles, integrating theses with research projects, learning academic writing and small-scale research project work in real-life environments. Feedback is given each term through Faculty's electronic feedback system, teachers give counter-feedback, including development measures, and feedback is discussed in the twice-yearly feedback event. Students are introduced to self-guiding learning and study cycles, and their personal development is evaluated through personal feedback on, i.e. exercises and reports, training and their personal study plan. For theses, evaluation matrices are discussed upon initiation as well as expectations and learning objectives. A peer support group led by a counselling psychologist has been organized for delayed graduates.

Helsinki University of Technology, Department of Computer Science and Engineering

At the time of the application, the Department had a student intake of 169, and staff consisted of 12 professors, 11 other teaching staff members and 37 other personnel. The statistics on teaching given by adjunct professors were not available.

Table 1. Summary of practices from the application of the Department of Computer Science and Engineering

Strategy
The minimum subset of graduates' competences is defined in a joint committee, using an international reference. All study modules were analysed and revised in 2004–2005 and incrementally updated since. Other degree programs are communicated with during changes. Each major subject is reviewed and updated yearly by the supervising professors. Core topic and workload analysis has been carried out for all basic and intermediate-level courses. The policy is that responsible teachers are given considerable freedom in organizing their courses within boundaries, but formal procedures support maintaining good practices in the long term.
People
When the unit was recently formed from three laboratories, a new practice was started in which teachers get together monthly to discuss education and socialize with each other. Teachers actively follow international research on teaching and learning their subject matter, which is seen to be a key factor in the quality of education. Best courses and teachers are given public credit.
Partnerships & Resources
Being one of the largest computing education research groups, the unit is strongly involved in developing one of the top conferences of the field and has organized a national engineering education conference. The unit collaborates actively both nationally and locally, organizing joint graduate schools, coordinating a programming education network and adopting specialized learning environments. The student guild is represented in informal and formal education committees.
Processes, Products and Services
Research projects provide topics for M.Sc. theses and students' team project works. All students are required to take a software development project, which consists of a year of teamwork. Both quantitative and qualitative research method courses are offered as well as a doctoral specialization in computing education research. The larger courses are utilized for data collection, and the research results are utilized to aid improvement. Automatic assessment tools are used for activation in all large programming courses, providing immediate feedback. The program has a feedback system coordinated by a feedback committee, and questionnaires are published for all courses at the end of the semester. A department wide full day seminar for discussing quality and best practice in education has been organized.

University of Lapland, Department of Social Work

At the time of the application, the Department had a student intake of 81, and staff consisted of 8 professors, 11 other teaching staff members and 10 other personnel. In addition, adjunct professors provided 48 hours of teaching.

Table 1. Summary of practices from the application of the Department of Social Work

Strategy
Resource use and planning of study programmes are based on continuous assessment and development, based on monthly unit-level meetings and supported by links to other faculties and university administration, and two to three times per year by staff development days. The curriculum work draws from national directions and developments and by expert assessments on future labour needs. Examples of innovative developments include introducing the science of rehabilitation into the curriculum and leadership psychology to administrative sciences.
People
Methods to improve the capacity of the staff include organizing research periods, activating them to engage in further education and maintaining a development encouraging workplace atmosphere. The unit's researchers teach and teachers do research. Every staff member reports their activity annually, which enables keeping skills profiles up to date. An academic chair specializing in Russian competence has been established to support cooperation with Russia and the Baltic states.
Partnerships & Resources
The unit nationally coordinates the network university of social work and cooperates with other universities in curriculum design. Regionally, the unit coordinates the Centre of Expertise in Social Welfare. To reinforce lifelong learning, effort has been invested in a Third Age University, which has been the only one in the country to award a doctoral degree. International graduate and postgraduate education cooperation takes place through several collaborative projects, research cooperation, expert duties and student and teacher exchanges. Postgraduate education has particularly been focused on transition countries. For ten years the unit has hosted an international summer school for close to 100 participants with the University of Vermont.
Processes, Products and Services
All phases of basic degree education include field practice and contact teaching in small groups. Combining face-to-face and online teaching has been found to be particularly beneficial, especially online help service, assignment feedback and assessment. Students have laptop computers provided by the university. Course work is assessed in a plethora of ways. Teaching draws on the two-teacher model. Student guidance, including teacher-tutoring, is personal and systematic, and the progress of personal study programmes is regularly monitored. Guidance in rehabilitation science and master's programmes has been developed into portfolio work. An online feedback system is in place, and the anonymous feedback can be read by everyone. Additional feedback is collected through personal guidance, additional assessment methods, university career surveys, student participation in development work and faculty-level feedback sessions. A model named 'quality bridge' combines assessment by students, teachers, employers and alumni.

Lappeenranta University of Technology, Department of Industrial Management

At the time of the application, the Department had a student intake of 243, and staff consisted of 14 professors, 69 other teaching staff members and 23 other personnel. In addition, adjunct professors provided 16 hours of teaching.

Table 1. Summary of practices from the application of the Department of Industrial Management

Strategy
Curriculum planning takes place on strategic and operative levels. The strategic part takes place in the steering committee for curriculum design and a two-day annual development workshop involving both staff and students. The operational design is done by a curriculum committee in three yearly scheduled meetings and by responsible professors and teachers. In addition to these, the evaluation and development cycle includes Home Circle meetings and monthly management committee meetings. The pedagogical development of instruction has resulted in a strong emphasis on a student-oriented approach. The development of instruction has an annual schedule similar to curriculum design.
People
The development of instruction is supported by arranging tailored pedagogical training provided by a third party. A professorship with duties involving industrial management pedagogy has been established. Nearly all teaching staff has participated in pedagogical training.
Partnerships & Resources
The unit operates in regional units in two university consortiums and participates in multidisciplinary research in three of the university's independent research units. An innovation-related summer school brings together students from three renowned Russian universities. A large number of studies are offered to other departments and in twenty continuing education courses and programmes. Education is supported by resources, such as a research-based Group Design Support Systems laboratory, Voter equipment and the Blackboard online learning environment. Home Circle is a systematic way to cooperate with the student association. It meets thrice a year and is composed of student representatives and the department's management committee.
Processes, Products and Services
The supervision of M.Sc. theses is an important channel for accruing information on graduates' competence requirements; it is supported by annual graduate feedback and a follow-up five years from graduation. Feedback beyond five years is acquired through the university's alumni activity. Students receive guidance, particularly via individual study plans and teacher and peer tutoring. A quality manual 'Rules of the Game' has been designed to ease students into their studies, and all students take an introductory course on studying industrial management. The web-based manual 'Thesis Roadmap' aids students in planning and completing their thesis work. Approximately one hundred international students participate in the unit's international business and technology management programme annually. Core content and workload analysis has been done for all courses, and courses are linked to each other with prerequisites. Only four courses are purely based on a literature examination, and thirteen courses apply lecturing as the sole mode of teaching. General education improvement needs are recognized by systematically monitoring information from university-level online indicators, related reports and collecting course-specific feedback using a defined policy and feedback system.

University of Oulu, Department of Process and Environmental Engineering

At the time of the application, the Department had a student intake of 84, and staff consisted of 9 professors, 25 other teaching staff members and 59 other personnel. In addition, adjunct professors provided less than 100 hours of teaching.

Table 1. Summary of practices from the application of the Department of Process and Environmental Engineering

Strategy
Education is based on a concept called DAS-formalism, consisting of descriptive, analytical and synthetic phases, through which education in all orientations is carried out. This approach ensures that the studies concentrate on engineering from the beginning instead of the conventional approach beginning with natural science studies. The M.Sc. programmes are based on a module-based 'Quadrangular Model' consisting of four 30 ECTS modules. All development work is supervised by the Teaching Development Team and for doctoral studies by another similar team. Development work focuses on a few projects at a time so as not to spread resources too thinly.
People
Roughly 75% of teachers have taken pedagogical training, and the unit's researchers have published over 100 works regarding results of education research and development work. The unit employs its own international coordinator to develop the area and provide study counselling for foreign students.
Partnerships & Resources
Most students complete their thesis work in close collaboration with industry and work three to four months each summer. These activities are seen as part of the unit's education and societal impact.
Processes, Products and Services
The education aims for student-centred and competence-based studies. This is supported by methods, such as extensive and well-resourced tutoring for B.Sc. students and fairly widely spread (44% of courses) use of continuous assessment methods. A 'Get Your Degree Finished' programme with support and special arrangements has been established for students whose studies have been delayed. The entire educational process including D.Sc. studies has been modelled analysed using Core Analysis Tool as one of the methods. Quality assurance is based on weekly strategic discussions by staff, monthly teaching development team meetings including students and yearly meetings with students. Monitoring takes place on the curriculum, course and student level, including both qualitative (such as written feedback, meetings with students, discussions with employers, tutoring discussions) and quantitative (course feedback, yearly intake, ECTS accumulation, yield and throughput). Deviations in quantitative metrics are seen to provide particularly important information. Some specific metrics, such as student status after the first study year and problem courses, have been found to be important.

University of Turku, Faculty of Medicine

At the time of the application, the Faculty had a student intake of 146, and staff consisted of 75 professors, 133 other teaching staff members and 299 other personnel. Teaching given by adjunct professors was not reported.

Table 1. Summary of practices from the application of the Faculty of Medicine

Strategy
The Medical Education R&D Centre has the central coordinating role in the strategic planning process of education. It was established in 2002 to support changes in teaching and learning philosophy. The master's programme in medicine was reformed during 2001–2008.
People
Professorships have been established to reflect current topics, such as in Medical Ethics and Health Exercise. The R&D centre organizes pedagogic courses for medical teachers.
Partnerships & Resources
The Centre has an advisory committee that brings together stakeholders of medical education in order to review and anticipate future educational needs. Besides students and teachers, physicians from the public health service were nominated in the planning groups of study modules. A substantial part of clinical training has been decentralized outside the university hospital, which allows the students to identify the functional roles of a physician on different levels of health care services. Two teaching health care centres, designed specifically for medical education purposes and with a multiprofessional education policy, have been established in the area. Benchmarking projects on curriculum development have been initiated with other national and international medical faculties. Interdisciplinary programmes, such as Medical Humanities and Doctor and Civil Defence, are planned and organized together with other academic organizations.
Processes, Products and Services
A pioneering programme of Early Patient Contact introduces the student to fieldwork and goals of the education during the first year of studies. Student-based longitudinal health surveys of own family members stress the importance of preventive medicine. During the sixth study year, a special two-week minihospital period is organized. A structured self-assessment has been connected to students' portfolio work. A personal tutoring programme for undergraduates was established in 2003 based on a recommendation by an international evaluation panel. To support the multiprofessional approach, graduate entry studies for other health care professionals have been established. To reinforce the link between research and education, special research tracks have been organized for undergraduate students. Elective study modules have been partly restructured into study tracks. A unique feedback form has been developed together with the Faculty of Education. Feedback is collected by responsible teachers, analysed and discussed in feedback seminars in which all teachers, students and tutors participate. A summary of the results is presented to the Board of Education and made visible in the Medica-portal. The assessment of learning is supported by a joint research project on cumulative learning and longitudinal development of expertise during medical studies.

University of Jyväskylä, Department of Physics

At the time of the application, the Department had a student intake of 105, and staff consisted of 14 professors, 17 other teaching staff members and 132 other personnel. In addition, adjunct professors provided 2% of the teaching workload.

Table 1. Summary of practices from the application of the Department of Physics

Strategy
In the study programme, renewal process key content areas and their connections were identified, followed by defining key substance, learning outcomes and workload for each area. To ensure teamwork and guarantee learning prerequisites, the programme was designed to contain only one physics course at a time accompanied by methodology courses.
People
Visiting and permanent researchers give lectures, work as assistants and supervise student research projects when allowed by their funding supervision. Most of the personnel work in two large research facilities.
Partnerships & Resources
Students are expected to participate in the department's activities starting from the early B.Sc. phase. A lecture room has been converted into an open student workspace. M.Sc. and Ph.D. thesis projects comprise a major part of the research groups' work, and research laboratories and well-equipped workshops enable student supervision and participation in building experimental apparatus. The latter is seen a crucial working-life skill. Especially in programmes related to industrial applications of physics, outside experts are actively involved in development, and minor subject studies are developed in close collaboration with other faculty departments. Alumni days are held every five years. The department coordinates or is a partner in several graduate schools.
Processes, Products and Services
Student integration starts from day one with a two-week crash course on today's physics. M.Sc. studies contain more than a thousand increasingly challenging problem-solving tasks. A summer training programme is offered and receives approximately fifty participants each year. During B.Sc. studies, most laboratory work is integrated with lecture courses to maintain dialogue between theory and practice. This connection is supported by offering multidisciplinary study programmes. A course 'Physicists in working life' has been developed to stress the generic professional skill requirements and how to maintain them. Ph.D. studies are supported by increased research method training, support for doctoral students working in industry and offering topical Ph.D. courses. Writing publications is reinforced by mentoring, publication goals and acquiring external instructors for thesis projects.

University of Oulu, Department of Educational Sciences and Teacher Education

At the time of the application, the Department had a student intake of 217, and staff consisted of 12 professors, 70 other teaching staff members and 60 other personnel. In addition, 4 adjunct professors provided teaching.

Table 1. Summary of practices from the application of the Department of Educational Sciences and Teacher Education

Leadership
The Head of Department and Chief Academic Officer regularly meet the representatives of the student organizations of each degree programme.
Strategy
The curriculum is developed collaboratively as a cyclic process involving testing, evaluating and reformulating. All training programmes are based on defined pillars of education and the aim of enhancing conceptual understanding to aid deeper and effective learning. The Bologna process-based curriculum renewal began with a core analysis aided by student feedback and related experiences. Content was reformed thoroughly in all degree programmes. The process involved the work of small groups consisting of teaching experts and researchers, and monthly meetings with all stakeholders in which the work of these groups was reviewed. Views of external experts were also invited and considered. The entire staff took part in the process. Special programmes, such as Educational Technology and International M.Ed., are strongly related to the unit's teaching and research activities. All Ph.D. students of the EdTech team participate bi-annually in brainstorming and evaluating the EdTech studies.
People
The department has pioneered the practice of awarding optional credit to a student for active involvement in the development of teaching. A person has been employed to take care of exchange students and their study planning.
Partnerships & Resources
The university's Teacher Training School provides a place for both teaching practices and research activities. The Future School Research project integrates various degree programmes and research groups with developing teaching in city schools. Educational experts are met at their workplaces and participate in in-service training offered by the department. The department has been involved in developing a regional education assessment model with representatives of three subregions. The Education and Globalization master's programme allows students the possibility to take a double degree with a university of another country.
Processes, Products and Services
The department's long-standing vision of the teacher as researcher emphasizes qualitative research methods in master's theses to allow future teachers to apply these methods in their work. Students reflect on scientific articles during teaching practice, observe and participate in studies during different stages of their studies and have the opportunity to participate in national and international research projects. To respond to global and national changes, research results are put into teaching practice and methods are developed in line with recent educational research. Master's thesis topics are regularly focused on the programmes and on evaluating and developing the quality of teaching; they have resulted in changes. To address new dimensions of multiculturalism, the Master of Education, International Programme has been established. Additionally, students from different programmes are placed together during certain courses to enrich dialogue and effectively use teacher expertise. Students also study abroad as part of their compulsory studies. Groups of twenty students are assigned a teacher tutor and a student tutor during the first year of their studies. Personal study plans are made within the first six months of studies. Progress is monitored, and extra support is provided if needed. Student organizations and each programme's teaching development teams collect feedback from students and teachers and prepare the data for joint assessment workshops. In connection with these, there are meetings to which alumni are invited to report on issues in working life. Based on assessment data and workshop discussions, the next year's development issues are chosen and a self-assessment report is written. Teaching development teams for each programme are responsible for organizing and reporting these meetings. The teaching development teams also assemble regularly during the academic year and have student representatives in them. Educational results are monitored with targets for numbers of degrees and learning outcomes. Efficacy is monitored annually with a follow-up study for graduates and working-life feedback.

University of Art and Design Helsinki, School of Motion Picture, Television and Production Design

At the time of the application, the School had a student intake of 28, and staff consisted of 10 professors, 12 other teaching staff members and 10 other personnel. Teaching given by adjunct professors was not reported.

Table 1. Summary of practices from the application of the School of Motion Picture, Television and Production Design

Leadership
The students compile personal study plans with the professors. Resources are negotiated annually in a group consisting of the dean, two vice-deans and professors of each specialization area.
Strategy
For curriculum development the school has a working group controlling and organizing the evaluation and preparation of the formal degree requirements. The current degree requirements are analysed by all specialization areas using SWOT and paying attention to changes in the professional environment. The school has introduced a model of three pedagogical 'pet' models, CAT combining creativity and artistic teamwork, RAT for radical approaches and testing and MOUSE for meaningful subjective ethos, originality and universality. Teaching takes place in small groups, and as student productions grow progressively, professor–student relationships develop towards colleague–colleague relations. Directives and classifications have been developed to support learning goals, and research results have a direct impact on the curriculum. The school belongs to several educational organizations in which degree requirements and best practice are discussed. Resources are allocated based on performance and educational, research and artistic results.
People
Recruitment of high-level professionals and experts support the competence level of the graduates as well as close cooperation with the creative industries. Docents have recently been appointed to support and further develop research projects. The well-being of students and staff is supported by the working group for quality assurance.
Partnerships & Resources
Final thesis works are financed partly by outside companies and organizations, and industry operators take part in evaluating the curriculum. A graduate school was established in 1998 and has developed into an internationally noted research unit. International artists and researchers give lectures and workshops, and students from other universities participate in productions and projects. International co-productions have been carried out successfully. Joint courses and seminars with other art universities are organized regularly. Professionals from the field participate in regular feedback sessions and in open to public autumn and spring screenings. Facilities and support services are offered by a separate organizational unit primarily dedicated to assist project work. The school participates in an EU programme aiming to smooth the transition to working life.
Processes, Products and Services
From the beginning of studies, students are familiarized with teamwork and production-oriented working processes through practical exercises. Productions are systematic and controlled, and self-assessment, meaning of reflection and goal-oriented processes are emphasized. Each exercise involves a reflective report, and exercises and productions are deconstructed afterwards. Festival participation is seen as the most important evaluation tool, and success reflects the validity of education. The school has carried out core analyses in which new interdisciplinary working methods have been developed to support education. The curriculum includes international practice/exchange periods.